Contract documents for

A17 - Invitation to tender for regular bus services in Movia

Trafikselskabet Movia

Contracts

February 2018

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1. General Conditions of Contract

This is an invitation to tender for regular bus services in a negotiated procedure in accordance with Council Directive 2014/25/EC of 26 February 2014 (the Utilities Directive) implemented into Danish law by Executive Order No. 1624 of 15 December 2015.

Trafikselskabet Movia ("Movia") invites tenders in A17 (Invitation to tender for regular bus services) for approx. 290,000 timetable hours per year using 71-73 in-service busses. The bus services are divided into the six units of the invitation to tender (partial agreements), see section 2.

The contract documents consist of the following documents:

- Notice of invitation to tender
- Contract conditions, including contract clauses (this document)
- Time schedule for the tender process

Appendices to the contract clauses

- Appendix a: Subcriteria and part criteria
- Appendix b: Vehicle schedules – HASTUS files and text files
- Appendix c: Billing sheet
- Appendix d: Environmental Inspection Manual – parts 1 and 2
- Appendix e: Mapping Manual
- Appendix f: Travel Card Manual
- Appendix g: RPS - Requirements Specification
- Appendix h: Traffic information - Requirements Specification
- Appendix i: Infotainment Screens - Installation Specification
- Appendix j: Timing Report – Route Display Panel and Infotainment
- Appendix k: Overview of employees (broken down by units)

Tables to be used in connection with the prequalification

- Appendix 1: European Single Procurement Document (ESPD)
- Appendix 2: Comfort letter for joint agents
- Appendix 3: Comfort letter for technical capacity
- Appendix 4: Comfort letter for economic and financial capacity

Tables to be used in connection with the submission of tenders

- Appendix 5: Tender form
- Appendix 6: List of bus equipment

- Appendix 7: List of charging stations
- Appendix 8: Statement of operations
- Appendix 9: Reservations and comments
- Appendix 10: List of bus runs and charging (the tenderer is to upload his own table – the table is not included in the contract documents)
- Appendix 11: State of Charge (SoC) chart (the tenderer is to upload his own table – the table is NOT included in the contract documents)

Tables to be used after contract conclusion

- Appendix 12: Detailed description of quality of operations
- Appendix 13: Dead mileage

Information to be used in connection with the submission of tenders

- Instructions for reading the billing sheet
- Instructions for reading vehicle schedules
- Sheet to estimate CO2e emissions

1.1 Questions

All inquiries in the form of questions to the terms or understanding of the contract documents or concerning procedural issues should be made to Movia, Contracts, on the website under the ”Send questions” menu item.

Prior to the deadline for requests for prequalification, Movia reserves the right to only answer questions which are directly relevant for the preparation of the request.

All questions submitted no later than 14 days before the deadline for submission of requests/tenders will be answered. Responses to questions submitted later than 14 days before the deadline for submission of requests/tenders will be given only if the response can be given no later than six days before the deadline for submission of requests/tenders. The Operator expects a response to questions submitted later than six days before the deadline for submission of requests/tenders. Questions received later than that date may be answered, but at Movia’s discretion only.

Questions and answers will be published in anonymized form at the tender website.

1.2 Prequalification

1.2.1 Request for prequalification

In the request for prequalification, candidates must clearly state the name of the legal person who is requesting prequalification. If the request is submitted by a consortium comprising several legal persons, the name of each legal person participating in the consortium must be marked clearly and unambiguously.

When requesting prequalification, the candidate will only have to submit a completed eESPD generated from the European Single Procurement Document (Appendix 1), as documentation for its suitability.

For consortium members and candidates who rely on the technical capacity of other entities, a completed eESPD file generated from the European Single Procurement Document (Appendix 1), must be submitted for each economic operator.

If a candidate is a consortium, the consortium must attach a letter on joint agents (Appendix 2).

Requests based on the capabilities of other entities must be accompanied by a comfort letter, see Comfort letter for technical capacity (Appendix 3) and Comfort letter for economic and financial capacity (Appendix 4).

Candidates must send their requests for participation to Movia, using the e-Source system. The request for participation must be uploaded in the e-Source system

https://www.ethics.dk/ethics/eo#/8e17ceac-36aa-4e61-ad8a-d1a805778fb1/homepage on or before:

16 March 2018 at 02:00 pm.

Requests for participation uploaded after the deadline will not be considered.

For purposes of competition and considering the complexity of the contract and to prevent conflicts of interest, affiliated undertakings named in different requests for participation must in the requests state how they intend to ensure the independence of the affiliated undertakings. “Group” is defined with reference to Article 1(1) of Council Directive 83/349/EEC as amended (the Consolidated Accounts Directive).

In the event that Movia receives requests for participation from more than one of the affiliated undertakings, Movia will assess whether the affiliated candidates or the candidate has adequately ensured that their group affiliation will not affect the subsequent submission of tenders. If that is not the case, all affiliated candidates will be excluded from the tender process.

If Movia receives requests for participation in which the same economic operator is a consortium member, an independent operator and/or a subcontractor on which the candidate relies to pass suitability requirements and selection criteria, Movia likewise reserves the right to exclude all such candidates from the tender process if the relevant requests for participation fail to explain how independence is guaranteed in the submission of tenders.

Movia reserves the right to request that candidates having submitted incomplete or incorrect requests for participation provide supplementary, more accurate or complete information or documents in accordance with the EU's general principles of law concerning transparency and equal treatment.

Movia will immediately notify all candidates involved once the winners of the shortlisting round have been identified.

1.2.1.1 Completion of eESPD

To complete the eESPD, the applicant must import Movia’s eESPD template (request) (Appendix 1 to the Contract Conditions) in the European Commission tool (https://ec.europa.eu/growth/tools-

databases/espd-/filter?lang=da). After completion, an XML file should be exported and uploaded at the tender website. The eESPD file cannot be opened by clicking on it.

The Danish Competition and Consumer Authority has published eESPD Guidelines (http://www.kfst.dk/media/46438/espd-dokumentation-og-ecertis.pdf)

1.2.2 Grounds for exclusion

Candidates who are in circumstances covered by ss 135, 136 and 137(1)(i)(ii) and (vi) of the Danish Public Procurement Act (in Danish: udbudsloven) must be excluded from the procurement process. A candidate who is, at any time, subject to one of the grounds for exclusion found in ss 135, 136 and 137(1)(i), (ii) and (vi) of the Act will be excluded from the procurement process unless the applicant produces documentation for the reliability of the tenderer within a reasonable time fixed by Movia (see s. 138 of the Danish Public Procurement Act).

1.2.3 Suitability

The candidate (if a company, the head of the company) must fulfil the qualification requirements set out in Consolidated Act no. 1050 of 12 November 2012 concerning bus services (as amended) and must be licensed for commercial passenger transport by the Danish Transport and Construction Authority (vehicle operator's licence).

The candidate must further be entered in the register of companies (the so-called CVR register) or comparable foreign register.

At the time the candidate submits the request for participation, the candidate must have a usual general liability insurance policy with a limit of cover for personal injury of at least DKK 10 million and a limit of cover for damage to property of at least DKK 2 million per year.

1.2.4 Selection

Movia will shortlist 25 suitable candidates who have the best and most relevant references in terms of the type of bus services put out to tender (i.e. regular bus services for passenger transport). The references must be for projects carried out within the past three years. This means that the reference project must be completed no more than three years prior to the deadline for the request for participation or still be in progress.

The selection will be based on the references listed in the candidates' eESPD.

1.2.5 Documentation for suitability and fulfilment of selection criteria

As documentation for the accuracy of the information submitted in the eESPD, the candidate/tenderer must send the following if Movia so requests at any time during the procurement process:

- Documentation showing that there are no grounds for excluding the candidate/tenderer. Danish candidates/tenderers may meet this requirement by submitting a complete official certificate from the Danish Business Authority containing all information from public authorities required for the tender (in Danish: serviceattest) dated less than six months prior to the date of submission to Movia;
- Documentation for licence for commercial passenger transport (vehicle operator's licence);
- Documentation for registration in the register of companies (the CVR register) (or comparable register for foreign companies);

- Documentation for insurance cover (in the form of a policy or insurance certificate), see section 1.2.3;

The documentation must only be forwarded on request and must be received by Movia within three weeks of the request unless Movia sets a longer deadline.

Movia reserves the right to demand at any time that candidates submit all or part of the documentation listed above if Movia deems it appropriate for the process.

As a general rule, it is not necessary to submit documentation for references, but Movia reserves the right to insist that references be certified by customers.

1.3 Submission of tenders

1.3.1 Tenderers

Only shortlisted tenderers may submit tenders for all units put out to tender. In connection with the shortlisting, the tenderers will have access to all contract documents on the tender website under the Contract Documents menu item with the Internet address:

https://www.ethics.dk/ethics/eo#/8e17ceac-36aa-4e61-ad8a-d1a805778fb1/homepage

The bus service contract may be concluded with an individual, a company or other legal entity. The contracting party must be the same as the tenderer and thus the shortlisted economic operator.

1.3.2 Requirements and terms

All of the services covered by the contract documents must be performed in full compliance with Danish law.

Movia may make changes to requirements and terms in these contract documents, including as a result of the negotiations until request for a final tender. Changes will be notified to the tenderers under the ”FAQs” menu item on the tender website.

The attention of the candidates is drawn to the fact that there may potentially be made significant changes to the contract documents as part of the negotiations, and Movia reserves the right to negotiate all parts of the contract documents unless it is expressly stated that a part of the contract documents will not be subject to negotiation. In this context, reference is also made to the tender notice.

Tenders must be submitted in the Danish language. Similarly, all subsequent communication, written and oral, during contract negotiations as well as during the subsequent operational phase must be in the Danish language.

All prices must be stated in Danish kroner (DKK) and at January 2018 price level. All prices must be inclusive of VAT and taxes, if applicable. All prices stated in these contract documents are inclusive of VAT, unless otherwise indicated.

All services to be provided by the tenderer must be included in the tender. No separate fee is payable for replacement buses, and the costs of replacement buses must therefore be included in the prices quoted for the in-service buses.

1.3.3 Submission of tenders in general

The tenderer may submit a single tender for one, more or all units, possibly supplemented by a combination bid, see section 1.3.4. However, the tenderer may not submit several different tenders for the same unit or the same possible combination. The tenderer is not entitled to submit variants. This does not restrict the submission of tenders for options/parallel bids in accordance with section 1.3.5.1.

The tenderer may in subsequent tendering rounds submit tenders for units and combinations of units that the tenderer has not tendered for in previous rounds.

Movia evaluates final tenders only. The tenderer must thus ensure that both single and combination tenders are included in final tenders.

The tenderers must ensure that the final tenders meet all indispensable requirements in the contract documents and do not contain reservations which may lead to non-conformity.

1.3.4 Combinatorics

Single tenders are allowed for unit 3 only.

It is possible to submit combination bids for units 1 and 2.

The tenderers may submit combination bids for up to three units within units 4, 5 and 6. The same unit within units 4, 5 and 6 may be included in multiple combination bids. This means that it is possible to submit:

- Combination bids for units 4 and 5.
- Combination bids for units 4 and 6.
- Combination bids for units 5 and 6, and/or
- Combination bids for units 4, 5 and 6

Units 1 and 2 may not be included in combination bids with units 4, 5 and/ 6, nor may unit 3 be included in combination bids.

Only combination bids containing units for which the tenderer has also submitted single bids are allowed.

In addition, tenders for units cannot be submitted if they are subject to the reservation that the tenderer must be awarded the contract for other units.

1.3.5 Options and parallel bids

1.3.5.1 Options

- On unit 4, tenders must include a basic package where bus services are delivered using zero emission equipment, i.e. where the buses are powered by either electricity or hydrogen.

  In addition, tenders must include an option package allowing Movia to choose services using fossil-free equipment running on e.g. hydro treated vegetable oil (HVO), biogas, (electricity or hydrogen) as an alternative to zero emission vehicles. See sustainability criteria requirements in section 5.3.2.

  In addition to the difference in the energy used to power the vehicles, tenders are invited for the basic package for a contract term (see clause 3 of the Contract) of ten years with an option to

extend the Contract for two years. In addition to the difference in the energy used to power the vehicles, tenders are invited for the basic package for a contract term (see clause 3 of the Contract) of ten years with an option to extend the Contract for a further two years.

No later than 30 days after the signing of the Contract, the tenderer will be notified whether or not the option will be exercised.

The budgetary circumstances will affect Movia's choice of the basic package (zero emission bus services) or the option package (fossil-free bus services).

In the evaluation of the bid, the weighting between the basic package and the option package is set out in section 1.5.

- On units 1 and 2, initial tenders are invited for a basic package requiring (see section 5.3.2) that electric buses do not emit NO_x, particles or other local emissions when heating the cabin. This means that diesel or gas heaters may not be used as heat source.

  Tenderers are further requested to submit initial tenders for an option consisting in permitting (as an alternative to the basic package) the emission of NOx, particles or other local emissions from the bus cabin heating system if the outdoor temperature is no more than 0 °C. At outdoor temperatures above 0 °C, the heater must automatically switch off, and it must be possible to prevent that the driver can turn on the heater. This means that diesel or gas heaters may be used as heat source. See sustainability criteria requirements in section 5.3.2.

  By submission of the final round tenders, Movia will inform the tenderer whether or not the option will be exercised, i.e. whether the option will be part of the basic package which will then be included in the evaluation. The budgetary circumstances and the environmental considerations will affect the choice.

- On units 1 and 2, initial tenders are invited for a basic package requiring (see section 3.3.11) an air-conditioning system in the passenger cabin of electric buses.

  Tenderers are further requested to submit initial tenders for an option consisting in requiring (as an alternative to the basic package) automatic roof hatches in all new buses to create the best possible indoor climate. For automatic roof hatches, Movia may grant exemptions from the requirement that the roof hatches may be operated independently of each other from the driver's seat.

  By submission of the final round tenders, Movia will inform the tenderer whether or not the option will be exercised, i.e. whether the option will be part of the basic package which will then be included in the evaluation. The budgetary circumstances and the environmental considerations will affect the choice.

1.3.5.2 Parallel tenders

- On unit 3, tenders are invited for two different solutions, and tenderers may submit bids for both solutions. The tenders will be parallel.

The one solution (parallel solution 1) consists of a vehicle schedule where Movia requires the bus services to be carried out using bus equipment with a length of 13.2 metres to 13.7 metres. As described in section 2.7.3, the vehicle schedule requires bus services to be carried out using ten buses and an annual production of 43,305 hours.

The other solution (parallel solution 2) consists of a vehicle schedule where Movia requires the bus services to be carried out using bus equipment with a length of 11.9 metres to 13.7 metres. As described in section 2.7.3, the vehicle schedule requires bus services to be carried out using twelve buses and an annual production of 48,200 hours.

The tenderer may choose to submit bids for one or both solutions. As set out in section 1.5, the tenders will be evaluated as single bids on the basis of the same award criteria and sub criteria. The evaluation model will thus be decisive for the solution to be used in the Contract.

1.3.6 Content of the tender

When submitting tenders, the tenderer must produce the following documents, duly filled in. The documents described in 1-5 are available for download from the tender website under the Contract Documents menu item: The documents described in 6 and 7 are not available for download from the tender website. The tenderer will upload his own version, see sections 1.3.6.6 and 1.3.6.7.

1. Tender Form (Appendix 5)
2. List of bus equipment (Appendix 6)
3. List of charging stations (Appendix 7) (when submitting bids with Movia's charging stations in urban space - for units 1, 2 and 4)
4. Statement of operations (Appendix 8)
5. Reservations and comments (Appendix 9) (uploaded only if there are reservations and comments)
6. Outline of bus runs and charging/fuelling in the course of the day (Appendix 10) (when submitting bids for units 1, 2 and 4)
7. Outline for all bus runs for all bus runs of %SOC (State of Charge) for the automotive battery of the bus (Appendix 11) (when submitting bids for units 1, 2 and 4)

1.3.6.1 Tender form

Tenderers must submit one combined "Tender Form (Appendix 5) containing all quotations. The tender form must contain the following information:

Price

- Basic price (price per standard year)
  The price to be broken into the following rates:

a) Overheads (facilities, administration, etc.)	Price per month
b) Bus-related costs	Price per in-service bus per month

(interest, depreciation, repairs, insurance, rental per bus, etc.)

c) Costs related to timetable hours (driver's wages, fuel, etc.) — Price per timetable hour

d)Facility-related costs per unit (Maintenance, cleaning etc.) — Price per month

(At the request of Movia, the costs per unit must be split up on facilities).

- The option price for option for unit 4, see section 1.3.5.1
  On submission of tenders for the option for unit 4, the prices must, as for the basic price, be divided into overheads, bus-related costs, costs related to timetable hours and facility-related costs.
- The option prices for options for units 1 and 2, see section 1.3.5.1
  On submission of tenders for options for units 1 and 2, price per month should be specified as a supplement to or a deduction from the bus-related costs.

- Additional price for charging stations in urban space
  On submission of tenders for units 1, 2 and 4 (charging stations in urban space), tenderers must specify an additional price per month (see section 1.5.1.1) for installation and servicing costs. The price must be transferred from Appendix 7

Standard of quality

- Customer satisfaction
  The quoted level for the quality index must be specified in the Tender Form (Appendix 5). Not until contract conclusion, the tenderer must submit detailed information by sending a completed appendix 12 to the contract documents.
- Level of bus service provided
  The quoted level of service must be specified in the Tender Form to two decimals.
- Operating flexibility:
  According to section 12.1.1 Movia is entitled to extend the tendered routing by up to 10% without paying compensation or increase in the number of buses and/or increase in the number of charging stations in urban space.
  On submission of tenders for units 1, 2 and 4 (basic), the tenderer must specify by which additional percentage (i.e. a specification of a percentage above 10, but no more than 30) Movia can extend the tendered routing without considering the range of the zero emission buses or the need of zero emission buses for charging or refuelling breaks and this without paying compensation or increase in the number of buses and/or increase in the number of charging stations in urban space. The specification must be given in the Tender Form (Appendix 5). The specification must be made to no decimal places.
  The tendered operating flexibility will be taken as the basis of Movia's planning of timetables throughout the contract term. Therefore, the tenderer should take into account the limitations in the utilization of the capacity of the bus automotive batteries recommended by the bus supplier. It is for instance often recommended to maintain the ideal 20%-80/85% State of Charge (SOC).

1.3.6.2 List of bus equipment

Tenderers should submit one List of bus equipment (Appendix 6) containing information on all tenders. The appendix must contain the following information:

- Which in-service buses are offered in each tender.
- Which additional electric in-service buses are offered in each tender. (On submission of tenders for units 1, 2 or 4)
- Which replacement buses will be available in case of breakdowns or similar events.
- Any other equipment – temporary or new – to be put into operation during the contract term.

Details such as length, height, Euro standards, etc. must be given for all specified equipment. The specific information to be given appears from the form.

1.3.6.3 List of charging stations

If the tenderers offer electric bus services which require recharging in urban space, the tenderers must specify the charging stations requested by the tenderers in Appendix 7. The charging stations will be installed on the basis of Movia's framework agreement with the systems supplier. In this ITT, the tenderers cannot offer electric bus services requiring recharging in urban space using charging stations owned by the tenderers.

The tenderer must submit Appendix 7 duly filled in. In Appendix 7, the tenderer must mark the locations where the tenderer request the installation of charging stations in urban space, specifying the requested output level (150 KW, 300 KW or 450 KW). Appendix 7 then calculates the installation costs of the charging stations per month and the servicing costs per month for each tender. The tenderer must transfer these amounts to the Tender Form (Appendix 5).

For further information on charging stations, see section 4. The attention of the tenderers is in particular drawn to section 4.1.4.3 on redundancy requirements. Under these requirements, the tenderers are always obliged to ensure the installation of one more charging station than necessary to keep bus services running, i.e. to keep bus services running even though a charging station (whichever) is out of service.

The costs incurred by Movia for the installation and operation of charging stations will be included in the evaluation of tenders as set out in section 1.5.1.1.

For further information on charging stations, including the allocation of responsibilities between the operator, Movia and the supplier of charging stations, see section 4.

1.3.6.4 Statement of operations

Tenderers must submit one statement of operations (appendix 8) per tender which is to provide a binding statement of operations and the resources to be spent in connection with the tendered service. For tenders where the statement of operations is identical, tenderers may submit one common Statement of Operations (Appendix 8) for such tenders. Tenderers must submit on Statement of Operations for each tender. It must be clearly specified which tender(s) the individual Statement of Operations (Appendix 8) concerns. Please remember to distinguish between basic and option packages in tenders for unit 4 as an individual evaluation will be made.

The Statement of Operations (Appendix 8) must contain information on how the tenderer intends to ensure a good and reliable operational management - both in normal and unusual traffic situations - including with respect to the handling of the tendered electric bus solution in connection with the submission of tenders for units 1, 2 and 4.

A Statement of Operations should be no more than ten pages (font equivalent to Arial 10). If a Statement of Operations is more than ten pages, only the first ten pages will be included in the evaluation.

1.3.6.5 Reservations and comments

Any intended or unintended disagreement between the contract documents and tenders, updated tenders or final tenders are in the nature of reservations. Movia is entitled – and often obliged – to reject final tenders containing reservations to the contract documents unless the reservation is obviously trifling.

The tenderer is encouraged not to make reservations in final tenders as reservations imply a considerable risk that the tender cannot form the basis of a contract award. If the tenderer decides to include qualifications, the tenderer is requested to state specifically in “Reservations and Comments (Appendix 9) and indicate the reasons why the reservation is included.

In initial tenders and any updated tenders, Movia allows any reservations to the contract documents, meaning that reservations do not imply that tenderers who have made reservations will be excluded from the procurement process. Reservations in initial tenders and any updated tenders will be deemed to be the tenderers’ proposals for negotiations.

Movia cannot make a contract award based on a final tender containing reservations to the fundamental elements of the contract documents or other reservations that cannot be priced by Movia with the necessary certainty.

Instead of considering reservations, the tenderer is encouraged to draw Movia’s attention to any inappropriate requirements of relevance to the contract documents during Q&As.

The tenderer is encouraged not to include standard documents such as standard terms of delivery etc. in tenders without thought as such documents may contain unintended reservations.

In final tenders, it is not possible to make reservations for being awarded fewer units than those tendered for. The tenderer is thus obliged to be able to deliver the services on all the units tendered for, i.e. the tenderer must fully stand by his tender(s).

If a tenderer states a number of buses or a number of timetable hours that, for each bus, deviates from the number specified in the contract documents, Movia reserves the right to correct the error, provided that the rates per bus and timetable hour quoted by the tenderer will not change.

If the tenderer has not filled in one or more of the following boxes in the Tender Form (Appendix 5) or the List of Bus Equipment (Appendix 6), Movia will assume that the tenderer only just meets the minimum requirements for the following requirements which can be made the subject of negotiation during the procurement process:

In Tender Form (Appendix 5):

- Quality in operations, quality index
- Quality in operations, service level

In List of Bus Equipment (Appendix 6):

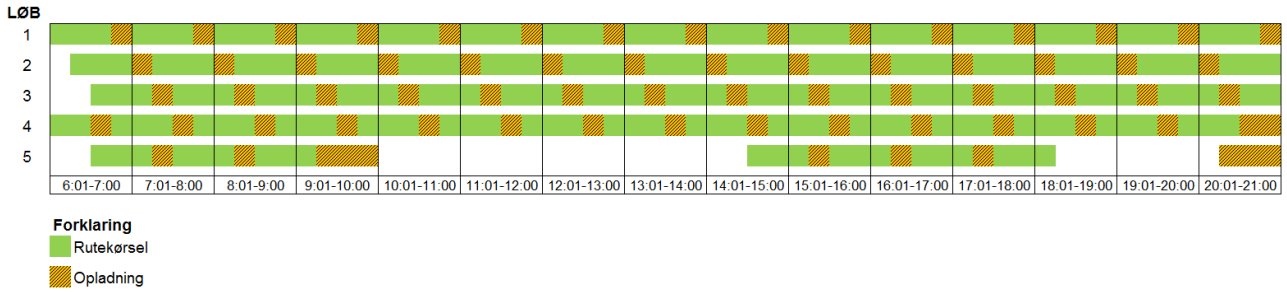
- Practicalities, Number of seats, not including tip-up

- Practicalities, Front-facing seats
- Practicalities, Tip-up seats
- Environment, Euro standard
- Environment, CO2 level
- Environment, Exterior noise
- Environment, Interior noise

1.3.6.6 Outline of bus runs and charging

Based on vehicle schedules for settlement, the operator is to prepare vehicle schedules for the performance of bus services, when submitting tenders for units 1, 2 and 4 using electric buses.

Based on such vehicle schedules, the tenderer must for each of the mentioned units 1, 2 and 4 attach a diagram showing all bus runs for weekdays specifying any charging/refuelling in the course of the day. An example of such diagram is shown below.

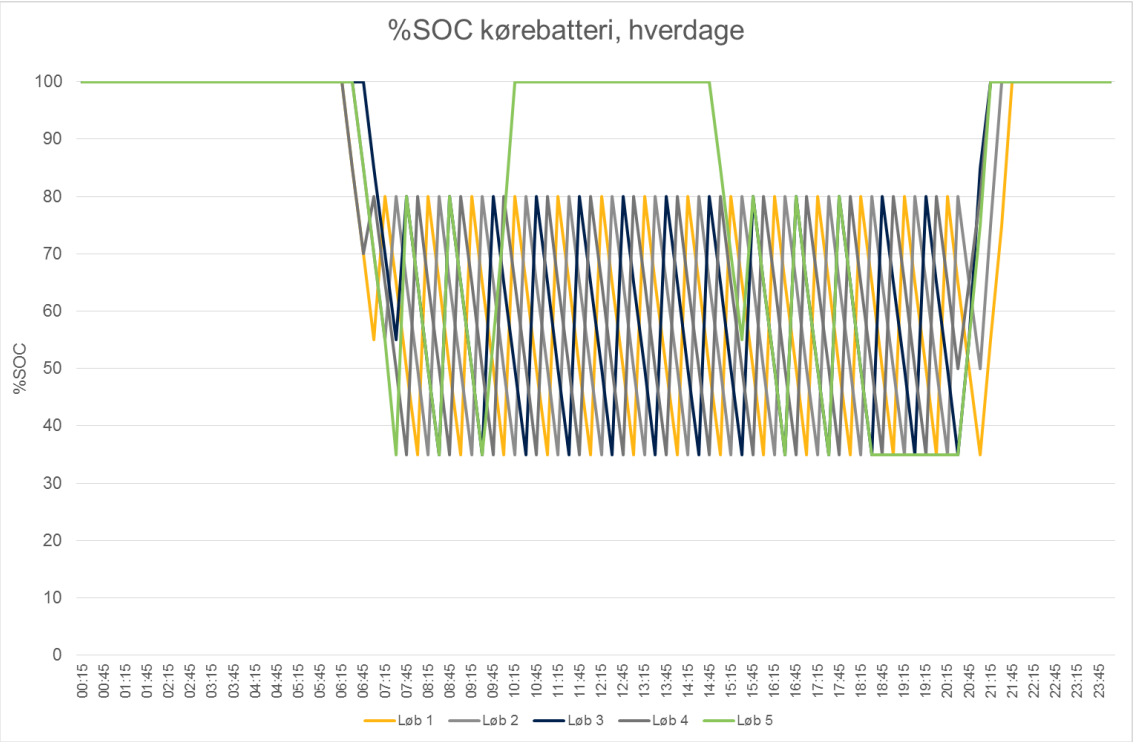


1.3.6.7 Outline of state of Charge

The tenderer must attach a diagram of %SOC (State of Charge) for the automotive battery of the bus for all bus runs when submitting bids for units 1, 2 and 4. Such a diagram must be attached for each of units 1, 2 and 4.

%SOC must be calculated on the basis of end-of-life automotive battery and worst case operation (including maximum passenger capacity, variation in energy consumption as a result of air-conditioning and other seasonal variations and variations in energy consumption as a result of driver-induced energy consumption).

An example of such diagram is shown below. The operator must also specify the energy consumption (kWh/km) forming the basis of the calculation in the List of Bus Equipment (Appendix 6).



1.3.6.8 Other documents

During the negotiation process, it must be possible for Movia, subject to five working days' notice, to request the following documentation relating to submitted tenders for the purpose of getting confirmation of information in the tenders:

- Drawings of bus types
- Drawings at a scale of 1:20
- Charts of rotary torque measurements of the bus
- Photographs of bus interior and exterior
- A copy of the approval certificate of the bus engine regarding gaseous emissions (88/77/EEC as most recently amended)
- Documentation of fuel consumption (SORT measurement report) or, if no SORT report is available, other documentation (e.g. for buses running on alternative fuels and the like)
- Estimations of %SOC (State of Charge) for the automotive battery in case of the break-down of one charging station in urban space. (On submission of tenders for units 1, 2 and 4)
- Information on charging/refuelling of buses at the garage, including the number of charging stations and output per charging station.

1.3.7 Deadline for submission of tenders

The deadline for submission of first tenders is

10 April 2018 at 02:00 pm

Only tenders received prior to this date and hour will be subject to negotiation at the negotiation meetings. This does not limit the tenderers' right, in connection with the submission of updated tenders, to submit tenders for units for which they have not submitted initial tenders. Movia is aware that the deadline for submission of tenders is short and emphasises that Movia does not expect to receive initial tenders in complete compliance with contract conditions. The main purpose of initial tenders is that they can form the basis of negotiation.

The deadline for submission of subsequent (updated and final) bids is set out in the time schedule available at the tender website which tenderers are advised to check regularly for changes. See always the date and hour specified at the tender website.

Final tenders must be binding and open for acceptance until 1 January 2019. Only the most recently submitted tenders must be open for acceptance for such period.

The costs incurred by the tenderer in connection with this ITT are of no concern to Movia.

1.4 Negotiations

1.4.1 Negotiation phases

The description of the process below makes up the preliminary planning of the negotiations. Movia reserves the right to later amend the process described.

1.4.1.1 First negotiation round

After the opening of the tenders submitted, Movia will make a preliminary review of the tenders. The first negotiation round includes a negotiation based on the tenderers' initial tenders.

During the negotiations, Movia will inform the individual tenderer about its view on the strengths and weaknesses of the tender. The negotiations may cover all aspects of the tenders, including price.

The tenderers must expect that the negotiations may potentially lead to significant changes to the contract documents, and Movia reserves the right to negotiate all parts of the contract documents unless it is expressly stated that a part of the contract documents will not be subject to negotiation. The purpose of the negotiations is thus to optimise and adapt the contract documents and the tenders submitted.

During the negotiations, Movia will, to the extent possible, inform the tenderers if Movia is aware that the initial tenders do not meet the requirements of the contract documents.

After negotiations with the tenderers, Movia will encourage the tenderers to submit updated tenders within a deadline set by Movia.

1.4.1.2 Additional negotiation rounds

Based on the updated tenders, there will be yet another negotiation round based on the tenderers' updated tenders. During the negotiations, Movia will inform the individual tenderer about its view on the strengths and weaknesses of the updated tender. The negotiations may cover all matters, including price.

Also these negotiations serve the purpose of optimising and adapting the contract documents and the tenders submitted.

Movia may repeat the procedure of encouraging the tenderers to submit updated tenders until after the receipt of the most recently updated tenders, Movia deems it appropriate to make an award.

Alternatively, Movia may choose to hold one or more written negotiation round(s).

In this procurement process, Movia expects to complete two negotiation rounds and then award the contract on the basis of the finally adjusted tenders. The tenderers must therefore ensure that the finally adjusted tenders meet all indispensable requirements in the contract documents and do not contain reservations which may lead to non-conformity with contract conditions.

1.5 Evaluation

The most economically advantageous tender is identified on the basis of the award criterion the best price/quality ratio.

Movia applies the following sub-criteria:

- Price
- Quality of service
- Environment
- Quality of equipment

The individual sub-criteria are specified in the Sub-criteria and Part Criteria Appendix (Appendix a) with a percentage weight factor by which the points given for the sub-criteria are multiplied.

Example: The weighting of a given sub-criterion is set at 40% and a given tenderer will be awarded five points for this criterion. The weighted points for the sub-criterion will therefore be: 5 / 100 * 40 = 2.

Each unit will be evaluated individually on the basis of the below sub-criteria, taking into account combination bids for the units for which combination bids are submitted, see section 1.3.4 above, and with the aim of identifying the combination of bids for all units as a whole which is most economically advantageous for Movia, see section 1.5.2 below. This means that Movia will not necessarily award the contract to the bid which is the most economically advantageous tender for the individual unit.

Below is described the aspects on which Movia will attach importance in its evaluation of the individual sub-criteria and the evaluation process.

1.5.1 Sub-criteria

1.5.1.1 Price

The total quoted price per standard year is the sum of overheads, bus-related costs, costs related to timetable hours and facility-related costs quoted in the Tender Form (Appendix 5).

Only the conditions in the initial contract term will be included in the contract award. This means that the price per standard year must be based only on the contract term without any extension period. The tenderer must therefore also be able to maintain the quoted price per standard year in any extension period.

Unit 1

For unit 1 the criterion is evaluated on the basis of:

A. Price per standard year
B. The costs incurred by Movia for installation and operation of charging stations in urban space (including VAT)
C. Grant from funds project

The combined costs of A + B + B - C are estimated as an average hourly rate over a 10-year contract term. Where the tenderer does not base the electric bus services on charging in urban space (i.e. where the tenderer does not make use of Movia's offer to install the charging stations in urban space), the price for B and C will be estimated at DKK 0/h.

The City of Copenhagen and the Local Authority of Frederiksberg have been granted financial support of up to DKK 5 million by the Transport, Construction and Housing Authority to install charging stations in urban space. No financial support is given to pay VAT. The financial support is subject to the condition that the local authorities make a 50% contribution.

If the tender includes the use of charging stations in urban space, a discount to the total price will be applied in the evaluation. The discount to the price is 50% of the total costs of installing charging stations in urban space (C) subject to a maximum of DKK 5 million. In relation to the financial support, the costs of installing charging stations in urban space include the costs of buying and establishing charging stations and connecting them to the mains power supply exclusive of VAT. The discount is translated into a reduction of the average hourly rate as described in the following example:

Example of calculation of discount to the hourly rate as a result of financial support from funds project:

The tender for unit 1 is based on the establishment of two 300 kW charging stations at Refshaleøen. The costs of establishing the charging stations (B) are DKK 4 million, exclusive of VAT. C is 0.5*DKK 4 million/10 yrs/no. of timetable hours per standard year.

In the evaluation of the price, the lowest price will be awarded a maximum score of 10 and the lowest price +20% will be awarded a score of 0 with a linear interpolation between them.

Movia reserves the right to adjust the above percentage based on the actually received prices if the fixed percentage is deemed to be unsuitable in terms of the spread in the prices received. In such case, Movia will take into account the price level expected prior to the deadline for submission of tenders and the spread in the prices actually received (adjusted for any abnormally low or abnormally high prices) when determining the percentage which will instead be used to calculate the reference point.

Unit 2

For unit 2 the criterion is evaluated on the basis of:

A. Price per standard year (exclusive of charging stations in urban space)
B. The costs incurred by Movia for installation and operation of charging stations in urban space (including VAT)

The combined costs of A + B are estimated as an average hourly rate over a 10-year contract term. Where the tenderer does not base the electric bus services on charging in urban space (ie where the tenderer does not make use of Movia's offer to install the charging stations in urban space), the price for B will be estimated at DKK 0/h.

The price per standard year is based on the condition that bus services in the unit will be carried out using 23 zero emission buses. According to section 2.7.2 it will, however, be possible for periods A and B to put into service temporary equipment, and consequently, an amount of DKK 25,000 will (for settlement purposes) be deducted from the bus-related costs per month for each temporary bus (applicable in both period A and period B).

In the evaluation of price, the lowest price will be awarded a maximum score of 10 and the lowest price +20% will be awarded a score of 0 with a linear interpolation between them.

Movia reserves the right to adjust the above percentage based on the actually received prices if the fixed percentage is deemed to be unsuitable in terms of the spread in the prices received. In such case, Movia will take into account the price level expected prior to the deadline for submission of tenders and the spread in the prices actually received (adjusted for any abnormally low or abnormally high prices) when determining the percentage which will instead be used to calculate the reference point.

Units 3, 5 and 6

For units 3, 5 and 6, the criterion is evaluated on the basis of the base rate quoted for each standard year (translated into an average hourly rate).

In the evaluation of price, the lowest price will be awarded a maximum score of 10 and the lowest price +20% will be awarded a score of 0 with a linear interpolation between them.

Movia reserves the right to adjust the above percentage based on the actually received prices if the fixed percentage is deemed to be unsuitable in terms of the spread in the prices received. In such case, Movia will take into account the price level expected prior to the deadline for submission of tenders and the spread in the prices actually received (adjusted for any abnormally low or abnormally high prices) when determining the percentage which will instead be used to calculate the reference point.

Unit 4

For unit 4 the criterion is evaluated on the basis of:

A. Price per standard year (exclusive of charging stations in urban space)
B. The costs incurred by Movia for installation and operation of charging stations in urban space (including VAT)

The combined costs of A + B are estimated as an average hourly rate over a 10-year contract term. Where the tenderer does not base the electric bus services on charging in urban space (ie where the tenderer does not make use of Movia's offer to install the charging stations in urban space), the price for B will be estimated at DKK 0/h.

In the evaluation of price, the lowest price will be awarded a maximum score of 10 and the lowest price +20% will be awarded a score of 0 with a linear interpolation between them.

For unit 4 option, the criterion is evaluated on the basis of the option price quoted for each standard year (translated into an average hourly rate over a six-year contract term). In the evaluation of price, the lowest price will be awarded a maximum score of 10 and the lowest price +20% will be awarded a score of 0 with a linear interpolation between them.

Movia reserves the right to adjust the above percentages based on the actually received prices if the fixed percentage is deemed to be unsuitable in terms of the spread in the prices received. In such case, Movia will take into account the price level expected prior to the deadline for submission of tenders and the

spread in the prices actually received (adjusted for any abnormally low or abnormally high prices) when determining the percentages which will instead be used to calculate the reference point.

1.5.1.2 Quality of operations

In the evaluation of the sub-criterion “quality of operations”, the following part criteria will be included:

- **Customer satisfaction** (quality index)
  In the evaluation of the part criterion “Customer satisfaction”, Movia will assess whether and to what extent the tenderers offer a better quality index than the minimum requirements (800/810), see also the section on scoring of Customer Satisfaction below. The tenderer may submit tenders for a quality index ranging from 800 up to and including 870 for units 1 and 2 and from 810 up to and including 880 for units 3-6.
- **Level of bus service provided** (service level)
  In the evaluation of the part criterion “Level of bus service provided”, Movia will assess whether and to what extent the tenderers offer a better service level than the minimum level (99.90), see also the section on scoring of the “Level of bus service provided” below. The tenders must provide for a level of service between 99.90 and 99.98. A service level above 99.98 will not be awarded a higher score than a service level of 99.98.
- **Operational management**
  In the evaluation of the part criterion “Operational Management”, Movia will assess whether and to what extent the tenderers offer a higher quality of operational management. For units 1, 2 and 4 in particular in relation to the management of the tendered electric bus services.
- **Operating flexibility**
  In the evaluation of the part criterion “Operating Flexibility”, Movia will assess whether and to what extent the tenderers offer Movia the right to extend the routing put out to tender. Applicable to tenders for units 1, 2 and 4 (basic).

The sub-criterion “quality of operations” is assessed on the basis of the tenderer’s specifications in the Tender Form (Appendix 5) (as to the part criteria ”Customer satisfaction”, ”Level of bus service provided” and “Operating flexibility”) and in the “Statement of Operations” (Appendix 8) (as to the part criterion ”Operational Management”).

Scoring of the sub-criterion“Quality of Operations”:

In the scoring of **”Customer satisfaction”**, where the minimum requirement for the quality index of the unit is 810, a score of 10 will be given to tenders providing for a quality index of 880, and a score of 0 to tenders providing for a quality index of 810. A linear interpolation will be performed between 810 and 880.

In the scoring of **”Customer satisfaction”**, where the minimum requirement for unit is 800, a score of 10 will be given to tenders providing for a quality index of 870, and a score of 0 to tenders providing for a quality index of 800. A linear interpolation will be performed between 800 and 870.

In the scoring of ”**Level of bus service provided**”, a score of 10 will be given to tenders providing for a level of service of 99.98, and a score of 0 to tenders providing for a level of service of 99.90. A linear interpolation will be performed between 99.90 and 99.98.

In the scoring of **“Operational management”**, scores will be given according to the model in table 1 below. It will have positive impact on the evaluation if the tenderer specifies approaches, measures and additional services that make it clear to Movia that the operational management is of high quality - also in

relation to the choice of electric bus services on units 1, 2 and 4. The evaluation will be based on the Statement of Operations.

Fulfilment of the part criteria	Score
Best possible fulfilment of the criterion Excellent/superior fulfilment of the criterion	10
Poor fulfilment of the criterion	8
Average fulfilment of the criterion	5
Below average fulfilment of the criterion	3
Poor fulfilment of the criterion	0

Chart 1:

When scoring **"Operating flexibility"** where the minimum requirement is a 10% extension of the tendered routing without compensation or a 10% increase in the number of buses and/or a 10% increase in the number of charging stations in urban space, Movia gives a score of 10 to a tender where the tendered routing can by extended by 30% and a score of zero to a tender where the tendered routing can be extended by 10%. A linear interpolation will be performed between 10% and 30%.

It is emphasised that the above evaluation method for operating flexibility is new to this ITT. Subject to the principle of equal treatment, Movia reserves the right to adapt and adjust the evaluation method, on the basis of the first and possibly second negotiation round, to the content of the submitted tenders to the effect that the model will be determined finally before the submission of the final tenders. The adaptation or adjustment will be made only to ensure that the method is suitable for identifying the most economically advantageous tender.

Weighting of the sub-criterion "Quality of operations":

In the evaluation, scores for the individual units with respect to "Customer satisfaction", "Level of bus services provided" and "Operating flexibility" will be multiplied by the weighting in the Appendix "Subcriteria and part criteria" (Appendix a).

Example: The weighting of a given sub-criterion is set at 40% and a given tenderer will be awarded a score of 5 for this criterion. The weighted scores for the sub-criterion will therefore be: 5 / 100 * 40 = 2.

1.5.1.3 Environment

In the evaluation of the sub-criterion "Environment", the following part criteria will be included:

- **Euro standard** (only for units 2-3 and 5-6)
  In the evaluation of the part criterion "Euro standard", Movia will assess whether and to what extent the tenderer offers the best possible Euro standard. The Euro standard of the bus and not the specific values are included in the evaluation.
- **Emission of CO2** (*only for unit 3*)

In the evaluation of the part criterion “Emission of CO2”, Movia will assess whether and to what extent the tenderer offers the lowest possible emission of CO2.

- **Interior noise emitted by the bus** (*all units*)
  In the evaluation of the part criterion “Interior noise emitted by the bus”, Movia will assess whether and to what extent the tenderer offers the lowest possible interior noise level.
- **Exterior noise emitted by the bus** (*only for units 3, 4 (option), 5 and 6*)
  In the evaluation of the part criterion “Exterior noise emitted by the bus”, Movia will assess whether and to what extent the tenderer offers the lowest exterior noise level.

The sub-criterion “Environment” is evaluated on the basis of the information provided by the tenderer in the “List of bus equipment (Appendix 6).

The overall emission of the unit will be used as the basis of the evaluation. If different equipment is used on the same unit, the emission for each type of bus will be weighted according to the number of tendered buses of such type.

Scoring of the sub-criterion ”Environment”:

In the scoring of the Euro standard of the bus, scores will be given according to the model in table 2

Units 2, 3, 5 and 6	
Standard	Score
EURO ½6	0
EURO 6	1
Electricity/hydrogen	10

Table 2

In the scoring of the CO2 emitted by the vehicle (unit), a score of 10 will be given for an emission of 0 g of CO2e per km, and a score of 0 will be given for emission equivalent to the maximum emission of the vehicle (unit). The maximum emission appears from table 3. Scores will be given with a linear interpolation between them.

Unit	BLACK	Gram of CO2e/km
3	3	1,128

Table 3

In the scoring of the exterior and interior noise emitted by the bus, scores will be given according to the model in table 4.

Ext. Noise	Int. Noise	Int. Noise

Units 3, 4 (option), 5 and 6	
dB	Score
77	0
76	0.77
75	1.54
74	2.31
73	3.08
72	3.85
71	4.62
70	5.38
69	6.15
68	6.92
67	7.69
66	8.46
65	9.23
64>	10

Units 3, 4 (option), 5 and 6	
dB	Score
72	0
71	0.91
70	1.82
69	2.73
68	3.64
67	4.55
66	5.45
65	6.36
64	7.27
63	8.18
62	9.09
61>	10

Units 1, 2 and 4 (basic)	
dB	Score
70	0
69	1.11
68	2.22
67	3.33
66	4.44
65	5.56
64	6.67
63	7.78
62	8.89
61	10

Table 4:

Weighting of the sub-criterion "Environment":

In the evaluation, scores for the individual units with respect to "Emission of CO2", "Euro standard of the bus", "Interior noise emitted by the bus" and "Exterior noise emitted by the bus" will be multiplied by the weighting given in the Appendix "Subcriteria and part criteria" (Appendix a).

Example: The weighting of a given sub-criterion is set at 40% and a given tenderer will be awarded a score of 5 for this criterion. The weighted scores for the sub-criterion will therefore be: 5 / 100 * 40 = 2.

1.5.1.4 Quality of equipment

In the evaluation of the sub-criterion "Quality of equipment", the following part criteria will be included:

- **Age** (only unit 2, 3, 4 (option), 5 and 6)
  In the evaluation of the part criterion "Age", Movia will assess whether and to what extent the tenderer offers new equipment.
- **Comfort measures** (*all units*)
  In the evaluation of the part criterion "Comfort measures", Movia will assess whether and to what extent the tenderer offers equipment which is fitted out or has measures that ensure a good flow for passengers and otherwise increases passenger comfort.

- **Seats** (only units 1, 2, 4-6)
  In the evaluation of the part criterion “Seats”, Movia will assess whether and to what extent the tenderer meets Movia’s request for the number of seats.
- **Front-facing seats** (only units 1, 2, 4-6)
  In the evaluation of the part criterion “Front-facing seats”, Movia will assess whether and to what extent the tenderer meets Movia’s request for the number of front-facing seats.
- **Flexi area** (*only unit 1*)
  In the evaluation of the part criterion “Flexi area”, Movia will assess whether and to what extent the tenderer meets Movia’s request for the number of pram and wheelchair area, see section 3.3.8 on flexi area.
- **Interior layout** (*all units*)
  In the evaluation of the part criterion “Interior layout”, Movia will assess whether and to what extent the tenderer meets Movia’s request that the bus interior is of high quality.

The sub-criterion “Quality of equipment” will be evaluated on the basis of the information given by the tenderer in the “List of bus equipment (Appendix 6) (as to the part criteria “Age”, “Seats”, “Front-facing seats”, “Flexi area” and “Interior layout”) and in “Reservations and comments” (Appendix 9) (as to the part criterion “Comfort measures”).

Scoring of the sub-criterion“Quality of equipment”:

In the evaluation, the tendered buses will be evaluated individually in each single tender. Movia will estimate an average bus package (total score for all buses divided by the number of buses) which will be included in the evaluation of the unit. Replacement buses will be included in the evaluation on an equal footing with in-service buses.

If the tenderer offers several possible bus packages, but wishes to make the final choice of bus package after contract award, Movia will let the assessment of the bus package with the lowest score under the sub-criterion form part of the evaluation.

If the tenderer offers several possible bus packages and leaves it to Movia to make the final choice of bus package after contract award, Movia will let the assessment of the bus package with the highest score under the sub-criterion form part of the evaluation.

It is specified that by “bus package”, Movia means the package of buses which is sufficient to deliver the bus services.

If the tenderer offers to replace equipment in the contract term (period without the possibility of renewal) – including replacement of temporary equipment, the equipment will be included in the calculation relatively to the period in which the specific equipment is offered. If the tenderer offers replacement in the extension period, it will not be included in the evaluation of the tender.

If the tenderer offers temporary equipment which does not meet the requirements in the contract documents, and Movia accepts (in Q&As) the lack of performance, the equipment will on the specific points be included in the evaluation, as if the minimum requirements are met.

In the scoring for the part criterion “**Age**”, scores will be given according to the scale in table 5.

Age of the bus up to the year specified – Applicable from 1 registration date	Score

1 yr.	10
2 yrs	9
3 yrs	8
4 yrs	7
5 yrs	6
6 yrs	5
7 yrs	4
8 yrs	3
9 yrs	2
10 yrs	1
10 years +	0

Table 5

In the scoring of the part criterion **"Comfort measures"**, a score of up to 10 will be given for layout conditions or measures providing a good flow for passengers or otherwise increasing passenger comfort. Specific (non-exhaustive) proposals for elements scored:

Applies to all units	
USB ports for charging of cell phones.	Score of 2
Air-conditioning system where not required.	Score of 5
Infotainment system where not required.	Score of 5
Distance between seats larger than 72 cm (On all seats not falling within the exception concerning hub caps, back wall of the driver's compartment etc.)	A score of up to 5
Measures to reduce noise in the bus - for instance sound reducing surfaces on seat backs, walls and/or ceilings.	A score of up to 5
Measures to increase the experience of quality - for instance surfaces in quality material, back-padded seats.	A score of up to 5
In particular for A and C buses	
Interior design measures to improve passenger flow. For example particularly large gangway through the bus, extra floor space, flexible layout/use of gangway/flexi areas.	A score of up to 10

A maximum score of 10 can be given for comfort measures. Comfort measures will only score points if the measures are described in "Reservations and comments" (Appendix 9) under "Comments".

In the scoring of the part criteria **"Seats"** and **"Front-facing seats"**, scores will be given according to the model in table 6.

Unit 1				Units 2, 4, 5 and 6			
Seats		Front-facing		Seats		Front-facing	
Number	Score	Number	Score	Number	Score	Number	Score
33	0	22	0	25	0	18	0
34	0	23	0	26	0	19	0
35	0	24	0	27	0	20	0
36	1	25	1	28	1	21	1
37	2	26	2	29	2	22	2
38	3	27	3	30	3	23	3
39	4	28	4	31	4	24	4
40	5	29	5	32	5	25	5
41	6	30	6	33	6	26	6
42	7	31	7	34	7	27	7
43	8	32	8	35	8	28	8
44	9	33	9	36	9	29	9
45	10	34	10	37	10	30	10
46	10	35	10	38	10	31	10
47+	10	36+	10	39+	10	32+	10

Table 6:

Tip-up seats count as seats, but never as front-facing seats regardless of their direction.

In the scoring of the part criterion “Flexi area”, scores will be given according to the number of pram and wheelchair spaces, see the model in table 7.

Unit 1	
Number of units	Score
Four wheelchair and pram spaces	0
Five wheelchair and pram spaces	10

Table 7

In the scoring of the part criterion “Interior layout”, a score of up to 10 will be given if the tenderer offers bus models meeting one or more of the following parameters:

- Seats completely without visible screws or bolts. Caps on screws or bolts are not sufficient.
- Window surrounds without visible screws or bolts. Caps on screws or bolts are not sufficient.
- Ceilings and ceiling panels without visible screws or bolts. Caps on screws or bolts are not sufficient.
- Steps and landing edges without visible screws or bolts. Caps on screws or bolts are not sufficient.
- Assembling handles in connection with hand rails and stanchions coloured (RAL1028) metal.
- Stop buttons without visible screws and bolts.

- Interior lightening in the form of warm light spot lights. (Max. (2700) Kelvin and min. (90) Ra)
- Electric sliding doors on central and rear doors (where not required)

Weighting of the sub-criterion "Quality of bus equipment":

In the evaluation, scores for the individual units with respect to "Age", "Seats", "Front-facing seats", "Flexi area" and Interior layout" will be multiplied by the weighting in the Appendix "Subcriteria and part criteria" (Appendix a).

Example: The weighting of a given sub-criterion is set at 40% and a given tenderer will be awarded a score of 5 for this criterion. The weighted scores for the sub-criterion will therefore be: 5 / 100 * 40 = 2.

1.5.2 Final evaluation

To assess whether a single tender or a combination bid is on a whole the most economically advantageous tender, the following evaluations will be made:

I. Movia will evaluate which of the tenders submitted for the individual units is the most economically advantageous. Each tender unit will be evaluated separately according to the above sub-criteria.

II. Movia will evaluate which combination bid for each of the permitted combinations is the most economically advantageous.

Movia will evaluate "Price" by adding up the tendered price per standard year for the units included in the permitted combination and then evaluating according to section 1.5.1.1.

As to the qualitative sub-criteria, each tender unit will be evaluated separately according to the sub-criteria in sections 1.5.1.2 to 1.5.1.4. The assessment of each unit will be included in the evaluation with the proportionate share of timetable hours for the units.

In particular with respect to unit 4, it is noted that unit 4 (basic) will be included in the evaluation of single tenders for unit 4 with a weighting of 75%, whereas unit 4 (option) will be included in the evaluation of single tenders for unit 4 with a weighting of 25%.

When unit 4 is included in the evaluation of combination bids, 75% of the price for unit 4 (basic) and 25% of the price for unit 4 (option) will be included in the total price for the combination bid evaluated (plus the total price for the other unit(s) included in the combination). As to qualitative sub-criteria, unit 4 (basic) will be included with 75% and unit 4 (option) with 25% in the total qualitative evaluation of unit 4. In the evaluation of the combination bid, this assessment will be included with the proportionate share of the total number of timetable hours for the units in the combination.

Movia will then evaluate whether it is, on a whole, most economically advantageous for Movia:

i. to accept the best single tender in a permitted combination,

ii. to accept the best combination bid for all units in the permitted combination.

iii. to accept a combination of combination bids and single tenders.

The evaluation of Price is made by way of a comparison of the best combination bid with the sum of the prices for the best single tenders for the units covered by the permitted combination and the sum of the prices for an accepted combination of combination tenders and single tenders. The lowest price (out of the compared alternatives) will be awarded a score of 10 and the lowest price +20% will be awarded a score of 0 (linear interpolation between them).

As to the qualitative sub-criteria, the evaluation of the tenders will be weighted according to the unit's number of timetable hours (relatively to the total number of timetable hours for the units evaluated). The total score for the best tenders for the individual units in the permitted combination or for an accepted combination of combination bids and single tenders will be compared with the quality evaluation of the best combination tenders.

In exceptional cases (i.e. if there is a not irrelevant ground such as lack of competition or disproportionately high prices), Movia reserves the right not to award contracts for individual units, i.e. to cancel the procurement process with respect to individual units. In such case, single tenders for the relevant unit will be excluded from the evaluation, and all combination bids in which the single tender is included will also be excluded from the evaluation.

1.6 Conclusion of the contract

The contract award notice is not a promise to conclude a contract with the winning tenderer. The tenderers continue to be bound by their tenders until expiry of the period for which the tender will remain open for acceptance. The contract cannot be concluded until after expiry of the standstill period, see s. 3 of the Danish Complaints Board Act (in Danish: *klagenævnsloven*).

After the award of the bus service contract, Movia will prepare for conclusion of the contract with the tenderer. All contract documents will thus form an integral part of the contractual basis. If Movia accepts multiple tenders from the same tenderer, Movia may decide to enter into one or more contracts for the bus service in question. Regardless of the number of units and tenders which are included in the contract, the tenderer's total sum of the timetable hours and in-service buses will serve as the basis for any adjustments to be made during the contract term.

In a contract including a combination bid, all units in the tender will be part of the same contract.

In case of a contract made on the basis of a combination bid, only the prices quoted in the combination bid for the individual units will apply for the term of the contract. For example in connection with:

- Current settlement of accounts, including calculation of correction factor CF1 and CF2
- Change of bus services under section 12
- Extension of parts of the contract

The prices will also form the basis of Movia's settlement of accounts with the local authorities/regions.

In case of accepted combination tenders involving units with different dates for start of operations, the settlement will only take place for units put into operation.

After conclusion of the contract, the tenderer must submit the following documents:

- Completed schedule for detailed description of quality of operations (Appendix 12)
  The completed schedule must be sent to Movia as soon as possible after conclusion of the contract. The schedule must describe the quality index offered in the Tender Form (Appendix 5) in more detail.
- Completed schedule for dead mileage (Appendix 13)
  The completed schedule must be sent to Movia as soon as possible after conclusion of the contract. The amount of dead mileage is to be calculated in a schedule as described in section 2.5.

1.7 Right of access to documents and publication

To the widest extent possible, Movia will keep secret all confidential information about the tenderer's business given by the tenderer during the negotiations and contained in the tenders.

Naturally, a statutory obligation to disclose information to a third party will override this duty of confidentiality.

To the extent that the tenderer regards information for particularly commercially sensitive, the tenderer should clearly mark the relevant information in his tender, and Movia will then endeavour to protect such information from disclosure. Tenderers are advised that general references to the effect that information is commercially sensitive or similar statements are likely to be disregarded. Movia is not bound by the Tenderer's indications of such confidential information in connection with requests for access to public records, but these indications may be included in Movia's consideration of whether and to what extent such access to public records should be granted.

Movia is, however, entitled to use information to the extent required to legitimately safeguard Movia's interests in legal proceedings or complaints procedures relating to the invitation to tender.

2. Scope of tender

Movia invites tenders for bus services in the form of equipment and hours according to the units specified for the invitation to tender. Movia thus reserves the right to change or close down routes and to change the use of equipment and hours, e.g. for use on other routes or units. Any such changes will be made in accordance with the requirements and provisions contained in the contract, including the provisions of the contract documents on changes in the number of buses and timetables, adjustments for dead mileage, etc.

The tendered bus services operated in the Greater Copenhagen Area are divided into six tender units. Tenders are invited for approx. 290,000 bus timetable hours per year using 71-73 in-service busses.

Enhedsnr.	Linjer	Antal busser	Antal timer	Driftsstart	Kontrakt-længde	Buslængde	Bustype	Euronorm	CO2	Tællebusser
1	2A	18	88.457	Dec. 2019	10+2	18,0 - 18,75 m	TB5	Nul-emission	Nul-emission	2-3
2*	18	23	77.073	Jul 2019	10+2	11,9 - 12,2 m	TB1	Nul-emission	Nul-emission	3
3 Løsning 1	350S	10	43.305	Jul 2019	2+1+1	13,2 - 13,7 m	TB3	½6	1.128	2
3 Løsning 2		12	48.200	Jul 2019		11,9 - 13,7 m	TB1 - TB3			
4** Basis	147, 156, 157	5	21.037	Dec. 2019	10+2	11,9 - 12,2 m	LB2 / TB1	Nul-emission	Nul-emission	1
4** Option					6+2+2+2			½6	Fossilfrihed	
5**	158, 163, 217	4	12.782	Dec. 2019	6+2+2+2	11,9 - 12,2 m	LB2 / TB1	½6	Fossilfrihed	1
6**	155, 165, 167, 168	11	43.314	Dec. 2019	6+2+2+2	11,9 - 12,2 m	LB2 / TB1	½6	Fossilfrihed	1-2
		71-73	285.968 - 290.863							

* Særligt krav til busmateriel, jf. afsnit 2.7.2

** Der foretages i øjeblikket prøvekørsler for at sikre, hvorvidt kørslen kan udføres med 12,3 m busser. Såfremt prøvekørslen ikke giver udfodringer, vil det være muligt at afgive tilbud med buslængde på op til 12,3 m.

Euronorm ½6 er en luftpakkeopgraderet bus, jf. afsnit 5.3.2.

The above list of units is available for download from the tender website as an Excel file.

With a few exceptions, the contract documents are based on the routing and timetable of the existing bus routes. Any changes are described in section 2.1.

The current timetables are available at DOT's website www.dinoffentligetransport.dk.

Movia will determine the structure of routes, timetable intervals, scope of services, general interchanges and connections, location of bus stops, other bus stop requirements etc. and will conduct negotiations with local authorities, the police and road authorities. The operator will be involved as much as possible.

Movia's target for bus timetable reliability is 85%. Bus timetable reliability is measured by punctuality (timetable compliance of -1 to + 5 minutes at check point level) for routes with less than six departures per hour, and regularity (interval compliance of the interval + max ½ x the interval at check point level) on routes with six or more departures per hour. The timetable has been made on the basis of this target.

If bus service performance has a reliability of less than 80% in any period of three consecutive months, Movia will enter into a dialogue with the operator as to the reasons for and possibilities of changes to the conditions for the timetable or adjustment of the timetable as quickly as possible, focusing efforts on achieving a reliability of 85%.

See section 8 as to operation and irregular bus services.

For the tendering, the contract documents include Vehicle Schedules (Appendix a) and Billing Sheets (Appendix c) for the tendered units.

Billing Sheets (Appendix c) provide an outline of the bus services (hours, kilometres, etc.) in the individual tender units.

Detailed information on the individual runs and timetables is available in the HASTUS files or text files (Appendix b) which - like Billing Sheets (Appendix c) - is available for download from Movia's website under the tan Contract documents. You can also find instructions on how to read the files.

HASTUS is Movia's timetabling system.

2.1 Material changes to current timetables

With a few exceptions, the contract documents are based on the structure and timetables of the existing bus routes.

In relation to such timetables, the structure of the routes and timetables have been adjusted on the following routes:

- Unit 1 Route 2A changes routing in connection with New Urban Network (Nyt Bynet) so that it drives to Refshaleøen.
- Unit 2 New route 18 in connection with the New Urban Network will run between Emdrup Torv and Lergravparken Station.
- Unit 3 Route 350 will be shortened to Nørreport Station and no drive around Herlev Station in connection with the New Urban Network.
- Unit 6 Route 165 changes routing in connection with New Urban Network (Nyt Bynet). This adjustment will not affect the tendered number of hours and buses or terminals.

Movia expects that there will be additional adaptations of vehicle schedules (number of hours and buses) and any routing for the above routes in connection with the transport order dated 1 May 2018.

2.2 Vehicle schedules for payment

The tendered vehicle schedules are called "vehicle schedules for payment" and form the basis for calculating the timetable hours and the buses to be paid for.

The vehicle schedules for payment with the specific runs are only delivered electronically as standard export files from the HASTUS timetabling system and as text files.

The vehicle schedules for payment will be sent to the operator no later than three months before the first day of operation with respect to vehicle schedules for weekdays, Saturdays and Sundays. Weekday runs from Monday to Friday are considered one run.

The number of in-service buses will be adjusted in connection with the timetable changes. Payment will only be made for the number of buses required to deliver the overall services forming part of the contract. For the operators who already provide contract bus services to Movia, Movia may combine the use of in-service buses across contracts with the same company.
Movia will thus only pay for the number of in-service buses required for the operator to provide all his bus services to Movia. In such case, the combined bus services will be settled in accordance with the contract most favourable to the operator. The regulating mechanisms provided for in the contracts will be taken into account, see section 12.

Vehicle schedules for payment may be changed until three months prior to the start of operations. Any changes to the number of runs in the period between the submission of tenders and start of operations will be included in the calculation of the variation for the first year of contract.

2.2.1 Changes to vehicle schedules for payment

Any objections to the vehicle schedules for payment and timetables must be made within two weeks of receipt. After expiry of the two-week deadline, the operator may only require changes against payment to Movia for its extra work.

During the objection period – i.e. the two weeks after receiving the vehicle schedule for payment – the operator may propose changes to the timetable to increase operational efficiency.

In the same period, the operator may submit proposals as to how to expand the bus services if such proposals can advantageously be implemented in the timetable at a price equivalent to the marginal costs. If Movia agrees to change the timetable as requested by the operator, the accounts will be settled at the prices set out in the contract.

If agreements are made as described above within the objection period, the deadline for submission of the vehicle schedules for payment will be two months before the start of operations.

Such agreements will only be effective until the next ordinary timetable change.

In case of temporary route or timetables changes due to road works, track work, etc., the time allowed for submission of vehicle schedules for payment will be two months.

If Movia fails to comply with the deadline for submission of the vehicle schedules for payment, Movia will pay the following amount to cover the operator's additional costs:

1. In case of late delivery of the vehicle schedule for payment, Movia will pay DKK 250 per changed run for each weekday (excluding Saturdays) by which it is late.
2. If Movia changes the times without changing the runs, no compensation will be paid. It is a condition that the date of replacement is not changed.
3. If Movia wishes to implement changes which are not ordinary timetable changes or after delivery of the vehicle schedule for payment, a "quotation" may be obtained from the operator concerning the additional costs involved in a speedy implementation of the changes. In such case, item 1 should be disregarded.

The operator must make his claim for compensation no later than 30 days from Movia's delivery of the vehicles schedules for payment (see the above on late delivery). Otherwise the operator will forfeit his right to compensation.

On 24 December, buses will run their normal Sunday service. Journey may be cancelled in the period from about 05.30 pm to 10.00 pm. Specification of the cancelled service will be received by the operator on 24 November at the latest. The reduced Sunday service is not covered by the above provisions on compensation.

2.2.2 Timetable changes

Movia may each year make five timetable changes per unit. Currently, timetables change in the spring, at the start and end of the summer holiday period and in autumn and winter. In case of any additional timetable changes – except for any timetable changes stated in the general information in section 2.7 for the individual tender units – Movia will pay the additional costs incurred by the operator in preparing the new duty rosters, at a rate of DKK 1,000 for each run for the timetable in question.

Temporary changes due to major events – up to and including 10 days – will not be regarded as a timetable change.

2.3 Timetable hours and stops

The number of timetable hours per standard year is calculated as the daily production per day type multiplied by the number of days for a year which - for the above tender units- is fixed at 250 days with a

standard weekday timetable (200 school days and 50 holidays), 50 days with a Saturday timetable and 65 days with a Sunday timetable.
Reduced service as a result of holiday is deducted from the timetable hours.

The contract documents contain vehicle schedules for standard weekdays divided into school days and holidays as well as Saturdays and Sundays. There may by additional variations to the weekday vehicle schedules (e.g. for youth school transport and various holiday periods for educational institutions, Saturday timetables (e.g. New Year's Eve) and Sunday timetables (e.g. Christmas Eve) which do not affect the number of timetable hours appreciably. Vehicle schedules for such variations are not included in the contract documents.

2.3.1 Calculation of timetable hours and extra time

Total timetable hours means the hours spent on the bus journeys which are included in the timetables made by Movia. The entire journey counts towards total timetable hours.

Garage and dead journeys are not included in total timetable hours. The operator will be paid for timetable hours, and consequently, the operator is instead to include unproductive hours in the rate of timetable-related costs.

Extra hours is a factor describing the efficiency of the individual runs.
It is used exclusively for adjustment of the timetable-related costs (see the definition of extra time in section 2.4.1).

Timetable hours and extra hours are stated under the individual tender unit (sections 2.7.1 to 2.7.6) – corresponding to the production in a standard week (week 4). The timetable hours stated for the day periods and the extra hours mentioned will form the basis of calculation of the adjustment to changes in the efficiency in the runs (CF1) and changes to day and 24-hour distribution (CF2).

The adjustment will be made once a year and will be calculated on the basis of the production in week 4 each year.

The first adjustment will be made in January 2020 – valid from 1 January 2020 to 31 December 2020. The adjustment will take into account changes made to the timetable from the date of the ITT to the timetable valid in week 4 in 2020.

The next adjustment will take into account changes to the timetable for week 4 in 2020 to week 4 in 2021 and will be made in January 2021, etc. The next adjustment will take into account changes to the timetable for week 4 in 2021 to week 4 in 2022 and so forth.

The principles for calculating the adjustment are described in further detail in section 2.4.

2.3.2 Definition of stopover

In the runs in the vehicle schedules for payment, the journeys are tied together by a stopover. In case of changes to the distribution between timetable hours and stopovers in a run, the CF1 factor adjustment will ensure that the payment for the journeys in the run is close to constant (see section 2.4).

This means that stopovers of 15 minutes or less are included in the price per timetable hour for the journeys on the run concerned. For stopovers of more than 15 minutes, there will be no payment for the part of the stopover which exceeds 15 minutes.

It is not considered a stopover if the bus has different arrival and departure times at a check point in the middle of a journey, and there are or may be passengers in the bus. The time interval between the above arrival and departure times is included in the timetable hours.

2.3.3 Minimum stopover time at bus terminal

In the vehicle schedules for payment, the routes must be planned to allow for minimum stopover times of normally two minutes at the bus termini.

In special cases (for instance if a change of driver is allowed at other places than the bus terminal), Movia may move the minimum the bus terminal stopover to another place on the bus route.

For routes in central Copenhagen, the planning must allow for at least five minutes' stopover at the bus termini. In special cases, some of the five minutes may be transferred between the bus termini on the condition that the total stopover on a circulation must be at least 10 minutes (e.g. 4 and 6 minutes).

Such planned minimum stopovers must be used to catch up variations in the timetable and may consequently not be used for breaks or change of driver.

The minimum stopover is set out in the individual units in sections 2.7.1 to 2.7.6.

Subject to agreement, Movia is prepared to increase the minimum stopover at the bus terminal on certain routes and times if there is deemed to be a need therefor.

Movia assumes that the operator will ensure that before departing from bus termini, the driver can attend to and take fares from passengers in sufficient time to depart on time.

2.4 Calculation of factors for adjustment of costs related to timetable hours

The purpose of this adjustment is to compensate the operator for changes to the composition of the production.

2.4.1 Changes in stopover time (CF1)

The purpose of the adjustment is to adjust for changes in stopover time – including start-up and shutdown time for the driver – in connection with timetable changes. When calculating the consumption of driver hours in its tender, the operator must include the time spent on such stopovers based on the vehicle schedules in the contract documents.

Time is added for stopovers as follows:

- For intermediate stopovers of a duration of up to 15 minutes, the entire stopover is included as extra time.
  For intermediate stopovers of a duration of more than 15 minutes, 15 minutes are included as extra time.
- If the sum of timetable hours and extra time is less than 420 minutes for the individual run, 30 minutes will be added to the extra time.
  If the sum of timetable hours and extra time is 420 minutes or more, 30 minutes will be added to the extra time for the first 420 minutes and an additional 15 minutes for each period of additional 420 minutes or any part of such period.

The extra time will be calculated for each run and for days with different timetables and will be converted to a standard week as when calculating total timetable hours.

In the first adjustment, the correction factor CF1 will be calculated as follows:

$$\frac{1 + \dfrac{\text{(f1) Extra time in week 4 of 2018}}{\text{(e1) Timetable hours in week 4 of 2018}}}{1 + \dfrac{\text{(f) Extra time stated in the contract documents}}{\text{(f) Timetable hours stated in the contract documents}}} = \textbf{CF1}$$

2.4.2 Changed day-time and night-time distribution (CF2)

The adjustment is intended to adjust for the change in how drivers' working hours are distributed on periods with different rates of pay. The operator's tender must be based on the distribution of drivers' working hours according to the timetables in the contract documents and must include payroll costs in this respect.

Timetable hours must be calculated for each of the day time periods mentioned. The calculation must be for a standard week (such as week 4).

The following weighting will be used for the calculation:

Weekdays	06.00 am - 06.00 pm	= factor 100
Weekdays	00 - 06.00 am and 06.00 pm - 00.00 (midnight)18	= factor 115
Saturday	06.00 am - 02.00 pm	= factor 100
Saturday	00 - 06.00 am and 02.00 pm - 00.00 (midnight)	= factor 115
Sundays and public holidays	06.00 am - 06.00 pm	= factor 150
Sundays and public holidays	00 - 06.00 am and 06.00 pm - 00.00 (midnight)	= factor 165

Weighted total timetable hours are calculated as follows:

Weighted timetable hours =
(100 x number timetable hours weekdays 06.00 am - 06.00 pm) + (115 x number: timetable hours: weekdays 00-06.00 am and 06.00 pm - 00.00 (midnight) +
(100 x number timetable hours Saturdays 06.00 am - 02.00 pm) + (115 x number: timetable hours Saturdays 00-06.00 am and 02.00 pm - 00.00 (midnight) +
(150 x number timetable hours Sundays 06.00 am - 06.00 pm) + (165 x number: timetable hours Sundays 00-06.00 am and 06.00 pm - 00.00 (midnight) +

The correction factor is then calculated as follows:

$$\frac{\dfrac{\text{Weighted timetable hours after}}{\text{Timetable hours after}}}{\dfrac{\text{Weighted timetable hours after}}{\text{Timetable hours before}}} = \textbf{CF1}$$

2.4.3 Adjustment of costs related to timetable hours

The rate of costs related to timetable hours, which can be seen from the tendered unit, will be adjusted as follows:

Cost related to timetable hours x CF1 x CF2 = new cost related to timetable hours.

If the tendered unit involves more than one rate for the costs related to timetable hours, all such rates will be adjusted using the same CF1 and CF2, meaning that only one CF1 and one CF2 will be calculated for each tendered unit.

2.4.4 Illustration of principles

The principles are illustrated by the below example.

Tenders including a timetable-related cost of DKK 600.00. Start of operations in December 2017.

Timetable hours:	Stated in the contract documents	Factor	Example: Week 4,
Weekdays 06 am -	a: 87.83	100	a1: 85.23
Weekdays 00-06 am	b: 10.75	115	b1: 9.65
Saturday 08:00 am -	c: 6.97	100	g1: 4.30
Saturdays 00-06 am	h: 8.78	115	h1: 9.78
Sundays 06 am - 06	c: 13.60	150	c1: 15.90
Sundays 00-06 am	d: 1.13	165	d1: 2.20
Timetable hours,	e: 129.06		e1: 127.06
Total extra time:	f: 36.70		f1: 38.70

Changes in stopping time

CF1 is then calculated as follows:

$$\frac{1+\dfrac{(f1)\ 38.70}{(e1)\ 127.06}}{1+\dfrac{(f)\ 36.70}{(e)\ 129.06}} = 1.016$$

Changed day-time and night-time distribution

CF2 is then calculated as follows:

Weighted timetable hours after = (100 x 85.23)+(115 x 9.65)+(100 x 4.30)+(115 x 9.78)
+(150 x 15.90)+(165 x 2.20) = 13,935.45

Weighted timetable hours before = (100 x 87.83)+(115 x 10.75)+(100 x 6.97)+(115 x 8.78)
+(150 x 13.60)+(165 x 1.13) = 13,952.40

The correction factor is then calculated as follows:

$$\frac{\dfrac{13{,}935.45}{127.06}}{\dfrac{13952.40}{129.06}} = 1.015$$

Adjustment of costs related to timetable hours

The new rate of costs related to timetable hours effective from January 2018 is calculated as follows:

DKK 600.00 (see tender) x 1.016 x 1.015 = 618.74 (new cost related to timetable hours)

2.5 Dead mileage

Garage journeys are defined as journeys without passengers between the garage and the start/end of a run.

Dead journeys specified in the vehicle schedules for payment issued by Movia are defined as journeys without passengers in a run where a journey ends in a place different from the place where the next journey begins.

Below both dead journeys and garage journeys are defined as dead mileage.

Dead mileage is never included in timetable hours on a route, and the operator must consequently include dead mileage in the rate of the timetable-related cost.

As Movia can change the composition and scope of the run during the contract term, the scope of dead mileage may change relatively to billable hours. Consequently, the below compensation and set-off mechanism has been established for the purpose of reducing the operator's risk.

The operator will decide where the buses are to be garaged. In the Statement of Operations (Appendix 8) for the tender, the operator must specify the garage which forms the basis for the tender per tender unit. If the operator is awarded the contract, the operator must specify the empty run which forms the basis for the tender as follows:

The minutes and kilometres run empty (per journey and in total) must be calculated at the time when the tender was issued for each tender unit for a standard week (week 4). At the same time, the timetable hours for a standard week (week 4) must be specified.

On this basis, an empty run percentage for a standard week (week 4) per tender unit must be calculated:

Dead mileage percentage = hours run empty / timetable hours (%)

The dead mileage percentage will be used to adjust the dead mileage in the tender by subsequent changes to the scope of services.

The operator is to use Appendix 13 for the calculation of dead mileage and the dead mileage percentage and the information in Appendix 13 will then form the basis for a standard week (week 4).

An adjustment required as a result of changes to dead mileage must always be based on the vehicle schedules for payment delivered by Movia as follows (see also the example in Appendix 13):

1. Each year, the operator must calculate the total minutes and the total kilometres actually run empty for each tender unit on the basis of the change of timetable in December. At the same time, the operator must specify the number of timetable hours.
   The statement must be made for a standard week (week 4).
   The statement must be sent to Movia Contracts on or before 20 January each year in the contract term. The table for the statement is available from Movia Contracts.

At the request of Movia, the operator must, within 14 days, send a more detailed statement breaking down dead mileage into journeys – as in Appendix 13.

2. A possible adjustment must be calculated as follows:

   Actual dead mileage in week 4 less dead mileage for week 4 as estimated in the tender * = Adjustment (A) in hours and minutes

   *Dead mileage as estimated in the tender must be adjusted to account for changes to the scope of services before the adjustment as follows: Adjusted dead mileage = Dead mileage percentage estimated in the tender x Actual timetable hours

3. The adjustment will be made in the monthly payment with the following amounts:

   Timetable price (indexed) x Adjustment (A) x 52/12.

   The first adjustment will be made in January 2020. Then January 2021, January 2022 and so forth.

4. Adjustments will only be made for changes to dead mileage if the change in the standard week (week 4) per tender unit exceeds +/- 2 hours relatively to the dead mileage estimated in the tender (adjusted as described in section 2).
5. If the operator changes the garage for the tender unit or if Movia changes the run so that it is only natural to move buses between garages, the contractual basis for dead mileage will be renegotiated, and the dead mileage estimated in the tender will be re-evaluated relative to the new garage. In such cases, the original relationship between dead mileage and timetable hours in the tender will be adjusted to fit the new garage position.
6. In case of extraordinary timetable changes outside the regular changes in December and regular annual variations, it is possible to negotiate an extraordinary adjustment.

2.6 Changes in routes, additional and relief services and other matters

Movia reserves the right to change routes or relocate the agreed service to other parts of Movia's service area. In that case, Movia will pay/set off the increased or reduced costs incurred by the operator as a result of such changes in terms of dead mileage etc. See also section 2.5.

In case of major changes, including relocation of routes or parts of routes, Movia is willing to pay for the costs of training drivers on presentation of receipts. In that connection, Movia will only reimburse costs associated with the drivers assigned to the routes affected by the changes. Costs will be reimbursed at an hourly rate of DKK 300 (price index January 2018).

If, during the contract term, pilot projects are established on the operator’s routes or in his area, the operator is to participate in such projects subject to agreement. Subject to agreement, the operator must also participate in test-driving new bus routes etc.

In order to ensure efficient use of in-service buses, Movia may, in the periods when they are not in use according to the vehicle schedules, demand that the operator carries out scheduled additional or scheduled relief services on the routes served by the operator or on other routes or stretches, exclusively against payment of the agreed costs related to timetable hours. In such case, the operator will be given at least two months’ prior notice, and the services will extend over at least one month.

Any additional or relief bus services provided with replacement buses or other buses may be initiated subject to agreement with Movia.

2.7 Tender units

2.7.1 Tender unit 1. Vehicle schedule 002a

The overall scope of services for a standard year for the use of the submission of tenders: **88,457 timetable hours**

Detailed information

Route 2A

Tingbjerg – Gavlhusvej – Langhusvej – Ruten – Åkandevej – Frederikssundsvej – Brønshøjvej – Annebergvej – Primulavej – Godthåbsvej – Rolighedsvej - Rosenørns Allé – Gyldenløvesgade – Vesterbrogade – Bernstorffsgade – Tietgensgade – Vindebrogade – Børsgade – Torvegade - Prinsessegade – Arsenaløen – Danneskiold-Samsøes Allé – Refshalevej - Refshaleøen

Scope of services per standard week (week 4)

A standard week is 1 Monday, 1 Tuesday, 1 Wednesday, 1 Thursday, 1 Friday, 1 Saturday and 1 Sunday.

Day of the week no.	Time interval	Hours	Total hours	Bus
Monday	6 am - 6 pm	176.88	257.01	18
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	80.13		
Tuesday	6 am - 6 pm	176.88	257.01	18
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	80.13		
Wednesday	6 am - 6 pm	176.88	257.01	18
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	80.13		
Thursday	6 am - 6 pm	176.88	257.01	18
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	80.13		
Friday	6 am - 6 pm	176.88	257.01	18
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	80.13		
Saturday	6.00 am - 2.00 pm	86.83	220.50	17
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	133.67		
Sunday	6 am - 6 pm	124.68	202.72	15
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	78.04		

Total timetable hours in week 4	1,708.27
Extra time in week 4	319.90

Weighted timetable hours in week 4	190,148.40

See calculation method of extra time and weighted timetable hours in section 2.4.

Comments:

According to plan, route 2A is to have a minimum stopover of five minutes at the bus terminal.

Mileage and other detailed information appear from Settlement Sheet (Appendix c).

Vehicle schedules, runs and journeys for this tender unit (HASTUS file and text file):

HASTUS files	*Text files*
HAS 002a Hverdag 2018-01-02 2018-12-30 V01.HAS	VP 002a 2018-01-01 2018-12-31 Søndag V01.txt
HAS 002a Lørdag 2018-01-02 2018-12-30 V01.HAS	VP 002a 2018-01-02 2018-12-30 Hverdag V01.txt
HAS 002a Søndag 2018-01-01 2018-12-31 V01.HAS	VP 002a 2018-01-02 2018-12-30 Lørdag V01.txt

The files are available for download at the tender website under the *Contract Documents* menu item.

Breaks and/or toilet facilities

Refshaleøen (route 2A)

Owned/leased by Movia:	Owner
Floor area:	2 m^2
Estimated current operating expenses per year:	DKK 62,000
Furniture and equipment (Purchase):	DKK 2,000
Share of operating expenses:	100%
Degree of use:	3
Ventilation system:	No

Tingbjerg (route 2A, 132)

Owned/leased by Movia:	Owner
Floor area:	122 m^2
Estimated current operating expenses per year:	DKK 350,000
Furniture and equipment (Purchase):	DKK 30,000
Share of operating expenses:	100%
Degree of use:	1
Ventilation system:	Yes

2.7.1.1 Special conditions

Scope of service

There is uncertainty about the scope of service and the routing, and therefore, Movia reserves the right to determine, at the beginning of May 2018, the final scope of service (hours and buses) and routing (in any) to be put out to tender.

Option

On unit 1, tenders must include two options, see section 1.3.5.1.

Calculation of quotation

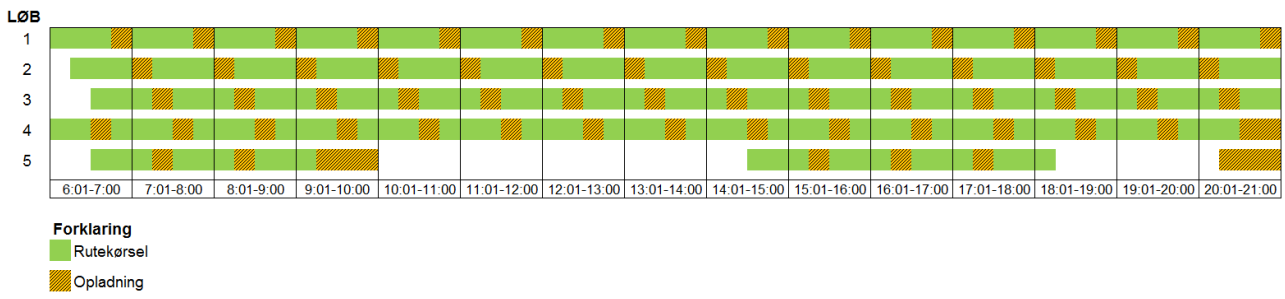
The tendered vehicle schedules are called "vehicle schedules for payment" and form the basis for calculating the timetable hours and the buses to be paid for. The operator must be aware that the vehicle schedules for payment in scale 1:1 will form the basis of the calculation of the number of in-service buses. If the operator needs more buses to deliver the bus services than the number of in-service buses specified in the vehicle schedules, the operator must use additional zero-emission in-service buses. The operator's total costs must be distributed over the vehicle schedules for payment regardless of the number of additional zero-emission in-service buses that the operator uses.

Dimensioning of the electric bus system

It is the operator's responsibility to size the electric bus system correctly in terms of the number of electric buses and charging stations. If the electric bus system chosen proves to be of inadequate size, it is for the operator to rectify the situation. All costs associated therewith are of no concern to Movia.

Planning of runs

Based on vehicle schedules for settlement for unit 1, the operator is to prepare vehicle schedules for the performance of bus services, using electric buses. Based on such vehicles schedules, the operator must attach a diagram showing all bus runs for weekdays specifying charging/refuelling in the course of the day. An example of such a diagram is shown below.



Penalty for using the wrong bus type and cancelled service
Movia understands that in an implementation phase, the operation of zero emission buses may, compared to the operation of conventional buses, imply more challenges. Therefore, Movia has prepared an implementation phase (see clause 18.3 and 18.4 of the Contract) in which Movia may exempt the operator from penalty in certain circumstances.

Timetable compliance

The operator must to the extent possible seek to comply with the timetable. In connection with for instance delays in the timetable, the operator must act so as to ensure that services return to normal as quickly as possible and that passengers are inconvenienced as little as possible, see section 8 of the contract documents on operations and traffic management under different traffic conditions. If, in order to re-establish regular operation of the bus services as quickly as possible, it is necessary to charge the bus in urban space, Movia accepts that the bus will be delayed. When planning the charging of the bus, the operator must otherwise take into account the anticipated traffic conditions and resulting running times.

Layout of equipment
The layout of the bus equipment must provide for free passenger flow, see section 3.3.4. After the award of the bus services, Movia wishes to take part in discussions about the layout of the equipment.

Training of drivers before the start of operations
In connection with the training of drivers in operating electric buses, the new operator can buy out transferred drivers from the existing operator (Arriva Danmark A/S).

The new operator may buy out 5-10 driver per weekday if planned no later than 14 days before buy-out. Buy-out must be completed for an entire workday per driver. Buy-out costs DKK 2,220 exclusive of VAT for each day of buyout per driver. Training is to be conducted at the new operator's premises.

The detailed terms and conditions for the buy-out of drivers is subject to agreement between the new operator and Arriva Danmark A/S.

Land for garage
The City of Copenhagen is clarifying the conditions for the letting of a lot of up to 18,000 m^2 at Forlandet 29 or another lot close to the bus termini of route 2A which may, subject to certain conditions, be used for garage purposes. The lot will probably be undeveloped and the rent will probably be about DKK 45-50 per m^2 per year. The lot will not be let unless the operator is awarded the contract for unit 1. Movia will inform the operator of the possibilities and the conditions when the information is available.

Movia encourages the operators to look into the possibilities of finding an alternative location for a garage as it is not yet clear whether the City of Copenhagen will be able to place a lot at disposal for the establishment of a garage and the terms and conditions therefor.

For unit 1 in particular
Please note that the following sections of the contract documents may contain special requirements for unit 1.

2.7.2 Tender unit 2. Vehicle schedule 0018

The overall scope of services for a standard year for the use of the submission of tenders: **77,073 timetable hours**

Detailed information

Route 18

Emdrup Torv – Emdrupvej – Tuborgvej - Lersø Parkallé – Jagtvej - Falkoner Allé – Allegade - Pile Allé - Valby Langgade - Toftegårds Allé - Vigerslev Allé - Sjælør Boulevard - Bgm. Christiansens Gade – Sjællandsbroen - Vejlands Allé – Amagerbrogade – Kastrupvej - Østrigsgade - Lergravsparken Station, Sløjfen (Vejlands Allé - Center Østvej - Ørestad Station)

Scope of services per standard week (week 4)

A standard week is 1 Monday, 1 Tuesday, 1 Wednesday, 1 Thursday, 1 Friday, 1 Saturday and 1 Sunday.

Day of the week no.	**Time interval**	**Hours**	**Total hours**	**Bus**
Monday	6 am - 6 pm	187.70	237.69	23
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	49.99		
Tuesday	6 am - 6 pm	187.70	237.69	23
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	49.99		
Wednesday	6 am - 6 pm	187.70	237.69	23
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	49.99		
Thursday	6 am - 6 pm	187.70	237.69	23
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	49.99		
Friday	6 am - 6 pm	187.70	237.69	23
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	49.99		
Saturday	6.00 am - 2.00 pm	76.45	170.58	16
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	94.13		
Sunday	6 am - 6 pm	92.32	140.37	12
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	48.05		

Total timetable hours in week 4	1,499.40
Extra time in week 4	418.98

Weighted timetable hours in week 4	162,840.45

See calculation method of extra time and weighted timetable hours in section 2.4.

Comments:

According to plan, route 18 is to have a minimum stopover of five5 minutes at the bus terminal.

Mileage and other detailed information appear from Settlement Sheet (Appendix c).

Vehicle schedules, runs and journeys for this tender unit (HASTUS file and text file):

HASTUS files	*Text files*
HAS 0018 Hverdag 2018-01-02 2018-12-30 V01.HAS HAS 0018 Lørdag 2018-01-02 2018-12-30 V01.HAS HAS 0018 Søndag 2018-01-01 2018-12-31 V01.HAS	VP 0018 2018-01-01 2018-12-31 Søndag V01.txt VP 0018 2018-01-02 2018-12-30 Hverdag V01.txt VP 0018 2018-01-02 2018-12-30 Lørdag V01.txt

The files are available for download at the tender website under the *Contract Documents* menu item.

Breaks and/or toilet facilities

Lergravsparken (route 18)

Share of operating expenses	0%

Kay Fiskers Plads, Ørestad (routes 18, 500S)

Share of operating expenses	0%

Emdrup Torv (routes 4A, 6A, 18, 176)

Share of operating expenses	0%

Valby Station (routes 18, 23, 133)

Owned/leased by Movia:	Lessee
Floor area:	58 m^2
Estimated current operating expenses per year:	DKK 170,000 1)
Furniture and equipment (Purchase):	DKK 15,000
Share of operating expenses:	100%
Degree of use:	1
Ventilation system:	No

2.7.2.1 Special conditions

Equipment on route 18
According to the vehicle schedule for payment, 23 buses are required to operate bus services on route 18. Tenders are invited for the operation of bus services using 23 zero emission buses.

In the period (Period A) from 15 July to 8 December 2019, the operator may, however, put into service temporary buses on all 23 buses of the route. The temporary buses must comply with the requirements for temporary buses. The equipment and environmental requirements from which the temporary buses may deviate appear from section 3.2.1. It is a requirement that the fuel for the temporary buses is fossil-free.

If the charging stations for charging in urban space are not installed by 15 July 2019, Movia accepts that the operator cannot provide electric buses which are charged in urban space until the installation of the charging stations is completed. The operator is obliged to deliver temporary buses instead. The requirements from which the temporary buses may deviate appear from section 3.2.1. During the negotiations, Movia expects to know more about when the charging stations are expected to be completed.

From 8 December 2019 and until probably December 2022 (Period B), bus services may be operated using 16 zero-emission buses and 7 temporary buses (Period B). The temporary buses must comply with the requirements for temporary buses. The equipment and environmental requirements from which the temporary buses may deviate appear from section 3.2.1. It is a requirement that the fuel for the temporary buses is fossil-free.

The temporary buses must be used on the seven peak-hour runs, 3, 4, 8, 12, 15, 20, 23 on weekdays (equivalent to 9,967 timetable hours and seven buses).

The future scope of services on the new route 18 is uncertain. Therefore, Movia reserves the right to reduce the bus service extraordinarily, see section 12. This means that there is a risk that the operation of all seven fossil-free buses will be reduced before December 2022.

It is, however, also likely that there will be no such reduction, and therefore, Movia reserves the right to demand that the operator replaces the temporary buses with zero-emission buses if temporary buses is still being used in December 2021. The operator must put into service the zero-emission buses no later than twelve months after Movia has so requested. In that way, bus services on unit 2 will operated using only zero-emission buses from December 2022 at the latest. (Period C)

As set out in the Tender Form (Appendix 5), the price per standard year is based on the condition that bus services will be operated using 23 zero emission buses in all 10 contract years. The price per standard year will be included in the evaluation of all tenders in which unit 2 is included, see section 1.5.1.1.

If the operator chooses to offer temporary buses in Period A and/or B, an amount of DKK 25,000 will (for settlement purposes) be deducted from the bus-related costs per month for each temporary bus.

In the List of Bus Equipment (Appendix 6), the operator must state the equipment offered in the periods described.

From 8 December 2019, at least two replacement buses must be zero-emission buses.

Scope of service
There is uncertainty about the scope of service and the routing, and therefore, Movia reserves the right to determine, at the beginning of May 2018, the final scope of service (hours and buses) and routing (in any) to be put out to tender.

Option

On unit 2, tenders must include an option, see section 1.3.5.1.

Calculation of quotation

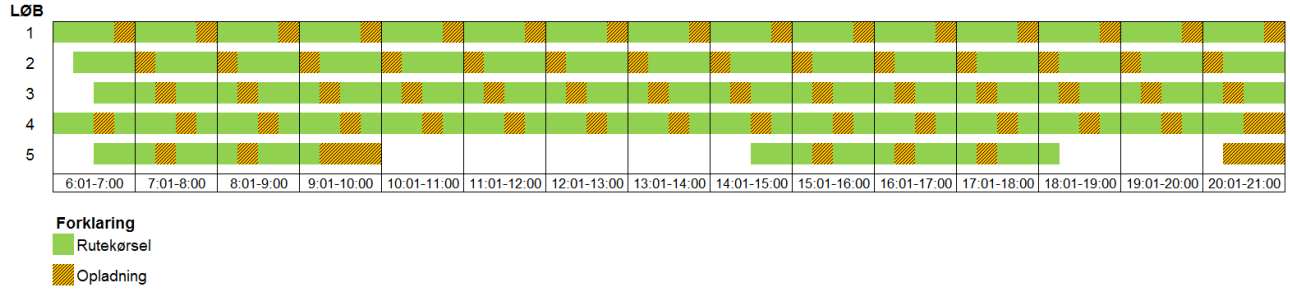
The tendered vehicle schedules are called "vehicle schedules for payment" and form the basis for calculating the timetable hours and the buses to be paid for. The operator must be aware that the vehicle schedules for payment in scale 1:1 will form the basis of the calculation of the number of in-service buses. If the operator needs more buses to deliver the bus services than the number of in-service buses specified in the vehicle schedules, the operator must use additional zero-emission in-service buses. The operator's total costs must be distributed over the vehicle schedules for payment regardless of the number of additional zero-emission in-service buses that the operator uses.

Dimensioning of the electric bus system

It is the operator's responsibility to size the electric bus system correctly in terms of the number of electric buses and charging stations. If the electric bus system chosen proves to be of inadequate size, it is for the operator to rectify the situation. All costs associated therewith are of no concern to Movia.

Planning of runs

Based on vehicle schedules for payment for unit 1, the operator is to prepare vehicle schedules for the performance of bus services, using electric buses. The operator must attach a diagram showing all bus runs for weekdays specifying charging/refuelling in the course of the day. An example of such a diagram is shown below.



Timetable compliance

The operator must to the extent possible seek to comply with the timetable. In connection with for instance delays in the timetable, the operator must act so as to ensure that services return to normal as quickly as possible and that passengers are inconvenienced as little as possible, see section 8 of the contract documents on operations and traffic management under different traffic conditions. If, in order to re-establish regular operation of the bus services as quickly as possible, it is necessary to charge the bus in urban space, Movia accepts that the bus will be delayed. When planning the charging of the bus, the operator must otherwise take into account the anticipated traffic conditions and resulting running times.

Start of operations

Operation of the bus services is expected to begin on 15 July 2019, but see clause 3 of the Contract.

Penalty for using the wrong bus type and cancelled service

Movia understands that in an implementation phase, the operation of electric buses may, compared to the operation of conventional buses, imply more challenges. Therefore, Movia has prepared an implementation phase (see clause 18.3 and 18.4 of the Contract) in which Movia may exempt the operator from penalty in certain circumstances.

Land for garage

The City of Copenhagen is clarifying the possibilities of being able of arrange the letting of land for a garage. A potential lot is situated at Kraftsværkshalvøen, but as there is not yet a local development plan for the area, it is uncertain whether the lot can be used for garage purposes. The lot will not be let unless the operator is awarded the contract for unit 2. Movia will inform the operator of the possibilities and the conditions when the information is available.

Movia encourages the operators to look into the possibilities of finding an alternative location for a garage as it is not yet clear whether the City of Copenhagen will be able to place a lot at disposal for the establishment of a garage and the terms and conditions therefor.

For unit 2 in particular

Please note that the following sections of the contract documents may contain special requirements for unit 2.

2.7.3 Tender unit 3. Vehicle schedule 350S

The overall scope of services for a standard year for the use of the submission of tenders: **43,305 / 48,200 timetable hours**

Detailed information

Route 350S

Ballerup Station - Ballerup Boulevard – Malmparken – Lautrupparken – Lautrupvang - Skovlunde Byvej - Herlev Hovedgade – Frederikssundsvej – Nørrebrogade – Frederiksborggade - Nørreport Station

Scope of services per standard week (week 4) tender 1

A standard week is 1 Monday, 1 Tuesday, 1 Wednesday, 1 Thursday, 1 Friday, 1 Saturday and 1 Sunday.

Day of the week	**Time interval**	**Hours**	**Total hours**	**Bus no.**
Monday	6 am - 6 pm	90.98	130.02	10
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.04		
Tuesday	6 am - 6 pm	90.98	130.02	10
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.04		
Wednesday	6 am - 6 pm	90.98	130.02	10
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.04		
Thursday	6 am - 6 pm	90.98	130.02	10
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.04		
Friday	6 am - 6 pm	90.98	130.02	10
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.04		
Saturday	6.00 am - 2.00 pm	40.78	103.13	7
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	62.35		
Sunday	6 am - 6 pm	52.02	86.82	5
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	34.80		

Total timetable hours in week 4	840.05
Extra time in week 4	204.47
Weighted timetable hours in week 4	92,731.25

Scope of services per standard week (week 4) tender 2

A standard week is 1 Monday, 1 Tuesday, 1 Wednesday, 1 Thursday, 1 Friday, 1 Saturday and 1 Sunday.

Day of the week	Time interval	Hours	Total hours	Bus no.
Monday	6 am - 6 pm	110.13	149.60	12
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.47		
Tuesday	6 am - 6 pm	110.13	149.60	12
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.47		
Wednesday	6 am - 6 pm	110.13	149.60	12
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.47		
Thursday	6 am - 6 pm	110.13	149.60	12
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.47		
Friday	6 am - 6 pm	110.13	149.60	12
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	39.47		
Saturday	6.00 am - 2.00 pm	40.78	103.13	7
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	62.35		
Sunday	6 am - 6 pm	52.02	86.82	5
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	34.80		

Total timetable hours in week 4	937.95
Extra time in week 4	215.12
Weighted timetable hours in week 4	102,553.50

See calculation method of extra time and weighted timetable hours in section 2.4.

Comments:

According to plan, route 350S is to have a minimum layover time of five minutes at the bus terminal.

Mileage and other detailed information appear from Settlement Sheet (Appendix c).

Vehicle schedules, runs and journeys for this tender unit (HASTUS file and text file):

HASTUS files tender 1	*Text files tender 1*

HAS 350s Hverdag 2018-01-02 2018-12-30 V01.HAS HAS 350s Lørdag 2018-01-02 2018-12-30 V01.HAS HAS 350s Søndag 2018-01-01 2018-12-31 V01.HAS	VP 350s 2018-01-01 2018-12-31 Søndag V01.txt VP 350s 2018-01-02 2018-12-30 Hverdag V01.txt VP 350s 2018-01-02 2018-12-30 Lørdag V01.txt

HASTUS files tender 2	*Text files tender 2*
HAS 350s Hverdag 2018-01-02 2018-12-30 V02.HAS HAS 350s Lørdag 2018-01-02 2018-12-30 V02.HAS HAS 350s Søndag 2018-01-01 2018-12-31 V02.HAS	VP 350s 2018-01-01 2018-12-31 Søndag V02.txt VP 350s 2018-01-02 2018-12-30 Hverdag V02.txt VP 350s 2018-01-02 2018-12-30 Lørdag V02.txt

The files are available for download at the tender website under the *Contract Documents* menu item.

Breaks and/or toilet facilities

Ballerup station (routes 143, 144, 147, 156, 157, 164, 216, 350S, 400, 400S, 834, 835)

Share of operating expenses	0%

Nørreport station (route 6A, 14, 15E, 150S, 184, 185, 350S)

Owned/leased by Movia:	Owner
Floor area:	39 m^2
Estimated current operating expenses per year:	DKK 150,000
Furniture and equipment (Purchase):	DKK 15,000
Share of operating expenses:	100%
Degree of use:	1
Ventilation system:	Yes

2.7.3.1 Special conditions

Parallel tenders

On unit 3, tenders are invited for two different solutions, and tenderers may submit tenders for both solutions. The tenders will be parallel. See the description in section 1.3.5.2.

Start of operations

Operation of the bus services is expected to begin on 15 July 2019, but see clause 3 of the Contract.

Scope of service

There is uncertainty about the scope of service and the routing, and therefore, Movia reserves the right to determine, at the beginning of May 2018, the final scope of service (hours and buses) and routing (in any) to be put out to tender.

For unit 3 in particular

Please note that the following sections of the contract documents may contain special requirements for unit 3.

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2.7.4 Tender unit 4. Vehicle schedules 0147 and 0156

The overall scope of services for a standard year for the use of the submission of tenders: **21,037 timetable hours**

Detailed information

Route 147

Ballerup Station – Præstevænget – Jonstrupvej – Måløvgårdsvej – Kratvej - Måløv Hovedgade - Måløv Byvej - Måløv Station - Måløv Byvej - Smørum Parkvej – Frugtvangen – Hindbærvangen – Erantishaven – Blomsterhaven - Smørum Parkvej – Skebjergvej – Baltorpvej - Ballerup Station

Route 156

Ballerup Station, Banegårdspladsen – Baltorpvej – Præstevænget – Vestbuen – Sydbuen – Magleparken - Hold-an Vej – Ballerup Station, Banegårdspladsen

Route 157

Ballerup Station – Baltorpvej – Skebjergvej - Smørum Parkvej – Blomsterhaven – Erantishaven – Hindbærvangen – Frugtvangen - Smørum Parkvej - Måløv Byvej - Måløv Station - Måløv Hovedgade – Kratvej – Måløvgårdsvej – Jonstrupvej – Præstevænget - Ballerup Station

Scope of services per standard week (week 4)

A standard week is 1 Monday, 1 Tuesday, 1 Wednesday, 1 Thursday, 1 Friday, 1 Saturday and 1 Sunday.

Day of the week	**Time interval**	**Hours**	**Total hours**	**Bus no.**
Monday	6 am - 6 pm	49.68	64.62	5
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	14.94		
Tuesday	6 am - 6 pm	49.68	64.62	5
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	14.94		
Wednesday	6 am - 6 pm	49.68	64.62	5
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	14.94		
Thursday	6 am - 6 pm	49.68	64.62	5
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	14.94		
Friday	6 am - 6 pm	49.68	64.62	5
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	14.94		
Saturday	6.00 am - 2.00 pm	19.39	43.76	4

	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	24.37		
Sunday	6 am - 6 pm	29.03	41.38	4
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	12.35		

Total timetable hours in week 4	408.24
Extra time in week 4	85.23
Weighted timetable hours in week 4	44,564.30

See calculation method of extra time and weighted timetable hours in section 2.4.

Comments:

According to plan, route 147 is to have a minimum layover time of two minutes at the bus terminal.

According to plan, route 156 is to have a minimum layover time of two minutes at the bus terminal.

According to plan, route 157 is to have a minimum stopping time of two minutes at the bus terminal.

Mileage and other detailed information appear from Settlement Sheet (Appendix c).

Vehicle schedules, runs and journeys for this tender unit (HASTUS file and text file):

HASTUS files	*Text files*
HAS 0147 Hverdag 2018-01-02 2018-12-30 V01.HAS	VP 0147 2018-01-01 2018-12-31 Søndag V01.txt
HAS 0147 Lørdag 2018-01-02 2018-12-30 V01.HAS	VP 0147 2018-01-02 2018-12-30 Hverdag V01.txt
HAS 0147 Søndag 2018-01-01 2018-12-31 V01.HAS	VP 0147 2018-01-02 2018-12-30 Lørdag V01.txt
HAS 0156 Hverdag 2018-01-02 2018-12-30 V01.HAS	VP 0156 2018-01-01 2018-12-31 Søndag V01.txt
HAS 0156 Lørdag 2018-01-02 2018-12-30 V01.HAS	VP 0156 2018-01-02 2018-12-30 Hverdag V01.txt
HAS 0156 Søndag 2018-01-01 2018-12-31 V01.HAS	VP 0156 2018-01-02 2018-12-30 Lørdag V01.txt

The files are available for download at the tender website under the *Contract Documents* menu item.

Breaks and/or toilet facilities

Ballerup station (routes 143, 144, 147, 156, 157, 164, 216, 350S, 400, 400S, 834, 835)

Owned/leased by Movia:	Lessee
Floor area:	112 m^2
Estimated current operating expenses per year:	DKK 375,000
Furniture and equipment (Purchase):	DKK 30,000
Share of operating expenses:	100%
Degree of use:	1

Ventilation system:	No

Måløv station (routes 147, 152, 157, 158, 163)

Share of operating expenses	0%

2.7.4.1 Special conditions

The below conditions apply to the basic package for unit 4.

Option

On unit 4, tenders must include an option, see section 1.3.5.1.

Calculation of hourly rate

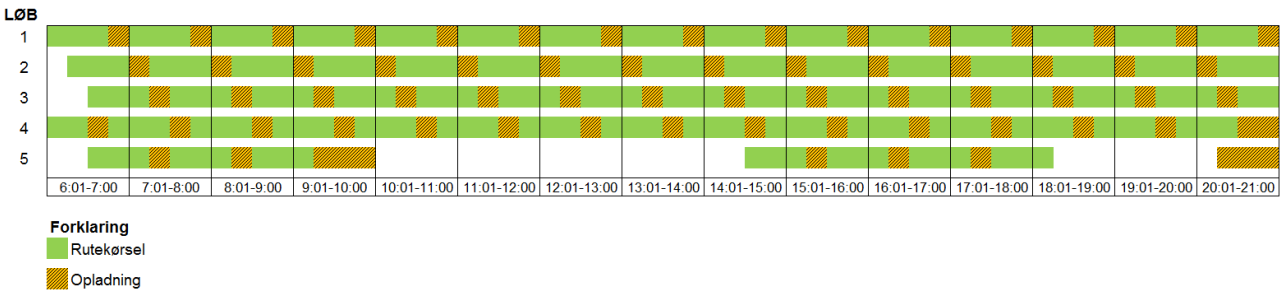
The tendered vehicle schedules are called "vehicle schedules for payment" and form the basis for calculating the timetable hours and the buses to be paid for. The operator must be aware that the vehicle schedules for payment in scale 1:1 will form the basis of the calculation of the number of in-service buses. If the operator needs more buses to deliver the bus services than the number of in-service buses specified in the vehicle schedules, the operator must use additional zero-emission in-service buses. The operator's total costs must be distributed over the vehicle schedules for payment regardless of the number of additional zero-emission in-service buses that the operator uses.

Dimensioning of the electric bus system

It is the operator's responsibility to size the electric bus system correctly in terms of the number of electric buses and charging stations. If the electric bus system chosen proves to be of inadequate size, it is for the operator to rectify the situation. All costs associated therewith are of no concern to Movia.

Planning of runs

Based on vehicle schedules for payment for unit 1, the operator is to prepare vehicle schedules for the performance of bus services, using electric buses. The operator must attach a diagram showing all bus runs for weekdays specifying charging/refuelling in the course of the day. An example of such a diagram is shown below.



Timetable compliance

The operator must to the extent possible seek to comply with the timetable. In connection with for instance delays in the timetable, the operator must act so as to ensure that services return to normal as quickly as possible and that passengers are inconvenienced as little as possible, see section 8 of the contract documents on operations and traffic management under different traffic conditions. If, in order to re-establish regular operation of the bus services as quickly as possible, it is necessary to charge the bus in urban space, Movia accepts that the bus will be delayed. When planning the charging of the bus, the operator must otherwise take into account the anticipated traffic conditions and resulting running times.

Penalty for using the wrong bus type and cancelled service

Movia understands that in an implementation phase, the operation of electric buses may, compared to the operation of conventional buses, imply more challenges. Therefore, Movia has incorporated an implementation phase in clause 18.3 and 18.4 of the Contract in which phase Movia may exempt the operator from penalty in certain circumstances.

Training of drivers before the start of operations

In connection with the training of drivers in operating electric buses, the new operator can buy out transferred drivers from the existing operator (Arriva Danmark A/S).

The new operator may buy out 5-10 driver per weekday if planned no later than 14 days before buy-out. Buy-out must be completed for an entire workday per driver. Buy-out costs DKK 2,220 exclusive of VAT for each day of buyout per driver. Training is to be conducted at the new operator's premises.

The detailed terms and conditions for the buy-out of drivers is subject to agreement between the new operator and Arriva Danmark A/S.

For unit 4 in particular

Please note that the following sections of the contract documents may contain special requirements for unit 4.

2.7.5 Tender unit 5. Vehicle schedules 0158 and 0217

The overall scope of services for a standard year for the use of the submission of tenders: **12,782 timetable hours**

Detailed information

Route 158

Måløv Station - Måløv Hovedgade - Måløv Byvej - Kildedal Station – Knardrupvej – Måløvvej – Bygaden – Hesselvej – Gulbjergvej – Slagslundevej - Slangerup Bus Terminal

Route 163

Veksø Station, Hovevej - Hove Bygade – Overdrevsvej – Nybøllevej - Ledøje Bygade – Ledøjetoften – Råbrovej – Flodvej - Smørum Parkvej - Måløv Byvej - Måløv Station

Route 217

Jyllinge Shopping Center, Jyllinge Parkvej – Frederiksborgvej – Sognevej – Gulddyssevej – Piledyssen – Holmevej – Veksø Station, Hovevej

Scope of services per standard week (week 4)

A standard week is 1 Monday, 1 Tuesday, 1 Wednesday, 1 Thursday, 1 Friday, 1 Saturday and 1 Sunday.

Day of the week	Time interval	Hours	Total hours	Bus no.
Monday	6 am - 6 pm	34.70	41.56	4
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	6.86		
Tuesday	6 am - 6 pm	34.70	41.56	4
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	6.86		
Wednesday	6 am - 6 pm	34.70	41.56	4
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	6.86		
Thursday	6 am - 6 pm	34.70	41.56	4
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	6.86		
Friday	6 am - 6 pm	34.70	41.56	4
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	6.86		
Saturday	6.00 am - 2.00 pm	9.78	20.80	2
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	11.02		
Sunday	6 am - 6 pm	15.49	20.80	2

	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	5.31		

Total timetable hours in week 4	249.40
Extra time in week 4	80.00
Weighted timetable hours in week 4	26,739.45

See calculation method of extra time and weighted timetable hours in section 2.4.

Comments:

According to plan, route 158 is to have a minimum stopping time of two minutes at the bus terminal.

According to plan, route 163 is to have a minimum stopping time of two minutes at the bus terminal.

According to plan, route 217 is to have a minimum stopping time of two minutes at the bus terminal.

Mileage and other detailed information appear from Settlement Sheet (Appendix c).

Vehicle schedules, runs and journeys for this tender unit (HASTUS file and text file):

HASTUS files	*Text files*
HAS 0158 Hverdag 2018-01-02 2018-12-30 V01.HAS	VP 0158 2018-01-01 2018-12-31 Søndag V01.txt
HAS 0158 Lørdag 2018-01-02 2018-12-30 V01.HAS	VP 0158 2018-01-02 2018-12-30 Hverdag V01.txt
HAS 0158 Søndag 2018-01-01 2018-12-31 V01.HAS	VP 0158 2018-01-02 2018-12-30 Lørdag V01.txt
HAS 0217 Hverdag 2018-01-02 2018-12-30 V01.HAS	VP 0217 2018-01-01 2018-12-31 Søndag V01.txt
HAS 0217 Lørdag 2018-01-02 2018-12-30 V01.HAS	VP 0217 2018-01-02 2018-12-30 Hverdag V01.txt
HAS 0217 Søndag 2018-01-01 2018-12-31 V01.HAS	VP 0217 2018-01-02 2018-12-30 Lørdag V01.txt

The files are available for download at the tender website under the *Contract Documents* menu item.

Breaks and/or toilet facilities

Måløv station (routes 147, 152, 157, 158, 163)

Share of operating expenses 0%

Slangerup Bus Terminal (routes 158, 337, 393, 600S)

Share of operating expenses 0%

Jyllinge Shopping Centre (route 217)

Owned/leased by Movia: Lessee

Floor area: 30 m^2

Estimated current operating expenses per year:	DKK 42,000
Furniture and equipment (Purchase):	DKK 10,000
Share of operating expenses:	100%
Degree of use:	2
Ventilation system:	No

2.7.5.1 Special conditions

For unit 5 in particular
Please note that the following sections of the contract documents may contain special requirements for unit 5.

.2.7.6 Tender unit 6. Vehicle schedules 0165 and 0167

The overall scope of services for a standard year to be used for the submission of tenders: **43,314 timetable hours**

Detailed information

Route 155

Herlev Station - Herlev Hovedgade - Herlev Ringvej – Lyskær – Mileparken – Meterbuen – Ellekær – Marielundvej - Herlev Hovedgade – Stationsalleen - Herlev Station

Route 165

Herlev Station - Herlev Hovedgade - Herlev Bygade – Herlevgårdsvej – Hjortespringvej - Gammel Klausdalsbrovej – Klausdalsbrovej - Ring 4 – Hækmosen – Syvendehusvej – Skovbovænget – Stationsvej - Skovmose Allé - Tibberup Allé - Ny Hjortespringvej – Værebrovej – Værebroparken – Vadstrupvej - Bagsværd St. – Vadstrupvej – Krogshøjvej – Aslaksvej – Laurentsvej – Smørmosevej – Krogshøjvej – Klausdalsbrovej - Gladsaxe Møllevej - Gladsaxe Trafikplads

Route 167

Herlev Station - Herlev Hovedgade – Vindebyvej – Tvedvangen - Gammel Klausdalsbrovej – Sennepshaven – Peberhaven – Persillehaven – Hjortespringvej – Herlevgårdsvej - Herlev Bygade - Herlev Hovedgade – Stationsalleen - Herlev Station

Route 168

Herlev Station - Herlev Hovedgade - Herlev Bygade – Herlevgårdsvej – Hjortespringvej – Persillehaven – Peberhaven – Sennepshaven – Klausdalsbrovej – Tvedvangen – Vindebyvej - Herlev Hovedgade – Stationsalleen – Herlev Station

Scope of services per standard week (week 4)

A standard week is 1 Monday, 1 Tuesday, 1 Wednesday, 1 Thursday, 1 Friday, 1 Saturday and 1 Sunday.

Day of the week	Time interval	Hours	Total hours	Bus no.
Monday	6 am - 6 pm	102.70	136.35	11
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	33.65		
Tuesday	6 am - 6 pm	102.70	136.35	11
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	33.65		
Wednesday	6 am - 6 pm	102.70	136.35	11
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	33.65		
Thursday	6 am - 6 pm	102.70	136.35	11
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	33.65		
Friday	6 am - 6 pm	102.70	136.35	11
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	33.65		
Saturday	6.00 am - 2.00 pm	38.00	86.60	6
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	48.60		
Sunday	6 am - 6 pm	56.54	83.19	6
	0.00 (midnight) - 6.00 am and 6.00 pm - 12 pm (midnight)	26.65		

Total timetable hours in week 4	851.54
Extra time in week 4	171.80
Weighted timetable hours in week 4	92,966.00

See calculation method of extra time and weighted timetable hours in section 2.4.

Comments:

According to plan, route 155 is to have a minimum stopping time of two minutes at the bus terminal.

According to plan, route 165 is to have a minimum stopping time of two minutes at the bus terminal.

According to plan, route 167 is to have a minimum stopping time of two minutes at the bus terminal.

According to plan, route 168 is to have a minimum stopping time of two minutes at the bus terminal.

Mileage and other detailed information appear from Settlement Sheet (Appendix c).

Vehicle schedules, runs and journeys for this tender unit (HASTUS file and text file):

HASTUS files	*Text files*
HAS 0165 Hverdag 2018-01-02 2018-12-30 V01.HAS	VP 0165 2018-01-01 2018-12-31 Søndag V01.txt
HAS 0165 Lørdag 2018-01-02 2018-12-30 V01.HAS	VP 0165 2018-01-02 2018-12-30 Hverdag V01.txt
HAS 0165 Søndag 2018-01-01 2018-12-31 V01.HAS	VP 0165 2018-01-02 2018-12-30 Lørdag V01.txt
HAS 0167 Hverdag 2018-01-02 2018-12-30 V01.HAS	VP 0167 2018-01-01 2018-12-31 Søndag V01.txt
HAS 0167 Lørdag 2018-01-02 2018-12-30 V01.HAS	VP 0167 2018-01-02 2018-12-30 Hverdag V01.txt
HAS 0167 Søndag 2018-01-01 2018-12-31 V01.HAS	VP 0167 2018-01-02 2018-12-30 Lørdag V01.txt
HAS 0167f Hverdag 2018-07-01 2018-08-25 V01.HAS	VP 0167f 2018-07-01 2018-08-25 Hverdag V01.txt

The files are available for download at the tender website under the *Contract Documents* menu item.

Breaks and/or toilet facilities

Gladsaxe Trafikplads (routes 160, 165, 250S)

Owned/leased by Movia:	Lessee
Floor area:	62 m^2
Estimated current operating expenses per year:	DKK 175,000 2)
Furniture and equipment (Purchase):	DKK 10,000
Share of operating expenses:	100%
Degree of use:	2
Ventilation system:	No

Herlev station (routes 155, 161, 165, 167, 168)

Owned/leased by Movia:	Lessee
Floor area:	65 m^2
Estimated current operating expenses per year:	DKK 170,000
Furniture and equipment (Purchase):	DKK 10,000
Share of operating expenses:	100%
Degree of use:	2
Ventilation system:	No

2.7.6.1 Special conditions

For unit 6 in particular

Please note that the following sections of the contract documents may contain special requirements for unit 6.

3. Bus equipment

3.1 In general

The operator must buy the necessary number of in-service and replacement buses. The buses used for the bus services must be suitable for performance of the bus service contract and be able to meet the timetable.

Movia requests that the interior of the buses should be designed so as to give passengers a perception of high quality. In the award of the contract, Movia attaches weight to the interior of the buses being of high quality, see section 1.5.1.4.

In the Statement of Operations (Appendix 8), the operator must specify where in-service and replacement buses are garaged. If the in-service and replacement buses are relocated in the contract term, notice must be given to Movia Contracts.

Movia encourages the operator to check the tendered routes for bumps, bridges and other road conditions which may affect the choice of bus type suitable for the individual routes. The operator will be responsible for adapting the equipment covered by the tender to the bus services required on the tendered routes.

The zero-emission buses must have sufficient range to cover the distance of a return trip on the longest route variant from bus terminal to bus terminal, plus 5 km, during regular traffic and under all climate conditions, during maximum passenger load and independently of driver behaviour.

All buses must be in a good state of repair and maintenance, clean and presentable. Any failure to meet the requirements to the buses will evaluated in accordance with Movia's penalty system, see clauses 17-18 of the Contract.

In case buses are replaced during the term of contract, any new in-service and replacement buses must as a minimum meet the same requirements as the buses previously used. However, the replacement of buses in the contract term is at all times subject to agreement with Movia Contracts, and it is further necessary to submit a completed form for each bus providing information for Movia's bus database.

All buses must meet the requirements set out in these contract documents at all times. The operator may, however, put into service equipment which do not meet the contract requirements for a period of up to about twelve months if approved in writing by Movia Contracts.

3.2 Buses brought into service

The delivery of the buses covered by the tender must observe the deadlines set out in the contract documents, and the buses must be brought into service from the start of operations. In the List of Bus Equipment (Appendix 6), a binding date of delivery must be specified for the buses covered by the tender. The buses must be delivered no later than 30 days prior to the start of operations unless otherwise agreed in writing with Movia Contracts. In the period up to the start of operations, the buses must be available for installation of IT equipment, see section 6.

As the start of operations for units 2 and 3 (see section 3 of the Contract) may not be finally determined at the time when final tenders are submitted, Movia requests that the deliver of bus equipment for these two units be discussed during the negotiations.

For the purpose of ordering travel card equipment, etc. and planning installations, the number and type of busses must be clarified at least six months before the start of operations. See section 6.2.2 for the number of replacement buses.

Equipment may be replaced in the contract term if this is specified by the operator in the tender in the List of Bus Equipment (Appendix 6). If the tender does not provide for the replacement of bus equipment, bus equipment may be replaced if the equipment is, in overall terms, deemed by Movia to be better or equally as good as the bus equipment included in the tender. Unless otherwise agreed with Movia in writing, bus equipment agreed to be brought into service in the contract term must be delivered 30 days before the buses are to be brought into service.

If buses are delivered or brought into service later than agreed, the monthly contract price of DKK 2,000 per bus per 24 hours will be reduced until the buses are delivered and/or brought into service. This term also applies to in-service and replacement buses in connection with the start of operations under the Contract if bus equipment is brought into service during the contract term. Movia considers a bus delivered when it is available for installation of Movia equipment (fare taking equipment etc.), and the bus is not deemed to have been put into service until it is in fully functional condition and is fully available for normal service, and when Movia has received written notice of the date when the bus is brought into service.

Before the bus is deemed to be in operation, the operator must further have submitted a completed form providing information for Movia's bus database. This form is available from Movia Contracts.

Units 1, 2 and 4 (basic) in particular

If the operator wishes to make use of Movia’s offer to install charging stations in urban space, at least one electric bus of each bus type must be delivered for each unit no later than 60 days before electric buses are brought into service. On delivery, this bus must be ready for charging testing using charging stations in urban space. All other buses for the tender unit must be delivered no later than 30 days before the start of operations.

3.2.1 Temporary bus equipment

For temporary bus equipment, see sections (2.7.1, 2.7.2 og 2.7.4), the requirements in the following sub-sections do not apply (in whole or in part):

3.3.4 Doors - Combination of doors 2-2/2-0 or 2-2/0-2 are accepted on TB5.

3.3.4 Doors – Door type: In-swing and out-swing doors are accepted for all doors on TB5.

3.3.7 Seats: The requirements in this section are not applicable.

3.3.8 Flexi area – Tip-up seats The requirements in this sub-section are not applicable.

3.3.10 Hand rails and bus stop buttons - Hand rails at seats: The requirements in this sub-section are not applicable.

3.3.11 Indoor climate og window panes – Air-conditioning system is not required on temporary equipment

5.3.2 - Emissions - Particles and NOx’s: It is accepted that the equipment is Euro ½6.

5.3.3 – Exterior noise: Exterior noise of 76/77 (new/used) is accepted

5.3.3 – Interior noise: Interior noise of 71/72 (new/used) is accepted

7.3 – Infotainment and digital route display panel – It is accepted that no infotainment and digital route display panel are installed.

3.3 Fitting out, safety, etc.

Below are requirements and requests for the bus equipment to be used for the bus services in this tender. The requirements apply to all in-service and replacement buses. The requirements are based on ”Fælles busforskrifter” (”Common Bus Regulations”) published by the Transport Authorities in Denmark. Movia has, however, made adjustments to these requirements.

3.3.1 Regulatory requirements

All buses must meet all requirements to fitting-out, road safety, etc. imposed by the government such as: The Danish Detailed Vehicle Standards, the Danish Executive Order making special requirements to buses and the Danish Executive Order on the maximum width, length, height and axle load of vehicles (the Danish Dimension Order).

3.3.2 Length

Reference is made to the table in section 2.

3.3.3 Bus type

Reference is made to the table in section 2 for requirements for bus types in this ITT. Translation of type codes:

- LB: Light urban bus transport
- TB Heavy urban bus transport

Availability of the individual bus types:

Type	Availability
TB5	Low floor
TB1-TB3	Low entrance or low floor
LB	Low entrance or low floor

Low entrance buses have low floor (no steps) at front and middle doors and in the gangway between these doors. Low floor buses have low floors (no steps) at all doors and in the entire bus gangway.

3.3.4 Doors

Except for buses for unit 1, all buses must be fitted to allow boarding at the front end and exit through the other doors. Passengers with prams, bicycles or wheelchairs exempt. They use the door closest to the platform for both entry and exit.

All buses for unit 1 must be fitted to maintain a free flow of passengers. A free flow of passengers means that the passengers can use all door for entry and exit. The fitting-out of the bus must enable passengers to easily enter and exit the bus.

Combination of doors

The combination of doors are specified as the number of front, middle and rear doors.

Type	Requirement
TB5	2-2/2-2
TB1-TB3	2-2-1 or 2-2-2
LB	1-2-0 or 2-2-0

In all cases, several doors are permitted if other requirements are met.

Free door width

The free door width on the opening of double doors must be approx. 110 cm or more and on the opening of single doors approx. 70 cm or more - but at least 90 cm at single doors with wheelchair ramps. If the free door width requirement is met, a double door may be replaced by a single door.

Door type

Outward-swinging front doors are accepted on units 4, 5 and 6 only. However, sliding doors moving 12 cm from the side of the bus (measured at right angles to the side of the bus) are accepted.

For unit 1, sliding doors are a requirement for all of the bus doors. However, in-swing front doors are accepted if located to the right of the driver where standing passengers must not stay while the bus is in motion, in the movement area of the door. The swing on the opening and closing of outward-swinging doors must be as little as possible and no more than 40 cm measured at right angles from the side of the bus.

For unit 1, individually passenger-operated doors are accepted on the condition that the following requirements are met:

- The doors must be equipped with a door safety system, see the section on the Safety of Doors below.
- It must be possible for passengers to operate the door after they have been released by the driver. This means that passengers may only operate the doors when the bus comes to a standstill at a bus stop.
- When the doors are released, an alert sound must be emitted at the door. The sound is subject to the approval of Movia.
- Each door may close automatically after an appropriate time intervals without the involvement of the driver. Automatic, individual closing of the doors should be at a lower speed than during driver-activated closing of the doors on departure.
- When the driver activates the doors on departure to close them, a sound must be emitted at doors that have not yet closed. The sound is subject to the approval of Movia.
- When departing from a bus stop, the driver must close all doors and secure the doors in the conventional manner, using the on-board cameras monitoring the doors.
- A button for passengers to operate the doors must be placed on the inside and outside of the door itself.
- The button for passengers to operate the door must emit a green light when the door is released for passengers to operate and red when the doors close.

- It must at any time be possible to switch the door system to conventional operation, meaning that only the driver can operate the doors. The driver must be able to switch to conventional operation from the driver's seat while the bus is driving on any journey. The driver must at any time be able to overrule the operation by passengers to the effect that operational management is not prevented, while at the same time passengers may in no way be endangered. For units other than unit 1, passengers may not be able to operate the doors to close and open them.

Safety of doors

All buses must be equipped with holding brakes to prevent the buses from driving with open central and rear doors.

All doors are equipped with one or more types of safety devices to protect passengers from being trapped in the door arrangements during the opening and closing of doors. It should also be impossible for passengers' coats, etc. to get caught in the door when they pass by an open bus door.

In all buses, warning sound signal device must be placed at every exit which is automatically activated when central and rear doors open and close. It must be a single sound which is not repeated. The sound level must ensure that the sound signal is clear without causing inconvenience. Front doors may not be equipped with warning sound signal devices.

Sources of light which light up exit areas i.e. the pavement (roadside etc.) must be placed at central and rear doors. The exit lights may be activated only when the exit doors open. On new buses, the source of light must be integrated in the bus door frame.

The driver must be able to monitor all doors not located directly to the right of the driver, using CCTV cameras.

Autoradio

In all buses, the autoradio must automatically deactivate (mute function) when the front doors open.

3.3.5 Entry and exit

Entrance and exit heights must comply with the following requirements:

Type	Requirement
Entrance height at front doors	0 - 32.0 cm
Exit height at central and rear doors	0 - 34.0 cm
Step heights at doors where steps are permitted	0 - 27.0 cm

Entrance and exit heights in the table apply to buses in non-kneeling position. All measurements refer to unloaded buses.

Step heights must be as low as possible.

The treads must have non-slip, non-removable surfaces.

Kneeling

All busses must be able to "kneel" to reduce entrance and exit heights by at least 7 cm.

Wheelchair ramps

All buses must be equipped with either electrically powered telescopic ramps or manual swing ramps at the door used by wheelchair users. The ramp must be designed to facilitate clean and easy operation.

The size of the ramp must be at least 87 x 87 cm (length x width). The ramp must have a load capacity of 300 kg. The ramp must have non-slip surfaces.

It shall not be possible to set the bus in motion while the ramp is being used.

On the exterior bus side in front of the relevant door, a push button must be affixed to allow passengers to request door opening. The push button must be placed to prevent wheelchair users from colliding with the ramp or door during activation.

3.3.6 Seating and standing capacity

Capacity

Movia requests buses with optimal design to accommodate the need. Consequently, the correlation between seats, front-facing seats and flexi area is weighted differently for each type of bus included in this invitation to tender.

The following requirements and requests apply to seats and front-facing seats. In the evaluation, importance is attached to the satisfaction of Movia's request - and additional scores are given if a better solution is offered.

Type	Seats		Front-facing seats	
	Minimum	Request	Minimum	Request
LB2	25	28+	18	21+
TB1	25	28+	18	21+
TB3	39	42+	27	30+
TB5	33	36+	22	25+

Movia has no requirements for total capacity, but attention is drawn to the requirement for the length of the bus, see the chart in section 2 and section 3.3.8 on flexi area.

Tip-up seats count as seats, but never as front-facing seats regardless of their direction.

3.3.7 Seats

The seats must be fabric upholstered, and the padding on the seat and the backs of the seats must be provide high comfort.

This requirement is considered satisfied if the seats have the following characteristics:

Bus type TB for A and C bus routes

The padding on the front edge of the seat must be at least 2 cm, whereas the padding shall in no place be less than 1.5 cm on the seat and 1 cm on the back of the seat. The seat-back height must be approx. 50 cm measured from the top point of the seat to the top edge of the seat-back padding.

Bus type LB and other TB

The padding on the front edge of the seat must be at least 5 cm, whereas the padding shall in no place be less than 4 cm on the seat and 2 cm on the back of the seat. The seat-back height must be approx. 70 cm measured from the top point of the seat to the top edge of the seat-back padding.

If provided, arm rests must be flip-up.

Distance between seats

The distance between seats must be 70 cm or more, and 72 cm or more in new buses.

The distance is measured in a height of 62 cm above the floor from the front of the seat back (in the middle of the seat) and to the back of the preceding seat. Movia may accept a shorter distance between seats in certain rows of seats, e.g. at wheel casings and behind driver's wall and partition. In all cases, it is subject to the approval of Movia.

3.3.8 Flexi area: Pram and wheelchair area

The following requirements apply to wheelchair and pram spaces:

Type	Number of units	
	Minimum	Request
LB2	2	2
TB1	2	2
TB3	2	2
TB5	4	5

In all cases, the tender is required to accommodate for one wheelchair only. Units also cover the number of prams.

When a wheelchair space is not being used by a wheelchair user, the space should be suitable for a pram.

Space for the above-mentioned number of units is delivered by way of the insertion of a horizontal platform with a width of at least 90 cm and the number and length of the buses as follows:

Number of units	Will be available to meet a number and length of at least:	
2 units	1 x 200 cm	
4 units	2 x 200 cm	
5 units	2 x 200 cm + 1 x 130 cm	

At least one flexi area must be placed close to the door with ramp. The flexi area may be placed in the right or left side of the bus. Movia requests that the area is placed in the right side. However, in TB5, at

least one flexi area must be placed at the front and back of the bus. Such flexi areas must be located in the left side of the bus opposite a door.

Buses must be fitted with a Velcro fastener or similar an anchoring device to secure prams.

The platform must allow wheelchairs to be placed with their backs against the direction of travel and with side supports to the gangway. 60–80 cm above the floor, a single-string belt must be installed to secure the wheelchair.

Tip-up seats

At the flexi area, tip-up seats will be installed, corresponding to at least:

Type	No. of tip-up seats
LB	3
TB1 – TB3	3
TB5	6

Movia requests optimal use of the flexi area by e.g. installing additional tip-up seats or upholstered seat backs and seats.

The tip-up seats must be as comfortable as the other seats.

Tip-up seats not being used must be fitted so that they tip up automatically.

Allowing bicycles on the bus

The buses for units 3-6 must be able to carry bicycles. The bus must be able to carry a total of two units where one unit is a wheelchair, a pram or a bicycle. Buses must be fitted with an anchoring device to secure bicycles.

3.3.9 Gangway and floor areas

Gangway areas and floors must be established in two horizontal levels.

The floor gradient must be 0-8% in the longitudinal direction of the bus.

Steps in the gangway between the front door and the middle door are not accepted. In buses with steps between the middle door and the rear door / end, Movia requests that the steps are as few and as low as possible - the steps may be 0-25 cm high.

New buses must have a free gangway width between landings of at least 50 cm. Above landings, new buses must have a free gangway width of at least 55 cm. If any arm rests reduce the free gangway width, such arm rests may be disregarded.

Floor areas intended for standing passengers must provide for a secure foothold in all circumstances.

The differences in levels and front edges of steps must be clearly marked. The colour RAL1028 is requested.

Movia requests as low landing heights as possible. In low entrance and low floor buses, the landing height shall be 0-20 cm in the front half of the bus (between the front door and the middle door) and 0-25 cm in the rear half of the bus (from the middle door to the rear end of the bus). In other buses, the landing

height may be 0-25 cm for the entire length of the bus. Movia accepts deviations in certain rows of seats, e.g. at wheel casings and behind driver's wall and partition. In all cases, it is subject to the approval of Movia.

3.3.10 Hand rails and bus stop buttons

Hand rails next to seats

The following guidelines apply to the location of vertical seat-back to ceiling stanchions:

Type	Requirements for location of hand rails next to seats
Heavy urban bus transport	Next to every transverse seat adjacent to the gangway
Light urban bus transport	Next to every other transverse seat adjacent to the gangway

Buses must be fitted with hand straps next to rows of seats where there are no hand rails. Hand strap must be clearly in yellow. Movia requests the colour RAL1028.

Other hand rails and stanchions

At all doors, buses must be equipped with hand rails giving passengers something to grab onto when boarding and exiting the bus.

Hand rails and stanchions are not allowed in the middle of the bus entrance.

At longitudinal seats and platform, ceiling rails running horizontally along the bus must be fitted 190 - 200 cm above the floor/landing edge (if any). Hand grabs at seat facing each other must be agreed with Movia.

An appropriate number of straps must mounted on the above-mentioned horizontal ceiling rails (at platform at least six straps) for easy grip.

At the flexi area, a rail running horizontally along the window side of the bus must be fitted just beneath the edge of the windows. This rail may be replaced by hand grabs at the top of the tip-up seats.

In all new buses, the diameter of hand rails and hand grabs must range between 3 and 4 cm.

In all new buses, hand rails must be coloured RAL 1028 (Melon Yellow).

As many customers as possible should be able to see combination signs, customer information displays and similar signs without hand rails and straps blocking the view.

Bus stop buttons

Bus stop buttons must be fitted at all rows of seats on both sides of the gangway with easy reach of the passengers. At rows of seats with stanchions, the bus stop buttons must be fitted on the stanchion in a height of 100 - 150 cm above the floor.

In new buses, such bus stop buttons must have a grey cabinet with a red push button. Movia requests that the bus stop button is designed as shown on the picture.

A bell (ding) is to sound when the passengers push the stop button.

3.3.11 Indoor climate and window panes

In general

The temperature of the bus must range between 18 °C and 22 °C. Movia accepts deviations from the temperature requirement for the first 20 minutes the bus drives. In case of an outdoor temperature above 22°C, Movia accepts deviations from the temperature requirement. Special requirements apply to buses with air-conditioning systems, see below.

The temperature in the bus is to be measured in a so-called stationary test where the engine is running and the doors are closed. The temperature measurement must be made 1.2 m above the floor in the gangway at the front and rear axles. The average of the temperatures measured is deemed to be an indication of the indoor temperature of the bus. To secure the reliability of the measurement, the measurement must be made three times at intervals of one minute.

The measurement method can subsequently be adjusted if it proves inappropriate to work with the assumptions stated.

Units 1, 2 and 4 (basic) in particular

The temperature of the bus must be at least 16 °C in the winter months (December, January and February). For other times of the year, the above temperature requirements apply. It is for the operator to ensure that the temperatures in the driver's area meet the working environment requirements.

Air-conditioning system

An air-conditioning system for the passenger area of the bus is a requirement in A, C, E, R and S buses. In other buses, an air-conditioning system is a request.

When the closest outdoor temperature in the shade exceeds 22°C, the air-conditioning system is required merely to emit cooled air.

In buses with air-conditioning systems, the following functionality requirements apply: When the air-conditioning system is switched on, it must be possible to reduce the temperature measured in the bus by 3-6 degrees compared to the nearest outdoor temperature in the shade. The temperature reduction must be achievable within ten minutes when the bus doors are closed. Moreover, it must be possible to dehumidify the inlet air to prevent windows from misting up.

The air-conditioning system is expected to be automatically controlled, but the driver must be able to switch it on and off while the bus is driving.

For units 1 and 2 in particular

It is not a requirement that the buses in this unit are equipped with an air-conditioning system, but see section 1.3.5.1.

Window panes

All window panes must be kept mist-free at all times – regardless of weather and temperature. There is no requirement for double-glazed windows if the window panes can be kept mist-free in an different manner, e.g. by using a ventilation or air-conditioning system.

Buses without an air-conditioning system must be equipped with flip-up or sliding windows:

- Buses with a length of 12 metres or more must have 2-4 flip-up or sliding windows on each side of the bus distributed at the front and rear of the bus.
- Buses with a length below 12 metres must have 1-2 flip-up or sliding windows on each side of the

bus distributed at the front and rear of the bus.

The customers must be able to operate the flip-up / sliding windows.

Roof hatches

All new buses without air-conditioning systems must be fitted with at least two roof hatches operable independently of each other from the driver's seat.

For unit 4 basic in particular

Automatic control of all roof hatches is required to create the best possible indoor climate. For automatically controlled roof hatches, Movia may grant exemptions from the requirement that the roof hatches may be operated independently of each other from the driver's seat.

3.3.12 Interior lighting

Lights must be evenly distributed throughout the bus. Lights must be switched on if and when needed.

In special circumstances (no road lighting, rain, snow, sleet, etc.), the lighting system may provide the option of dimming the lights in the bus to prevent reflections in the front window.

Above entrance and exit doors and ticket collection equipment, strong, anti-dazzle spotlights (50 Lux) must be fitted. The amount of light must be determined on the basis of the other lights, and the spotlights must be switched on when the doors open and switched off when the doors close.

3.3.13 Video surveillance system

Video surveillance cameras must be present in all Movia buses.

In buses with a rear door there must be at least four cameras, whereas there must be at least three cameras in buses with no rear door. The cameras must cover the areas at the entrance and exit doors and as much of the bus passenger cabin as possible.

The cameras must as a minimum store recorded material digitally for 120 hours. The cameras must produce data quality at a resolution to permit clear visual recognition of persons or incidents.

The operator is deemed to be data controller in respect of the recordings under the provisions of the Danish Data Protection Act. The operator is consequently responsible for ensuring that the video surveillance complies with Danish legislation and that the recordings are only used in conformity with such legislation.

The recordings must on request be placed at the disposal of the police in accordance with current legislation.

Signs

In Movia buses there must be pictograms indicating the presence of video surveillance cameras as prescribed by the Danish Video Surveillance Act, and in all other respects, the video surveillance must comply with Movia's design rules as set out in the section on pictograms, logos, etc.

3.3.14 Fitting out the driver's seating area

The driver's seating area must be fitted out in co-operation with representatives of the drivers.

The fitting-out must comply with current rules, "Branchevejledning om busser i rutekørsel" (or any update thereof).

Next to the driver's seating area, it must be possible to install ticketing and fare collection equipment – see section 15.5.

3.3.15 Safety

Blind spot and side-view mirrors

All buses must be equipped with blind spot mirrors providing drivers with a wider angle of view when turning right to improve the safety of cyclists etc.

Side-view mirrors must further be fitted in a height and with an angle from the bus side that prevents the mirror arms from endangering waiting passengers when the bus arrives at the bus stop. A height of 180 cm above the kerb is likely to secure this. To the extent possible, this height requirement must be observed.

Reversing alarm and camera

All buses must be equipped with a reversing alarm in the form of a sound signal.

When the bus is in reverse gear, the bus driver must have a clear view of the rear of the bus on a television screen.

The television screens at the driver's seat

The pictures displayed on the television screen must be given priority as follows:

1) Surveillance of exit doors when the exit doors are not closed.
2) The rear of the bus (rear camera coverage) when the bus is in reverse gear.

Fire extinguishers

All buses (except for electric and hydrogen-powered buses) must be fitted with automatic fire extinguishers located relevant places, e.g. in the engine compartment.

All buses must meet DFK. 10.06.022 (buses of the M2 type) or 10.06.023 (buses of the M3 type) with respect to fire extinguishers.

Movia may at any time demand an independent and impartial inspection of the fire extinguishers.

3.3.16 Other requirements

Coin changer and counter

The drivers must use a coin changing apparatus.

The driver's compartment must be equipped with a coin counter to facilitate speedy payment and collection of fares.

The coin changers and coin counters and any driver's bags must be purchased and maintained by the operator.

Flags

Flag holders are to be fitted to each side of the front of the roof of all buses for vertical insertion of two flags with the following measurements: H 35 cm x W: 46 cm

The operator is to buy flags for all buses and ensure that they are kept in intact and good condition. Moreover, the flags must be Dannebrog (square flag) made from cloth of flags and must in all other respects comply with the rules applicable to Dannebrog as to colours and proportions. On request, the operator must be able to provide black mourning flags.

The flying of flags is subject to Movia's instructions.

The operator is also obliged to fly other flags as directed by Movia, for instance the Rainbow Flag and the Swan Flag from the Nordic Council of Ministers. In such cases, the flags will be delivered to the operator. The operator is to store the flags for later use.

Litter bins

A litter bin must be fitted in all doorways.

Newspaper holders

If the operator wishes to have newspaper holders in the buses, they and their location is subject to the approval of Movia.

3.3.17 Destination and bus route signs

All buses must be equipped with destination and bus route signs. Movia requests the best possible readability of destination and bus route signs. The signs must be legible under all light conditions and at any time – also during stops at the bus terminal. The text must be light-fast.

All new buses must be equipped with LED signs. Figures and texts on LED signs must be amber on a black background. Figures and texts on LED signs must appear with consistent luminosity. The luminosity of the LED signs must have adapt to the weather conditions by means of light sensors. Defect LEDs must be replaced immediately.

All destination and bus route signs must operable from the driver's seat.

The signs must be programmed to change destination when a via point on the route is reached.

While in service the bus must have destination and bus route signs showing the destination and bus route as displayed in Movia's infotainment service. When the bus is not logged on a ride, the bus sign is to change to "ikke i rute" ("not in service"). The driver must be able to set the sign manually in case of for instance lack of data connection.

Protective glass covering signs must be non-reflective.

Size/resolution, LED signs

Combined destination and bus route signs on the front of the bus:

Points in height:	Min 24
Points in width:	Min 160
Total LED area	Min 300 x 1580 mm

Combined destination and bus route signs in the right side of the bus:

Points in height:	Min 24
Points in width:	Min 160

Total LED area	Min 200 x 1100 mm

Bus route sign in the rear end of the bus (exterior/interior):

Points in height:	Min 24
Points in width:	Min 40
Total LED area:	Min 200 x 270 mm

Bus route sign in the left side of the bus:

Points in height:	Min 24
Points in width:	Min 40
Total LED area:	Min 200 x 270 mm

Positioning:

In the bus front, a destination and bus route display is to be set on the exterior of the bus above the windscreen. The signs must be separated from the windscreen to prevent e.g. dirt from defroster air outlet settling on the signs.

On the right-hand side, a destination and bus route display must be positioned in or close to the edge of the roof close to the front entrance door.

On new buses, a four-digit bus route sign must be positioned in the rear end of the bus - inside and outside. On the outside, the sign must be positioned in or close to the edge of the roof. On the inside, the sign must be positioned close to the ceiling in a place visible to the passengers.

New buses must further be fitted with a four-digit bus route display on the left exterior side of the bus. The display must be positioned in or close to the edge of the roof in the front half of the bus.

3.3.18 Comfort measures

On some units, comfort-enhancing equipment is required. On other units, it is a request. On the units where it is a requirement, such requirement appears from the respective section for the equipment - for instance the infotainment requirements in section 7.3 or air-conditioning system in section 3.3.11.

Comfort-enhancing equipment may be noise-reducing carpet/felt on ceiling and walls and other noise-reducing material, USB power outlets, air-conditioning system, infotainment or comparable equipment.

3.4 Upgrading equipment, etc.

Movia may at any time make change requests not described in the contract documents concerning the upgrading of the technical specifications of the buses in relation to e.g. the environment and IT according to the below guidelines:

- Movia makes a change request for upgrading of the technical specifications of the buses.
- The operator will forward a concrete proposal for an upgrading, including the financial consequences.

- After negotiations (if any), Movia may choose to accept the operator's proposal if the upgrade can be carried out within the scope of public procurement law.

Notwithstanding the above, the operator is entitled to upgrade the technical specifications of the buses if such an upgrade on all areas is, when viewed separately, to the benefit of Movia, and if Movia is given prior notice of the contemplated upgrade and the upgrade does not result in an increase in prices.

3.5 Cleaning

The interior and exterior buses must at all times be kept clean. The intention is that the buses must be in clean and good condition and thus contribute to passengers having a positive experience of the journeys and ensuring that the "presence" of the buses in the urban landscape is acceptable.

As a general rule, Movia will perform a cleaning and safety check at the garages before start of operations. The check may also be performed while the bus is in service. Before a system check at the garage, Movia will contact the operator to allow the operator to participate in the check. In case of a check during the day of operation, regard should be had to weather conditions on the relevant day.

When checking the standard of cleaning in the buses, Movia will assess the interior and exterior cleaning of the buses. For example, Movia will, in terms of the exterior cleaning, assess the cleaning of entrance area, "kitchen table", window panes, floor, wheel casings, seats, walls, ramps, ceiling, roof hatches and radiators. The check will include circumstances such as dust, chewing gum, dirt, waste, graffiti, road film on panes, gravel/sand, stickers and newspapers.

It is emphasised that the intention is for the buses to be in a clean and good condition and to include all visible elements of the buses in the cleaning check.

3.6 Design

The exterior design and layout of the buses affect the passengers' experience of the bus product.

Movia attaches weight to the extent to which the design of the entire fleet of buses signals quality and uniformity.

Below is described various requirements to the exterior design for the following subjects:

- Destination signs
- Colour scheme
- Logo
- Operator identity marking
- Advertisements

The below elements form part of the interior design of the busses and below requirements and requests in respect of interior design are described:

- Floors
- Stair tread edges
- Seats

- Driver's compartment back wall and partition
- Hand rails and stanchions
- Hand straps
- Bus advertisements
- Traffic information
- Infotainment

Movia Marketing and Traffic Information will be happy to assist the operator in setting design requirements in connection with the purchase of new buses.

3.6.1 Destination signs

The bus destination boards are to be erected as directed by Movia Marketing & Traffic Information and are to be written with the Movia Display font (see the example below) which has been developed specially for the LED signs.

Contact Movia Marketing for further guidelines on how to use the Movia Display font.

Data for destinations and route designations must be obtained from Movia's web services, see section 6.3.7. The destination designations on the signs are to be changed dynamically.

At the commencement of the contract and in case of changes to the contract term, the operator will pay any costs associated with changes to sign texts, fonts and route numbers.

Special sign texts

The destination boards must be able to show the following special sign texts:

- Not in service
- Special service
- Extra

The 'Special Services' board may only be used when the tenderer carries out special services for Movia.

The 'Special Services' board may only be used if the buses perform other transport than bus services for Movia, the Movia and DOT logos must be covered.

When the bus displays the special messages "Not in service" or "Special services", the bus may not show the route number.

3.6.2 Exterior design

Colour on the exterior of the bus

The exterior of all buses must be coloured RAL 1028 (Melon Yellow). Any deviations from this requirement on parts of the bus are subject to agreement with Movia Contracts.

Moreover, special requirements apply to the paint coating of A, E, R and S buses:

- A-, R- and S-buses are characterised by the product colours at the entrance door and diagonally from the entrance door. In addition, there is the product logo (A-bus, E-bus, R-bus or S-bus logo) on the edge of the roof.
- A-bus, red, RAL3020
- E-bus, Green RAL6029
- R- and S-buses, blue, RAL5015

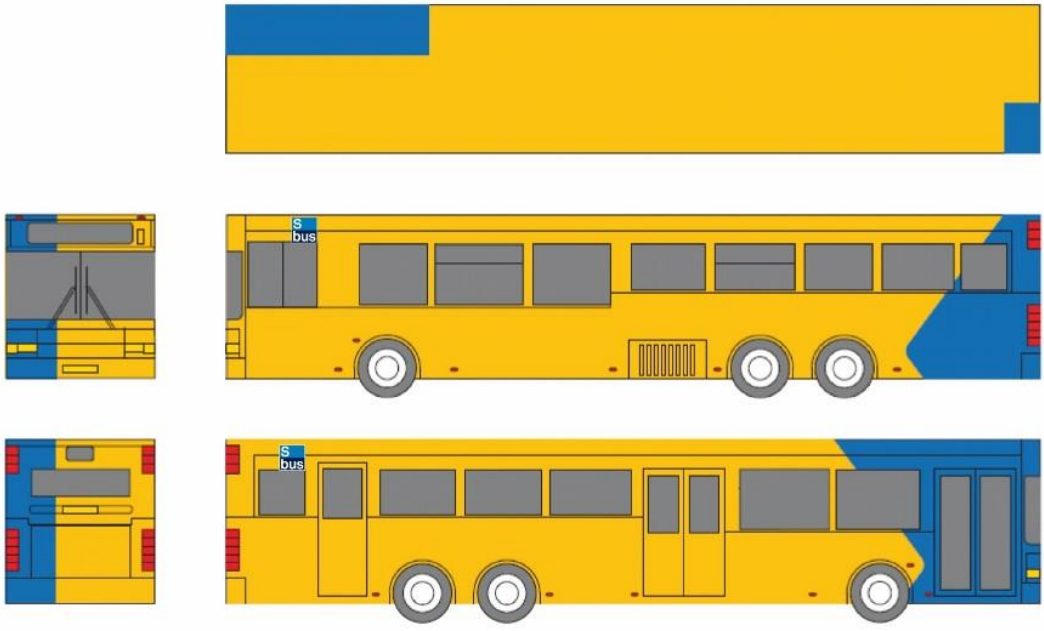
It is therefore a requirement that all buses on the A, E, R and S routes are always foiled/painted with red, green or blue corners and that the product logo is positioned on the edges of the bus roof.

The use of RAL colours for paints and coatings and any other use of e.g. product markings are subject to agreement with Movia Marketing and Traffic Information when the type of bus is known.

Drawings of exterior design

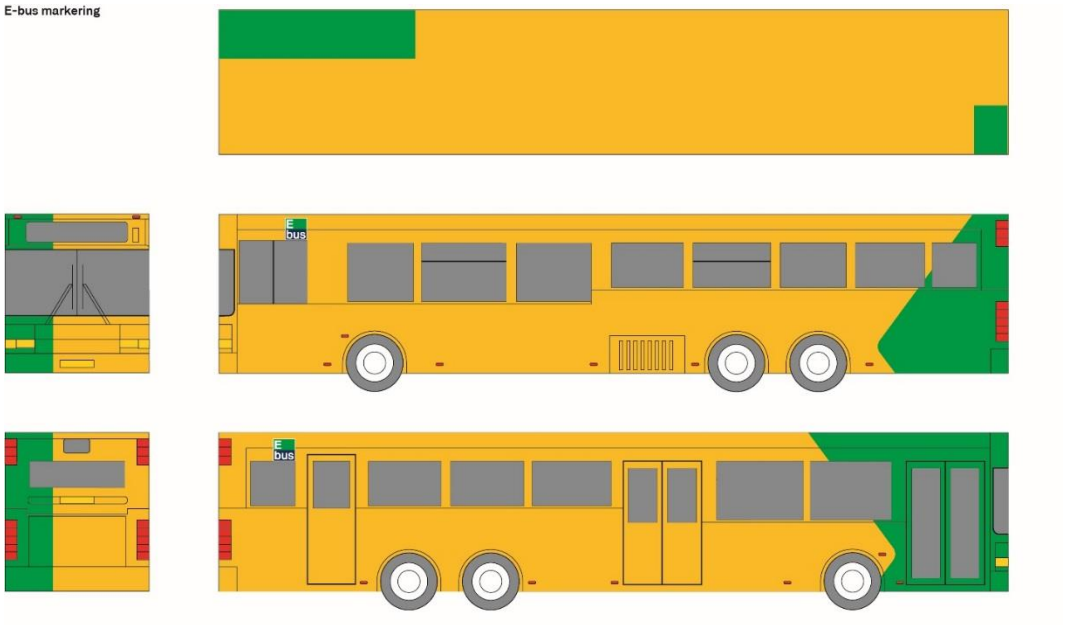
The next pages show drawings of product markings on A, E, R and S buses.

R and S bus markings:

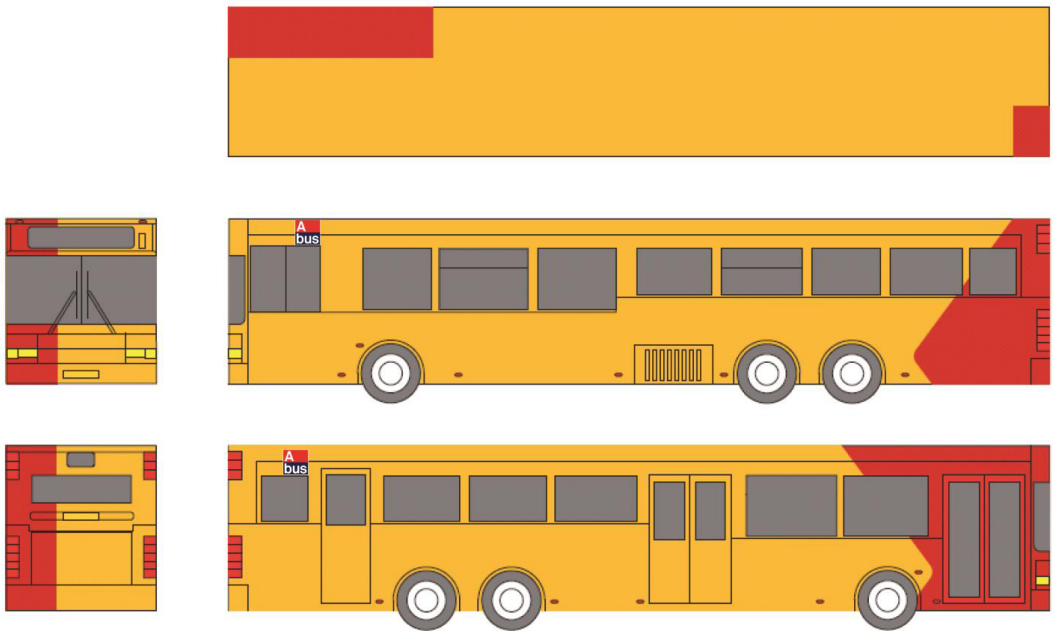


(R buses must have a R bus product logo)

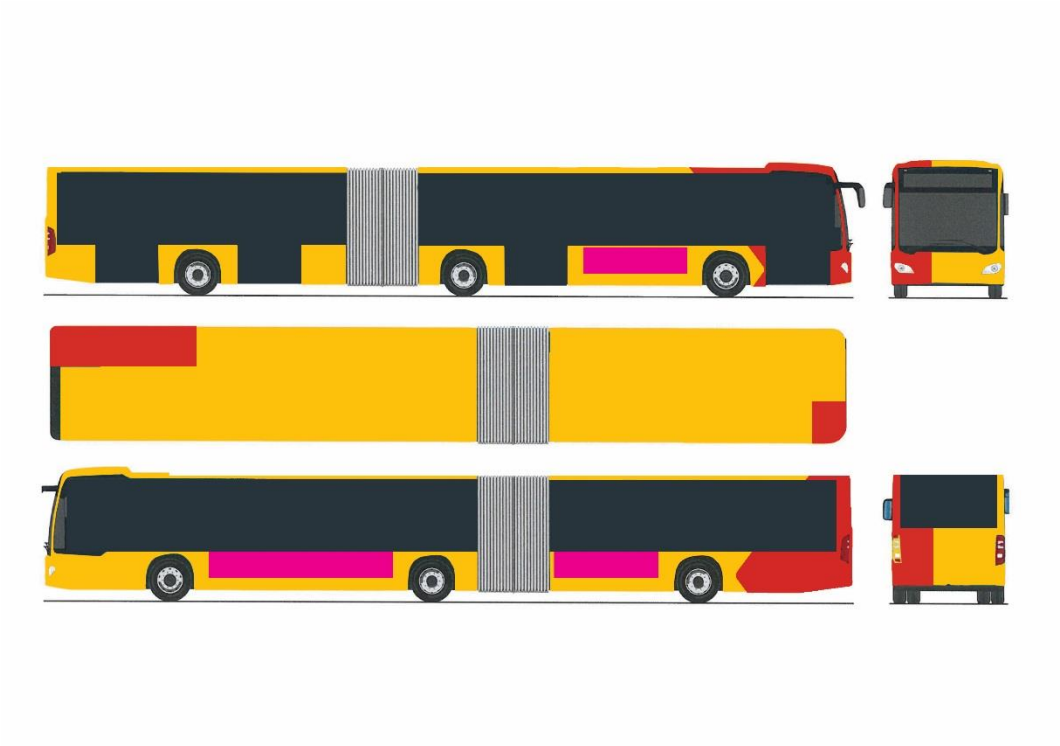
E bus marking:



A bus marking



A bus marking (Principle specifically for TB5 buses):



3.6.3 Bus interiors and interior design

Below are the requirements to design and choice of colours in all new buses. In used buses, the interior material and colour choices are subject to the approval of Movia Contracts.

Colours

RAL 1028 (Melon Yellow) is to be used on:

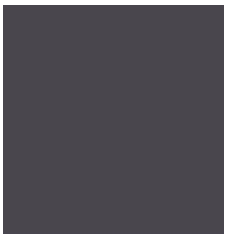
- Hand rails and stanchions
- Accessory mounting hardware (request)
- Perhaps supplementary hand rails (Request)
- Differences in level and stair tread edges (Request)

Light grey (NCS, S 2500-N matt) is to be used on:

- Air ducts
- Hand straps
- Loft, vægge, stolper

- IT cabinet
- Driver's wall and partition

Dark grey (e.g. RAL 7024) is to be used on:



- Travel card reader and fitting
- Possibly, infotainment system for passengers

The buses must have carpet/felt on ceilings and walls.

The fabric on the seats of new buses must be HT-Bus Prik (used where you sit) and HT-Bus Plain (used on the sides of the seat and possibly on the back of the seat) made of plush.

Where fabric/felt covered ceilings and walls are offered or required, HT-Bus Plain and/or light grey fabric/felt must be used as agreed with Movia

HT-Bus Prik (primary fabric) has light blue and yellow dots on a dark blue background as shown on the picture.

Must be mounted in the direction shown on the picture.

HT-Bus Prik:

The colour of HT-Bus Plain (option) is blue as shown on the picture.

Used on sides and back of the seats.

HT-Bus Plain:

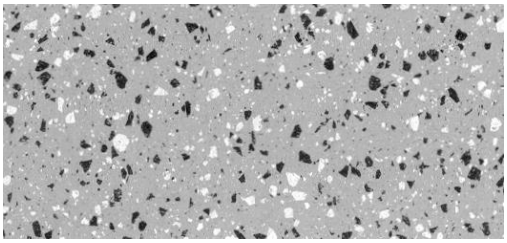
The seat fabric must be mounted as agreed with Movia Marketing & Traffic Information.

Flooring

The primary colour of the floor must be as close as possible to NCS, S 2500-N matt.

An example of the flooring is given in the picture.

Flooring:



Traffic information boards and leaflet holders

Immediately behind the middle door, a 75 x 85 cm glass plate must be positioned on which two DIN-A3 frames for traffic information posters and three leaflet holders must be mounted. See sketch below.

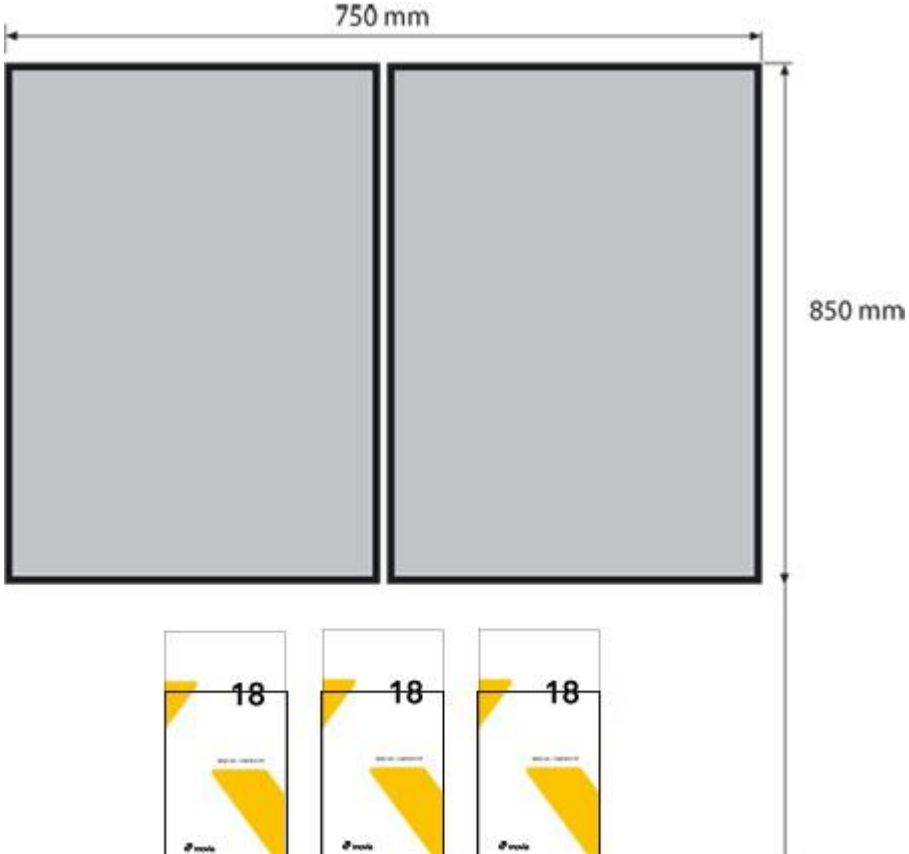
The frames must be A3 poster snap frames, and the edges of the frames must cover up to ½ cm of the visible area all the way round. The frame must be naturally anodized aluminium without a backplate with counter profile on the back. The frames must have a see-through front plate of good impact-resistant quality and with a thickness that fits the frames.

The inside of leaflet holders must be 110 mm wide, approx. 3 cm deep and have a front plate of approx. 15 cm. They must be of hard impact-resistant quality, have a front without a slot, see sketch below.

No door pillars, hand rails, stanchions or the like may be fitted in front of the information boards and the leaflet holders which may impede the change of traffic information posters or the passengers' access to the traffic information in leaflet format. Traffic information boards and leaflet holders are to be delivered and maintained by the operator, and it is the responsibility of the operator to ensure that both the traffic information boards and leaflet holders meet the above requirements in terms of format and quality.

The position of the leaflet holders and the traffic information boards is subject to the approval of Movia Marketing and Traffic Information.

Sketch of traffic information boards and leaflet holders:

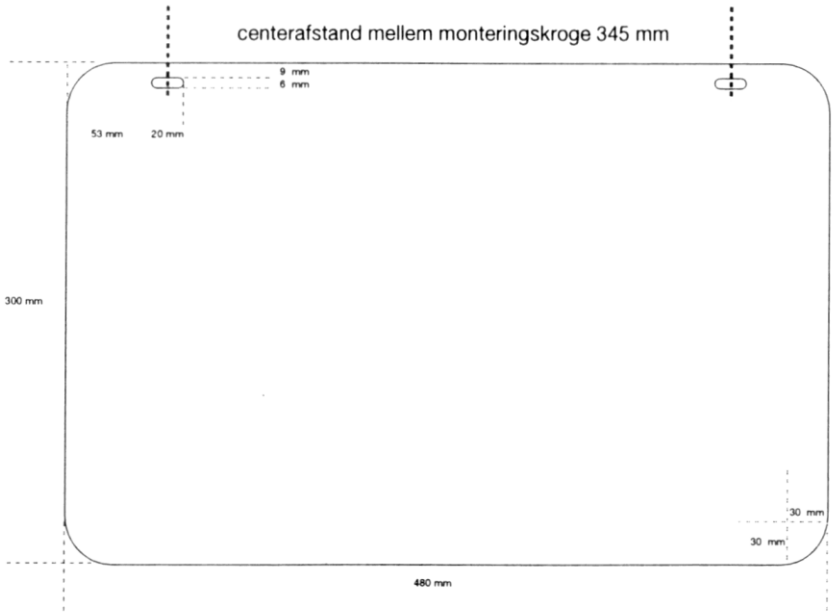


If the use of traffic information boards and/or leaflet holders ceases in whole or in part during the contract term, Movia will give notice to the operator who will then remove the boards and/or holders at no expense to Movia.

3.6.4 Advertisements inside the bus

Hanging signs

If the operator wants to display advertisements inside the bus, they must be signs hanging from windows (see sketch below). There may be no more than seven spaces for hanging signs, incl. Movia's mandatory two spaces, see section 7.



Hængeskiltet til krogeophængning, mål 1:5

It is possible that the use of hanging signs ceases in whole or in party during the contract term. In such case, Movia will give the operator six months' notice, and the operator will, at no expense to Movia, remove the clips for the hanging signs. In such case, Movia will not cover the lack of advertising revenue.

Advertisements on the back wall of the driver's compartment

On the back wall of the driver's compartment, the operator may put up a poster with the following format: H 60 x W: 50 cm, except in temporary buses, see section 7.

3.6.5 Advertisements on the exterior of the bus

If the operator wants advertisements on the exterior of the bus, such advertisements must meet the following maximum sizes:

Buses without product identity

On the left long side no more than one advertisement of: Max H: H 48 cm x W: 480 cm

On the boarding side, no more than two advertisements of: Max H: H 38 cm x W: 200 cm

On the rear of the bus, no more than one advertisement of: Max H: H 265 cm x W: 220 cm eller 60x145 cm

On the rear window of the bus, no more than one advertisement of: Max H: H 30 cm x W: 160 cm

Buses with product identity (e.g. A and S buses)

On the left long side no more than one advertisement of: Max H: H 48 cm x W: 480 cm

On the boarding side, no more than two advertisements of: Max H: H 38 cm x W: 200 cm

On the rear of the bus, no more than one advertisement of: Max H: H 265 cm x W: 170 cm or

On the rear of the bus, no more than one advertisement of: Max H: H 60 cm x W: 145 cm

On the rear window of the bus, no more than one advertisement of: Max H: H 30 cm x W: 160 cm

TB5 buses with product identity (e.g. A and S buses)

On the left long side no more than two advertisements of: Max H 48 x 480 cm (front) og Max H: 48 x 200 (back)

On the boarding side , no more than one advertisement of: Max H: H 48 cm x W: 200 cm

If the operator wishes to sell advertisements of other sizes and formats, it is subject to the approval of the Movia Marketing & Traffic Information. Also it is necessary to agree on a separate payment to Movia for this option.

It is often necessary to cut out part of the advertisement to make sure that the licence plate, handle etc. are free and visible.

3.6.6 Pictograms, logos etc.

Pram, wheelchair and video surveillance pictograms

At the bottom of the exterior leaves of the relevant door, a pram pictogram and a wheelchair pictogram must be positioned. To the left of the entrance doors on the outside of the bus, a video surveillance pictogram must be positioned.

Pictograms on the outside of the bus must be black and 12 x 12 cm (see the drawings below).

Inside the bus, a pram pictogram and a wheelchair pictogram must be positioned at the respective spaces in connection with the platform area. A video surveillance pictogram must be positioned on or close to the door to the driver's compartment and two in the passenger cabin.

Pictograms on the outside of the bus must be white and 10 x 10 cm (see the drawings below).

It is accepted that Movia's pictograms are replaced by EU's standard pictograms.

Pram pictograms

Outside: Inside:

Wheelchair pictograms

Outside: Inside:

Video surveillance pictograms

Outside:

Inside:

Priority seats

The buses must have 8 priority seat reserved for elderly or mobility-impaired persons and passengers with small children. On the window above the priority seats, one of the following pictograms must be placed to match the actual direction of the seats.

When the type of bus is known, the tenderer must agree witl :o be positioned.

The pictograms are black/white on a Melon Yellow (RAL 10:

The pictograms measuring 80 x 190 mm are

Bus number

Four sides of the bus must be fitted with a black four-digit bus number. Font: Helvetica. Size of figure: 8 cm Design, distance between figures etc. must be agreed with Movia Marketing and Traffic Information.

Example of the bus number:

The individual operator will have its own number series. New operators must ask Movia for a number series after the conclusion of the contract.

If the operator buys used buses, such buses must be numbered according to the operator's number series.

On the bus front, the bus number must be displayed above the left headlight.

On the entrance side, the bus number must be displayed to the left of the front door at the bottom of the bodywork.

At the rear end of the bus, the bus number must be displayed nearest to the entrance side below the rear window.

On the left long side, the bus number must be displayed nearest to the bus front at the bottom of the bodywork.

Inside the bus, the bus number must be displayed near the front on a place visible to the passengers. Size of figure: 2.5 cm

Special bell-push buttons for wheelchair users

In connection with wheelchair access, a wheelchair pictogram followed by the text "Dørbestilling" must be positioned on the exterior of the bus to the right of the special bell-push button to order door opening.

The pictogram must be black and 3 x 3 cm, and the text written in a capital letter height of 1.5 cm.

Table of weights

The table of weights must be transparent with white text and frames.

On the entrance side of the bus, a table of weights must be positioned to the left of the front wheel whereas on the left long side of the bus, a table of weights must be positioned to the left or right of the front wheel.

Operator identity marking

The operator identity marking may either appear as a white clear text or as a business logo. Maximum size: H: 20 cm x W: 60 cm

The operator identity marking may only be positioned on the left-hand and right-hand side of the bus at the bottom of the bodywork, next to or above the front wheelbox.

DOT Movia logos

Movia's logo consists of a figure and a monogram:

DOT's logo consists of a logo type:

The logos must be placed on the front of the bus below the window as illustrated on the drawing below.

Height of the logo: 115mm. "DOT - Movia" is a lock-up. The respect distance between the two logos is fixed.

The centre line cuts through the apex of the Movia logo.

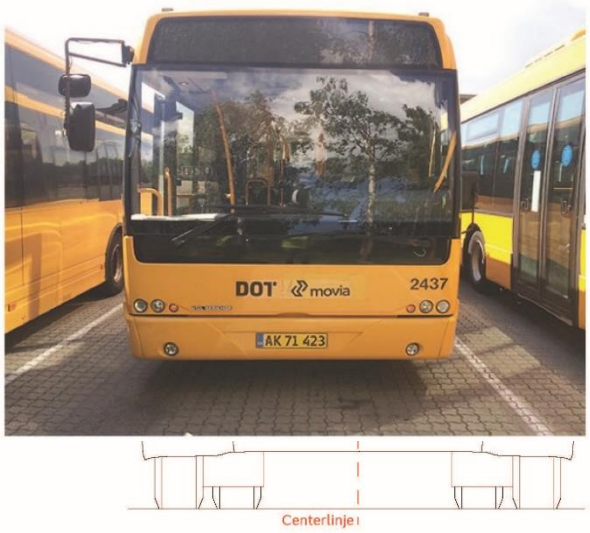
In cases where the above logo size is too large, it is possible to use instead a logo with a height of: 103mm

Please direct questions about the positioning and size of logos to Movia Marketing and Traffic Information.

No logos may be fitted on long sides, rear end or inside.

If the buses are used to provide services to any other entity than Movia, the Movia and DOT logos must be covered.

Foto fra test.
Almindelig gul bus

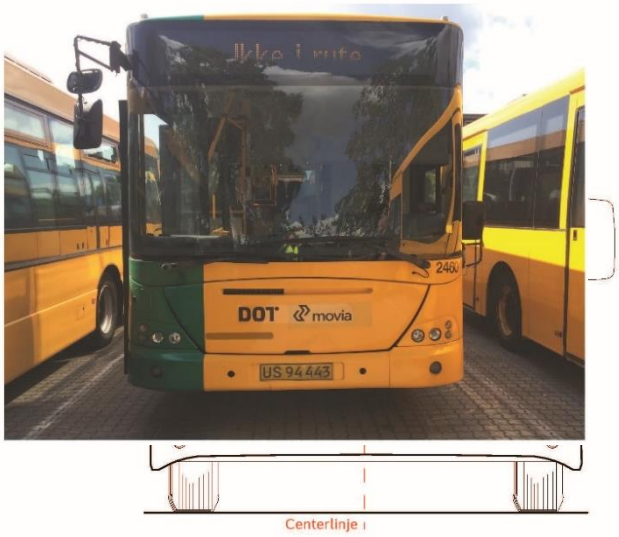


Logo centreres horisontalt på bussens front.

Med udgangspunkt i 'DOT' centreres lock-up vertikalt på det frie stykke på fronten af bussen.

Se ovenstående eksempel (x-x)

Foto fra test.
Bus med farvet hjørne



I tilfælde hvor der er ureglmæssigheder på fronten
(mærker og lignende).
Centreres lock-up vertikalt på det frie stykke mellem disse ureglmæssigheder.

Se ovenstående eksempel (x-x)

Identity marking in general

The interior and exterior of the bus must be kept free of all other identity marks, except for Movia's logo, bus number and operator's logo.

Markings of the identity of engine and/or bodywork suppliers are, however, permitted. The number, size and position are subject to the approval of Movia.

Necessary internal texts such as fuel, lubricant etc. must be written in a white font.

Undesirable pictograms

Movia does not want the following pictograms on the bus:

- "No entry" signs on the exit door
- "Cards", "Cards and tickets" above the entrance door
- "Bus no." above the bus number.
- "Entrance" at the entrance door

Generally texts, symbols and markings other than those required are not permitted. Any other use of pictograms and text information, etc. must consequently be agreed with Movia Marketing & Traffic Information that is also happy to assist with guidance on signs providing information in the bus.

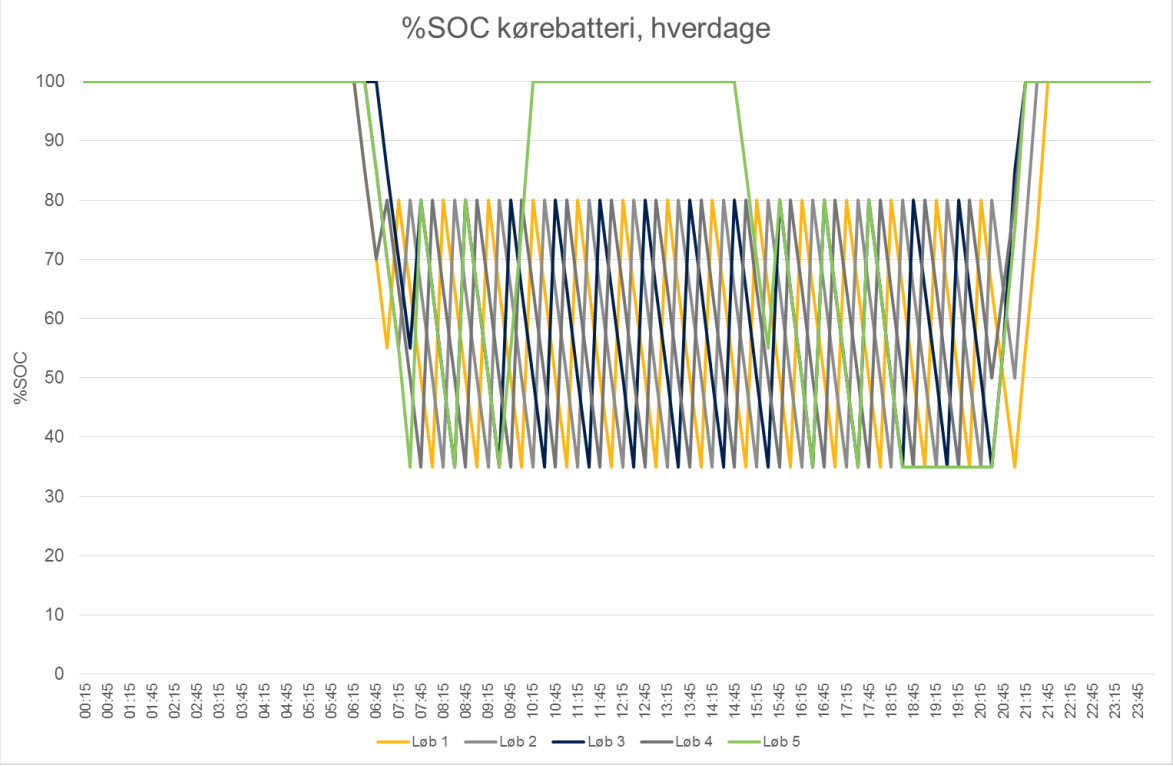
4. Charging of electric buses

One of the following methods will be used to charge the buses:

A. Charging stations in urban space installed by Movia, and possibly charging stations at the operator's facilities.
B. Charging stations located only at the operator's facilities

Charging station means charging mast/charger with related electronic equipment, control cabinet, cabling and network connection.

If the operator's solution includes electric buses, the operator must (see section 1.3.6.7) attach a diagram for all runs showing %SOC (State of Charge) of the automotive battery of the bus. %SOC must be calculated on the basis of end-of-life automotive battery and worst case operation (including maximum passenger capacity, variation in energy consumption as a result of air-conditioning system and other seasonal variations and variations in energy consumption as a result of driver-induced energy consumption). An example of such a diagram is shown below. The operator must specify the energy consumption (kWh/km) forming the basis of the calculation in the List of Bus Equipment (Appendix 6).



4.1 Charging of electric buses in urban space

4.1.1 Purpose

This section contains terms and conditions in the form of procedure for ordering and installation, allocation of responsibilities, prices, etc. for the installation of charging stations in urban space. In this section, the term is based on the framework agreement (the "Framework Agreement") to be concluded between Movia and the systems supplier who is awarded the contract (the "Systems Supplier") on the delivery of charging stations for installation in urban space. The terms in this section may be amended to the extent that the terms are amended during the invitation to tender for the delivery of the charging stations.

Movia will give the operator the opportunity to use the Framework Agreement to install charging stations in urban space for the charging of electric buses in urban space in connection with the operation of the bus services. It is only possible to install charging stations in urban space on the basis of the conditions described in this section, i.e. by using the Framework Agreement. The operator may not offer to install its own infrastructure in urban space.

Movia will finance the installation and operation of the charging station. The operator must only pay the costs of the electricity used to charge the buses at the charging station.

The Framework Agreement will be available to the operator at the locations where Movia has assessed it to be practically feasible and relevant to install charging stations. The locations are described in section 4.1.6.2. It will not be possible to install charging stations at other places than the locations specified in this section. The operator may not use the Framework Agreement at the operator's own facilities, but the operator is not barred from installing charging stations at its own facilities.

Movia has chosen to enter into the Framework Agreement with a third party as Movia assesses that there is a need for a smoother and less risky process for managing charging stations for the operators. At the same time, the Framework Agreement provides uniform terms and prices for all operators. Movia will further obtain all necessary public permissions for all the locations specified.

As the invitation to tender for electric vehicle charging infrastructure in urban space is currently ongoing, Movia reserves the right to subsequently change, clarify or supplement the information in this section 4. The information in this section 4 is thus provisional and merely an expression of Movia's expectations and estimates. Movia expects that the information will be clarified prior to the second tendering round (i.e. submission of the first updated tenders).

4.1.2 Equipment and supplier description

4.1.2.1 Systems Supplier

The supplier of the charging station will be found in Movia's independent invitation to tender for electric vehicle charging infrastructure in urban space. Movia expects the Systems Supplier and its subcontractors to be responsible for the delivery of electricity, equipment, i.e. the charging station itself and the installation of the charging station.

The operator has a duty of secrecy with respect to all information on the collaboration between Movia and the Systems Supplier.

4.1.2.2 Equipment

A charging station consists of a charging mast/charger with related electronic equipment, control cabinet, cabling and network connection ("Charging Station"). The equipment is a pole-mounted pantograph solution, i.e. where the pantograph comes *from* the above charging mast and *down* onto the bus on which there are two rails.

The charging station is compatible with the so-called OppCharge industry standard (https://www.oppcharge.org).

When the Systems Supplier has been identified following the ITT, he can be contacted directly for information about the bus models which are currently compatible with the charging stations and the procedures for integration with other bus models. The contact details of the Systems Supplier will be given later after the ITT.

The charging station is available with three output levels: 150 kW, 300 kW and 450 kW.

For safety reasons, the pantograph is equipped with a device which will raise the pantograph back into home position in case of e.g. power outage. It must only be possible to lower the pantograph when a bus is to recharge.

The Systems Supplier supports the correct positioning of the bus in connection with the charging of the bus. The operator is responsible for placing the bus in accordance with the System Supplier's specifications to enable it to be recharged.

4.1.2.3 Movia database

The Systems Supplier must make a cloud-based database (the "Movia Database) available to Movia at no extra charge.

It will be possible to make historical and sorted Excel extractions from the database. Any of the database data specified below is the property of Movia and must not be shared without prior written consent from Movia and the Systems Supplier.

The operator must have access to data about the bus routes and charging stations that are relevant to it.

The following data will be included in the database:

- Accurate time and date recordings, charging time as well as duration of recharging.
- Bus ID (four-digit bus number, route and operator) and charging mast ID.
- SOC level of bus before and after charge session.
- Consumption of electricity (kWh) during each charging session.
- Electricity (kWh and %) used for loss relative to no-load current and cables.
- Updating, servicing, faults and failures. In case of faults and failure, the problem must be described in detail. Faults will be recorded and categorised according to fault type, including the cause of the fault.
- The expected and actual inoperable time must be stated whenever possible.
- Uptime for each charging station, the route and the Movia Database, see section 4.1.4.2.

The database must be updated within 24 hours of a given consumption or incident. However, information about complete or partial failures, including information about actual and expected inoperable time, must be updated as soon as possible.

The Systems Supplier must have a self-checking system in place which ensures that data are duly recorded. Data will be stored throughout the contract term.

Movia Database uptime must be at least 95% per month. Data must be registered, also in period of downtime. The uptime is the part of the agreed service time when the Movia Database is in operation. The agreed service time is 24 hours a day, 365 days a year. However, agreed maintenance windows do not constitute agreed service time. The Systems Supplier is entitled to a total of six hours' maintenance windows each month. Maintenance windows are subject to at least seven days' prior notice and must be placed between 07:00 pm and 07:00 am.

4.1.2.4 Electricity

The Systems Supplier will supply electricity to the charging station.

The Systems Supplier will invoice the operator for all costs of electricity used on a monthly basis. The consumption of electricity will be calculated as the power (in kWh) that the electric bus draws to charge. All electricity consumed during idle is payable by the Systems Supplier.

The Systems Supplier is obliged to deliver green electricity (CO_2 neutral electricity from renewable energy sources e.g. in the form of RECS certificates - Renewable Energy Certificate System) against an additional charge (see section 4.1.6.4).

The Systems Supplier may demand that the operator provide a demand guarantee (bank guarantee) as security for any amount owing by the operator to the Systems Supplier. The Systems Supplier may demand the provision of a demand guarantee of DKK 10,000 for each electric bus that charges at the relevant tender unit.

Movia is at no time liable for the operator's payment for electricity.

See also section 4.1.4.4 on liability in case of power failures, etc. See section 4.1.4.7 on propellant for the temporary charging station.

4.1.3 Ordering and installation process

The procedure for ordering a charging station is that the operator specifies the charging stations requested in the List of Charging Stations (Appendix 7).

The List of Charging Stations" (Appendix 7) specifies the potential locations of charging stations in urban space. For each location, the operator must state the requested charging stations, including the requested charge output of each charging station. The selected charging stations, including charge output, will be binding on the operator once Movia and the operator have concluded a contract.

Once the contract with the operator is signed, Movia will enter into an *installation agreement* with the Systems Supplier. The Systems Supplier will forward a detailed time schedule for the installation of the charging stations to the operator no later than one month from the conclusion of an installation agreement.

If the operator chooses to exercise his right to install and operate charging stations, the operator is obliged to use the charging stations throughout the term of the agreement between Movia and the operator.

4.1.3.1 Milestone 1 - Ready for installation

Ready for installation is the date when the installation of the charging station is completed and the charging station is ready for testing using buses. The Systems Supplier must prepare and sign a commissioning check (system test) of system functionality after completion of installation. In case more than one charging station is to be installed for a bus route, no charging station will be deemed to be ready for commissioning until all charging stations have been installed and documented in accordance with the above. The charging station must be installed and passed the system test no later than 60 days prior to start of operations.

In the period from *ready for installation* up to an including the date of *ready for communication*, the operator must place driver and bus at disposal to the extent necessary at no extra charge to Movia or the Systems Supplier for the purpose of achieving communication between the bus and the charging station. The operator must provide at least one bus and driver throughout the period for the testing, i.e. for up to six weeks.

All communication with the operator concerning tests using buses and the like is the responsibility of the Systems Supplier. It is the responsibility of the Systems Supplier to agree on changes in the test period with the operator.

The Systems Supplier is responsible for all matters relating to the delivery and installation of the charging station. As a result, the Systems Supplier must perform all work and provide all works and services required to ensure that the charging station can be tested using buses. It is further for the Systems Supplier to conduct the necessary tests together with the operator during which the operator's electric buses are tested using the Systems Supplier's charging stations to ensure that the Systems Supplier's charging station and the operator's electric buses are fully compatible before the *Ready for Communication* date, see below.

NOTE: Only the operator is responsible that the bus uses OppCharge and has the right communication protocols to ensure compatibility with the Systems Supplier's charging station.

The operator agrees to participate actively and constructively in the dialogue with the Systems Supplier and to deliver all necessary data to the Systems Supplier, and the Systems Supplier is obliged to have a proactive and constructive dialogue with the operation in connection with test periods and the start of operations.

In the event that charging stations are not ready for installation by the prescribed date due to the circumstances of the Systems Supplier, the Systems Supplier is (on presentation of receipts) obliged to indemnify the operator from any additional costs incurred by the operator as a result of the delay in relation to the performance of tests using the operator's buses.

4.1.3.2 Milestone 2 - Ready for communication

Ready for communication is the date when the testing of a charging station using buses has been completed and the charging station is ready to be put into service using the operator's buses. A charging station must be *ready for communication* no later than six weeks after it is *ready for installation*, i.e. no later than 18 days before the start of operations date.

Support and training for drivers

The Systems Supplier must at no extra cost actively train and support representatives (super users who train drivers, works managers, etc.) from the operator in optimal and safe use of the charging stations. In the period from *Ready for Installation* to *Ready for Communication*, the Systems Supplier must provide two days of training for the operator's super users in optimal and safe use of the charging station. As from

start of operations, the Systems Supplier is obliged to offer the operator (super users) one day of training each year.

With the installation of the charging station, the Systems Supplier must provide instructions and specifications in Danish. A special pixi book sized driver's manual in the Danish must also be provided for distribution to all the operator's drivers.

Any contact, training, etc. to the operator's super-user representatives will be in Danish.

Any additional training must be agreed between the Systems Supplier and the operator without involving Movia, including in respect of the fee payable for such training.

4.1.3.3 Milestone 3 - Start of operations

Start of operations is the date and hour on which a charging station is put into service using in-service buses, i.e. the date and hour when the start-up period begins, see above. In case of newly installed charging stations, start of operations is 18 days following the date when they are *ready for communication*.

4.1.4 Service conditions

4.1.4.1 Start-up and operating period

The *start-up period* is the first two calendar months from the date following the *start of operations* (i.e. if the operations begin on 11 April 12:00 (noon), the *start-up period* runs from 12 April until and including 30 June). If *operations begin* on the 10th day of a month, the *start-up period* is only the current and subsequent calendar months (i.e. if *operations begin* on 8 April 12:00 (noon), the *start-up period* runs from 9 April until and including 31 May). Please note that the uptime requirements to be met by the Systems Supplier in the *start-up period* are different from the requirements in the *operating period*.

After the *start-up period, the operating period* begins. The operating period runs until termination of the contract.

4.1.4.2 Uptime requirements to be met by the Systems Supplier

Uptime requirements during the start-up period and the operating period will vary for the individual charging station and the combined charging stations of the route.

Below, *infrastructure uptime* means the uptime of the individual charging station; i.e. the uptime of e.g. a specific charging station in Tingbjerg.

Route uptime means the time when (at least) all charging stations on the route, except one, is ready for operation of a given bus route. Example: if on route 2A, four charging stations (including the redundant ones) are located, the route is "up and running" when at least three out of these four charging stations are ready for operation).

The uptime is the part of the agreed service time when the individual charging station is in operation, i.e. may be used by the operators for recharging. The agreed service time is 24 hours a day, 365 days a year regardless of weather conditions and temperatures – but not during a force majeure event or for periods when the police advises against travelling unless it is absolutely necessary at the place where a given charging station is located. If the Systems Supplier claims that for such reasons there is no agreed

service time for a given charging station, it is for the Systems Supplier to provide documentation for the circumstances causing it (see the above exceptions).

Start-up period: The Systems Supplier is obliged to deliver an *infrastructure uptime* of 70% and a *route uptime* of 97 %. Uptime will be measured for each calendar month. If operations begin after the tenth day of a month, the first uptime measurement will, however, be made after expiry of the subsequent calendar month.

Operating period: The Systems Supplier is obliged to deliver an *infrastructure uptime* of 80% and a *route uptime* of 99.5 %. Uptime will be measured for each calendar month.

Example of uptime measurement (1): With two charging stations on a route. One has an uptime of 80% and the other an uptime of 100%. Here the total *route uptime* is 100% as charging stations are operating at all times corresponding to all charging stations on the route, except one.

Example of uptime measurement (2): With two charging stations on a route. One has an uptime of 80% and the other an uptime of 85%. At no time is downtime overlapping. Here the total *route uptime* is 100% as charging stations are operating at all times corresponding to all charging stations on the route, except one.

Example of uptime measurement (3): With two charging stations on a route. One has an uptime of 80% and the other an uptime of 85%. Downtime is overlapping. Here the total *route uptime* is 85% as it is the highest uptime for all charging stations, except one

Example of uptime measurement (4): With three charging stations on a route. One has an uptime of 100%, the other an uptime of 90% and the third charging station an uptime of 80%. Downtime is overlapping. Here the total route uptime is thus 90% as two out of three charging stations are out of service in 10% of the total service time.

See also the figure below which illustrates the principle. The red marking of route downtime shows that two out of three charging stations are out of service, and therefore the route is out of action.

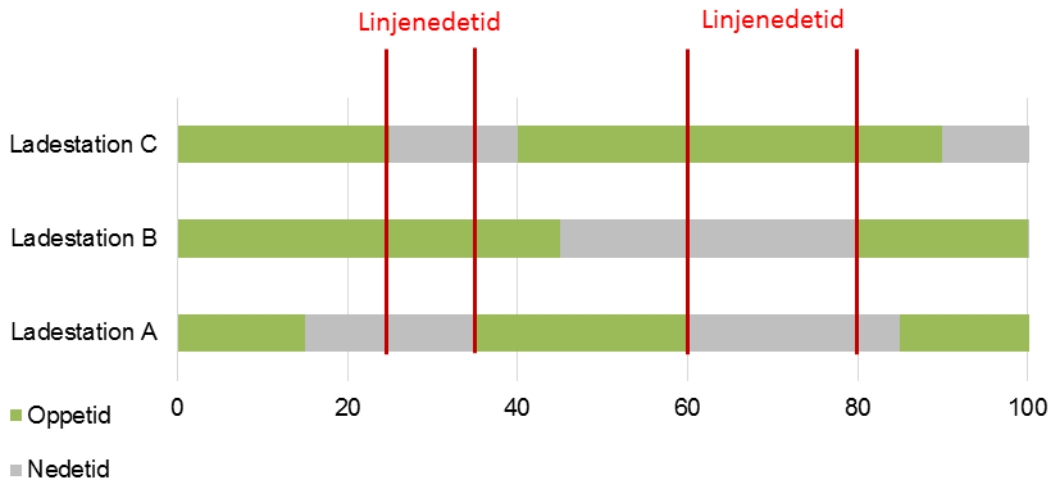


FIGURE: *Example of a calculation of route downtime. An uptime of 99.5% of the time in a month (30 days) means that no more than two charging stations may be out of service for approx. 3.6 hours at the same time (30 days of 24 hours x 0.5% = 3.6 hours).*

The Systems Supplier is entitled to plan and locate maintenance windows (i.e. planned downtime for the purpose of service, maintenance or repair) for the charging stations, without it resulting in any relaxation

in the agreed uptime requirements. Notice of maintenance windows must be given to the operator no later than 24 hours before the planned downtime begins.

4.1.4.3 Performance requirements to be met by the operator

The operator is obliged to organise the bus services in such a way that service is not affected i a charging station is out of service on a route.

Example: If on a route, four charging stations are required for a steady performance of service, the operator must install at least five charging stations. In the event that a random charging stations is out of service because of a collision or maintenance work or for another reason, the operator must be able to run the bus services smoothly using only four charging stations. The fifth charging station must be used to run the bus services, but must not be necessary for the running of the bus services as it serves as a back-up. The extra charging station is thus not a permanent charging station, but a general extra capacity on the tender unit. The operator's vehicle schedules (see sections 2.7.1, 2.7.2 and 2.7.4) must not be based on the use of all five, but only four charging stations.

The operator is obliged to ensure that the electric buses have sufficient range to cover the distance of a return trip on the longest route variant from final destination to final destination, plus 5 km, during regular traffic and under all climate conditions, during maximum passenger load and independently of driver behaviour.

4.1.4.4 Cancelled journeys as a result of the breakdown of charging stations

The Systems Supplier is not liable for power failures for which the utility company is responsible. The Systems Supplier is obliged to provide for the repair of the damage to its cables as quickly as possible whether or not such damage is caused by a third party.

The Systems Supplier is not liable for downtime caused by the accidental loss of or damage to the charging station and/or damage caused by outside circumstances such as vandalism, traffic accidents, etc. In case of downtime due to such circumstances, the Systems Supplier has, however, a more stringent duty to remedy errors on all charging stations covered by an installation agreement, and the Systems Supplier is obliged to begin the remedial action within five hours of the time when it is established that a charging station is out of service and the remedial action must continue without undue delay until it is completed.

In the above cases or if more than one charging station is out of service, and the breakdown(s) is (are) not due to the circumstances of the operator and the operator has exhausted all possibilities of maintaining bus services, the operator will be paid as if the bus services had in fact been delivered as planned. The operator is obliged to restore bus services according to the timetable, i.e. the operator may not keep "transferring" a delay caused by the breakdown of a charging station, but must through active traffic management try to rectify the delay (for example by putting replacement equipment into service).

Concretely, this implies that the operators are not liable for downtime caused by the circumstances of the Systems Supplier, including breakdown or delay. For further information, see section 4.1.5.

In case of cancelled journeys or delay, the operator must inform Movia in the usual manner. In such case, the operator must be able to provide evidence of the reason why the bus services could not keep bus services going. Evidence can for instance be provided using the data that the Systems Supplier is obliged to log in the Movia Database, see section 4.1.2.3.

4.1.4.5 System error handling procedures

The Systems Supplier must provide a support function to the operator's works office Mondays to Fridays from 7:00 am to 4:00 pm. The support function will be call centre offering customer services by telephone and be staffed by Danish-speaking staff. The support function must be able to answer questions about breakdown, correct use, system errors and other matters of relevance to the operator's use. The drivers should contact the operator's works office which will then contact the System Supplier's support function.

In addition, the Systems Supplier must provide a hotline/helpline which the operator's works office may contact outside the opening hours of the support function. The operator may use the hotline/helpline to ask questions about e.g. breakdown, system errors and other questions in cases where it is impossible to use a charging station.

If the Systems Supplier identifies a technical problem caused by the charging station which has a bearing on the functioning of the bus route, the Systems Supplier must immediately inform the operator and Movia thereof, including information about the expected repair time. Arrangements about this communication in practice must be made with the operator and Movia. These arrangements must be made after award of the contract

The Systems Supplier is obliged to log all updates, servicing, faults and failures, specifying hour and date. All logging must be made in the Movia Database, see section 4.1.2.3.

The Systems Supplier is obliged to ensure that the breakdown problem is well-documented. All faults must be recorded with error codes by the Systems Supplier. In case of a breakdown, the Systems Supplier must state the expected and actual inoperable time whenever possible. All loggings must be made in the Movia Database. The Systems Supplier must submit a list showing error codes and whether the Systems Supplier or the operator is responsible for the incident resulting in the specific error codes. The error code must be described in detail so as to allow the party responsible to prevent the error.

4.1.4.6 Servicing and operating charging stations

The Systems Supplier is responsible for the operation, servicing and maintenance of charging stations. The Systems Supplier is in charge of handling all regular system service, replacement of spare and wear parts as well as repairs in case of breakdown. The Systems Supplier's responsibility applies for the entire term of the installation agreements. All costs of spare parts, wear parts, etc. must be borne by the Systems Supplier.

The Systems Supplier and the operator must coordinate servicing and maintenance work involving downtime for charging stations so as to not inconvenience bus services. The Systems Supplier must always give at least 24 hours' notice of planned downtime for charging stations to the operator.

All cosmetic dents and minor damages which do not affect functionality must be repaired as of 1 April and 1 October each year (i.e. repair of damages accumulated in the preceding six-month period must be carried out immediately before 1 April and 1 October respectively).

If the operator becomes aware of vandalism to charging stations on the route, the operator must as quickly as possible inform the Systems Supplier. Movia is responsible for removing graffiti, and therefore, the appearance of graffiti should be reported to Movia Operations.

4.1.4.7 Temporary charging station

In case of the prolonged breakdown of one or more charging stations, temporary bus route diversions, etc., Movia may install a temporary 300 kW charging station. The operator agrees to use such temporary charging station if necessary.

If a temporary charging station is connected to the grid, the Systems Supplier will send monthly invoices to the operator for all actual costs of electricity used for the temporary charging station. The power consumption will be calculated as the power (in kWh) that the electric buses draw to charge. For further information, see section 4.1.2.4.

If a temporary charging station is not connected to the grid (but instead runs using a generator), the Systems Supplier will invoice Movia for the propellant whereas Movia will send an invoice to the operators for an amount equivalent to the price of the electricity drawn by the operator from the temporary charging station.

The temporary charging station should not be installed further away than the requirement for the range of the electric bus permits, see section 4.1.4.3.

4.1.4.8 Relocation of a charging station

On the relocation of a bus terminal with one or more charging stations, operator must use the new location. The Systems Supplier is responsible for the physical relocation of the charging stations. Movia must pay all expenses relating thereto. The operator is obliged to place a bus and a driver at disposal for up to two working days for the integration test in connection with the relocation. On relocation, the charging stations must be ready for service within four weeks.

The new location should not be further away than the requirement for the range of the electric bus permits, see section 4.1.4.3.

4.1.5 Allocation of responsibility between the operator and the Systems Supplier

Any damage caused in connection with the recharging of buses – including both damage to charging stations and damage to the buses – will be of no concern to Movia and must be clarified between the operator and the Systems Supplier on the basis of the general law of non-contractual damages in Denmark.

Thus, Movia does not bear the risk of damage to charging stations caused by the operators' buses, nor does Movia bear the risk of damage to the buses caused by the charging stations. The operator must thus indemnify Movia against any claim that Movia may face as a result of any damage that the buses may cause to the charging stations.

The operator is not entitled to raise claims for damages (e.g. business interruption) against the Systems Supplier merely because the charging stations do not satisfy the uptime requirements.

Charging errors, etc. that the operator can prove are due to the circumstances of the Systems Supplier will not be detrimental to the operator. If the Systems Supplier can prove that downtime is due to the circumstances of the operator, the operator will be liable to pay a penalty for downtime in accordance with section 18.5 of the Contract.

4.1.6 Prices and locations

If the operator requests the installation of charging stations for charging of buses in urban space, the operator must fill in and attach a List of Charging Stations (Appendix 7) to his tender. The Appendix will

calculate the set-up costs per month and the service costs per month. Such infrastructure costs will be included in the evaluation and must be incorporated by the operator in the Tender Form (Appendix 5).

The set-up costs, i.e. the basic price of equipment, connection to the grid, excavation and contracting works and special adaptations, will be paid by Movia directly to the Systems Supplier in the form of a non-recurrent expense.

The servicing costs will also be paid by Movia directly to the Systems Supplier as a monthly expense.

It should be emphasised that the spreadsheet (Appendix 7) contains input data in the form of indicative prices and that they will be updated when the actual prices are known, i.e. after the award of the contract to a Systems Supplier.

4.1.6.1 Basic price of equipment and connection (2018 prices)

The List of charging stations (Appendix 7) includes the following indicative basic prices of equipment as input data (the final prices will not be known until after the award of the contract to the Systems Supplier):

	150 kW	300 kW	450 kW
Basic price, including standard base and re-establishment (DKK)	2,000,000	2,500,000	3,000,000

4.1.6.2 Locations and set-up prices

The operator may choose to have charging stations installed at the below locations, see Appendix 7:

Tender unit	Route	Bus terminal	Charger number
1	2A	Tingbjerg	A17-1
			A17-2
			A17-3
		Refshaleøen	A17-4
			A17-5
2	18	Valby Station	A17-6
		Emdrup Torv	A17-7
			A17-8
		Ørestad Station	A17-9
		Lergravparken	A17-10
4 (basic)	147, 156, 157	Ballerup Station	A17-11
			A17-12
			A17-13

It should be emphasised the Movia reserves the right to change this during the procurement process. Information on the exact bus termini where charging stations can be located and the number of charging stations will be given to the operators when available.

In the List of Charging Stations" (Appendix 7), the operator must specify which charging station(s) (charger number) to be installed.

If the operator wishes to have more charging stations installed after the contract award (in addition to those contained in the operator's tender), all costs associated with such new charging stations must be paid by the operator, if the charging stations are required because the operator has underestimated the number of charging stations in his tender. If the operator shows that there is a need for additional charging stations due to the circumstances of Movia, including extension of the bus services relatively to the assumptions on which the contract is based, Movia will pay such additional costs of installing additional charging stations.

During the procurement process, maps showing the potential charging stations for each bus terminal will be inserted in the contract documents.

4.1.6.3 Price of servicing

The List of Charging Stations (Appendix 7) includes the following indicative servicing prices as input data (the final prices will not be known until after the award of the contract to the Systems Supplier):

	150 kW	**300 kW**	**450 kW**
Monthly servicing cost	12,500	14,000	16,000

4.1.6.4 Price of electricity

The price of electricity includes the actual hourly rates quoted at Nord Pool at the time of charging, plus PSO, charges, transport and VAT. Prices will be invoiced at an hourly basis and will reflect the fluctuating prices therefor. In addition, the profit of the Systems Supplier, which is not yet known, will be added. In case green electricity, there will be an additional fixed charge, which is not yet known. The profits will be fixed once the final additional charges are known, which means that the profits will not be adjusted in the contract term.

4.1.6.5 Invoicing

The Systems Supplier will invoice Movia for installation and servicing. As regards the supply of electricity, the Systems Supplier will submit a monthly invoice for power consumption to the operator.

Payment will fall due 30 days after receipt of an adequate invoice.

4.1.7 The System Supplier's contact information

Any inquiries from operators concerning technical matters can be made to the System Supplier's contact person who will be notified to the operator once a contract has been concluded with the Systems Supplier.

Any support calls from the operator's works office (all information of relevance to the operator's use of the charging station) must be made to the System Supplier's contact person who will be notified to the operators once a contract has been concluded with the Systems Supplier.

4.2 Charging stations located at the operator's facilities

The operator is responsible for all charging of electric buses at the garage, including the installation and operation of charging stations.

In case of a power failure at the garage for which the utility company is responsible and which makes it impossible to deliver the planned electric bus services, Movia will grant an exemption for cancelled journeys and delays. The operator must provide evidence of the time when the power failure began and ended.

A condition for the above exemption is that the operator has exhausted all possibilities of performing the bus services as planned. Movia will then ensure that delayed bus departures do not lead to penalties or have a negative impact on the operator's service level and that cancelled journeys are not set off against payments to the operator.

5. Environment

5.1 Requirements for reduction of environmental impact

For the full term of the contract, the operator agrees to protect nature and the environment. In the delivery of services under the contract, the operator is obliged to currently and consistently seek to prevent and combat pollution of the environment, including water, soil and subsoil, and to combat and reduce vibration and noise in a good and proper manner.

In connection with the operation of the garages and workshops servicing and repairing the buses, the operator further agrees to organise work processes that constantly seek to promote the use of a cleaner technology and recycling and to minimise problems associated with waste disposal.

In connection with the operation and maintenance of the buses, the operator further agrees to organise and deploy work processes that promote a cleaner environment, reduce spills and the impact on the environment to the best possible extent.

At the same time, the operator must comply with the requirements for the buses in terms of emissions, fuel etc., see section 5.3.

5.1.1 Statement of warranties and representations and other documentation

As documentation for fulfilment of the above requirements, the operator must, no later than one month from Movia's written request, send:

A certificate (e.g. EMAS or ISO14001) to regularly substantiate that the operator has prepared an action plan and constantly works to implement measures and business processes that reduce the impact on the environment,

or:

A written solemn declaration stating that the operator will constantly seek to comply with all environmental requirements for reduction of the environmental impact under section 5.3.

The declaration must further state that from the award of the contract, the operator has started preparing a specific action plan as to how to reduce the environmental impact and that from the start of operations, the operator will constantly work to implement the specific measures set out in the action plan.
It must further appear from the declaration that the operator regularly educates and trains his employees and drivers, including employees at bus garages and workshops, in how to reduce the impact on the environment.

Movia may request documentation for such an action plan from an independent consultant and a statement on how the measures described in the action plan will be implemented.

The documentation may form part of the evaluation of whether the operator fulfils his obligations under the contract, see clause 18.13 of the Contract.

5.2 Environmental mapping

The operator is obliged to help map out the environmental conditions in the business for the full term of the contract. The operator must use Movia's analysis sheet which is updated and issued once a year. The most recent edition of the analysis sheet is also available from Movia Contracts. The environmental mapping is included in Movia's preparation of environmental accounts for the bus services in Movia's area. See also the Mapping Manual (Appendix e).

The operator is obliged to specify the consumption in the List of Bus Equipment (Appendix 6) details on types of buses used on the individual routes. The operator is obliged to specify the mixture ratio, the composition of the fuel and the reduction of $CO_{2æ}$, NO_x, particles, CO and HC, if the fuel contains more bio materials than the statutory percentage.

Movia requires the operators to appoint an environmental compliance officer, who is to be Movia's contact person in all environmental issues.

5.3 Environmental impact of the buses

5.3.1 Fuel

When using diesel oil or similar fuel as propellant, the operator must use sulphur-free diesel oil or any other fuel which overall pollutes less. Biofuel must meet the same sulphur content limit. Regardless of the type of fuel used, the operator must further secure access to a fuel storage facility which always has the capacity for at least 20 days' consumption. However, propellant delivered through a physical distribution network to which the operator is connected.

5.3.2 Emissions

5.3.2.1 Particles, NO_x´s etc.

Minimum requirements for the environmental standard of the buses on commencement of the contract: The requirements are set out in the table:

Unit		New	Used
1		Zero emission	Zero emission
2*		Zero emission	Zero emission
3		EURO 6	EURO ½6
4	basis	Zero emission	Zero emission
	option	EURO 6	EURO ½6
5		EURO 6	EURO ½6
6		EURO 6	EURO ½6

* See the special requirements for unit 2, see section 2.7.2 and section 3.2.1.

The values are maximum values and measured in g/kWh in accordance with EU's standards for heavy-duty vehicles. All vehicles, except for electric and hydrogen-powered vehicles, must be tested according to the transient cycle. The values are stated below.

Movia considers vehicles run on electricity or hydrogen alone as being free of these emissions, i.e. emission-free. Such vehicles are defined as zero emission buses in these contract documents.

Transient cycle

	CO	HC	NO_x	PM
EURO 6	4.00	0.16	0.46	0.01

It is accepted that buses using emission control equipment can meet the thresholds of a higher emission standard than the engine alone is certified to meet, if substantiated. Used buses are requested to be upgraded to a higher Euro standard. The List of bus Equipment (Appendix 6) states the Euro standard of the bus and the emission values of the engine for the regulated emission types (PM, NOx, HC, CO, etc.), including any retrofitted emission-reducing equipment. It is necessary to use equipment approved in principle by the Danish Transport, Construction and Housing Authority.

Busses retrofitted to Euro 6 standard with respect to only NO_x and particle emissions will be considered Euro ½6 buses. These buses will be weighted lower than real Euro 6 buses. These buses must meet the guidelines of the Danish Transport, Construction and Housing Authority for retrofitting to Euro 6. The operator must deliver a test value in accordance with WHVC (World Harmonized Vehicle Cycle) for the NOx and particle emission that meets the Euro 6 threshold. Buses upgraded to Euro ½6 must keep within the Euro 6 threshold value in the Environmental Inspection Manual (Appendix d), see section 5.4.

A copy of the air pollution certificate of the engines must (see section 1.3.6.8) be available from Movia in the negotiation phase.

To comply with the Euro 4 standard or a higher Euro standard, some bus manufacturers have chosen a technical solution that uses a fuel additive. If the operator uses buses using this technology, Movia may demand that the operator provides documentation for the correct purchase and use of such additive. This

also applies to retrofitted vehicles. The quantity used, handling, etc. of the additive must also appear from the mapping of the environmental conditions at the operator.

To ensure that the buses are well-maintained in the day-to-day running and must therefore be presumed to meet the Euro standard, the buses must comply with the threshold values and requirements in the most recent and current Environmental Inspection Manual (Appendix d) at all times. It is for the operator to ensure that the threshold values are not exceeded.

5.3.2.2 CO2e

Minimum requirements for the buses' emission of CO2e and related consumption: CO2e stands for CO2 equivalents and means that e.g. the methane emission from gas vehicles will be converted to CO2, to allow Movia to make a comparison. Be aware that Movia may demand that conventional diesel be added where synthetic diesel is offered, see section 17.4.2.

Unit	BLACK	Gram CO2e/km
1	2	0
2	2	0
3	3	1,128
4 (basic and option)	3	0
5	3	0
6	2	0

The operator must state what the operator expects from CO2e emission of the buses when delivering the bus services included in the tender. The requirement is an average requirement for the individual unit, i.e. that some buses can emit more while other buses in the relevant unit emit correspondingly less. The average consideration is not applicable to units where the CO2e emission requirement is 0. Here all buses must in themselves meet the requirement.

If for the contract term, Movia wishes to reduce the CO2 emission by up to 100% on one or more of the tendered units, such reduction may be required by Movia. In such cases, Movia will pay up to 5% of the total cost (overheads, bus-related and timetable-related costs) – but no more than the substantiated additional costs. Movia may not require the installation of new equipment.

At any time during the contract term, Movia may demand that the operator delivers green electricity. If Movia uses this option, the operator will be compensated for electricity delivered by charging stations in urban space for the actual additional costs for delivery of green electricity from the Systems Supplier. The operator will be compensated for the delivery of green electricity at a rate of DKK 0.02/kWh, including VAT, used to charge electric buses from charging stations other than charging stations in urban space.

Green electricity means certified green electricity from renewable energy sources, e.g. in the form of RECS certificates (Renewable Energy Certificate System). Moreover, documented green electricity from the operator's own production of energy from renewable energy sources is accepted. Requirements for green electricity apply to charging at garages and at charging stations in urban space.

The CO2 requirements can be met by using diesel buses, gas buses, electric buses, hydrogen-powered buses etc., or a combination meeting the above requirements or by using buses where all or part of the fuel results in a substantiated reduction of the CO2e emission. For instance, it is possible to run buses on a mixture of ordinary diesel, biodiesel and synthetic biodiesel (HVO). It is not possible to mix more than

one type of alternative fuel with diesel B7/B10. When using fuel with biomaterials exceeding the statutory mandatory limit, second generation biofuel must be used.

The operator is free to choose the technical solution to heat the cabin. The operator may thus use an electric heating source, a heater or a combination of these two options If a non-electric heating source is being used (e.g. a diesel heater), electric and hydrogen-powered buses must use a second generation biofuel such as synthetic biodiesel, and when using other technologies, the diesel or gas heater must use the same fuel with the same environmental properties (e.g. biogas certificates) as the bus. In biogas buses, it is possible to use biogas certificated from Energinet.

In his tender, the operator must, to the extent possible, provide evidence to show that the above requirements are met by converting UITPs SORT (Standardised On-Road Test Cycles) certificate. If the operator cannot state a SORT value, e.g. as a result of the choice of technology, other documentation must be acceptable to Movia. At the request of Movia, such documentation must be available at short notice. In case of vehicles which are not tested according to SORT, the operator is required to present documentation for the expected energy consumption (kWh per km).

Any calculation must be based on the emission when using diesel B0, see the table below. Movia expects the following CO2 emission from the different fuels:

Diesel B0 (basic)	2,670 gram CO2e/litre.
Diesel B7	2,483 gram CO2e/litre.
Biogas (slurry)	0 gram CO2e/nm^3. 0.8144 kg gas per nm^3.
Electricity	0 gram CO2e/kWh.
Hydrogen	0 gram CO2e/kg H2.

1 % biomaterial = 1 % CO2e reduction, i.e. 100 % added biomass = 100 % CO2e reduction. Please note that diesel B7 in itself reduces the CO2e emission by 7% compared to diesel B0.

The operator must state energy efficiency (gram of fuel / kWh) of the vehicles included in the tender. For electric vehicles, the operator must state energy efficiency as kWh / km with and without heating in the List of Equipment. In the same way, the energy efficiency of hydrogen vehicles must be estimated as kg H2/km. Hybrid vehicles must state both values (both diesel and electricity). The value is to be entered in to the Bus Information Form.

The operator can use the spreadsheet (Excel sheet available for download at the tender website) to calculate the emission from each vehicle or unit.

At any time during the contract term, Movia may require documentation for purchases (invoices), use and any CO_2 reduction of the stated fuel according to the tender. This also applies to additives.

For units 1 and 2 in particular

No NOx, particles or other local air pollutants may be emitted from the cabin heating system, which means that diesel or gas heaters may not be used as heat source. Please note the option, see section 1.3.5.1.

For unit 4 basic in particular

It is only permitted to use a heater or similar technical solution to heat the bus cabin which emits NOx, particles or other local air pollutants if the outdoor temperature is no more than 0 °C. At outdoor

temperatures above 0 °C, the heater must automatically switch off, and it must be possible to prevent that the driver can turn on the heater.

5.3.3 Noise

Movia wishes the buses to have the lowest possible noise level.

5.3.3.1 Exterior noise

The below requirements are made to the noise impact of the buses.

Unit	Exterior (dB)	
	New	Used
1	70	70
2	70	70
3	76	77
4 basic	70	70
4 option	76	77
5	76	77
6	76	77

* See the special requirements for units 1, 2 and 4 basic, see section 2.7.2 and section 3.2.1.

The exterior noise level is measured, see the Environmental Inspection Manual - part 2 (Appendix d).

Neither the whole nor part of the bus may emit noise exceeding the noise limit for exterior noise.

Prior to the start of operations, the operator must provide evidence of compliance with the requirements for the exterior noise level of the buses by presenting a noise measurement performed in accordance with part 2 of the Environmental Inspection Manual (Appendix d) for exterior noise.

5.3.3.2 Interior noise

Unit	Exterior (dB)	
	New	Used
1	69	69
2	69	69
3	71	72
4 basic	69	69
4 option	71	72
5	71	72
6	71	72

* See the special requirements for units 1, 2 and 4 basic, see section 2.7 and section 3.2.1.

The interior noise level is measured, see the Environmental Inspection Manual - part 2 (Appendix d).

Neither the whole nor part of the bus may emit noise exceeding the noise limit for interior noise.

Prior to the start of operations, the operator must provide evidence of compliance with the requirements for the interior noise level of the buses by presenting a noise measurement performed in accordance with part 2 of the Environmental Inspection Manual (Appendix d) for interior noise.

5.4 Environmental inspection

Throughout the contract term, the entire fleet of buses covered by this ITT, including replacement buses, must undergo an environmental inspection once a year at the expense of the operator.

Measurements must be made during a calendar year from 1 January to 31 December. For new buses, the period from the start of operations until 31 December of the same year is not covered by the requirement for an environmental inspection. Used buses must undergo an environmental inspection shortly before the start of operations. Subsequently, the buses will undergo an environmental inspection once every calendar year, except in the calendar year from the start of operations until 31 December of the same year.

Movia reserves the right to make unannounced environmental inspections to check for compliance with both part 1 and part 2 of the Environment Inspection Manual (Appendix d). In connection with random checks, Movia will pay the costs of the measurements itself and the measurement will be made so as to cause the least possible inconvenience to the operator. The emission measurements may be made without prior notice and at no charge when it does not cause disruption of the bus services. The operator must place a bus with driver at disposal for the environmental inspection at no extra charge.

The environmental inspection must be carried out in accordance with the guidelines in Movia's Environmental Inspection Manual (Appendix d) - both emissions (part 1) and noise (part 2). As to electric and hydrogen-powered buses, only noise tests (part 2) are required.

Movia reserves the right to publish the results of the environmental inspections stating the name of the operator, bus route and bus model.

Movia requires that the approved measuring agencies are part of a calibration scheme, see the Environmental Inspection Manual (Appendix d).

The Environmental Inspection Manual (Appendix d) is available in Danish and in English. In case of discrepancy between the Danish and English versions, the Danish version should at any time form the basis of tenders and is therefore applicable to a concluded contract.

5.5 Monitoring of NOx emission

The operator is obliged to ensure constant on-line monitoring of NOx emission from the bus. Data must be uploaded automatically to a database designated by the operator which Movia may access and personally log into to see the emission history of each bus.

The following data must be included in the emission history of each bus:

- Bus ID
- Date/hour of a delay

- The NoxOUT level within a level of measurement of 0-1500 ppm and compliance with the threshold limit value (TLV) (OK) or non-compliance with the TLV (non-compliance). Any non-compliance with the threshold limit value must be recorded to give a quick outline.
- The Environmental Inspection Manual (Appendix d) threshold limit value for the relevant Euro standard applicable to the bus

It must be possible to extract historical data (from date to date) on individual buses, groups of buses and all buses.

Data must be registered from the commencement of the Contract and in a frequency rate of 1hz when the bus is in service (secondary data). Data must be sent to the database and recorded no later than six hours after a completed journey.

In case of non-compliance with the limit threshold value, the bus must taken out of service to rectify the fault at the end of the day of service at the latest. Subsequent re-commissioning of a bus with a proven non-compliance with the threshold limit value for NOx emission, see the Environmental Inspection Manual (Appendix d), will be sanctioned at the rate applicable to failed environmental tests (see clause 18 of the Contract).

The monitoring of the NOx emission does not apply to electric and hydrogen-powered buses.

6. IT

Creating an efficient and reliable public transportation system and related traffic information to Movia's many passengers requires a strong partnership between Movia and the operator. Especially on IT, there is a need for a close collaboration as IT affects almost all phases of planning, execution and follow-up on operations.

In recent years, Movia has been in a strategic transition from owning and operating most IT property to subcontracting most of it to the Operator who has today the responsibility for purchasing, installing, operating and maintaining the information technology required to meet Movia's requirements. As from Tender Process A15, the generation of bus positions (e.g. for the generation of forecasts/real time) has become the responsibility of the Operator.

This section describes Movia's IT requirements – in the bus and at the operator's facilities – but also service and functionality requirements made by Movia on behalf of the passengers. The latter requirements will be described in section 6.4 relating to the different "systems".

Before the start of operations, Movia and the operator will, where relevant, agree on the exact procedures, operational tasks and the allocation of responsibilities for each IT system. In that connection, Movia will require the operator to appoint a person (or service desk) to be in charge of IT and to be Movia's contact at the operator with respect to all IT-related questions.

Any failure to comply with deadlines and requirements in this section 6 is subject to Movia's penalty system (see clauses 17-18 of the Contract) unless otherwise agreed in advance.

6.1 Ownership

There are two types of ownership (ownership models) of the IT equipment required by Movia in all in-service and replacement buses: A or B.

6.1.1 Model A:

Movia owns the IT equipment. Movia makes functional, operational and technical requirements. Movia chooses supplier. Movia pays the costs of all IT components. The IT equipment must be returned to Movia at the end of the contract term.

Unless otherwise agreed, Movia is to pay the costs of installation and de-installation on expiry of contract. The operator will place buses at Movia's disposal in connection with installation and de-installation at no charge to Movia.

6.1.2 Model B:

Movia owns the IT equipment. Movia makes functional requirements. The operator is responsible for all technical and operational requirements, chooses supplier and pays all costs of hardware and installation as well as operation.

Borderline cases

In case of testing and/or implementation and commissioning of new IT systems or new functionalities in existing IT systems during the contract term, the parties will negotiate which of them will own and be responsible for such systems and functionalities in each case.

The operator may not let or sell buses or garages with equipment owned by Movia (Model A) without prior written approval from Movia. The operator will give at least thirty days' notice of its requests.

6.2 General requirements for IT systems and IT equipment in buses and at bus garages

The below requirements apply to all IT equipment required by Movia unless otherwise specified under the specific requirements for the individual system.

Model A systems to be installed at the start of operations:

- Travel card, electronic ticketing and fare collection equipment
- Passenger counting system

Model B systems to be installed at the start of operations:

- Destination signs
- Loudspeaker system
- RPS (New real time system)
- Automatic announcement of bus stops
- Infotainment

- Passenger display - LED display (showing time, zone and stops). On routes without infotainment systems, a passenger display will be installed instead.

The above functionalities will be provided by the operator. The systems may be mutually embedded and integrated into other functions installed and operated by the operator for his own use and may share communication lines, positioning systems, driver's control panel, etc.

If IT equipment is to be installed in certain buses only, it will be stated under the specific system requirements

In the following sections, the general requirements and terms applicable to all IT systems and IT equipment will be described. Then the technical requirements (section 6.3) are described, followed by a description of the specific requirements for the respective IT systems (section 6.4).

6.2.1 Garages

The operator will arrange for garages/bus parking areas. Movia must be informed of the address of the garage no later than six months prior to the start of operations to allow Movia to order WLAN for travel cards etc.

When a new garage is being built, Movia's Travel Card partner needs to make a site survey. In this connection, Movia's Travel Card partner must have physical access to inspect the garage/bus parking area no later than six months prior to the start of operations. Moreover, the operator will send the following drawings of garages/bus parking area prior to the start of operations:

- Drawing of existing conditions
- Drawing of any alterations (new buildings etc.)
- Drawing of service area (where the buses are to park)

For the operation of the travel card system, interior and exterior signage and electronic reporting of information on operations etc., the operator is required to install, operate and use a connection to the Internet at garages, offices and in buses. For the individual functions (including travel card driver management and supervision), only the Internet Explorer browser can be used.

For the Travel Card System, Movia will install a separate MPLS connection at the garage. All costs of installing and operating this connection will be paid by Movia.

From the commencement of the contract, Movia's IT equipment at every garage for which the operator is responsible includes:

- WLAN and router: One for the Travel Card system and one for the passenger counting system
- Back-up equipment for the Travel Card system.

Movia's IT equipment at each works office for which the operator is responsible also includes:

- Emergency radio (two portable radio units)

6.2.2 Number of buses with IT equipment (Model A)

In the List of Bus Equipment (Appendix 6), the operator must state how many in-service and replacement buses are to have IT equipment to deliver the required functionality.

For each type of IT equipment under Model A, Movia will lend a maximum number of units per tender unit for installation in replacement buses at no extra charge.

The maximum number of units for replacement buses is calculated as follows:

1 – 10 in-service buses = units for 2 replacement buses

11 – 20 in-service buses = units for 3 replacement buses

21 – 30 in-service buses = units for 4 replacement buses

31 – 40 in-service buses = units for 5 replacement buses

etc.

If the operator needs to fit more buses with Movia-owned equipment than described above, the operator may rent additional equipment from Movia. The rent will be agreed on a case-to-case basis.

The operator will pay all costs associated with the installation and de-installation of rented additional equipment.

If the operator wants more replacement buses during the contract term, e.g. because of an increase in the number of buses in service under the contract, the question must form part of the negotiation of the increase in number of buses.

6.2.3 Installation of IT equipment (Model A)

Movia will deliver equipment, system documentation and installation guide for the IT systems under Model A. Unless otherwise agreed, Movia will deliver any fittings for the IT equipment in question.

The operator must provide other IT components, including IT cabinet and cables ducts.

Movia's installation guide must be approved by the operator. The placing of driver-operated IT equipment and any other IT equipment in the bus that may have an impact on the driver's operation, view and safety must be approved in writing by the operator for all types of buses before installation.

The operator must give notice of readiness when the installation has been completed and approved by the tenderer. The notice of readiness must be given no later than two weeks before the start of operations.

Subsequently, Movia's IT service provider will install, connect and test the IT equipment in the IT cabinet of the bus and the driver's terminal, if any.

Preparation and final testing of the IT equipment in the bus will be carried out by the IT service provider. Movia will pay the fees of the IT service provider for installation, connection and testing of IT equipment in the IT cabinet.

The operator is obliged to take part in a final test and acceptance of the IT equipment installed. This applies whether or not the IT equipment is installed from the commencement of the contract or during the contract term.

Any IT malfunctions attributable to the operator's installations or IT cabinet must be rectified no later than five working days before the start of operations.

6.2.4 Installation of IT equipment (Model A)

On termination of the contract or in case Movia decides to phase out or replace IT equipment in the contract term, the IT equipment must be de-installed and returned to Movia. This also applies to various documentation and educational material.

Immediately after the termination of the contract, the operator must place all buses at disposal free of charge for the time required to de-install IT equipment – but no more than one weekday per bus. The date and hour of the de-installation must be agreed with at least one week's notice.

Hidden cables (which are insulated) and aerials must stay in the bus after de-installation. Movia will not pay for any subsequent repairs.

The de-installation of IT equipment will be carried out by Movia Customer and Traffic Service or a firm selected by Movia. The costs will be paid by Movia.

If the deinstallation and repair work is required because of a decision made by the operator (e.g. the renewal of a bus), the operator will pay all costs associated therewith.

6.2.5 Deinstallation of IT equipment (Model B)

If Movia requires this type of equipment to be de-installed in the contract term, the costs will be paid by Movia.

6.2.6 Relocation of IT equipment in the contract term (Model A)

The bus

If the operator wants to replace or move a bus, and that implies the transfer of IT equipment to another bus, the operator must pay all costs associated therewith. In some cases, Movia may be able to give price information. The operator must give notice in writing of his requests no later than thirty days before the desired date of transfer. The operator is further responsible for all practicalities relating to the transfer of IT equipment.

In case the tender includes the renewal of IT and Travel Card equipment in buses in the contract term, the costs associated therewith will be paid by Movia.

Garages

The terms applicable to the transfer of IT equipment in buses also apply in case the operator wants to move IT equipment and/or communication lines at the garage.

See also the system-specific sections, see section 6.4.

6.2.7 Liability for damages re. IT equipment (Model A)

The operator is liable for any loss of or damage to all IT equipment (Model A) while it is in the operator's care. The liability includes equipment, any spare parts stored at the operator’s premises, and all costs of repair. The liability also applies to interruption of services caused by the failure to meet the requirements for EMC, see section 6.3.5.

Unless otherwise agreed, the operator will assume the above liability from the date when the components concerned are physically in the operator's care. The operator will assume such liability without further notice.

Information on the value of Movia's IT equipment kept at the operator's premises is contained in the sections on the respective systems.

If the parties agree that the operator may use IT equipment (Model A) in excess of the functions required by Movia, the operator will be liable for any consequences of such use, including operating costs.

All contact to Movia's IT service provider must go through Movia unless otherwise agreed.

6.2.8 Operational responsibility re. IT equipment (Models A and B)

The operator is responsible for full IT functionality on contract bus services. This responsibility covers IT systems introduced from the commencement of the contract and during the contract term.

Unless otherwise agreed, the operator is responsible for all operation of the relevant IT equipment. The daily operational responsibility includes:

- Correct system start-up (e.g. login/log off, acceptance of journeys, choice of route number and departure, etc.) and operation and visual control to ensure that the IT system of the bus is ready to run services according to the timetable.
- Reporting faults in equipment immediately if a fault is detected/indicated. The tenderer is required to report faults as advised by Movia. Deadlines or other terms for fault and other reporting are laid down in the procedures agreed between the parties.
- Workshop workers, traffic managers and drivers being able to operate and report faults in the IT equipment in accordance with Movia's instructions and user's manuals. Unless otherwise agreed, Movia will deliver teaching material to the operator no later than two months before the start of operations.

The operator must performance test each system or cause each system to be performance tested in accordance with the instructions given by Movia and/or the systems supplier. The operator is obliged to ensure that all IT equipment located at the Operator's premises or in the operator's buses is fully functional at all times.

Movia is entitled to consider any journey not logged on to, or incorrectly logged on to, the IT system as a cancelled journey which will not be paid (Movia does not receive position data for such journey). The operator may, however, receive payment for the journey if he can otherwise demonstrate that the journey has been completed.

Any costs payable to Movia's suppliers or external service partners as a result of incorrect fault reporting or failure to fulfil agreements on access to work on buses must be paid by the operator.

In case of operational tasks and training imposed on the operator after the commencement of the contract, separate agreement on payment therefor must be made with Movia. When determining the payment, any benefit that the operator may enjoy from the new systems must be taken into consideration.

Movia will performance test IT systems in connection with its quality assurance.

In connection with the installation of new IT systems or functions, the parties must agree on functionality and system uptime requirements and penalty provisions if such requirements and provisions are not already included in the contract documents.

6.2.9 Maintenance responsibility re. IT equipment (Models A and B)

Unless otherwise agreed or required to be included in the tender price, Movia will pay the costs of maintaining the IT equipment required and installed by Movia (Model A).

Movia's maintenance of IT equipment (Model A) is directed towards errors, defects or damage caused by fair wear and tear only. Any fault report concerning vandalized equipment must specify that it is a case of vandalism.

All IT equipment which Movia has placed at the disposal of the operator in the contract term must be in functional and undamaged condition (fair wear and tear excepted) on expiry of the contract.

Maintenance of IT equipment (Model A) will be performed by a service partner having an agreement with Movia.

Movia may require the operator to enter into a service agreement acceptable to and paid by Movia, providing for speedy and correct repair/replacement of faulty components. Subject to prior agreement, Movia may elect to store spare components at the operator's premises and let the operator handle and be responsible for the replacement of components.

The date and hour of the repair, which the operator agrees with Movia's service partner, must usually be on the date when the bus is reported faulty and no later than on the day following the date when the bus is reported faulty between 6 am and 9 pm on weekdays. The operator will place the buses at disposal free of charge. If the operator fails to meet the agreed dates of repair, the operator must pay for any substantiated additional costs incurred by Movia. If Movia's suppliers fail to meet the agreed dates of repair, Movia will pay any substantiated additional costs incurred by the operator.

The operator is obliged to place buses at disposal free of charge for testing and service for a maximum of three hours in the daytime (9.00 am - 3.00 pm) on weekdays twice a year. The testing and service plan must be agreed subject to at least thirty days' notice from Movia or from Movia's service partner.

Any IT system owned by the operator (Model B) and being a sub-system in a customer information, bus operation or security system must be maintained and kept fully functional by the operator at no expense to Movia.

Electronic signals which are already fitted in the bus and which Movia wants to use (e.g. stop signal, odometer pulsar and door function) must be maintained and kept fully functional by the operator at no expense to Movia.

It is further the duty of the operator to provide documentation for and maintain information on the allocation of PIN codes, choice of protection and permitted use on the individual PIN codes where Movia is to connect equipment.

When the operator receives reports from Movia on faults in electrical signals from the bus which is used by IT equipment required by Movia (Models A and B), the operator is obliged to rectify such faults no later than on the second working day after having received the fault report.

6.2.10 Right to information

Movia has all rights to all operator-specific information which is registered by IT systems (Models A and B) and which is relevant for Movia’s planning, operation and passenger information as well as follow-up and control. It may be agreed not to disclose certain information to others.

The principle is that Movia must be able to publish information relevant to the public directly to passengers and drivers immediately whereas other information may only be used by Movia and the individual operator.

The operator must retrieve data for traffic information from Movia’s web services (section 6.3.7).

The operator will gain access to extracts of reports concerning the drivers' sale of cash bus fares and to other administration in the travel card system, including the monitoring of the operation of the buses.

6.2.11 Amendment of existing and introduction of new IT systems

The expectations of our surroundings change over time, and the technological opportunities develop at an increasing pace. Consequently, it is highly likely that it will be necessary to make changes to IT equipment (Model A), to install new IT equipment (Model A) or to buy and install new IT equipment (Model B) during the contract term as a result of new functionality requirements from Movia.

Movia has the right to make, or request the operator to make, such installations or changes to IT systems during the contract term.

Technical, physical and other matters relating to the future IT equipment are described to the extent known at present.

Information on the value of future IT equipment (Model A) in the care of the operator will be given when it is known.

Payment for the operator's expenses for the purchase, installation, operation and maintenance of future IT equipment (Model B) will be determined after negotiation of an addendum to the contract.

If the operator wants "to add on" to an IT system delivered by Movia e.g. to exchange login/route/journey information, it (including specification of the solution) must be approved by Movia in writing and be paid by the operator.

If the operator's request implies a need for additional power capacity, more room in IT cabinet or cable ducts, the operator must arrange for the necessary extensions.

6.3 Technical requirements of IT systems and equipment

Movia sees a value in the IT infrastructure in the buses being regularly standardised and is making efforts to implement EBSF_2 (http://ebsf2.eu/) – or parts thereof - in future contract conditions. In the long view, the advantages of using standards are more robust and cheaper systems. The requirements in this section may be derogated from if it leads to an approximation to EBSF_2, and the functional targets of the contract conditions are otherwise taken into account. In case of such derogation, the operator is required to describe what it being derogated from and how it is compensated.

The below sections will describe the technical requirements and terms applicable to all IT systems and IT equipment.

6.3.1 IT cabinet

All IT equipment (Model A) must be placed in an IT compartment in the bus. Exempt are driver's terminal, card readers and printer for the travel card system as well as sensors and other equipment for passenger counting. It must be agreed with Movia if IT equipment owned by the operator (Model B) is also to be placed in the IT cabinet.

An IT compartment can be a conventional IT cabinet or an IT room with the same functionality as the conventional IT cabinet. Below the compartment will be referred to as a cabinet. The IT cabinet, including conduit ducts, must be delivered and installed by the operator. The following requirements must be met:

- The IT cabinet must be designed to accommodate the following types of equipment:
- Passenger counting equipment - takes up one rack shelf
- Travel card equipment takes up one rack shelf – up to six card readers.

- It must be fitted with a 19" rack with mounting rails in each side, both in the front and rear, in the full height (Movia will deliver shelves)

- Each rack shelf measures 19” in width, 50 cm in depth and must fit equipment measuring 20 cm in height in the entire depth.
- Where space makes it necessary to divide the cabinet into several cabinets, the interior height of each cabinet must be at least 20 cm. Requirements for cables and the running of electric wiring and electric signals from the bus apply to all cabinets If two cabinets are installed, there must be PIN terminals in one cabinet and access to PIN from the other cabinet.
- The IT cabinet must be placed so as to ensure that the cable to the travel card reader at the driver’s compartment is not more than 9.90 metres long.
- The IT cabinet must be placed so as not to cause inconvenience to passengers or the operator's maintenance of the bus, and it must be easily accessible when the equipment is to be installed or repaired.
- The IT cabinet must be lockable. Movia will deliver lock and keys.
- The operator will choose whether to install IT equipment in a cabinet or in a room. It is the responsibility of the operator to ensure that the ventilation and temperature in the room allow for full functionality of all installed equipment.
- Conduits (Ø 50mm) for cables for aerials on bus roof. Other sizes of conduits for the cabinet appear from the figure in the following section on cable routing
- Terminal strips with routing and clear marking of plus, bay and all electronic signals (see section thereon) are fitted at the top of the IT cabinet and as far ahead as possible and must be shielded and protected against short-circuiting
- Electricity for terminal strips must be taken from the two power supply cables in the IT cabinet through a fuse box.
- In the IT cabinet, there must be documentation of the connection on/to the terminal strips. It is further the duty of the operator to provide documentation for and maintain information on the allocation of PIN codes, choice of protection and permitted use on the individual PIN codes where Movia is to connect equipment.
- As to equipment under Model A, there must be room for two aerials on the bus roof. Buses must be delivered with the cables delivered by Movia from each aerial to the IT cabinet in the conduits mentioned.

The terminal strips of the IT cabinet (with 6.3 mm split) must be connected to the following electronic signals:

Placing at terminal strip (no)	Signal	Cable (mm2)	Comment
1			
2			
3			
4			
5	Reverse gear	0.75	Low level: 0-3 VDC, high level: 4-36VDC
6	Odometer signal	0.75	5-32 VDC min. 200 mAMP 12 signals per metre
7			
8			
9			
10	Charging voltage	0.75	18-32 VDC
11			
12	24V +/- 7%	0.75	After main switch/ignition and not from the bus control board
13	24V	2.50	Before main switch and not from the bus control board
14	Chassis	2.50	
15			
16			
17			
18			
19			
20			
21			
22			
23	Travel card loudspeaker wiring	0.50	Drawn to driver's seat
24	Travel card loudspeaker wiring	0.50	Drawn to driver's seat

The following cables must also be drawn to the IT cabinet:

- Main current (24V above main switch)
- Main current (24V above emergency main switch)
- Earthing
- - 2 cables for aerial/GPS (travel card and passenger counting equipment). Delivered by Movia.
- 1 LVDS cable for travel card screen. Delivered by Movia.

All signals refer to BUS GND.

The operator must deliver open communication interfaces and complete documentation for the above electronic signals.

Placement and design of the cabinet and cabling and electronic signals, documentation etc. must comply with the pre-cabling requirements of Movia (available from Movia, IT) and subsequently be approved by Movia.

Power supply

Two power supply cables must be drawn to the IT cabinet. One power supply cable must run round the main switch of the bus. The cable will be fitted with a fuse (max amperage, see below + 25%). The other cable must be connected to the main switch. It must be possible to connect each power supply cable to six installation cables. A negative charge must run to the IT cabinet.

The power supply from the bus to the IT cabinet must be 24 volt. The voltage may at no time deviate from 24 volt +/- 7%, including start and stop of the bus engine. The operator is responsible for all damage to IT equipment that may arise if the voltage deviates from the 24 volt +/- 7%.

The buses must deliver a total output to IT systems required by Movia which meets the following criteria:

	Ordinary bus (max. 15 m)
In serivce (runs or stands still to allow passengers onto the bus)	47 amp
Stand-by (runs outside out of route or stands still without allowing passengers onto the bus). Main switch turned on	15 amp
Back-up (parked, main switch turned off)	4 amp

6.3.2 Installation of aerial

It must be possible to install up to an aerial for travel card and passenger counting equipment and the necessary number for the Operator's equipment. The aerials must be installed at distances of at least 50 cm.

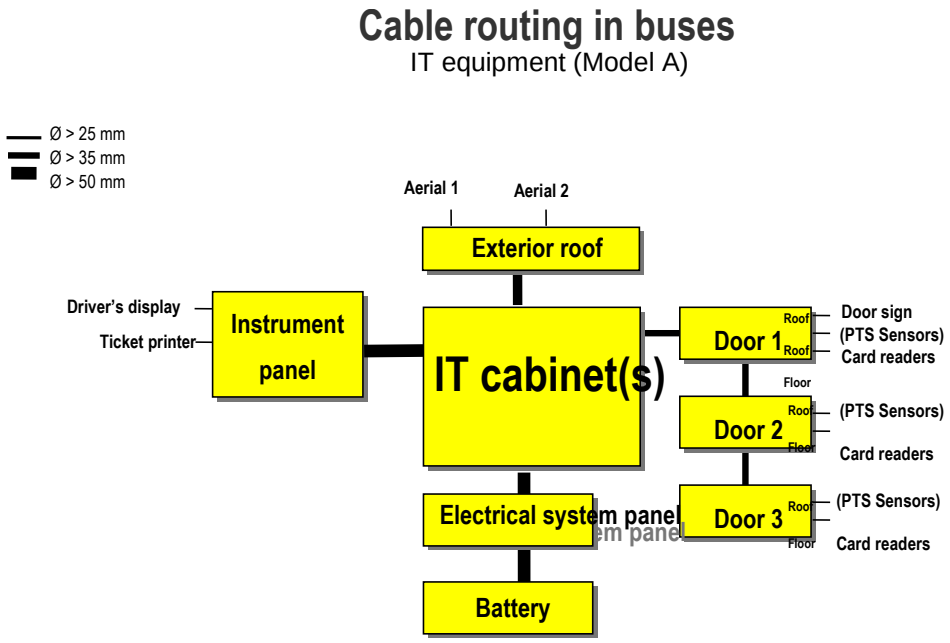
In the bus roof, there must be an earth plate for the aerials, also when they are installed on non-metal bodywork parts.

6.3.3 Cable routing for (Model A)

The below figure shows cabling and size requirements for cable routing (conduits) between the IT cabinet and the equipment of the bus as well as IT components. IT components in brackets are not required from the commencement of the contract, but are considered introduced during the contract term. All cable routes shown must be installed in all buses from the commencement of the contract.

All conduits must have a smooth inside and easy bends with an angle of no more than 90 degrees. Conduits not delivered with wires inside must be equipped with a drawstring for subsequent wiring. The destination of the conduits must be clearly indicated in the IT cabinet. Cables for IT equipment (Model A) must be drawn in conduits.

For the travel card system, it should be taken into account that it is necessary to install up to two card readers per door and up to four card readers at double doors. The card readers must be fitted on existing stanchions at the doors or on the wall.



6.3.4 Operating environment

The owner of the IT equipment is fully responsible that it does not adversely affect the functionality of any other equipment in the bus.

6.3.5 Electrical noise

As to equipment belonging to Model A, Movia will ensure compliance with the following statutory rules and regulations on the electricity, IT and telecommunications area:

- General electromagnetic compatibility (including any electrical propulsion unit) under Council Directive 2004/108/EC implemented in Denmark by Act No. 260/2016
- ECE Regulation No. 10 (concerning EMC standards for electric vehicles)
- ECE Regulation No. 100 (concerning construction and functional safety of battery electric vehicles)

As to equipment belonging to Model B, the operator must ensure compliance with the same rules and regulations. At the request of Movia, the operator must be able to show documentation for such compliance.

6.3.6 Integration with the electrical system of the bus

The operator must deliver an open communication interface and documentation of the telegram interface for e.g. odometer, door and STOP signals as well as main switch and loudspeaker system.

6.3.7 Data supplies (web services)

Data for the real time system, infotainment, bus stop announcements, destination signs, information displays, etc. will be delivered by Movia in the form of web services. It is a requirement that the buses are constantly on-line, also while in transit, to allow for continuous receipt of data. The operator is consequently required to retrieve all data to be used for passenger information purposes in the buses from the infotainment web service. Data for help to log the bus onto the correct journey can be retrieved from the assignment web service.

You can gain access to web services by contacting Movia Service Desk that issues username and password.

Movia has produced guides which are available at ekstranet.moviatrafik.dk under “Værd at vide”/”IT dokumentation og vejledninger”. The guides are also available here:

https://wsilb.moviatrafik.dk/infotainment/v3/doc/README.html

https://wsilb.moviatrafik.dk/assignment/v1/doc/README.html

Once a year, Movia may make changes to the infotainment web service or in the design guide for infotainment that may require an adaptation of the Operator’s software. The tenderer must make minor corrections and maintenance and roll out such changes with effect from an agreed date. Changes are subject to at least three months’ notice.

6.4 System-specific requirements and terms for the individual IT systems and equipment

6.4.1 Travel card, electronic ticketing and fare collection equipment

The operator's responsibility and obligations in connection with the travel card system are described in these contract documents and in the Operations Manual.

The value of IT equipment (Model A) is DKK 175,000 (not including VAT), card readers installation and commissioning.

Movia is generally responsible for the travel card system.

This section describes the installation of new buses, the transfer of buses, the relocation of equipment, the de-installation of equipment, the tenderer’s role and services for first line servicing of the travel card

system and the travel card operational tasks which are vital to the daily work at the garages. The requirements in this section are supplemented by the requirements in the Travel Card Manual (Appendix f).

Installation

Travel card installations at garages

Wireless communication equipment (WLAN) is to be installed at every garage. Wireless LAN is to be used for data transfer between travel cards in buses and the central travel card system. Movia will be in charge of this installation.

For the Travel Card System WLAN connection, Movia will install a separate MPLS connection at the garage. All costs of installing and operating this connection will be paid by Movia.

The operator must contribute to clarification and decisions on the exact location of equipment, cabling and other issues relating to installation at garages. The operator's contribution must be at no charge to Movia.

It must be possible for Movia to install the wireless LAN no later than thirty days before the start of operations. Temporary solutions necessitated by e.g. conversions etc. are payable by the operator.

Travel card installation for buses

- The travel card system is the property of Movia when installed at garages and in buses.
- Movia will be responsible for the installation of the Travel Card in new buses for new bus service contract and if the bus service contract requires the use of additional buses or the replacement of existing buses.
- The deadline for submission of the design specification must be observed. It is the responsibility of the operator that the installation of the travel card equipment can be completed in time for it not to affect the operation.
- The parties must agree on the exact plan for the installation task on a case-to-case basis.
- In case of a delay attributable to Movia / the Fitter, the delay will not result in quality defects on the part of Movia.
- In the planning, due regard is also had to the day-to-day operation of the operator so as to minimise waiting times and other inconvenience as much as possible.

Pre-installation

Where Movia requires IT equipment to be installed and tested in buses from the start of operations, such equipment must be pre-installed in new buses on delivery.

The operator is responsible for the installation of cables, aerial and for drilling the holes required for the installation, see Movia’s pre-cabling requirements.

All costs incurred by the operator for installation, test preparation and acceptance test as well as delivery and pre-installation of IT cabinet and conduits must be included in the tender price.

The pre-installation includes all physical works concerning IT cabinet and cabling between the IT cabinet of the bus and the bus and IT components as well as pre-installation of aerials. The operator is

responsible for rectifying any incorrect pre-installation outside or inside the IT cabinet. In case of pre-installation errors in/outside the IT cabinet, the operator is liable for all costs of rectifying errors, including any costs payable to Movia's IT solution provider.

It is the responsibility of the operator to ensure that the buses meet all technology and documentation requirements for installation and subsequent operation of the required IT systems.

For each type of bus, it is the responsibility of the operator to prepare a design specification showing the exact location of equipment, aerial, cabling, etc. and describing how the operator intends all electrical specifications for interfaces to the travel card equipment to be observed. This applies in particular to voltage supply, speed signal and reverse gear signal.

The operator's design specification is subject to Movia's approval before installation commences The specification must be received by Movia 60 days before commencement of installation. The specification must contain a detailed guidance for/description of all current types of buses.

It is the responsibility of the operator that the equipment is installed in a manner that prevents safety hazards to drivers or passengers and facilitates easy operation by the driver (driver's console / touch screen) and passengers (card readers).

On request, Movia will hand out a pre-installation manual.

Final installation and testing

Movia will be responsible for the final installation of equipment, configuration and testing. The final installation may be carried out by a third party. The operator must place the buses at the free disposal of Movia for one day per bus and allow a sufficient number of working days for completion before the start of operations to ensure that the work is performed safely and properly - unless otherwise specifically agreed, the buses must be available for the final installation at least 30 weekdays before the start of operations.

The number and type of busses must be clarified at least six months before the start of operations.

In this process, Movia and/or a third party will install card readers complete with base, TCU, driver's terminal and printer in the ready bus. These components will remain the property of Movia. The installation must be completed at one of the operator's garages equipped with travel card wireless LAN.

Additional costs of driving the buses to the place of installation will be imposed on the operator. The operator will place an indoor track at disposal free of charge.

On completion of the installation, the operator will assume responsibility for the equipment, including insurance responsibility.

Transfer

If the operator wants to transfer buses with existing travel card equipment, the equipment needs to be reconfigured. Movia Operations will carry out the practical reconfiguration of the equipment. Movia must be given at least ten weekdays' notice before the date when the reconfiguration needs to be completed. The reconfiguration work must be completed at a garage equipped with travel card wireless LAN.

Relocation of equipment in the contract term

The bus

If the operator wants to replace or move a bus equipped with IT equipment required by Movia, and that implies the transfer of IT equipment to another bus, the operator must, according to section 6.2.6, pay all costs associated therewith. In some cases, Movia may be able to give price information. The operator must give notice in writing of his requests no later than 30 days before the desired date of transfer. The operator is further responsible for all practicalities relating to the transfer of IT equipment.

For Travel Card and Passenger Counting, Movia will be responsible for the transfer of the equipment. The bus must be at the disposal of Movia for one working day for the transfer of the travel card equipment. In case a bus type unknown to Movia is to be replaced during the contract term, an additional two months' time-limit is to be expected. The costs are payable by the operator.

In case the tender includes the renewal of travel card equipment in buses in the contract term, the costs associated therewith will be paid by Movia.

Garages

The terms applicable to the transfer of IT equipment in buses also apply in case the operator wants to move IT equipment and/or communication lines at the operator's premises.

With respect to travel card equipment, the costs necessitated by relocation/closure or conversion of garages are payable by the operator. This applies if for instance the operator begins to use other garages than originally agreed or changes the location of buses in the garage, thus making the LAN coverage insufficient. It must always be possible to maintain normal operations, and it is the responsibility of the operator to facilitate the daily synchronisation of the buses on other wireless LANs in case there is no wireless LAN at the relevant garage for a period. The operator is required to give Movia five months' notice of the relocation of garage(s).

Deinstallation of IT equipment after the contract term

In case of the deinstallation of travel card equipment in buses taken out of service after the expiry of the contract or subject to agreement with Movia, the costs associated therewith will be paid by Movia. Movia will be in charge of the deinstallation of equipment, whereas cabling will remain in the bus.

No later than one week after the bus has been taken out of serivce, Movia Operation must be contacted to deinstall the travel card equipment.

Operation of the travel card system

Guidelines have been prepared for the day-to-day operation of the travel card system at technical and administrative levels. Most of the daily routines are described there. It is expected that the individual garages will follow the instructions given in this manual and other guidelines. For a more detailed description, the Travel Card Manual is available for download from Movia's extranet, see the Travel Card Manual (Appendix f).

During operation, the driver must make sure that the travel card system works as intended by logging on using driver ID and PIN code, choosing the correct route and journey and logging off after the end of his shift. On change of driver, the new driver must log on and choose journey again.

The driver must use the system for cash ticket sales and generally to operate the equipment in accordance with the guidelines issued by Movia. This applies not least in cases where the driver is required to help passengers use the travel card (e.g. when checking in several passengers using the same card or when changing customer type).

The driver must make sure that the passengers can check in and out correctly during the bus journey and that the GPS position of the bus is correct in relation to the bus stops. In case of acute/unintended

changes to routes, it may be necessary for the driver to make a manual correction on the driver's console to ensure the continued correct ticketing.

The driver must make sure that there is paper in the printer and the operator must make sure that there is sufficient paper in the bus. Paper rolls are available from Movia. Only paper provided by Movia may be used. The operator must use the system user administration to make sure that all drivers/other staff have been registered in the system and assigned a login ID and PIN.

The operator will gain access to extracts of reports concerning the drivers' sale of cash bus fares and to other administration in the travel card system, including the monitoring of the operation of the buses. This requires that the operator has a functional Internet connection at the site.

Fault reporting and the Operator's own repair (first line servicing)

The operator must make sure that the travel card equipment is kept in good condition, including that it is cleaned and does not appear as scratched and tarnished. Cleaning must be carried out in accordance with Movia's instructions.

The operator must report any faults in equipment as soon as possible after the fault is detected unless rectified by first line service. The operator is required to report faults as advised by Movia (Movia's process for first line renewal of equipment must be followed carefully. See the Travel Card Manual (Appendix f)).

Unless otherwise agreed, the operator is obliged to place buses which have been reported faulty at disposal free of charge for repair. If a bus is placed at disposal for repair between 6.00 am and 6.00 pm at a garage with Travel Card WLAN, it will be repaired within three hours from the time when the bus is at disposal. The service mechanic will thus work until 9.00 pm on all weekdays. If the operator fails to meet the agreed dates of repair, the operator must pay for any additional substantiated costs incurred by Movia.

All travel card equipment will be repaired by the supplier of the travel card system or by a firm appointed by the travel card system supplier.

The Travel Card Manual (Appendix f) describes the responsibility of the operator in connection with faults in the equipment.

It may be associated with substantial costs to drive buses for repair in vain when faults in the travel card equipment are reported. If that happens, Movia will therefore reinvoice the costs to the operator.

In the cases where the fault in the travel card equipment has occurred as a result of a serious neglect of normal operation, the costs of the repair will be imposed on the operator. The specific cases will be considered together with the operator on their merits.

Stock of spare parts

At each garage, the operator must maintain a secured stock of spare parts with relevant components for first line service. First line service currently includes printers and card readers. This stock must be accessible for collection and delivery of faulty/repaired components 24/7 all days of the year even when the garage is not manned. For this use, keys and other access forms must be handed out to the (trusted) employees of the service mechanic.

The travel card supplier will deliver the necessary number of components to maintain a sufficient stock. There must be room for components representing between 5 and 10 % of the equipment installed. If, for

example, a warehouse is to hold spare parts for 30 buses with five card readers in each bus, there must be room for about ten card readers and one or two printers.

As Movia regularly assesses the effectiveness of this stock process, changes may be made in the contract term. At small garages, it may be necessary to agree that a spare parts stock is shared with another garage. In this connection, Movia is open for negotiation of any transport costs.

The service mechanic will deliver the spare parts to the warehouse, and the operator then has the responsibility and duty to insure the travel card equipment in his care in both buses and spare parts warehouse. The operator must take part in biannual or annual stocktaking's of spare parts.

The operator must follow the procedure in force from time to time (see the Travel Card Manual (Appendix f) for the maintenance of the stock of spare parts and compliance with agreements with Movia's supplier.

Synchronisation of buses

The operator must make sure that all buses in service synchronises and exchanges data with the Movia back office on a daily basis. To allow the customer to top-up their travel cards, synchronisation is required once in the morning before the bus is brought into service. Out of regard for the driver's settlement of the cash sales of the day, synchronisation should also take place in the evening when the bus returns to the garage.

In connection with the daily synchronisation, the operator must be aware that the travel card equipment becomes slower at low temperatures. At minus 10 degrees Celsius, a thermal sensor postpones the start-up of the equipment until it has warmed itself up to work optimally (15-20 minutes).

If a bus is taken out of service because of a fault in the bus, the operator must make sure that data from card readers etc. are transferred to the back-office on the same day. In cases where the bus is so damaged that the operator must send the bus directly to a foreign workshop which cannot synchronise the travel card, Movia must be given prompt notice, enabling Movia to provide for alternative reading of data from the bus.

Billing

When the statement of the driver's daily sale is available, Movia will as soon as possible send a statement to the operator in an agreed file format.

The statement must be sent once a day for the preceding day.

If Movia wishes to change the file format, Movia must reimburse the operator for substantiated additional costs that may associated with such change.

6.4.2 Passenger counting solution

Movia continuously register the number of passengers on all bus routes. The passenger counts will be by random samples, either using the passenger counting solution installed in buses (Model A) or by way of manual counts performed by the Operator's drivers (Model B). Movia will use the passenger counts together with the local authorities and the operators to improve bus coverage, to plan bus services and to distribute receipts from passengers with the other parties (DSB and Copenhagen Metro). Good and valid passenger figures are vital to Movia's business.

Model A:

Value of IT equipment owned by Movia: DKK 60,000 per bus, inclusive of VAT.

Movia is entitled to equip the operator's buses with counting equipment to automatically register the number of passengers (automatic passenger counting (APC) buses).

In section 2 of the list of units, it is specified how many APC buses Movia expects to be installed per tender unit at the commencement of the contract.

If an operator wins more contracts with several tender units within the same geographical area, Movia may reduce the number of APC buses. This will be agreed with each individual operator after the award of the contract.

For the contract term, Movia may increase the number of APC buses.

For the purpose of installing APC equipment, the operator must place such buses at the disposal of Movia or its suppliers free of charge for approx. 24 hours per bus. This applies to all tender units.

The number of buses to be equipped with APC equipment must be fully installed and tested before the start of operations. It is the operator's responsibility to ensure that Movia's supplier has had access to the relevant buses to the extent necessary.

If a bus equipped with APC equipment is out of service for more than thirty days, the operator is to pay for relocation of the APC equipment to a comparable type of bus.

The operator may not sell buses with automatic passenger counting systems without giving Movia at least thirty days' notice.

If an APC bus is relocated to a different garage or is taken out of service (within the contract term) and this is not done at Movia's initiative, the operator is obliged to pay all expenses associated with the deinstallation / reinstallation of the APC equipment.

The installation, de-installation and regular maintenance of the APC equipment will be paid for and carried out by Movia with the exceptions mentioned above. The operator is obliged to keep APC buses in the garage free of charge for installation, de-installation, inspection or repair of the APC equipment according to the instructions of Movia or a firm designated by Movia within 24 hours.

If the operator fails to place the bus at disposal as agreed, the operator must pay all costs associated with calling out a service technician etc. in vain.

In his management of bus departures, the operator must make sure that passengers on all journeys in the timetable are counted at least once a month (for weekday journeys) and at least once a quarter (for journeys on Saturdays, Sundays and bank holidays). Movia will support the operator's management of the operation of the APC buses by providing a number of follow-up reports. Optimum passenger counting management must be achieved through a close and continuous collaboration between the operator and Movia.

For technical reasons, counting data may in some cases not be usable even though the journeys have been run as planned. In such cases the operator is obliged to procure new counts of the relevant journeys before the end of a month/quarter. The lacking counts will appear from the follow-up reports.

The use of APC buses must further take into account the following factors:

- The APC buses may not be used for services which may be confused with one of Movia's public routes in terms of route and time. For example, the training of drivers/new routes where the bus runs without recording passengers will be interpreted by the passenger counting system as a regular journey without passengers. This will adversely affect the calculation of Movia's share of the aggregate bus fare income.

- The APC buses may not run the same journeys in the timetable on exactly the same days month after month as it will create an imbalance in the collection of data. In case of doubts, Movia will assist with proposals on how to handle it.
- APC buses may not be used for any other form of bus services which are not planned or offered by Movia. For example, in case of breakdown or repairs of the Copenhagen Metro or parts of the electric train network of Greater Copenhagen.

Movia will process data from the APC buses and store the data in a central IT system. Subject to agreement, the collected data will be placed at the disposal of the operator e.g. as part of the collaboration on the timetable planning. Data will typically be provided in the form of pre-defined standard reports.

In the contract term, Movia is entitled to set up IT equipment at the operator's premises for communication of information to Movia about the operational management and from Movia about data processing and results in the passenger counting system. In this connection, the operator must designate an appropriate place for IT equipment etc. at the operator's premises.

The APC equipment will be tallied regularly. In that connection, Movia's supplier will have access to the bus and the APC equipment in the bus.

Space requirement

Automatic passenger counting equipment will be fitted in the IT cabinet of the bus (see section 6.3.1) and panels and above entrance and exit doors.

Operation

The automatic passenger counting equipment will be serviced on a regular basis, and all APC buses will be serviced at least once a year. The dates at which the buses are to be brought in for service will be agreed with the operator and with due regard being had to the operation of the bus services. The operator will place buses with automatic passenger counting equipment at disposal free of charge.

Model B:

6.4.2.1 Manual passenger counts

Movia’s preliminary assessment of which routes need to be counted manually appears from the list of the units put out to tender.

If there are reasons (equipment, operation etc.) why the passengers on certain journeys/routes cannot be counted automatically, the operator is obliged to provide for manual counts instead. This also applies if a route is included in a tender unit with a number of APC buses (Model A). Movia will assess any such exception to the rule requiring automatic counting in connection with the conclusion of the contract and regularly when timetables are changed.

If a route with automatic passenger counting changes to manual counting, the operator will receive compensation in the amount of DKK 500 per counting day. The number of counting days will be reported

at the same time as the counting tables are delivered. To the extent possible, the settlement will be made in the next month.

No separate payment will be made for manual counts for routes specified in the contract documents as being counted manually. The operator must therefore take such routes into account in the tender.

Journeys/routes not covered by the automatic passenger counting system must instead be counted manually, and for such journeys/routes the following rules apply: Manual counts must as a minimum cover six whole calendar weeks in the course of a year - four weeks with boarding/disembarking passengers being counted per journey, and two weeks with boarding/disembarking passengers being counted per bus stop per journey. An exact plan for the counts will be delivered by Movia which will also deliver a counting template in Excel format in which the operator will enter counting data. The plan and template will be forwarded by e-mail. No later than 14 days from the end of a counting week, the completed Excel forms must be sent to Movia at mantal@moviatrafik.dk.

6.4.3 Destination signs

All buses must be equipped with destination and route number displays. For information on the requirements for design and number, see section 3.3.17. Technical requirements and requirements for integration with other IT systems are set out in this section.

Control and interface

Data for destination signs (destination and route) must be retrieved online from Movia's infotainment web service. The driver must also be able to control all destination signs manually. The driver must set destination signs manually when they are not set automatically, e.g. because of internet connection failures on change of journeys.

6.4.4 Loudspeaker system

The bus must be equipped with a loudspeaker system (PA) with the necessary speakers, amplifiers, etc. The speakers must be suitable for speak during driving. The speakers must be used for information given by the driver and IT systems (bus stop announcements, etc.).

Through periodic follow-ups on volume, the operator must ensure that it is at all times possible to hear the information coming through the loudspeakers.

The volume through the bus may not vary more than 5 dB. Speech intelligibility expressed in RASTI (Rapid Speech Transmission Index) must be above 0.75.

6.4.5 Real time system (RPS)

The real-time system will send data about the position, route and journey of the bus and a time stamp to Movia. Such data will be used to generate information on expected time of arrival at bus stops in Movia's customer-focused channels (forecasts) and control of signal systems for better passability through certain crossroads controlled by traffic lights. The system will also be used to document completed bus runs, see section 6.2.8.

The operator will purchase and operate the technical solution in the buses, and the operator is obliged to use the system where it is required by Movia.

The operator must pay all costs of installing the equipment such as aerial (GNNS and data communication) control unit, control screen with fittings and conduits for the real-time system.

It is expected that it will be possible to integrate the real time functionality with other systems. Consequently, Movia does not require the real time system to have a dedicated control screen, aerial, etc., but the driver must be able to select journeys and make other control options (such as setting signs manually in case of internet connection failures as described above).

The RPS Requirements Specification (Appendix g) is available for download from the tender website. Movia has produced guides which are available at ekstranet.moviatrafik.dk under “Værd at vide”/”IT dokumentation og vejledninger”.

The costs of training staff in how to use, operate and maintain the system are payable by the operator.

The operator must, on a daily basis, see to it that the real-time system works faultlessly. In case of faults or indications of faults, it is the duty of the operator to replace faulty equipment as soon as possible and no later than when the bus is back at the garage.

The fault rectification process must be applied as and when required by Movia.

The fault must be reported to Movia with a description of the fault, the consequence of the fault and a specification of when the fault is expected to be rectified, and notice must be given to Movia when the fault has been rectified.

Before beginning a new journey, the drivers must by choosing (logging on/accepting) the correct route and journey make sure that the real-time system transmits correct data so that the system works as intended. Movia’s requirements for this are expressed in three quality parameters:

- Journey acceptance
- Position coverage
- Position quality

Journey acceptance is an indication that the operator’s system has logged onto RPS. The share of correctly logged-on journeys must be at least 98% of the total number of expected journeys.

Position coverage is an indication of how large a share of position notices Movia has received out of the expected number of position notices. It is a requirement that the operator’s equipment generates a position notice per second and that Movia receives at least 98% of these. However, one failing position (one single second) will not be deemed a failure / a defect.

Position quality is an indication of how large a share of the received position notices are correctly formatted and have the correct content, for instance where the positioning refers to a likely position at a likely time. Also here the requirement is 98%.

Movia will deliver data to the real-time system using the web services mentioned in section 6.3.7.

Data from the RPS in the operator's buses will be placed at the disposal of the operator free of charge for the possible use in the operator's own IT systems.

In connection with the development of RPS, Movia has also developed a client (the CMT client) which can be used on current contracts in a transition phase from the old real time system (speak/data radio) for RPS. The CMT client should be considered a replacement of the old OCA client.

The CMT client can be used by the operator for several different things, including operations management:

1. Monitoring buses, routes and journeys on the map and in list form, including highlighted delays.
2. Monitoring the GPS system in the bus for number of faulty positions.

3. Monitoring the active journeys of the individual bus routes for delays, arrival to and departure from bus stops.

4. Report on interruptions in service broken down into journey, journey not run, journey not completed, auto-matched journeys, etc.

5. The option for the operating supervisor to log a bus onto a journey by right-clicking on the bus on the map or on the list

6. The option for the operating supervisor to cancel journey in progress by right-clicking on the bus on the map or on the list. See also section 8.2.

7. Option to cancel/reversing multiple journey in a separate menu item

Operators who are to drive according to the provisions of these contract documents will also be offered access to the client. However, Movia does not assume any obligations in this connection, and Movia may at any time (by giving six months' notice) change or withdraw the client without offering the operator a comparable functionality for the operator's operations management or any other form of compensation.

6.4.6 Infotainment

Infotainment is a digital medium which enables communication directly with the passengers in buses via screens installed in the buses. The solution is online based to ensure constant updating of information – see section 6.3.7 on requirements for constant access to the Internet during driving.

In principle, the equipment consists of:

- Communication unit collecting data from Movia's web service, see section 6.3.7.
- Control unit reading Movia's web service, entering data into templates and combining screen images sent to the screens
- Infotainment screens

There will typically be functions for system surveillance and maintenance enabling rational operation and maintenance of screens and control unit.

The equipment may be integrated in one combined technical solution which, in addition to infotainment, also covers e.g. real time requirements and may also satisfy the Operator's own requests for functionalities.

Technology and displays

A detailed description of technology and displays is given in Infotainment Traffic Information - Requirements Specification (Appendix h) which can be downloaded from the tender website. The appendix also describes how to handle changes to Movia's displays, etc.

To collect data for all Movia information on infotainment services, use Movia's web services as described in section 6.3.7.

The data transfer for commercial content will be handled by the operator without assistance from Movia. Commercial content is shown on the left screen in the dual screen solution.

For further information on infotainment, see section 7.

7. Information, advertising and other services

7.1 Movia information

To ensure that relevant traffic information and marketing from Movia reach the passengers, Movia must always have the following space at its disposal free of charge:

- Two spaces for hanging signs between the front and middle doors. The signs must be suspended by hooks. See sketch and specifications in section 3.6.
- Two information boards on the partition just behind the middle door. See sketch and specifications in section 3.6.
- Three leaflet holders mounted under the information boards. See sketch and specifications in section 3.6.
- 50% of rear window advertising space all year round.
- 10% of all rear end advertising space all year round (rear windows, rear ends, AbriMobil, etc.)
- The 50% of rear window advertising space and the 10% of all rear end advertising space must be kept clear for Movia's disposal, and must be on buses, routes and facilities which will provide Movia with optimal coverage in the area in terms of geography and time (24 hours a day, 7 days a week). When selecting buses where all of the rear end advertising space is to be used, the suitability of the bus for being fully wrapped must be taken into account. Buses are to be selected in consultation with Movia for rear window advertising and for being fully wrapped.
- Left side window above the front wheel. Advertising with contravision film. The operator is asked to ensure that this window is not used as an emergency exit. If this is impossible, Movia Marketing should be contacted to find another window solution.
- Movia may occasionally want to use this space on the buses. If so, Movia will buy the use other advertising space subject to agreement.
- Driver's back wall in reserve buses
- Display of traffic information, campaigns and other information on the infotainment equipment in the buses where infotainment is available, see specification in section 7.4.

Leaflets, folders and other information material (BUS, TRAIN and METRO Guide and the like) for the leaflet holders under the information boards must be mounted by the operator after delivery by Movia and at no expense to Movia. The operator must also remove the material at his own cost when so requested by Movia. It is the operator's responsibility to continuously supplement all Movia information material to ensure that it is always available to passengers in the period stated by Movia.

As a general rule, exterior advertising, hanging signs and information board content will not be mounted or removed by the operator. Movia will ensure that this is done by one of Movia's business partners at no cost to the operator. The operator must give the business partner designated by Movia access to the buses and bus facilities. However, this provision may be departed from to allow the operator to mount or remove such items on the same terms as Movia’s partners if so agreed with Movia.

Any other advertising or information material than that provided by Movia may not be handed out/made available in buses.

Movia reserves the right to sell the above information space for advertising purposes during periods when the space is not used for information purposes. Any income earned in this regard will accrue to Movia. In this connection, too, a Movia business partner must be given access to the buses and garages.

7.2 Advertising

Movia's advertisement rules must be based on current legislation and adhere to generally accepted advertising standards and codes of ethics, including see the ICC Code of Advertising Practice.

The advertising content must reflect the fact that bus advertisements are a strong advertising medium in the public space which the general public has no choice to opt out of. The advertising content must also reflect the fact that the advertisements shown rub off on the reputation of public transportation, Movia's reputation as well as commercial and financial interests.

With reference to the duration of the contract, Movia reserves the right to periodically adapt and adjust the current advertisement rules to the development of the advertisement market and the impact of the advertisements on the general public and the reputation of Movia.

7.2.1 Content of advertisements

Advertisements must be legal, decent, honest, truthful and designed with a due sense of social responsibility. Advertising must comply with Danish law at all times, including the Danish Marketing Practices Act, and must also adhere to generally accepted advertising standards and codes of ethics, including see the ICC Code of Advertising Practice (2011).

The advertiser's identity must be clear from the advertisement.

Advertising must easily identifiable as such, regardless of form and media. The operator is responsible for ensuring that the recipients of the advertising message are made aware that it is an advertisement, and thus for preventing hidden advertising.

Advertising must not discriminate with respect to race, gender, religion, age or nationality, or offend people's religious or political beliefs.

Advertising must not promote behaviour which conflicts with safety at home, at work or in traffic, or otherwise promote dangerous, irresponsible, hazardous or environmentally harmful behaviour.

No direct or indirect advertising is allowed for religious views or movements, or for products offered by such movements.

Advertising targeted at children and young people must always be designed to make special allowance for their natural innocence and lack of both life experience and critical sense which make them easier to influence and more susceptible.

However, advertising targeted at children and young people may never directly or indirectly promote violence, use of intoxicants, including alcohol, or other dangerous or reckless behaviour, or make improper use of violence, fear or superstition as effects.

Advertisements for tobacco products or goods used mainly in connection with smoking are prohibited, see the Danish Prohibition of Tobacco Advertising Act. Also advertisements for e-cigarettes and refill containers with or without nicotine are prohibited, see the Danish Act on e-cigarettes.

Gaming advertising must comply with the relevant provisions of gaming legislation.

Advertisements for beverages with an alcoholic content of 2.8% or more must comply with the guidelines for marketing of alcoholic beverages which have been agreed by a number of organisations and which were most recently revised in 2010.

In any case, advertising targeted at children and young people must never, whether directly or indirectly, promote consumption of alcoholic beverages. Advertisements for medicinal products, healthcare services and medical devices must comply with Danish law at all times. Detailed rules can be found in the Danish Medicines Act, the Executive Order on Medicine Advertising, the Danish Health Services Marketing Act and the Executive Order on Medical Devices Advertising.

Please note that under the Danish Medicines Act, advertising is prohibited for medicinal products which are:

- Prescription drugs
- Unsuitable for use, unless the patient has consulted a doctor beforehand with a view to being given a diagnosis or undergoing supervised treatment
- Covered by the Danish Euphoriant Substances Act

Advertisements for foods and food supplements must comply with the relevant provisions of the Danish Food Act and the Executive Order on Food Supplements.

Advertising must respect Movia's commercial/political interests and customer relations in general at Movia's discretion.

7.2.2 Responsibility for advertising compliance

In the relationship with Movia, the operator is responsible for legal compliance and compliance with the above guidelines with regard to advertising.

As a service and if so requested, Movia will inform the tenderer in advance whether a particular advertisement complies with the above.

Advertisements affecting or concerning religious beliefs or movements, gender-related advertisements and advertisements which may directly or indirectly offend the modesty of persons, including children and young people, or otherwise likely to create a conflict are always subject to the prior approval of Movia.

Movia may also check existing advertisements of its own accord.

The operator must comply with Movia's decision as to whether an advertisement etc. can be shown, and will have no claim against Movia as a result of such decision and will have no legal entitlement to show an advertisement.

In cases where Movia decides to remove an advertisement from the buses which is contrary to Movia’s advertisement rules, and the advertisement has not been approved by Movia in advance, the operator will be liable to pay a penalty, see clause 18 of the Contract.

7.2.3 Termination of the right to use advertisements

At any time during the contract term, Movia wants to be able to terminate the Operator’s right to use the bus to show commercial advertisements.

Movia will be able to withdraw the right by giving six months’ notice.

If Movia exercises this option, the operator will be compensated by up to:

- DKK 25,000 per bus per year for unit 1

- DKK 20,000 per bus per year for units 2 and 3
- DKK 15,000 per bus per year for unit 4
- DKK 10,000 per bus per year for units 5 and 6

However, the tenderer will only be paid if the tenderer can provide evidence of actual revenue at the date of termination.

The compensation will be calculated in proportion to the actual number of buses at the date of termination.

7.3 Infotainment and digital route display panel

Infotainment is a digital visual medium which enables communication directly with the passengers in buses via screens installed in the buses. The solution is online based to ensure constant updating of information. Infotainment is soundless.

In this invitation to tender, infotainment solutions are required on all routes, except for route 350S. (Temporary equipment which can be used on units 1, 2 and 4 basic is also exempt).

On route 2A (unit 1) and route 18 (unit 2), digital display panels are required. Temporary equipment is exempt from this requirement.

If the tender does not include an infotainment system and digital display panels on route 350S (unit 3), prints of digital display panels are required.

With respect to both requirements and requests, a dual screen solution and digital display panels are required as described here and in the appendices ”Traffic information - Requirements Specification” (appendix h), ”Infotainment Screens - Installation Specification” (appendix i) and ”Timing Report – Route Display Panel and Infotainment” (appendix j). The infotainment solutions can be installed with or without financing through advertisements.

Movia may require minor changes to the infotainment display and the display in digital display panels once a year. The changes may, for instance, concern colours, fonts, minor changes to graphical layout (but not changes to the basis division of the layout) or timing of content shifts or changes caused by fault rectification and optimization of the underlying web service. The costs of these changes are of no concern to Movia.

Guidelines and requirements apply to infotainment and digital display panels, whether the solution is installed according to tender requirements or at the request of the operator. This also applies to quality defects, see clause 18 of the Contract. The screens – for infotainment and digital display panels – must not be turned off.

Units where infotainment and/or digital display panels are required are subject to the following conditions:

- In buses of up to 12 metres, two sets of infotainment screens and one digital display panel are required.
- In buses which are more than 12 metres long, but shorter than 13.7 metres, two sets of infotainment screens and one digital display panel are also required. But it is desirable with three sets of screens and possibly two digital display panels.
- In buses which are 13.7 metres long or longer and in articulated buses, three sets of infotainment screens and two digital display panels are required. It is, however, desirable with four sets of

infotainment screen in such buses.

The technical and content/layout specifications for infotainment systems and digital display panels are described in ”Traffic information - Requirements Specification” (appendix h), ”Infotainment Screens - Installation Specification” (appendix i) and ”Timing Report – Route Display Panel and Infotainment” (appendix j). See also section 6.3.7

7.3.1 Positioning of the infotainment screens and digital display panels in the bus

Infotainment screens must be placed across the bus so as to enable as many passengers as possible to read the information and other content on the screens.

In 12-metre long buses, a set of screens must be placed at the front-end of the bus and a set of screens in the middle of the bus for passengers sitting at the back-end of the bus. In 13.7-metre long buses, the same positioning may be used whereas the positioning in longer buses must be agreed with Movia Sales, Information and Marketing on the basis of the bus structure.

Digital display panels must be located along the bus, on or embedded in roof hatch or edges above side windows. As a general rule, one must be placed at the front of the bus and in long buses and articulate buses, at the rear end of the bus.

All cabinets and mounting fittings must be positioned to allow the driver to drive safely and without inconvenience. Cabinets must not obstruct the driver's view or shade mirrors. It is assumed that the operator is required to ensure compliance.

In addition, cabinets and mounting furniture, etc. must be positioned so as to not inconvenience the passengers. Passengers must be able to walk unobstructed through the bus without bumping their heads into the cabinets, and therefore, Movia proposes a headroom of 2.10 metres from floor to cabinet. A headroom of 2.0 metres is acceptable.

Similarly, the cabinets/mounting furniture must be positioned so as to ensure that passengers will not bump their head against the edge of the cabinet/mounting furniture when getting up from their seat.

If necessitated by the design of the bus, the operator may agree with Movia to place the rear set of screens separately from each other on each side of the gangway. In such case, the principle of showing commercial messages on the left screen and traffic information on the right must be followed.

For the infotainment system, the screen solution may either be spilt into a left screen and a right screen next to each other or one large full screen. The display to the passengers must always be in two separate screen images.

All infotainment screens must be in 16:9 format. Dual screens are twice the 16:9 format and of the same size. Each screen image must be at least 19”, measured in international inches diagonally and preferably larger. No visible black areas may appear at the top and bottom of the screen when adapting to a different screen format other than the 16:9 format.

The display on the infotainment screens must be divided so that advertisements, news, weather forecasts, entertainment, etc., Movia’s campaigns and local authority information are shown in the left screen image, and traffic information to the right (see the below sketch).

On the left screen, the operator will provide advertisements, news, weather forecasts and entertainment, etc. whereas Movia will deliver traffic information and campaigns and local information from the local authorities. Movia and the local authorities will deliver in the same format as commercial content.

The operator must be aware that the display of news must reflect what is happening in the public domain and cannot be opted out by the passengers on the bus. The news content must therefore be designed so as not to offend children and families with children.

On the right screen, Movia will deliver traffic information (correspondence, etc.) as data in web services, see Traffic information - Requirements Specification (Appendix H). See also section 6.3.7.

7.3.2 Design

Screen cabinets/mounting furniture, etc., design

Screen cabinets must be designed to make them resistant to vandalism with "soft round corners" (rounded like those of hanging signs) and no sharp edges. The same applies to other mounting furniture, etc. Cabinets etc. must have a harmonious and simple appearance without visible screws, clumsy fittings, etc. and without visible cables (cabling must be in stanchions and behind panels). The cabinet must be covered by another cabinet or cover plates hiding the entire back of the screen and if necessary sides if there are large visible holes or openings because of installation or design. The back, cabinet and fixing devices must have the colour that fits the instructions given in section 3.6.3 of the contract documents.

Graphic lay-out

The graphic layout of the display of traffic information on infotainment and digital route display must comply with www.tusdesign.dk and in Traffic information - Requirements Specification (Appendix h) “Infotainment Screens - Installation Specification” (appendix i) and ”Timing Report – Route Display Panel and Infotainment” (appendix j). At this site, the design guide for infotainment screen for junction station (password: tusse) specifying font and colour requirements. Please note that the design guide does not give examples of displays on the infotainment screen. However, examples are given in ”Traffic information - Requirements Specification” (appendix h).

In addition, screen layouts on the right screen and the compliance of the mode of display of all content on the screen with must be approved by Movia Sales, Information and Marketing.

Display modes, infotainment

The infotainment screens of the bus must have different display/template options.

The presentation is based on different DisplayModes controlled by Movia via the online system.

The above image is an example of these displays. The complete list of displays with detailed description appears from the appendices on infotainment.

Display modes, digital route display panel

On the digital display panel(s) in the bus, it must be possible to show different displays/templates controlled by Movia through the on-line system.

The above image is an layout example of these displays. The complete list of displays with detailed descriptions appears from the appendices on infotainment.

7.3.3 Distribution of content on screens/screen image, infotainment

As described above, the display of infotainment is divided into a left screen/screen image and a right screen/screen image.

The right side/screen of the dual screen fully controlled by Movia is used for traffic information, messages, etc. The operator may retrieve data for this display (including bus stop announcements, forecasted departure times and correspondence) from Movia's web services and present them as set out in Traffic Information - Requirements Specification (Appendix h). The display on the right screen will be provided at no expense to Movia.

The left side/screen of the dual screen will be used by the operator, Movia and the local authority/ties in the areas where the bus is running. The operator will manage and put together the display where display time will be distributed as follows:

- Advertisements max. 25%.
- News, weather forecasts, entertainment, etc. 25%
- Movia's campaigns 25%
- Local autority/region info 25%

If the operator chooses an ad-free solution, the above distribution must subsequently be discussed with Movia.

Local authority/region information is a new display category where Movia wishes to provide display time to the local authority/ties/regions in the areas where the bus is running. The content of the category is defined as any information or campaign that the local authority wishes to show on the bus route(s) they are co-financing through Movia. The local authority/region information must have the local authority/region as sender and fall within the scope of content otherwise spread by the local authority/region.

The operator is entitled to sell advertising space (max 25%) and receive revenue from such sale.

The operator will deliver news, weather forecasts, entertainment, etc. at no expense to Movia.

Movia's display time on the 25% of the left screen/screen image will be provided by the operator at no expense to Movia, including 300 uploads per year at no expense to Movia. After this, Movia will pay for its own uploads. Movia will deliver its own campaigns, etc. and pay for their preparation.

The display time of the local authority/region on the 25% of the left screen/screen image will be provided by the operator at no expense to the local authority/region, including 150 uploads per year at no expense to the local authority/region. The local authority/region will deliver its own campaigns, etc. and pay for their preparation.

If Movia does not use all 25% of the display time, the time can be used by the local authority/region. Any time not used by the local authority/region can be used by the operator for information targeted at passengers/influencing behaviour, etc., own advertisements and advertisements sold on a flexible basis.

If the local authority/region does not use all 25% of the display time, the time can be used by Movia. Any time not used by Movia can be used by the operator for information focused at passengers/influencing behaviour, etc., own advertisements and advertisements sold on a flexible basis.

The operator's use of Movia's display time may at no time prevent Movia's display.

The operator's use of the local authority's/region's display time may at no time prevent the local authority's/region's display.

The operator's management of the display on the left screen must ensure that the display can be divided geographically on the bus route. For example, local authority/region information from the relevant local authority/region will be shown only within the area of the local authority/region. Possibly defined in terms of the first bus stop in the district of the local authority/region to the last bus stop in that district. It must also be possible to split up the display of Movia's campaigns on the basis of geographical criteria on the route, specifying that they will be shown only on one or more selected routes defined by way of route number.

The Operator's management of the display on the left screen must ensure that it is possible to deliver a statement of the percentage display broken down into the criteria listed above.

The intention behind the statement is to ensure that at the request of Movia, it is possible to provide, on a monthly basis, a uniform per-journey display of the four display categories on the route, spread across the day of service/weekday/Sundays and bank holidays and in both directions of the route/route variants. The intention is to ensure that one of the display categories does not take up more time on parts of the journey than prescribed.

Only content designated and delivered by Movia may be shown on the digital route display(s).

7.4 Information display

On routes included in the ITT, where information is requested, but not required, information displays as described here must be installed instead if infotainment is not chosen.

The info display must show the destination of the bus, next stop, route number, current zone number, current time, and show STOP when passengers press one of the stop buttons. Movia would like an info display which is designed as shown on the photograph, where the colour of text and numbers is amber and STOP is red against a black background.

Numbers and text on the diode signs must appear with a uniform strength of lighting and must be readable in all lighting conditions. Defective diodes must be replaced immediately. Defect LEDs must be replaced immediately. Protective glass covering signs must be non-reflective. Please contact Movia Marketing for further guidance on screen layout, fonts, colours, etc.

Display image "Bus destination":

- “Destination of the bus”. This image is shown from the bus stops at the bus stop and until the bus departs from the bus stop.

  The display shows the route number and destination of the bus and scrolls down to show the current time and current zone number. In the right-hand side of the display, STOP is shown (lights up when a customer presses the button)

Display image "Next stop”: “Next stop”.

- “Next stop”. This display image is shown when the bus departs from the stop and until the doors open again at the next stop. If the bus does not stop at the "next stop", B will change to show the new "next stop" when the bus drives past the stop where it is not stopping.

  In the right-hand side of the display, STOP is shown (lights up when a customer presses the button and then disappears when the doors open at the bus stop)

At the front end of the bus, an information display must be installed in the ceiling to ensure that it is visible from most seats.

Cabinets must be positioned to allow the driver to drive safely and without inconvenience. Cabinets must not obstruct the driver's view, and must not prevent the driver from using the mirrors etc. The operator is required to ensure compliance with these requirements.

The information display must be positioned so as to not inconvenience the passengers. For example, passengers must be able to walk unobstructed through the bus without bumping their heads into the display cabinet. Movia requests a headroom of 2.10 metres from floor to cabinet. A headroom of 2.0 metres is acceptable.

Display cabinets must be designed to make them resistant to vandalism with "soft round corners" and no sharp edges. The display cabinet must have a harmonious and simple appearance without visible screws, clumsy fittings, etc. and without visible cables (cabling must be in stanchions and behind panels). The colour of the display cabinet and fittings, if relevant, must be RAL 7024.

7.5 Bus stop announcements

7.5.1 Automatic bus stop announcement

Automatic announcement of bus stops is defined as an automatic call of the name of the next stop as well as the current zone number when the bus enters a new zone. Automatic announcement of bus stops is a requirement on all routes.

Drivers must announce all stops and zone changes manually if the automatic announcement system does not work as intended or if the information is incorrect.

A "ding" must sound before the name of the bus stop or a change of zone is announced. The next stop must be announced shortly after departure from the last stop and in reasonable time (at least 45 seconds or approximately 150 metres before the stop) before the bus arrives at the new stop. Similarly, when the bus enters a new zone, a jingle must sound before the new zone number is announced.

The operator will purchase and operate the technical solution in the buses. The bus stop announcement may not coincide with other announcements transmitted through the loudspeaker system.

Automatic reading of the name of the bus stop and the new zone can be based on natural or computer-generated speech. The operator must ensure that the language is clear, easy to hear and understand, and must be adjusted in volume to allow for the varying noise levels in the bus. The announcements must be in Danish.

Movia will deliver data to the automatic bus stop announcement using the web services designated. The operator’s system will generate the announcement.

Messages and bus stops will be announced using the loudspeaker system of the bus.

The announcement is subject to the approval of Movia.

8. Operations and traffic management under different traffic conditions

The operator is expected to monitor the flow of traffic in order to continually deliver the quality of services required by Movia – steady services.

In situations where traffic or other external conditions adversely affect the scheduled services, it is the operator's duty to insert any necessary service staff to ease the situation. The operator's actions must ensure that services return to normal as quickly as possible and that passengers are inconvenienced as little as possible.

It is the operator's responsibility to ensure that any capacity problems that have suddenly arisen on the agreed services are solved in the best possible manner. Movia expects that the operator will subsequently take an active part in identifying the reasons for the problems and in suggesting solutions to future capacity problems.

8.1 Traffic situations

In its performance of bus services, the operator must expect the following situations:

8.1.1 Normal traffic situations

In case of usual and/or daily events in the normal traffic, the tenderer is expected to intervene immediately and actively in the performance of the bus services in order to ensure that services return to normal as quickly as possible. Usual and/or daily events include e.g. illegally parked cars, short-lived queues, minor road works, changing weather conditions, delayed interchanges and connections and other usual normal traffic events.

8.1.2 Unusual traffic situations

The operator and his drivers are expected to intervene proactively and immediately in the operation of bus services when unusual events occur and to meet operational directions given by Movia so as to mitigate any inconvenience to the passengers as much as possible.

The operator is further expected to initiate measures to restore services to normal as quickly as possible and to inform Movia’s Traffic Centre about the unusual event. Unusual events include e.g. planned and unplanned demonstrations/processions, traffic accidents, fire, bomb threats, fallen trees and other forms of blockades of the route as well as unusual weather conditions such as freezing rain, snow storms etc. In case of exceptional events, temporary changes of short/long duration will typically be made to the bus routes.

8.2 The operator's duty of disclosure – operation irregularities etc.

The operator is obliged to establish electronic communication with Movia, including Movia Traffic Service, on or before the start of operations.

The operator must immediately – and electronically – inform Movia Traffic Service of any irregularities, delays or the like which may affect Movia's replies to enquiries from passengers, the media or others.

At its own initiative, the operator must immediately provide Movia with details of all matters which may prevent, affect or threaten the tenderer's performance of the contract concluded.

In addition, the operator has a duty to inform Movia of all matters that may now or later affect the choice of the service area, service hours and structure of bus routes, if applicable, and/or planning of timetables.

The operator must report any operation irregularities according to Movia's directions.

Any cancelled and delayed journeys must be reported within the deadlines set from time to time, currently:

- In case of absent bus or driver: No later than at the time of departure from the terminal (0 minutes)

- In case of vehicle breakdown or delayed service on the route: No more than 10 minutes after the journey has been cancelled/is delayed. Cancellation or delay is to be reported only once per journey.

A bus is late on a route when it does not meet the timetable.

Failure to meet these deadlines will entitle Movia to apply penalties, see clauses 17-18 of the Contract.

Cancelled journeys, etc.

Cancelled journeys are typically reported at Movia's extranet. It is also possible to report cancelled journeys using CMT which is a web client currently provided by Movia, see section 6.4.5. The detailed procedures must be agreed with Movia before the start of operations.

During the contract term, Movia may change the manner in which cancelled journeys are to be reported so as to make reporting automatic instead of manual.

In case of a road accident or assault on the driver, the operator must report the accident/assault to Movia Traffic Service as soon as possible. In this connection, the tenderer must state whether the incident has caused any injuries or extensive damage to buses and equipment, e.g. a fire in the bus. The information about the accident/assault must also be recorded on the extranet no later than the next weekday.

No later than the following weekday, the operator must file an electronic report on any bus stops where customers have not been picked up, see section 8.5. The operator must inform Movia as soon as possible if scheduled additional and relief services are needed or no longer needed.

8.3 The operator's duty of disclosure – customer enquiries

Written customer enquiries etc. to Movia regarding the operator or his staff will be answered by Movia following consultation with the operator.

Direct enquiries to the operator must be answered by the operator, and at the same time Movia must be notified by means of a copy of the enquiry and the Operator's reply. Enquiries of a general or fundamentally important nature made directly to the operator must be forwarded to Movia for reply.

For customer enquiries, the response time must normally be three weekdays. In certain circumstances, however, Movia may demand that the operator replies within 24 hours. Failure to comply with this response time will entitle Movia to apply penalties, see clauses 17-18 of the Contract. Movia may – under certain circumstances – extend the response time at the request of the operator. Responses will be transmitted directly between the operator and Movia via an electronic system.

Failure to comply with the duty of disclosure will entitle Movia to apply penalties, see clauses 17-18 of the Contract.

8.4 Driver changeovers along the route

As a general rule, driver changeovers may take place at terminals on the journey only so as to inconvenience passengers as little as possible. Where the facility is located along the route, e.g. at a large terminal, special agreement may, subject to an assessment in each case, be made with Movia for

changeovers to take place at such particular facility. Moreover, changeovers along the route may be justified for occupational health reasons.

Changeovers along the route are subject to the operator guaranteeing that changeovers will take no longer than two minutes, excluding time for collecting fares from new passengers. In case of failure to observe the above time-limit, Movia is entitled to apply the set-off provisions under clause 18 of the Contract or to terminate the agreement on changeovers along the route.

8.5. Digital cooperation initiative

The initiative to commence digital cooperation is the result of Movia's wish to increase cooperation on reducing quality defects and at the same time to ensure smoother communication between the operator and Movia.

This initiative has resulted in an online system generally referred to as the "Extranet". Movia makes this system available to all operators.

The Extranet is a system to which both the operator and Movia have access. The system must be used for communication between the operator and Movia.

No special hardware or software is required to use the Extranet. Internet Explorer 9 or Mozilla Firefox is recommended for optimum use.

Movia makes staff available for the training of one person appointed by the operator. The training programme is expected to last a maximum of three hours. Thereafter, the operator will train other users.

A login is required to access the system.

Movia must be contacted as soon as possible in case of system failure.

The operator and Movia have unrestricted access to use data reported by the operator.

Applications for exemptions

It will not be possible to grant exemptions from quality deviations that affect the safety of passengers or citizens.

Movia will endeavour to process applications for exemptions continuously every day within normal office hours. A response to an application for exemption will always be given.

8.6 Miscellaneous

Movia must be able to get into contact with the operator or a representative of the operator at any time during the operating period.

With respect to the scheduled timetable services for Movia, the buses may not stand/be parked outside the bus parks/terminals approved by Movia. Space at the terminals is likely to accommodate the planned number of in-service buses only. Consequently, space for parking replacement buses and transfer vehicles at terminals is not to be expected.

The in-service buses may be used for other services outside the hours when services are performed for Movia, provided that the logos of Movia Trafikselskab are covered. Movia must be informed in writing prior to such other use. If Movia wants the buses to be available for Movia services, it must be possible to

release the buses from the other services subject to two months' notice. The agreed replacement bus park must always be available in case of breakdowns etc.

The operator must ensure that the buses are checked for lost property and that any lost property is collected and registered. Money, securities, particularly valuable jewellery and the like must be handed over to the police as soon as possible, whereas other lost property may be kept at the works office for up to 30 days, after which it must be handed over to the police. Lost property enquiries made to Movia's Help Desk will be referred to the operator, who will thus be able to respond to enquiries from passengers during normal office hours, i.e. at a minimum between 9.00 am - 3.00 pm during weekdays.

9. Data logging

9.1 Automatic data logging

For all electric buses, driving and battery data for power consumption, GPS coordinates, speed, battery level, etc. throughout the contract term should be logged automatically and saved in a database. Movia may not share data with a third party without prior agreement with the operator. The data recipient is obliged to treat all data confidentially and prepare a non-disclosure agreement.

Data is to be logged in a CSV format, see the standard RFC 4180 for the following parameters (sorted):

- GPS data content
  - DateTime: Date and hour with seconds granularity in UTC, see ISO 8601
  - Vehicle ID: four-digit bus number
  - Latitude: Latitude of position in WGS84
  - Longitude: Longitude of position in WGS84
  - Speed: Speed in km/h
  - Driver ID: Unique Driver ID
  - Direction: Direction of the compas in degrees [0-360[, where 0 indicates north, turning in clockwise direction.
  - GPS quality parameter: Number of satellites (integer, e.g. 4, 7 or 11)
- CAN data content
  - StateOfCharge: State of Charge
  - Consumption: Current energy consumption, how many kWh used the last second
  - TotalConsumption: Total energy consumption, how many kWH used by vehicle in its entire life
  - TotalDistance: Total km driven by the vehicle in its entire life in km

- TotalRegenerativeEnergy: Regenerative energy (braking energy) through the life of the vehicle in kWh

- Other data
  - SecondaryConsumption: Energy consumption for other purposes than propulsion, e.g. cabin heating through the life of the vehicle in kWh

Movia may grant exemptions for the logging of some of the above data parameters. In such case, leave the boxes empty.

9.2 Registering data for the operation of the electric buses

Throughout the contract term, the operator must collect data for all electric buses concerning:

- Breakdown and cause of breakdown
- Any consumption of fuel for the bus heater (e.g. synthetic biodiesel for diesel heater)

At the request of Movia, the operator must share such data with Movia electronically. Movia may publish the data in processed form.

9.3 Registering energy consumption at garages

The operator is required to register the total consumption of electricity used to charge electric buses at the garage. The measurement of the energy consumption must include any energy lost in the charging station. The electricity consumption must be calculated on an hourly basis. Movia will have the right to extract data on the energy consumption.

9.4 Publication of data

Movia may publish analyses based on data procured by virtue of section 9. In such analyses, data will appear in a processed and aggregated form.

Examples of analyses which Movia wishes to conduct:

- Average energy consumption per route
- Average energy consumption broken down into months
- Energy consumption as a function of the outdoor temperature
- Driver-dependent energy consumption
- Classification of energy consumption for propulsion, cabin heating, tec.

9.5 Specification of the tenderer's investments

On or before delivery of zero emission buses, the operator must inform Movia about the operator's aggregate investments in bus equipment and charging infrastructure. Movia will treat such information as confidential, but is entitled to disclose the information in aggregated form to the European Investment Bank.

10. Quality assurance

It is Movia's objective to deliver a good product that meets the passengers' quality expectations. Movia is thus continuously engaged in improving quality of the bus product and will thus reward the operators who deliver good quality.

For that purpose, Movia has developed a quality management system which manages and measures the quality of the operator's services – a system which measures the passengers' experience of quality.

The quality management system is linked to invitations to tender and contracts to the effect that the operators who deliver the agreed quality are granted the option to extend the contracts, see clause 3 of the Contract.

A bonus/set-off system is also linked to the quality management system.

The quality measurements are conducted through passenger interviews on the buses. Movia has out contracted the data collection.

The quality delivered by the operator will be measured on a total of seven reference points. Six of these reference points will be measured through passenger interviews on the buses. One reference point is for the time being measured through the operator's own reporting of cancelled services. In addition, Movia's quality is measured on six reference points – these six reference points are not operator-related reference points and will thus not be used for the settlement of bonus/set-off – including in connection with a extension of the Contract, see clause 3 of the Contract.

The purpose of the non-tenderer-related reference points is to provide a better picture of the passenger's satisfaction with the bus product as a whole

Certain adjustments may be agreed during the contract term with respect to scope of the measurement, reference points and quality targets, if so justified by experience, the statistical basis and regular follow-up made in cooperation with the operator.

The QA results will be available to the operator in electronic form on www.entreprenor.moviatrafik.dk. The level of bus services provided as well as the application of financial penalties in connection with quality defects must be reported to the operator on a regular basis.

The application of financial penalties in connection with quality defects is described in more detail in the Contract.

Movia requires the operator to appoint a QA manager who is to be Movia's contact person in all quality issues.

10.1 Customer satisfaction

Movia has fixed minimum requirements for customer satisfaction for the individual tender units and for the individual measuring points. The quality must be described as an index.

Quality measurements will be made for all six tender units included in this procurement process, and the quality will be subject to a bonus/set-off system which will enable the operator to be rewarded continuously for the delivery of good quality throughout the contract term. If the operator does not meet the agreed target, the payment will be reduced.

Movia is interested in tender securing the highest degree of passenger satisfaction in the quality measurements performed during the contract term in accordance with Movia's quality management system. On the Tender Form (Appendix 5), the operator is required to state the quality level which the operator offers on tender units 1 to 6.

10.1.1 Targets

Movia has stipulated quality requirements corresponding to a Quality Index of 800 for buses operating in central Copenhagen, including A-buses, and 810 for buses operating elsewhere, S-buses, R-buses and A-buses in the province, corresponding to an average result of around 80 and 81, respectively, for each Measuring Point, see the below example.

Calculation of quality index of 810 index points:

Reference point	*Target (m)*	*Importance (i)*	*Contribution to Quality Index (t* i)*
Noise reduction	81.1	0.61	49.5
Timetable compliance	81.1	1.83	148.4
Driver's standard of driving	81.0	1.83	148.2
Driver's service and appearance	81.1	1.94	157.3
Interior state and condition	81.1	2.44	197.9
Indoor climate	81.1	1.34	108.7
Total Quality Index			***810***

The importance indicates passengers' assessment of the importance of the measuring point. The targets indicate passenger satisfaction.

Movia will conduct a customer survey as and when needed in order to determine the passengers' opinion of the relative importance of the measuring points.

In order to adjust the results of the individual measuring points to account for the statistical uncertainty, a minimum target has been defined which is by definition 2.0 points lower than the agreed target for the measuring point. Where a result is at or below the agreed target but above the minimum target, no bonus payment or set-off will be made.

Example:

The agreed target for a measuring point is 81.0, and the minimum target is 79.0. Payment will be triggered at a result of 81.1, at a result ranging from 79.0 to 81.0, the measuring point is neutral, and at a result of 78.9 or below, the measuring point will give rise to a set-off.

The following minimum requirements to the Quality Index have been determined for the tender units in this invitation to tender:

	A-bus Unit 1	City bus Unit 2	S-bus Unit 3	Other Unit 4	Other Unit 5	Other Unit 6
Requirement	800	800	810	810	810	810

For information, it is should be noted that the average of the quality measurements conducted over the last 12 months (01.01.2017 - 31.12.2017) on the units put out to tender has come out as follows:

Measuring point	A-bus Unit 1	City bus Unit 2	S-bus Unit 3	Other Unit 4	Other Unit 5	Other Unit 6
Noise reduction	75.9	-	77.6	76.0	74.2	79.1
Timetable compliance	80.1	-	82.0	84.5	85.5	83.6
Driver's Standard of driving	85.0	-	87.5	88.5	86.1	85.4
Driver's Service and appearance	85.5	-	86.2	85.9	87.9	86.4
Interior state and condition	77.7	-	84.8	81.9	80.6	82.5
Indoor climate	80.5	-	80.8	81.2	82.7	82.5
Corresponding to index	811.76	-	826.30	838.15	837.98	836.59

10.1.2 Use of measurement results

The agreed quality level per tender unit will be included as a target during the contract term and, similarly, quality bonus and any set-off against payments, respectively, will be calculated on the basis of the agreed quality level per tender unit and reference point. Payments will be effected on 1 March at the latest after the end of the measuring period.

The results will be continually available to the operator in electronic form – via the Internet – for use in the tenderer's own quality work.

The results will also be made public in connection with Movia's marketing activities.

10.1.3 Measurement scope and period

The measurements are undertaken regularly throughout the year and are planned according to the scheduled services.

A quality unit is as a general rule defined as a tender unit.

The measurement scope is a minimum of 275 interviews for tender units 1, 2, 3, 4 and 6 per measuring period. For tender unit 5, the scope of measurement will, however, be reduced to a minimum of 200 interviews.

As a general rule, measurements are made on all hours of the day and all types of days. Generally, measurements are distributed proportionately according to timetables (i.e. most measurements in peak hours and other periods when the buses carry most passengers). The specific planning will be made by the external business partner.

The reference period will be as follows:

01.01.2020 - 31.12.2020 – results must be communicated by 1 March 2021
01.01.2021 - 31.12.2021 – results must be communicated by 1 March 2022
etc.

If the last part of the contract term – from the last measuring period and until contract expiry – is longer than six months, bonus/set-off will be effected on the same terms as the other measuring periods, always provided, however, that the number of interviews for this measuring period may be relatively lower than the contractual 275/200 interviews (200 measurements in tender unit 5) – subject to a minimum of 160/100 interviews (100 measurements in tender unit 5) for the remaining period.

If the last part of the contract term is shorter than six months, this period will be added to the most recent measuring period, which may thus be up to 18 months. The number of interviews for this measuring period will increase by around 8-12 interviews on average per month in addition to the contractual 275 interviews. The results for this last combined measuring period (up to 18 months) will be available about eight weeks after contract expiry, which, however, may be later than 1 March.

10.1.4 Satisfaction

Passengers rate their satisfaction on a five-point scale, which will subsequently be "translated" into the quality system with the below weightings:

Customer satisfaction	Weight in the operator model
Very satisfied	100.00
Satisfied	83.33
Yes and no	66.67
Dissatisfied	50.00
Very dissatisfied	0.00

The share of "very dissatisfied" customers has a very heavy weighting as it is very important to Movia not to have customers who are very dissatisfied. ”Don't-know” responses are not included in the total quality index.

An example of the calculation is provided below:

Customer satisfaction	Number (n)	Weight	Contribution to result (t)
Very satisfied	33	100.00	3,300.00
Satisfied	50	83.33	4,166.50
Yes and no	10	66.67	666.70

Dissatisfied	5	50.00	250.00
Very dissatisfied	2	0.00	0.00
Don't-know	4	-	**-**
Total excluding "Don't-knows"	100		**8,383.20**

Satisfaction is calculated as (quoted in points to one decimal place):

$$\frac{\text{Contribution to result (t)}}{\text{Number (n)}}$$

In this case, satisfaction equals 83.832 ~ 83.8 index points.

Afterwards, a comparison is made with the agreed target for the individual measuring point.

10.2 Service level – level of services provided

The level of services provided means the completed percentage of the timetable hours.

Movia has fixed minimum requirements for services provided on the individual tender units. In this invitation to tender, the minimum requirement for each tender unit has been fixed at 99.90%.

Movia wants the highest level of services provided, and the operator must state the level of performance for each tender unit on the Tender Form (Appendix 5). The level of performance offered will be included as a target.

For information, it should be noted that the average level of completion on the tender units for the last 12 months (01.01.2017 - 31.12.2017) has come out as follows:

Tender unit	Level of bus service provided (service level)
1	99.89
2	-
3	99.83
4	99.89
5	99.86
6	99.95

10.2.1 Calculation of service level

Service level is calculated as the completed percentage of the scheduled timetable hours.

Formula for calculation of service level (expressed in % to two decimal places):

$$\frac{\text{Completed timetable hours} \times 100}{\text{Scheduled timetable hours}}$$

Completed timetable hours are calculated by subtracting cancelled timetable hours from scheduled timetable hours.

The amount of quality bonus becoming payable depends on the service level. The weighting is as follows:

Level of service	*Bonus value*
Agreed benchmark-100.00	100%
99.86-agreed benchmark	60%
99.81-99.85	30%
99.76-99.80	10%
99.75 or less	No payment

Example

The service level target offered is 99.92. If this target is reached, 100% of the quality bonus achieved will be paid and if a service level target of 99.91 is reached, 60% of the quality bonus achieved will be paid.

10.3 Quality bonus and set-off

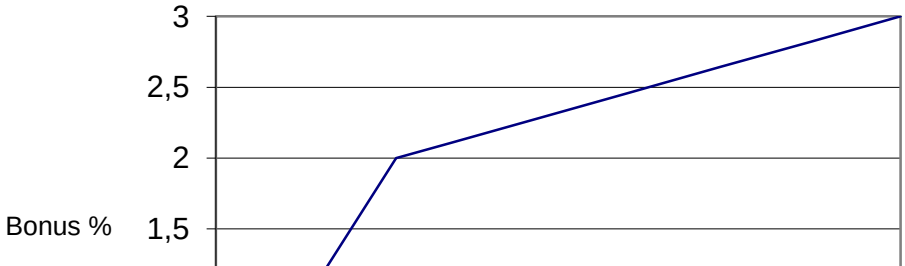
10.3.1 Calculation of quality bonus

Quality bonus is calculated for each individual quality unit, see the contract concluded with the operator. In order to receive the quality bonus, the agreed quality index level must have been reached during the measuring period. If this is the case, a bonus will be paid for all the measuring points achieving a higher result than the agreed targets.

A set-off against payments will be effected for the measuring points where the agreed targets have not been achieved, see section 10.3.2. Results in between the agreed target and the minimum target are neutral with respect to set-offs.

The bonus rate is variable and depends on the quality index. As can be seen from the below figure, the value of a single quality point may be calculated as follows:

In the range from 810.0 to 860.0, equal to 0.04% (2% bonus divided by 50 points)
In the range from 860.1 to 1000, equal to 0.0071% (1% bonus divided by 139.9 points)



The above figure illustrates that Movia's total bonus pool is subject to a maximum of 3% of the contract sum, depending, however, on the actual agreed quality level. If, for example, a quality level on quality index 835.0 has been agreed, the bonus pool will be subject to a maximum of 2% of the contract sum (1.0% in the range of 835.0 to 860.0 and 1% in the range of 860.1 to 1000).

Bonus is calculated according to the following formula:

(Contract sum x importance of actual measuring point x target performance x calculated bonus rate), where

- The contract sum is calculated as: Completed timetable hours x the average hourly rate.
- The average hourly rate is the average of the price per timetable hour, bus- or facility-related costs and overheads.
- The importance indicates passengers' assessment of the importance of the measuring point.
- Target performance is calculated as: The result reached for a particular measuring point minus the agreed measuring point target.
- The calculated bonus rate is calculated according to the following formula:

    a) if both the reached and agreed quality index is less than or equal to 860.0: 0.04%
    b) if both the reached and agreed quality index is above or equal to 860.1: 0.0071%
    c) if the quality index reached is above 860.0 and the agreed Quality Index is below 860.0: (((Quality Index reached minus 860.0) X 0.0071%) + (860.0 minus agreed Quality Index x 0.04%)) / (Quality Index reached minus agreed Quality Index)

Example 1:

The contract sum for an operator is DKK 24 million for a year. The agreed Quality Index is 835 and the Quality Index reached is 844. The measuring point "indoor climate" has an importance of 1.34 and has scored 82.5 satisfaction points, where the agreed target was 81.3. The bonus calculation for the measuring point will be as follows:

$$\frac{24{,}000{,}000 \text{ kr.} \times 1.34 \times (82.5-81.3) \times 0.04}{100} = \text{DKK } 15{,}437$$

Example 2:

The contract sum for an operator is DKK 24 million for a year. The agreed Quality Index is 825 and the Quality Index reached is 863. The bonus rate will be calculated as follows:

(863.0-860.1) x 0.0071	= 0.02%
(860.0-825.0) x 0.04	= 1.40%
Total	= 1.42%

Bonus on the entire quality unit will be as follows:

DKK 24,000,000 x 1.42% = DKK 340,800

10.3.2 Set-off against payments

If the operator fails to meet the agreed targets for the customer measuring points, a set-off will be made against the payment for the individual measuring point, even though the agreed Quality Index has been reached.

The set-off will reflect the target shortfall and the importance of the measuring point to the passengers.

The set-off rate is variable and depends on the Quality Index. The value of a Quality Index point is as follows:

In the range from 860.1 to 1000, equal to 0.0071% (1% bonus divided by 139.9 points)
In the range from 810.0 to 860.0, equal to 0.04% (2% bonus divided by 50 points)
In the range of 760.0 to 809.9, equal to 0.08% (4% set-off divided by 49.9 points).

Non-fulfilment of individual measuring point

When the Quality Index reached is above or equal to the agreed Quality Index, the set-off on an individual measuring point will be calculated according to the following formula:

(Contract sum x importance of actual measuring point x target performance x calculated set-off rate), where

- The contract sum is calculated as: Completed timetable hours x the average hourly rate.
- The average hourly rate is the average of the price per timetable hour, bus- or facility-related costs and overheads.
- The importance indicates passengers' assessment of the importance of the measuring point.
- Target performance is calculated as: The result reached for a particular measuring point minus the agreed target for the measuring point minus 2.0.
- The set-off rates are applied. It is always the Quality Index reached which determines the set-off

rate used.

Example 1:

The contract sum for an operator is DKK 24 million for a year. The agreed Quality Index is 835 and the Quality Index reached is 844. "Indoor climate" has an importance of 1.34 and has scored 79.6 satisfaction points, where the agreed target was 81.3 (i.e. an agreed target of 83.3 minus 2.0 points). The calculated set-off rate is 0.04%. The set-off against payments will be calculated as follows:

$$\frac{\text{DKK } 24{,}000{,}000 \times 1.34 \times (81.3-79.6) \times 0.04}{100} = \text{DKK } 21{,}869$$

Non-fulfilment of Quality Index

If the Quality Index reached is below the agreed Quality Index, the set-off for the quality unit is calculated on the basis of the total contract sum.

The above set-off rates are applied. See also the example below, which illustrates the set-off calculation for agreed/reached Quality Indices with different ranges.

Example 2:

The contract sum for an operator is DKK 24 million for a year. The agreed Quality Index is 863 and the Quality Index reached is 805. The set-off rate will be calculated as follows:

(863.0-860.1) x 0.0071	= 0.02%
(860.0-810.0) x 0.04	= 2.00%
(809.9-805.0) x 0.08	= 0.39%
Total	= 2.41%

The set-off on the entire quality unit will be as follows:

DKK 24,000,000 x 2.41% = DKK 578,400

If the Quality Index reached is below 760, Movia is entitled to exercise the remedies for breach available under sections 17-18 of the Contract.

Set-off will not exempt the operator from rectifying the unsatisfactory conditions. If the relevant conditions are otherwise fulfilled, Movia may also be entitled to claim compensation/set-off under the other provisions of the contract documents, see the Contract.

10.3.3 Suspension of quality bonus/set-off

Movia may "reset" a measuring point for a period of time due to circumstances beyond the operator's control. In order for a measuring point to be reset, the operator must contact Movia immediately and in writing with a detailed description and documentation of the relevant circumstances.

In case of force majeure, Movia is entitled to suspend the quality measurements for a period of time. This could mean that for a given year, there may be a skewed distribution of the measuring results across the year.

In case of a force majeure situation, Movia will inform the operator as quickly as possible.

11. Incentive for passenger growth

During the last few years, Movia has initiated several agreements on passenger incentives between Movia, various operators and local authorities. The aim has been to increase efforts to improve the bus product and attract more passengers based on the ideas of the operator, Movia and the local authorities.

Some of the rewards have been a shared view of the challenges and possibilities involved and more traffic services becoming available, not to mention a stronger shared commitment to the routes by the parties.

Based on past experience, the following initiatives may serve as inspiration: Cooperation on campaigns, experiments with set-downs between bus stops at nights, set-up/removal of bus routes/bus stops, selected drivers visiting businesses with potentially new passengers and extra departures in connection with events.

On the initiative of the operator, Movia offers cooperation to develop the bus routes in tender units. The cooperation does not involve a financial bonus in case of an increase in the number of passengers, but offers the possibility of contributing to the development of the routes to the effect that the bus services can be maintained as well as the possibility of increasing motivation among drivers and shortening the distance from idea to action.

If the operator incurs additional costs as a result of this cooperation, the operator and Movia may agree on compensation for the operator’s participation. This will depend on a case-to-case evaluation of scope and purpose.

A main focus point will be to work out development initiatives which – depending on the complexity of the change – may either form part of the local authorities'/regions' traffic order process where the local authorities order changes, or be implemented in services in connection with timetable changes. Any development group will consist of planners from the operator, Movia and any relevant local authorities/regions as well as one or more representatives of the drivers. It is emphasised that the development group is an umbrella for the existing cooperation frameworks between the operator and Movia (including timetable meetings and status meetings with Movia Operations) so as to direct focus to development initiatives towards attracting more passengers on the buses.

The cooperation is an offer to the operator who will be the primary driving force, whereas Movia will contribute to the work and, if relevant, involve relevant local authorities/regions.

12. Changes to scope of bus services during contract term

12.1 Changes to number of timetable hours and routing

12.1.1 The first six contract years

Movia is entitled to increase the agreed number of timetable hours by a maximum of 30% compared to the number of hours originally agreed. Billing will be based on the rates applicable from time to time for the timetable-related costs, see the Contract.

Movia is entitled to reduce the agreed number of timetable hours by a maximum of 20% compared to the number of hours originally agreed without paying compensation.

In connection with the increase in the number of timetable hours on units 1, 2 and 4, regard must be had to the range of zero-emission buses and the need for zero-emission buses to charge and refuel. Movia is entitled to extend the tendered routing by up to 10% without paying compensation to the operator or increase the number of buses and/or increase the number of charging stations in urban space.

Example

The routing of unit 1 is 15,167 m (Tingbjerg - Refshaleøen) and 15,468 m (Refshaleøen - Tingbjerg). Movia is entitled to introduce a new routing of up to 1.10* (15,167 m + 15,468 m) = 33,699 m without paying compensation or increasing the number of buses and/or the number of charging stations in urban space.

In cases where a unit includes different routings, Movia's right to extend the routing will correspond to the offered percentage extension of the routing for the journeys in the individual tendered runs, always provided that the extension must always be based on the distance of a return trip from bus terminal to bus terminal

For unit 2 in particular

Movia may, without compensating the operator, reduce the number of hours corresponding to bus services on the seven peak-hour runs, 3, 4, 8, 12, 15, 20, 23 on weekdays (equivalent to 9,967 timetable hours.

As from the time when bus services on unit 2 are provided using only zero emission buses (at the end of December 2022 at the latest), a new agreed volume of bus services must be determined, corresponding to the expected annual production for the next calendar year.

Thereafter, the above requirements will apply.

12.1.2 The remainder of the contract term

The hours of driving in the sixth year of the contract will serve as the basis for Movia's possibility to make changes during the last six years of the contract (new basis).

Example:

If under the Contract, operations start on 14 April 2019, the sixth year of the contract will run from 14 April 2024 to 13 April 2025.

For the remainder of the contract term, Movia may again adjust the number of timetable hours based on the principles described in section 12.1.1.

12.1.3 Compensation for reduction in the number of timetable hours

If Movia reduces bus services by more than 20% of the bus services originally agreed, Movia will pay compensation to the operator equal to 60% of the rate for the timetable-related costs, see the Contract (including CF adjustment and indexation) for the number of reduced timetable hours exceeding the reduction option. Compensation granted for:

- Six months if the operator has been given three months' notice in writing before the reduction is implemented;
- Five months if the operator has been given four months' notice in writing before the reduction is implemented;
- Four months if the tenderer has been given five months' notice in writing before the reduction is implemented;
- Three months if the tenderer has been given six months' notice in writing before the reduction is implemented;

If the remainder of the contract term is less than the above compensation periods, compensation will cease on expiry of the contract.

Compensation will be paid by way of a lump sum in the month following the commencement of the new timetable.

Example of calculation of the compensation (divided into two examples):

1. The starting point of the contract is 100,000 timetable hours.

   There is a right to reduce by 20,000 timetable hours without compensation

   Any new vehicle schedule has a standard year corresponding to 70,000 timetable hours.

   The rate for the timetable-related cost is DKK 613.

   The operator has been given three months' notice before the reduction.

   In the above, the reduction has been exceeded by 10,000 timetable hours per standard year. Compensation is granted for six months which corresponds to a compensation for 5,000 hours.

   The hours will be billed at a rate of 60% of the timetable-related cost, which corresponds to a rate of 613*60/100 = DKK 367.80.

   The compensation is consequently 367.80 * 5,000 = DKK 1,839,000 which is payable as a lump sum.

2. Two months after the vehicle schedule with a standard year of 70,000 hours was put into operation, notice was given of a new reduction of another 5,000 hours per standard year. Four months' notice was given of this reduction. Consequently, compensation is granted for five months. This means 5,000/12*5 = 2,083 hours.

   The compensation is consequently 2,083*367.80 = DKK 766,250 which is payable as a lump sum.

Regardless of any subsequent release of a new vehicle schedule resulting in a higher standard year than the lower limit, the compensations previously granted will not be adjusted even though the period for which compensation is paid has not “expired”.

12.2 Changes to the number of in-service buses

Any changes to the number of in-service buses will be notified by Movia at least 3 months before the effective date.

12.2.1 The first six contract years (from start of operations and six years onwards)

12.2.1.1 Reduction

Movia may reduce the agreed number of buses by three in-service buses for every 20 in-service buses (three in-service buses in case of 4-20 in-service buses, six in-service buses in case of 21-40 in-service buses etc.) relatively to the originally agreed number of in-service buses.

If the Contract concluded provides for two in-service buses, the Contract may be reduced by one in-service bus. If the Contract concluded provides for three in-service buses, the Contract may be reduced by two in-service buses.

If the operator’s bus package on the unit includes bus equipment with different capacity, Movia will determine which bus is to be taken out of service in case of a reduction. In case of a reduction in the number of buses, the offered level of the average CO2 emission of the unit per km must be maintained.

Movia may decide that bus services be transferred to other tender units instead of being reduced through a reduction of the number of in-service buses. The operator must be exempted from additional costs in this connection, including the costs associated with increased dead mileage, and relocation can only be made if technically feasible (for example for electric buses with limited range). If the diversion of bus routes implies the relocation of equipment to other tender units which are already being operated using the same type of equipment, quality targets and service levels for such other units will apply unaltered. In case of the diversion of bus routes to other tender units which are already being operated using other types of equipment, quality targets and service levels for the continuing bus services will be calculated as a weighted average of the previous bus services and the diverted bus services, such weighting being based on the number of timetable hours for the previous and the diverted bus services.

For unit 2 in particular (temporary equipment)

In addition to the above, Movia may until the end of December 2022 reduce the equipment used on the seven peak-hour runs 3, 4, 8, 12, 15, 20, 23 on weekdays (see section 2.7.2) without paying compensation to the operator.

12.2.1.2 Extension

For the first six years of the contract, Movia may increase the agreed number of in-service buses by three in-service buses for every 20 in-service buses included in the contract (three in-service buses in case of 1-20 in-service buses, six in-service buses in case of 21-40 in-service buses etc.).

A contract may not be extended by more in-service buses than the number of in-service buses originally provided for in the contract. Consequently, a contract with two in-service buses cannot be extended to include more than four in-service buses.

Newly commissioned bus equipment must meet the requirements in the contract documents for the unit to which the bus belongs, and to comply with any offered improvements, see the operator's tender for the original buses, but see below.

As needs may change in the contract term, Movia's requirements as to the capacity of the newly commissioned bus equipment may, however, deviate from the other buses in the unit as long as the capacity requirements are reduced relative to the requirements in the contract documents for the unit in which the bus will be used.

Payment of the costs of IT and travel card equipment is subject to the same guidelines (see section 6) as if the bus had been offered from the start of operations under the contract.

The operator is not expected to be able to put into service new equipment at three months' notice, and therefore the operator may, subject to agreement with Movia, put into service equipment which does not meet the contractual requirements for the unit in which the equipment is used for a period of up to approx. twelve months.

If additional buses are not put into service later on time, the monthly contract price will be reduced by DKK 2,000 per bus per 24 hours until due delivery is made. The contract price will also be reduced as described above, if it is agreed that the operator may bring into service a temporary bus, and buses meeting the requirements above are brought into service later than agreed.

1.2.1.3 Billing

In case of a change in the number of in-service buses, the actual number of in-service buses will be used for the billing of the bus services at the prices set out in the contract.

Neither an increase nor a reduction of the number of buses will lead to an adjustment of overheads.

For unit 2 in particular

In case of the reduction of the bus equipment used to operate the bus services on seven peak-hour runs 3, 4, 8, 12, 15, 20 and 23 on weekdays, overheads will be adjusted proportionately.

Units 1, 2 and 4 (basic) in particular

In case of a reduction of the number of zero emission buses, the operator is entitled to receive a lump sum compensation. This does not apply if the operator has decided to bring into service zero emission buses as an alternative to seven temporary buses in unit 2, see section 2.7.2.

In table 1, the amount of the lump sum compensation is the below percentage rate of the substantiated initial cost, including VAT. The compensation will be paid in connection with the settlement of accounts one month after the bus has been taken out of service.

Contract year	Compensation for each in-service bus (% of initial cost, including VAT)
Year 1	68%
Year 2	62%
Year 3	56%
Year 4	51%
Year 5	45%
Year 6	39%
Year 7	33%
Year 8	27%
Year 9	21%
Year 10	16%
Year 11	10%
Year 12	4%

Table 1: Compensation in case of a reduction in the number of in-service buses

In case of an increase in the number of in-service buses on bus routes serviced by zero emission buses, the operator is entitled to compensation. In Table 2, the amount of the lump sum compensation is the below percentage rate of the substantiated initial cost, including VAT. The compensation will be paid no later than in the month after the commissioning of the bus.

Contract year	Compensation for each in-service bus (% of initial cost, including VAT)
Year 1	8%
Year 2	16%
Year 3	23%
Year 4	30%
Year 5	31%
Year 6	17%
Year 7	11%
Year 8	11%
Year 9	11%
Year 10	11%
Year 11	11%
Year 12	11%

Table 2 The compensation in case of an increase in the number of in-service buses

12.2.2 The remainder of the contract term

The number of in-service buses at the end of the sixth contract year forms the basis of Movia's possibilities of making changes for the remainder of the contract term.

For the remainder of the contract term, Movia may again adjust the number of buses on the basis of the terms described in section 12.2.1.

12.3 Terminated units

If one unit out of several units in a contract terminates, the agreed volume of bus services/number of in-service buses will be adjusted downwards. This will create a new basis for the contract on which the number of hours and buses can be adjusted in future (i.e. after the termination of the relevant unit).

As a general rule, Movia may thus adjust the number of hours/buses in the contract to the number at the date of the ITT If, during the currency of the contract, for instance in connection with the termination of a unit, a new basis for adjustments is established (perhaps in connection with a contract extension), Movia may only make adjustments to fit the new basis.

13. Corporate Social Responsibility (CSR)

Movia has adopted a CSR policy to be observed when Movia purchases transport solutions. Movia's CSR Policy is based on the principles of UN's Global Compact. Global Compact builds on principles based on internationally adopted human rights, labour, environment and anti-corruption conventions. The operators agree to observe, promote and support the principal principles in UN's Global Compact in their daily activities by:

- Supporting and respecting the protection of internationally proclaimed human rights
- Making sure they are not complicit in human rights abuses
- Upholding the freedom of association and the effective recognition of the right to collective bargaining
- Eliminating of all forms of forced and compulsory labour
- Supporting the effective abolition of child labour
- Eliminating discrimination in respect of employment and occupation
- Supporting a precautionary approach to environmental challenges
- Undertaking initiatives to promote greater environmental responsibility
- Encouraging the development and diffusion of environmentally friendly technologies
- Working against corruption in all its forms, including extortion and bribery

Movia's CSR Policy further provides that in some cases an operator will not be able to observe the principles of Movia's CSR Policy due to the supplier's failure to provide documentation in its own supply chain. In such cases, it will be acceptable to do business with the supplier as long as the supplier warrants that all applicable national laws and agreements are complied with at all times.

Working environment and conditions in Movia's CSR Policy:

Movia makes targeted and systematic efforts to continuously improve the working environment. The operator undertakes to make sure that the working environment is of such a standard so as to protect workers from exposures or risks that may be detrimental to their health in the short and long view.

The operator agrees that he has established a programme to monitor the working environment and to currently work to improve the working environment.

The operator agrees that he complies with all collective bargaining agreements made within his field of activity. It should be pointed out that Movia is not the authority supervising compliance with collective bargaining agreements on the area. In general, reference is made to the Danish Transport, Construction and Housing Authority which is the relevant authority.

Green procurement in Movia's CSR Policy:

Movia works determinedly to reduce the impact of its activities on the climate, to achieve environmental improvements and to prevent pollution. Movia does so by making demands on its operators and suppliers.

These contract documents further describe the following related matters:

Employee-related matters:

- Movia makes demands on the working environment, referring to the relevant environmental guide, and asks the tenderer to carefully describe the measures it takes to ensure a good working environment on selected areas (section 15.5).
- It is a prerequisite that the operator’s employees receive pay in accordance with the collective bargaining agreements applicable to the area in compliance with the requirements to be met under Danish law in order to be granted the required licences for commercial passenger transport.
- To protect the employees, it is a requirement that the principles in the Danish Transfer of Undertakings Act (in Danish: virksomhedsoverdragelsesloven) are applicable in connection with the change of operator regardless of whether bus equipment is being transferred. This is part of the terms agreed between Movia and the operator, see section 14.
- The operator is encouraged to prepare an integration policy (see section 15.5) on request.

Environmental protection matters:

- Requirement for the use of sulphur-free diesel (see section 5.3.1).
- Movia makes demands on and bases its evaluation on the emissions and fuel consumption of the buses (see section 5.3.2).
- The operator is required to have a form of environmental certification of the bus garages (see section 5.1).

Anti-corruption matters:

- In connection with the pre-qualification, the operator has submitted a completed eESPD

generated from the European Single Procurement Document (Appendix 1), stating that the operator has not been prosecuted for participation in a criminal organisation, bribery, fraud or money-laundering.

14. Transfer of undertakings

14.1 Employees' rights in the event of transfers of undertaking

The operator is required to comply with Consolidated Act No. 710 of 20 August 2002 on the rights of employees in the event of transfers of undertakings (in Danish: lovbekendtgørelse nr. 710 af 20. august 2002 om lønmodtageres retsstilling ved virksomhedsoverdragelse), including requirements for business procedures and deadlines.

The below applies regardless of whether equipment has been transferred and regardless of whether the Danish Transfer of Undertakings Act applies. By submitting tenders in this procurement process, both the existing operator and the new operator agree to comply with section 14 on the transfer of undertakings.

No employees will be transferred in connection with unit 2.

As to unit 3, a significantly smaller number of employees than those operating the unit (route 350S) today will be transferred as the scope of bus services will be reduced significantly compared to previously. The number of employees appears from Appendix k.

As to unit 5 (routes 163 and 217), the bus services in connection with the drafting of the A17 Invitation To Tender are included in the A16 Invitation To Tender, and therefore, Movia has no information on the staff expected to be included in the business transfer on these two routes at the time when the Invitation To Tender is published. Movia reserves the right (and expects) to add additional information on this to the contract documents.

14.2 The tenderer's obligations on the transfer of undertakings

The operator who is awarded a contract and takes over the bus services from another operator will be placed in the same position as a transferee of an undertaking within the meaning of the Danish Transfer of Undertakings Act. The operator will take over the rights and obligations relating to the employees attached to the unit who are, at the date of transfer, exclusively or essentially engaged in the unit transferred.

The List of Employees (Appendix k) shows the employees who must be expected to be transferred for the individual unit, specifying length of service and employment terms. The information in Appendix k may be updated during the procurement process. The information in Appendix k includes both drivers and other employees.

The new operator is obliged to take over the employees listed in Appendix k and may not refuse to do so, claiming that the individual employees have exclusively or essentially been engaged in other work. On submission of tenders in the procurement process, the new operator agrees to be directly liable to the existing operator in case the new operator refuses to take over such employees and the existing operator consequently incurs costs for the payment of salaries in the notice period, etc.

The new operator is obliged to give the employees included in the transfer of the tendered bus services the same pay and employment terms as hitherto or better terms, respect their length of service, etc.

To Movia's knowledge, the tender units put out to tender and/or the Danish National Agreement for Bus Services and its Supplementary Agreement between the Federation of Employers for Public Transport - AKT (Arbejdsgiverforening for Kollektiv Trafik) and the United Federation of Danish Workers - 3F (Fagligt Fælles Forbund). Movia does not warrant that these and/or other collective bargaining agreements are applicable and bears no responsibility therefor. Movia has collected the information contained in Appendix k from the existing operators who have confirmed the accuracy of the information. Movia does not assume any separate responsibility for the accuracy of the information.

Movia has no knowledge of any workplace agreements and practices associated with the tendered bus services other than what is stated in Appendix k. At the time of the tender, the operator may thus assume that there are no workplace agreements or practises which involve considerable financial burdens under the collective bargaining agreement other than what is stated in Appendix k. If it is subsequently determined that such agreements or practices did in fact exist, the operator concerned must prove that they are of considerable financial importance, after which the price during the period will be adjusted, until such agreements are terminable at the usual notice. The adjustment will be made so as to place the operator as if no such agreement or practice of material financial importance applied.

It is for the former operator and the new operator to prepare a usual completion statement in which the new operator receives compensation for any accrued, but not yet due claims relating to the period prior to the date of transfer under the relevant general rules and principles.

14.3 The operator's obligations on the termination of the contract or a new invitation to tender

In case of termination of the contract and the reissue of the invitation to tender, the operator agrees to comply with the rules in the Danish Transfer of Undertakings Act whether or not it is applicable according to its terms, and to contribute in good faith to the transfer to a new operator of employees attached to the unit who were exclusively or essentially engaged in the transferred unit at the date of transfer.

If employees are attached to more units without predominantly being engaged in any of such units, it is for the operator to allocate the employees to the individual units for the purpose of making it clear to the tenderers during the reissue of the invitation to tender which employees are transferred in connection with the individual units.

In this connection, the operator is obliged to contribute, in good faith and in accordance with Movia's requirements, to the making of lists of the employees included in the transfer of the bus services to the new operator and to contribute with information relating to employees, enabling a new operator to estimate the costs of the tendered bus services. Movia may demand that the operator should issue a solemn declaration certifying that the information in such lists is accurate, and Movia may demand that the information in the lists is reviewed at the expense of Movia by an accountant appointed by Movia who will compare the lists with the operator's staff files. If the review reveals any errors other than trifling errors, the operator must pay the costs of the accountant's review.

The operator further agrees to contribute in good faith to the preparation of a usual completion statement as at the date of transfer to the new tenderer.

Movia will not be responsible for a new tenderer's performance of his obligations and/or the transfer of the employees attached to the unit to the new operator by virtue of the Danish Transfer of Undertakings Act.

From the date when the operator is notified that Movia terminates the contract and/or Movia intends to transfer back the unit or to transfer it to another supplier (also after a reissue of the ITT), the operator agrees not to make material changes to the composition of the staff or to the pay and other employment terms of the employees in the unit put out to tender unless there are demonstrable operational reasons to do so. The operator also agrees to submit any available information on changes to pay and other employment terms for the employees if Movia so requests.

14.4 Other terms and conditions

If Appendix k contains information about employees which proves to be incorrect and/or the employees mentioned rightly or wrongly refuses to transfer to a new operator, it is of no concern to Movia, and any costs associated therewith is a matter between the existing and the new operator.

Also any subsequent disagreement between the two operators and/or with the union of the employee, including as a result of incorrect or inadequate information, is of no concern to Movia and solely a matter between the former and the new operator and/or the union of the employee.

The former and the new operator must cooperate in good faith about the fulfilment of any duty to disclose information to, or to consult, employees in relation to the invitation to tender. These duties are of no concern to Movia.

If, at the commencement of the Contract, the average actual length of service determining the pay level is above nine years or below five years as a result of the business transfer, Movia may adjust the payment related to timetable hours. Movia will only adjust the payments for the part of the average length of service which is above nine years or below five years. In such case, the adjustment will bade so as to place the operator as if the length of service was five years if the average actual length of service is below five years, and nine years if the average actual length of service is above nine years. It is, however, a condition for the adjustment that the operator is able to document the average length of service at the commencement of the Contract. Such adjustment will be made regardless of the information in Appendix k.

If a new operator applies length-of-service principles in respect of its existing staff, e.g. when planning duty rosters or when assigning holidays, these standards must also be carried over for staff transferred to the operator in connection with the transfer of bus services.

At the request of Movia, the operator is, for the contract term, obliged to report the drivers' length of service (broken down into the individual units) once a year according to guidelines laid down by Movia.

14.5 Procedures

Movia recommends that no later than one month from the award of the contract, the existing operator forwards an updated Appendix k with information on the employees included in the transfer to the operator (i.e. the lists published during the procurement process adjusted for employees who have joined or left the company). The list should include information corresponding to Appendix k.

A new operator and the existing operator may, subject to agreement, deviate from the procedures described in section 14 if it is not to the detriment of the employees to be transferred. In such case, it is of no concern to Movia, and therefore, the existing operator and a new operator will be obliged to indemnify Movia for any claim that may be raised against Movia in that connection.

15. Staff matters

15.1 Fundamental requirements

The operator must ensure that in addition to the basic bus driving skills, the drivers receive additional training enabling the drivers to meet Movia's requirements on operation and service.

The drivers are fully uniformed and they appear clean and presentable in front of the passengers. On request, the operator must provide a description of the various parts of the uniform. Furthermore, the drivers must give passengers a correct and friendly service and be able to operate the bus correctly under all conditions as well as drive the bus in a passenger-friendly and energy efficient manner.

The drivers must collect fares from the passengers. If a bus is left unattended at a terminal stop, the driver must, when returning to the bus, make passengers aware that it is now possible to buy fares.

Bus stops and tariff zones must be announced in accordance with the rules provided by Movia. Drivers must have acquired enough Danish skills to fulfil all of Movia's service requirements. In addition, the drivers must be familiar with the overall traffic network so as to be able to advise passengers.

In order to ensure that the drivers are qualified to deal with conflicts, Movia requests that the operator prepare a staff policy which ensures that all Movia-drivers employed by the operator have the qualifications required to deal with conflicts. The staff policy must also include concrete tools for follow-up. On request, the operator must be able to give an account of this policy.

The following Movia literature contains Movia's service requirements with which the operations management and the drivers must be familiar:

- The Travel Handbook ("*Rejsehåndbogen*")
- The Driver's Service Manual ("*Chaufførens Servicehåndbog*")
- Vores Movia.

The Travel Handbook is available from the following link moviarejsehaandbog.dk/. The Driver's Service Manual ("Chaufførens Servicehåndbog") is available at www.voresmovia.dk.

Relevant information material and news about operations, rates, etc. will be published regularly by Movia at www.voresmovia.dk.

15.2 Training

Movia requires the operator to appoint a training manager to act as Movia's contact person in all training matters and matters relating to the communication to the drivers.

The operator must ensure that drivers and other affected staff are trained in Movia's tariff system so as to ensure correct and effective collection of fares. It is the operator's responsibility to ensure that fares are collected correctly and that the drivers have the necessary print paper and change at all times.

The operator is responsible for ensuring that all drivers and other staff members concerned are trained to operate and report errors in the agreed IT systems on the service and the buses falling within the scope of the Contract.

Furthermore, Movia would like to ensure that the drivers and middle managers have sufficient knowledge of Movia's organisation and the allocation of responsibilities between operators and Movia. Movia expects that the drivers and middle managers are regularly updated on this information via further training. It will be possible to provide updates and further training on www.voresmovia.dk.

All costs associated with the training will be paid by the operator.

15.2.1 Travel card

The operator is responsible for ensuring that all drivers are trained and able to operate the travel card equipment. The operator is further responsible for ensuring that other technical/administrative staff are sufficiently trained at any time to operate the travel card system and to ensure that such staff have sufficient knowledge of the travel card system. Movia has electronic training material packages available for e.g. employee-to-employee training. It is also currently possible to attend labour market training courses as travel card training is part of the three-day course in the sale of tickets.

Movia will ensure that up-to-date training material is available to operate the travel card equipment at www.voresmovia.dk. It will to a limited extent be possible to borrow training equipment (training suitcases). In addition, there will be unlimited access to a bus simulator at www.voresmovia.dk.

In case changes are made to the travel card equipment or new functionalities are added which result in changes to the driver's operation of the equipment, Movia will prepare updated training material which the operator is required to communicate to the drivers.

It is of particular importance that the staff with technical responsibility for the operation of the buses, including for monitoring and reporting faults, are continuously informed about the current operational reports from Movia.

On conclusion of the Contract, the operator must appoint persons for the specific roles in connection with the Travel Card. These functions must be covered also during holidays, days off, etc.

15.3 Driver certification

The aim of the certification concept is to bring into focus the training and service requirements which Movia makes to the bus driver position such as knowledge of fares and ticketing, etc. The certification process will be available online where users are required to answer multiple-choice questions prepared by Movia.

All drivers who are not certified must be certified within the two months from the commencement of the contract. All drivers recruited in the contract term who are not certified must be certified no later than one month after they have been employed. Certified drivers must be re-certified every five years.

All certification is available at www.voresmovia.dk. The tenderer must ensure that all drivers are registered as users on www.voresmovia.dk.

Failure to observe the rules on certification of drivers is subject to Movia's penalty system, see clauses 17-18 of the Contract.

15.4 Vores Movia – Academy system

”Vores Movia” is a so-called Academy system which is a social knowledge platform. Knowledge means that the system is to facilitate the certification of users and that the system is designed for easy and user-friendly communication of important information. The social aspect of the system is that it supports two-way communication. The users can give feedback to the system and the technical content that Movia presents.

Certification questions and training material in the form of driver’s notices, instructions, videos, service manual, campaigns, etc. will be updated continuously by Movia.

15.4.1 Tasks and role assignment

Movia is responsible for program management and all vocational content.

The operator is responsible for:

- User management, i.e. that all drivers are registered as users, assigned to the right garage and deactivated on termination of the employment.
- PC, tablet or smartphone access for own drivers
- Follow-up on and support to own drivers
- That his own drivers complete the certification process every five years
- That his own drivers keep up to date on all news

15.4.2 Economy

The operator will pay Movia an annual fee of DKK 122 per driver (price level January 2018) registered in the system. This fee will be paid at the beginning of the new calendar year on the basis of the number of users registered in November in the preceding year.

15.5 Health and safety at work

Movia requires the operator to appoint a health and safety manager to act as Movia's contact person in all health and safety matters.

It is a requirement that all operations are carried out with due regard to health and safety at work and in full compliance with current working environment laws.

In this connection, Movia refers to the directions for the problem areas emphasised in the guide from the Working Environment Council for Transport and Wholesale entitled Industry Guide for Public Transport Buses and in Environmental Guide no. 30 for the transportation of passengers issued by the Danish Working Environment Authority in 2009. The following problem areas are particularly emphasised in the Environmental Guide:

- Risk of accidents
- Psychical working environment
- Ergonomic working environment
- Noise

- Vibrations
- Indoor climate
- Workplace Assessment (WPA)

On request, the operator must be able to explain how he meets the requirements of occupational health and safety laws within special, important areas.

If the operator receives an enforcement notice from the Danish Working Environment Authority concerning matters handled by Movia such as road humps, timetable, etc., notice must be given to Movia.

Movia is aware that part of the drivers driving for Movia are non-ethnic Danes. Consequently, Movia requests that the operator has an integration policy providing for an academic and social integration at the workplace. On request, the operator must be able to give an account of this policy.

The operator is obliged to provide health and safety at work for drivers and other staff of the enterprise. As documentation for fulfilment of this obligation, the operator must arrange for an annual review measuring the satisfaction of drivers and other employees with the working environment, including Movia's services such as driving hours/adjustment time, road passability, bus stops, etc.

Movia requests a continuously updated organisation plan from the operator, including also for the operator's health and safety and works committee. Movia must further be able to obtain all information about the working environment issues discussed in the operator's health and safety committee (e.g. the fitting-out of the driver's compartment, cleaning and maintenance of buses, the indoor climate of buses, etc.) In connection with the purchase of buses, Movia makes special requirements for involvement of drivers with respect to the fitting-out of the driver's compartment, see section 3.3.14 on the fitting-out of the driver's compartment. Movia expects the operator to inform its staff of the daily registrations made by the IT equipment used in the buses.

Movia will each year prepare a process plan for the co-operation on timetables. This process plan will contain deadlines and procedures for reporting proposed changes etc. The timetable process must be agreed between Movia and the operator at the annual timetable meetings, which will also be attended by trade union representatives, health and safety representatives and/or route representatives.

Special EU rules on driving hours and rest periods (Council Regulation (EEC) 3820/85) apply to journeys of more than 50 kilometres. In this Invitation to tender, no bus routes have journeys which exceed 50 kilometres.

16. Driver's facilities

For most routes Movia has made driver's facilities – rooms and/or toilet facilities –available at route terminals. Where Movia has not made facilities available for the use of drivers, it is for the operator to ensure that the required facilities are available to the drivers.

Any costs incidental to relocating Movia's driver's facilities in connection with route changes will be borne by Movia.

Driver's facilities which can be used for routes in the individual tender unit are set out in section 2.7 which also describes whether the use of the facility is without financial obligation or whether the administrator role described below is the obligation that the operator must undertake, see the description below.

Movia expects that whether the operator is an administrator or a user, the operator must make sure that a cooperation is established across the organisations. The operator must ensure that the drivers treat the facilities respectfully – regardless of whether the operator employing the drivers is the administrator or user of the facility.

The operator must pay DKK 16.000 annually per in-service bus to Movia (January 2018 price level) towards rent as well as exterior maintenance works on the facilities whether the operator is an administrator or a user. The payment will be included in the monthly billing and adjusted in accordance with the provisions in section 17. The amount must be included in bus-related costs on the Tender Form (Appendix 5).

16.1 Administration

With the award of bus services on the following tender units follows the responsibility as administrator of the driver's facilities set out below:

Tender unit	Driver's facilities
1	Refshaleøen Tingbjerg
2	Valby Station
3	Nørreport Station
4	Ballerup Station
5	Jyllinge Shopping Centre
6	Herlev Station Gladsaxe Trafikplads

The administrator must bear all costs incidental to the facility, including costs of all interior cleaning, exterior cleaning, interior maintenance, including any maintenance of ventilation systems, consumption for the operation of the facility (such as water, electricity, heating, refuse collection, service charges), TV and radio licence fee, emptying of waste water tank, filling of utility water, repairs due to vandalism and burglary, theft protection, etc.

Exterior maintenance costs will be borne by Movia, see section 16.4.2.

The administrator must pay for electricity, water and heating consumption directly to the utility company. In particular circumstances, Movia will lay out and subsequently collect the amount from the administrator.

The administrator is further obliged to disclose the most recent year's operating costs with regard to Movia's staff facilities.

The costs of operating and maintaining the driver facility are not an integral part of the principal services in the invitation to tender, but will be paid separately. The amount will be paid quarterly according to an invoice issued by the operator and stating the applicable amount of VAT. The amount entered in the Tender Form (Appendix 5) must be inclusive of VAT.

For more information about the facilities, please see under the individual tender units in section 2.7, including information about the total amount of current operating expenses estimated on the basis of the

operating expenses that the existing administrator has had each year and an annual average of the expenses incurred by Movia for the facility in the period from 2015 to 2017. The expenses set out in section 2.7 are estimates and may vary from year to year.

Movia must ensure that buildings/facilities are insured against fire and property damage. The excess is currently DKK 25,000 per event for which the administrator is liable. The administrator must take out other insurances, e.g. contents insurance, at its own cost.

If, during the contract term, a situation arises where neither the administrator itself nor other users use the facility, Movia may decide that the administrator's obligations in connection with a facility cease to apply and thus also Movia's payment to the administrator.

Movia may also, subject to two months' notice, decide that the administration of the facility must transfer to another entity, and in such case, the administrator's obligation in connection with the facility will cease to apply and thus also Movia's payment to the administrator. Subsequently described conditions applicable on termination of the Contract will also apply in the case just mentioned.

16.2 Layout, contents, etc. of the facility

Depending on whether the facility is a room or a toilet, the administrator must ensure that the facility is equipped at any time with the required number of chairs, tables, lamps, kitchen facilities and the fire-fighting equipment, etc. based on the size, use and the level of use of the facility, see section 2.7 and section 16.3.

On takeover, the facility must be equipped with the number of chairs and tables required for the number of drivers at any one time using the facility and for which the facility is designed, as well as lamps and any kitchen facilities. The administrator must take over the contents, which will subsequently become the administrator's property. The price for the contents of the individual facilities is specified in section 2.7. The amount will be set off in the first invoice. Subsequent purchases of furniture etc. are payable by the administrator.

Furniture must be in a good working order throughout the contract term.

In case of termination of the Contract, and if tenders are once again invited for the facility, the administrator may decide to resell the contents to a new administrator (if the new administrator is interested).

If an administrator makes special requests with respect to one of Movia's facilities which is not available in the existing or planned facilities, the additional cost incidental thereto will be payable by the administrator – also in case of demolition and restoration. Alterations are, however, subject to the approval of Movia's Construction Team. The administrator will be responsible for the restoration works. No reimbursement will be available on termination of the contract. On termination of the contract, the administrator must restore the facility and remove lockers etc. unless otherwise agreed.

All fixed installations complying with regulatory requirements during normal use of the facility are included.

On conclusion of the Contract, the facility is equipped with a locking system. Any changes thereto are subject to written agreement with the other users and Movia.

Structural changes or special arrangement of the facility requested by the administrator are payable by the administrator subject to the written approval of Movia. If this includes special requirements for fire installations or the like, these will also be payable by the administrator in accordance with regulatory

requirements. Unless otherwise agreed, Movia may, at the expense of the administrator, demand that special installations, special arrangements, etc. procured by the administrator at its own expense be removed in whole or in part on termination of the Contract.

Special arrangements and technical installations are considered the property of Movia, regardless of whether such special arrangements or installations have been paid for by the administrator or Movia. No reimbursement will be available on termination of the Contract of the additional cost for structural changes or special arrangements.

Front signs, advertisements, radio/TV aerials and the like posted or attached to the outside of buildings are subject to Movia's written acceptance. The same applies to signs and advertisements posted in windows.

If such acceptance has been granted, the administrator must ensure that the installation is in compliance with regulatory requirements and the administrator must bear all costs incidental to the installation thereof. On vacation, the administrator must at its own expense remove the installations and every trace thereof if so required by Movia.

16.3 Users

Unless otherwise agreed, driver’s facilities are for the sole use of the employees of Movia's operators or the employees of companies running special bus services/contract bus services for Movia.

Movia's staff is entitled use the facility free of charge on the same terms as the operators' staff of drivers.

The operators being awarded the tender units described in section 2.7 undertake to make driver’s facilities available free of charge to the drivers of other operators throughout the contract term, regardless of whether the administrator no longer needs the facility as a result of route changes.

The administrator must establish a cooperation with other operators concerning the need for and matters concerning the individual facilities. Where the administrator no longer needs the facility, the administrator must be particularly attentive to this cooperation.

Similarly, other operators undertake to contribute to a reasonable cooperation and to ensure that those of the operators' drivers who use facilities which are administered by other operators use the facilities in a respectful manner.

Section 2.7 specifies the degree of use for the individual facility. The degree of use indicates how many drivers use the facility on a daily basis.

Degree of use 1:	Premises used by 40 employees or more on a daily basis
Degree of use 2:	Premises used by 40 employees or less on a daily basis
Degree of use 3:	Toilets in general
Degree of use 4:	Premises/toilets used by less than 40 employees on a weekly basis

The administrator must expect the number of users to vary over time.

16.4 Maintenance etc.

The administrator must provide for all interior cleaning, exterior cleaning as well as all interior maintenance of the facility.

Failure to observe the duty of cleaning and maintenance is subject to Movia's penalty system, see clause 18.9 of the Contract.

16.4.1 Interior maintenance

The tenderer assumes the duty to carry out regular interior maintenance, including maintenance as a result of ordinary wear and tear of floors, windows, walls, ceilings and the installations, etc. of the leased premises, including renewal and maintenance of the visible installations for the supply of electricity, heating and water to the facilities as well as drainage.

To this is added maintenance and renewal of interior building components, including – but not limited to – locks, doors, door handles, keys, glass panes, hinges, cisterns, water taps, toilet pans with seats, washbasins and water traps.

The administrator must, at its own expense, maintain radio, TV, aerials and other parts which the administrator or Movia has installed or which the administrator has taken over from the former tenant.

Ventilation systems have been installed in a few facilities owned by Movia. The administrator is responsible for maintaining the ventilation system and undertakes to either take over Movia's current service contract or to enter into a similar contract to replace the one Movia has. The ventilation systems for which Movia has no servicing agreement are small ventilation systems which do not require servicing agreements. However, they must be maintained. If the tenderer wishes to take over Movia's service contract, the tenderer must contact the Construction Team no later than two months before the start of operations. System replacement due to age is subject to negotiations with Movia.

Heat converters have been installed in a few facilities. Heat converters are subject to the same conditions as ventilation systems.

Section 2.7 describes whether a ventilation system or heat converter is installed at the individual facility.

In addition, the administrator also assumes the duty to maintain the relevant fire-fighting equipment which the employees may use in case of fire.

At the request of Movia, the administrator must be able to prove that regular maintenance has been performed. If the administrator cannot provide documentation for regular maintenance in cases where the administrator has the duty of maintenance, the costs of renewal must be borne by the administrator.

16.4.2 Exterior maintenance

Movia retains the duty to maintain the exterior of the building such as the foundations, façades, roofs, etc.

The administrator has a duty to regularly report faults and defects in the facilities as regards the exterior maintenance to Movia's Construction Team.

Movia's Construction Team may be contacted on weekdays between 8:00 am and 3:30 pm at byggeteam@moviatrafik.dk or on telephone no. +45 36 13 20 25. In urgent matters, please call the skilled craftsmen named on the Extranet directly. Any costs to Movia as a result of incorrect fault reporting must be borne by the administrator.

16.4.3 Interior cleaning

The individual facility must be cleaned at least once every day. In case of only very limited use of the facility, there may be a few exceptions to this general rule.

Areas to be cleaned are toilets, entrance areas, including any stairways, walkways, primary communal rooms, secondary communal rooms, wardrobes, lockers, changing rooms, garages, telephone boxes, towers, etc.

Daily cleaning includes airing, emptying of waste bins, wiping of tables, cleaning of toilet pans, washbasins, vacuuming/sweeping, washing of floors, filling of toilet paper, toilet soap and towels.

Other cleaning must be carried out when needed. This includes furniture, refrigerators, ovens and coffee makers, etc.

Washdown of grids, taking down and washing of lamps, washdown/wiping of walls, interior washing of cupboards in the kitchen units, washdown of ceilings, interior washing of lockers, scrubbing and "saturation" of floors, washing of window frames as well as base frame, washing of curtains and radiators at least once every year in connection with a complete cleaning.

The administrator is responsible for ensuring that the facilities are clean and cleared at all times to the effect that the facilities comply with sound health standards and the requirements under occupational health legislation.

16.4.4 Exterior cleaning

All exterior cleaning of the facility is the responsibility of the administrator. This includes, for example, roofs, gutters, downpipes, cesspools, windows, skylights and lighting fixtures, etc.

Exterior cleaning of the area surrounding a building, including snow clearing, salt application, gravelling, sweeping, removal of graffiti as well as garden work, is also included in the administrator's responsibilities unless it is the responsibility of a third party. The tenderer is responsible for ensuring that the facility, including its outdoor areas, is presentable at any time.

If the administrator has not carried out the exterior cleaning (e.g. emptying of gutters), the administrator will be liable for the expenses that Movia may incur as a result of the duty of maintenance.

16.5 Transfer of a facility

The administrator’s responsibility for the facilities ceases on termination of the bus service contract for the relevant tender unit or in the cases described in section 16.1. On termination of the Contract, the facility must be returned in the state and condition it was in when it was taken over (ordinary wear and tear excepted).

If objects such as secondary windows, doors, fire-fighting equipment, etc. disappear in the contract term, the administrator is responsible for the re-installation of various defects before the facility is transferred to a new administrator.

Before takeover, the administrator must have inspected the facility with Movia.

On vacation, the administrator must contact Movia no later than 30 days before termination of the contract to arrange for inspection of the facility for purposes of transfer to the new administrator, to the effect that the transfer inspection has taken place before termination of the contract.

The former administrator, the new administrator and Movia will take part in the transfer inspection meeting which will be held at the relevant driver's facility.

17. Payment

Payments between Movia and the operator must be made via a bank account designated by the operator. Payments will be adjusted as set out in section 17.4 and sections 2.5, 2.6 and 2.7.2.

17.1 Contract payment

The agreed tender price is payable to the operator monthly in arrears on the fourth weekday of the following month, broken down into the agreed overheads and costs relating to bus, facilities and timetable hours. Financial penalties imposed for quality defects, cancelled bus journeys, etc. will be set off against the payments for the preceding month.

The agreed tender price with respect to the facility-related costs is not included in the monthly billing, but is settled quarterly according to invoice issued by the operator. VAT must be separately stated on the invoice.

Before the 10th day of each month, the operator must submit a statement of the number of cancelled bus journeys in the preceding month, specifying the reason. Special forms drawn up by Movia must be used for the submission of information about cancelled services. The operator's manager in charge or other duly authorised person must sign all reports and statements. During the contract term, Movia may change the reporting method.

Adjustments for cancelled services are not included in the payment until the subsequent month.

In case of accepted combination tenders involving units with different dates for start of operations, the settlement will only take place for units put into operation.

17.2 Sale of tickets etc.

All income from the sale of tickets etc. will accrue to Movia.

The sale of one-way tickets on the bus is recorded by the travel card system and data are sent to the Back Office upon bus synchronisation. Movia will settle accounts with the operator on the basis of such data.

The operator is entitled to extract reports of such sale.

When a driver logs out of the bus, a receipt showing the sale effected for this part of the duty will be printed. This receipt covers only the sale effected for the period during which the driver was logged in on the relevant bus. A driver may thus have two or three receipts for any given day.

These receipts may also be used as a basis for the driver's settlement of accounts with the operator. If the driver's receipts or till money shows a higher sale than the amount registered by the Back Office, the operator is advised to charge the full amount from the driver, as Movia may make corrections on account of data arriving late.

Movia may on request provide a daily list of the recorded sale per driver. This list, which is based on Back Office data, must be forwarded by e-mail. Please note that data may arrive late for any given driver. As mentioned above, the typical scenario is that the driver has more receipts on any given day than accounted for by the recorded data.

17.3 Terms of payment in connection with cancelled services

In cooperation with the road authorities, Movia is responsible for ensuring that under normal conditions (see section 8) operations can be carried out according to the timetables and has a duty to discuss any discrepancies with the operator. Normal conditions means normal Danish weather conditions and normal road conditions, i.e. the designated routes, disregarding road works etc., are accessible and roadworthy for bus services.

On disruption of bus services, irrespective of the reason – other than by force majeure etc. – the operator will receive normal payment related to timetable hours. This is also the case for cancelled services, always provided, however, that the set-off against payments for cancelled services will be calculated according to fixed rates per timetable hour in an ascending scale on the basis of the cancelled services for the month in percentage terms, see the Contract. This percentage is calculated on the basis of the cancelled services of the month expressed in terms of timetable hours relative to the driving hours scheduled in the vehicle schedule for payment.

If a bus service is cancelled or delayed because the bus is being held back by Movia or because the operator is re-establishing traffic regularity, the cancelled service must be registered for purposes of any customer enquiries, but there will be no set-off against payments.

If a service disruption is caused by a traffic accident or extreme weather conditions, the disruption will sometimes entail very big delays, possibly with short suspensions of operation. In such cases, the set-off for the cancelled service will be subject to a maximum of the price per timetable hour, and the cancelled service will not be included in the calculation of the percentage of cancelled services for the month.

To ensure that a cancelled service is not included in the monthly calculations of the percentage of cancelled services for the month, the operator must prepare a report describing the reasons for cancelling the service and the measures taken by the operator to keep up operations. Movia will then make a specific assessment in each individual case.

If the non-performance is attributable to negligence on the part of the operator or his staff, or if the cancelled services repeatedly affect the same journeys/routes, Movia is entitled to exercise the remedies for breach available under the Contract, see the Contract.

On disruption of bus services due to force majeure, including labour disputes, a set-off will be made against payments for cancelled services on the basis of the fixed rates specified in the Contract with respect to overheads and costs related to buses and timetable hours.

No payments will be made for overheads or costs related to buses and timetable hours for such cancelled services.

The payment relating to timetable hours will be set off by deducting the payment for the timetable hours not performed.

Overheads and bus-related costs for whole days are offset by 1/30 per day. For parts of days or parts of the Contract, a proportionate share is offset, corresponding to the cancelled services as a percentage of scheduled driving hours for the month at contract level.

If such disruption of services lasts for more than seven days and is due to external circumstances beyond the operator's control, the issue of partial compensation of overheads and bus-related costs or other compensation may be open for negotiation subsequent to a specific assessment in the individual case. Cancelled services caused by such circumstances will not be included in the percentage calculations of total cancelled services.

17.4. Adjustment of payments

Adjustments of the payment (overheads and costs related to buses, facilities and timetable hours) which are made according to developments in a joint cost index for bus services in Denmark. Depending on the fuel used, adjustments will be made on the basis of different indexes.

For unit 2 in particular
The payment for this unit will be indexed in accordance with section 17.4 depending on the choice of electric driving line for the zero emission buses.

17.4.1 Diesel

The cost index based on the use of diesel is calculated on a monthly basis by the Danish Public Transport Authorities in Denmark (Trafikselskaberne i Danmark) and are published on

http://www.trafikselskaberne.dk/trafikselskaberne.dk/Udbud/Omkostningsindeks

The joint cost index is calculated on the basis of developments in the following index published by Statistics Denmark. In this context, it should be noted that the stated weightings are regularly adjusted according to the relative developments in the individual indices:

- The wage index for the private sector (DS ILON12 – Total - Seasonally adjusted), 60% in January 2008
- Total consumer price index (SD PRICE 111 - Total), 8% in January 2008
- Consumer price index for diesel oil - (DS PRIS 111 – Diesel and lubricants), 17% in January 2008
- Price index for national supply of materials - (DS PRICE 11 – Vehicles and parts for vehicles - Total), 9% in January 2008
- Average bond interest rate - (DS MPK3 – all series), 6% in January 2008

The cost index for January 2008 is 100, and the January 2017 level is 109.6.

17.4.2 Synthetic diesel (BtL, HVO, GTL)

The adjustment follows the above diesel index.

If, in the contract term, Movia develops an index for synthetic biodiesel (a HVO index), it will be possible to enter into an agreement on the use of such index if acceptable to both Movia and the operator. The index will in such case cover both HVO and BtL and replace the consumer price index for diesel oil in the aggregate cost index.

In case of the transition to price adjustments based on a new index, Movia is, at any time after such transition, entitled to demand that the operator adds conventional diesel with a percentage share fixed by Movia (if technically feasible) for the purpose of reducing price increases. Prices will then be adjusted

according to the HVO/BtL index to an extent corresponding to the use of such fuel compared to the use of conventional diesel.

GtL will still be indexed according to the diesel index, see section 17.4.1.

17.4.3 Gas index

If the bus services are carried out using gas-powered buses:

The calculation of the gas cost index, the consumer price index for diesel oil will be replaced by a special gas price index. Such gas price index is calculated on the basis of the development as follows:

- Monthly spot price from Gaspoint Nordic two months earlier
- Costs of distribution, from the natural gas price index of the Danish Energy Regulatory Authority (Eltilsynet) five months earlier
- Energy taxes (Mineral oil tax, CO2 tax, NOX tax), current rates from the Danish Ministry of Taxation

The gas cost index for January 2008 is 100, and the January 2017 level is 110.3.

http://www.trafikselskaberne.dk/trafikselskaberne.dk/Udbud/gasomkostningsindeks

17.4.4 Electricity index

The electricity cost index based on the use of electricity is calculated on a monthly basis by the Danish Public Transport Authorities in Denmark (Trafikselskaberne i Danmark) and are published on http://www.trafikselskaberne.dk/trafikselskaberne.dk/Udbud/elomkostningsindeks/

The joint cost index is calculated on the basis of developments in the following index published by Statistics Denmark. In this context, it should be noted that the stated weightings are regularly adjusted according to the relative developments in the individual indices:

- The wage index for the private sector (DS ILON12 – Total - Seasonally adjusted), 68% in January 2008
- Total consumer price index (SD PRICE 111 - Total), 9% in January 2008
- The net price index for electricity - (DS PRIS 114 – 04.5.1 Electricity), 6% in January 2008
- Price index for national supply of materials - (DS PRICE 11 – Vehicles and parts for vehicles - Total), 10% in January 2008
- Average bond interest rate - (DS MPK3 – all series), 7% in January 2008

The electricity cost index for January 2008 is 100, and the October 2017 level is 112.1.

If, during the currency of the contract, Movia develops a different electricity index, it will be possible to enter into an agreement for the contract term on the use of the index if acceptable to both Movia and the operator.

Units 1, 2 and 4 (basic) in particular

The tax on electricity for public bus transport service has been reduced from DKK 0.91 per kWh to DKK 0.40 per kWh. It is a temporary arrangements which ends on 1 January 2024. According to the text of the agreement, the parties behind the agreement agree to try to extend the arrangement with the low energy tax after 1 January 2024.

On submission of tenders for the electric bus solution, the operator must base his tender on the low energy tax throughout the contract term. If the energy tax increases in the course of the contract term, the operator will be compensated for the costs it will involve.

The compensation will be based on the following model:

The price related to timetable hours will be adjusted on the basis of the average annual consumption in the preceding three years of operation. If the electricity tax on electric buses for public transport service increases to DKK 0.91 per kWh on 1 January 2024, the change in the timetable-related price will be calculated on the basis of the average energy used to charge electric buses in the preceding three years of operation multiplied by DKK 0.906 kWh (DKK 0.91 per kWh - DKK 0.004 per kWh), plus VAT divided by the average annual timetable-related hours for the preceding three years of operation. The adjustment of the hourly rate applies for the remainder of the contract term. If the level of the electricity tax is again adjusted upwards or downwards, the hourly rate will be adjusted again according to the same methodology as described above.

Example
Energy used to charge electric buses in 2021: 2,260,000 kWh. Number of timetable-related hours in 2021: 63,000.
Energy used to charge electric buses in 2022: 2,250,000 kWh. Number of timetable-related hours in 2022: 63,000.
Energy used to charge electric buses in 2023: 2,300,000 kWh. Number of timetable-related hours in 2023: 66,000.
The annual average energy used to charge electric buses in the period is 2,270,000 kWh. The average annual timetable hours for the period is 64,000.

Adjustment of the price related to timetable hours: (2,270,000 kWh*0.906 DKK/kWh*1.25/64,000 = 40.17 DKK/h. The price related to timetable hours will be adjusted with effect from the time when the tax change becomes effective.

17.4.5 Hydrogen index

The adjustment follows the above electricity index. If Movia develops an index for hydrogen, it will be possible to enter into an agreement on the use of such index if acceptable to both Movia and the operator.

17.4.6 Calculation - example

The cost index for a specific month is calculated on the basis of the sub-indices two months earlier – but the wage index six months earlier. For example, the cost index for June 2011 is calculated at 107.9 on the basis of the sub-indices for April 2011 – but the wage index for December 2010, applying for Q4 2010. The cost index is rounded off to one decimal place according to the 4/5 rule.

The agreed tender price will be adjusted on a monthly basis according to developments in the joint cost index for the relevant month relative to the cost index for June 2011 stated as price level in the contract documents. Prices will be adjusted from the first billing.

There will be NO subsequent adjustments. However, if an index is so delayed that it cannot be included in the above model within the time stated, subsequent amendment may be made.

If the sub-index included in the joint adjustment index lapses or the contents thereof change during the contract term, Movia reserves the right to insert another corresponding index figure, taking into account the existing weighting of the development in the relevant sub-index.

Illustration of principles

The principles are illustrated by the below example.

Tender submitted in June 2011 price level.

Tender is for DKK 100,000 per month.

The payment for December 2011 must be adjusted relative to changes in the adjustment index for June 2011 to December 2011.

$$\frac{\text{Tender price x December 2011 price level}}{\text{June 2011 price level}} = \text{Payment for December 2011}$$

Payment for December 2011:

$$\frac{\text{DKK 100,000 x 108.0}}{107.9} = \text{DKK 100,093}$$

18. Overview of amendments to the contract documents

Below is a list of important changes and issues to be noted compared to Invitation to Tender A16. The list is only intended as an aid to the operator, and it is emphasised that the list is not exhaustive and that the changes are not listed in any particular order.

Section 3.3.9 – Note that changes have been made to gangway requirements.

Section 3.3.4 – Note that changes have been made to passengers' possibilities of opening and closing the doors.

Section 3.3.4 – Note that changes have been made to door type requirements.

Section 16.1 – Note that Movia reserves the right to transfer the administration task to another enterprise.

Section 16 – Note the change as to the amount to cover rental expenses. Also be aware that this amount should be included in bus-related costs as we reserve the right to transfer the administration task to another enterprise, see above.

Section 1.3.3 – Note that only one tender may be submitted for each unit and each possible combination.

Section 8.4 – Note that changes have been made to door type requirements.

Section 1.5 – Note that changes have been made to the evaluation of tenders. Also the span within which the part criterion Customer Satisfaction and Level of Services Provided and new part criteria are scored.

Section 1.3.6.4 og 1.5 – NOTE the changed requirements for the Statement of Operations (Appendix 8).

Clause 3 of the Contract – Note that the former sub-clause 6 has been deleted. A new sub-clause 6 has been inserted.

Clause 20 of the Contract – Note that there is a different requirement for the provision of security for the equipment on unit 1.

Section 5.5 – Note that changes have been made to the monitoring of NOx emission.

Section 7.1 – Note requirements as to the left side window above the front wheel.

Section 7.3 – Be aware that the display of news must not be offensive for children.

Section 7.3 – Note requirements for statement concerning the display of the four display categories.

Section 14 – Note the general changes and special conditions for units 2, 3 and 5.

Section 4 – Note the new section 4 on the use of charging stations in urban space

Section 2.7.1 – Note the special requirements

Section 2.7.2 – Note the special requirements

Section 2.7.3 – Note the special requirements

Section 2.7.4 – Note the special requirements

Section 17.4.2 – Note that in the contract term, Movia may demand that the operator adds conventional diesel in tenders with synthetic biodiesel.

12.2.1.1 – Note that changes have been made to the requirements for the number of buses that may be reduced in the small contracts.

CONTRACT

A17 - XX

Concerning Internal no.:

THE PROVISION OF REGULAR BUS SERVICES IN THE AREA OF TRAFIKSELSKABET MOVIA

between

TRAFIKSELSKABET MOVIA
TOFTEGÅRDS PLADS
GL. KØGE LANDEVEJ 3
2500 Valby
CVR NO.: 29896569
("Movia")

and

…….

(the “Operator")

1 Purpose/Assumptions

(1)

The purpose of this Contract is to govern the relationship between Movia and the Operator in connection with the provision of the bus service set out in clause 4.

This Contract is the result of a negotiated procedure commenced and carried out by Movia in accordance with Directive 2014/25/EC of the European Parliament and of the Council of 21 April 2014 (the Utilities Directive) as implemented in to Danish law by Regulation No. 1624 of 15 December 2015.

(2)

The Parties agree to cooperate throughout the process taking a positive, professional and responsible approach and making very significant efforts to achieve the best possible results. The Parties will be flexible to the extent deemed reasonable and usual for the performance of comparable contracts.

2 Contractual basis

(1)

The contractual basis for the agreement between the Parties is this Contract and the following appendixes:

Contract Appendix A:	Movia's combined contract documents: Contract documents for "*A17 - Invitation to tender (ITT) for regular bus services"* (including Appendices), dated February 2018 and corrections and Q&As etc. to the contract documents available for download at Movia's tender website
Contract Appendix B:	List of buses covered by the Contract
Contract Appendix C:	The tender submitted by the Operator, including various filled-in tables, etc.

(2)

The appendixes mentioned in clause 2.1 form an integral part of this Contract. The Contract prevails over the appendices. In case of discrepancy or disagreement between the appendices or documents subject hereto, the interpretation of the contractual basis will, in accordance with the general principles of interpretation in Danish law, seek to ascertain the intention of the Parties with respect to the relevant documents

In the interpretation, the contract documents will take priority over the tender submitted by the Operator, always provided that the specifications of the tender prevail in cases where the tender submitted by the Operator places Movia in a better position than the requirements contained in the contract documents.

3 Term

(1)

For units 1, 4, 5 and 6, operations begin on 8 December 2019.

For units 2 and 3, operations are expected to begin on 15 July 2019 at the earliest. Because of the New Urban Network (Nyt Bynet), notice of the date for start of operations will be given no later than eight months prior to the start of operations.

This Contract becomes effective when signed by both parties and continues until:

- Autumn/winter 2029 with respect to units 1 and 4 (basic)
- Spring/summer 2029 with respect to unit 2
- Autumn/winter 2021 with respect to unit 3
- Autumn/winter 2025 with respect to units 4 (option), 5 and 6.

At the time when the contract commences, Movia will not be able to state the exact expiry date of the contract, as not until shortly before expiry of the contract will it be possible to finally plan the local authorities' scope of services and the related timetables. In this connection, all of the bus services covered by the contract will not necessarily terminate with effect from the same date.

The exact expiry date of the Contract will be notified by Movia at least six months before expiry.

The total duration of the Contract (i.e. from start of operations until termination of the Contract) will for the individual units correspond to the number of years stated in the chart in Contract Appendix A, section 2, but +/- three months.

On expiry of the Contract, Movia is not obliged to take over any part of the operator's real property, buses, bus parking area/garage, radio, IT or telephone equipment or other assets.

Neither Party may terminate the Contract for the duration of contract term, but see clauses 6 (Ownership), 14 (Bankruptcy etc.) and 17 (Breach and termination of the Contract).

The contract term may be extended under Clause 3, sub-clauses 2, 3, 4, 5 and 6.

(2)

Applies to unit 3

Movia is entitled to extend the contract concerning unit 3 by up to two years. The Contract may be extended twice for expiry in autumn/winter 2023 at the latest. The exact date of expiry will be notified at least six months prior to the expiry of the Contract.

(3)

Not applicable to unit 3

On the condition that the Operator delivers the agreed quality for the individual unit, the Operator is entitled to extend the contract term. The Contract may be extended for terms of two years. The Contract may be extended three times for units 4 (option), 5 and 6, and once for units 1, 2 and 4 (basic) to the effect that the contract term may be up to a total of twelve years – always provided that the expiry of the contract term is coordinated with a reissue of an invitation for tender planned by Movia.

The conditions for an extension of the contract term for units 4 (option), 5 and 6 are that the average outcome of the first three measuring periods, five and seven measuring periods respectively (measuring periods are specified in section 10.1.3):

- meets the agreed targets with respect to customer satisfaction (quality index), level of services provided (service level) and
- does not exceed the average maximum penalty of DKK 5,000 per bus per year in case of quality defects.

  If the number of buses set out in the Contract is adjusted in the contract term, and if there has been a differentiated number of buses in a measuring period, the average penalties will be calculated on the basis of the highest number of buses in the measuring period.

Whether the Operator is entitled to extend the term of the Contract will be decided after expiry of the third, fifth and seventh measuring period for units 4 (option), 5 and 6. The final agreement to extend the term of the Contract must be in place no later than one month after the publication of the quality results. In this context, reference is made to section 10.

The conditions for an extension of the term of the Contract for units 1, 2 and 4 (basic) are that the average outcome of the first seven measuring periods:

- meets the agreed targets with respect to customer satisfaction (quality index), level of services provided (service level) and
- does not exceed the average maximum penalty of DKK 5,000 per bus per year in case of quality defects.

  If the number of buses set out in the Contract is adjusted in the contract term, and if there has been a differentiated number of buses in a measuring period, the average penalties will be calculated on the basis of the highest number of buses in the measuring period.

Whether the Operator is entitled to extend the term of the Contract will be decided after expiry of the seventh measuring period. The final agreement to extend the term of the Contract must be in place no later than one month after the publication of the quality results. In this context, reference is made to section 10 of the contract documents.

The Contract may only be extended for the tender units included in the Contract where the agreed targets with respect to customer satisfaction (quality index) and level of services performed (service level) are met.

(4)

This does not apply to unit 3

If the Operator fails to deliver the agreed quality for a unit, but meets the minimum requirements with respect to customer satisfaction (quality index) and the level of services provided (service level), Movia and the Operator may agree to extend the contract term.

The Contract may be extended several times up to a maximum total of twelve years. The expiry of the contract term is to be coordinated with Movia's planned change of timetable(s).

(5)

In order to adapt the expiry of a contract to future timetable changes, invitations for tenders, etc., Movia reserves the right to extend the contract term on unaltered terms for the entire Contract or part of it (i.e. one or more units covered by the Contract) by up to one year, but for a maximum of twelve years in total.

The exact date of expiry will be notified no later than six months prior to the expiry of the Contract.

(6)

Movia is entitled to terminate the Contract with a notice which is appropriate in the circumstances if the Operator is excluded from the procurement process at any time after the conclusion of the Contract on the mandatory grounds for exclusion set out in sections 135-136 of the Danish Public Procurement Act (in Danish: *udbudsloven*). Prior to termination, Movia must allow the Operator adequate time to perform self-cleaning (see section 138 of the Public Procurement Act) and may only terminate if at its reasonable discretion, Movia concludes that the self-cleaning initiatives taken by the Operator are not sufficient.

4 Services to be delivered by the Operator

(1)

The Operator shall provide approx. ……. timetable hours per year for Movia.
At commencement of this Contract, it has been agreed that the bus service shall be provided on routes ……...
The bus service shall be provided using ……. in-service buses and …… replacement buses, as described in more detail in Contract Appendix B.
With regard to the scope of services, changes to the scope of services, bus equipment, garages/bus parking area, etc., reference is made to Contract Appendix A.

(2)

The Operator shall ensure that garages/bus parking area are available for the requisite number of buses and will pay the associated costs.
The Operator's headquarters are situated at the address of ……..., and the bus services covered by this Contract shall be provided from the Operator's garage, situated at ……...

5 Price / Payment / Adjustment

(1)

For the agreed bus services, the following payment will be made:

Unit X:

Overheads	DKK per month
Bus-related costs	DKK per bus per month.
Costs related to timetable hours	Price per timetable hour
Driver’s facilities	DKK per month.

All prices are quoted at the January 2018 price level.

(2)

With regard to payment, payment terms, adjustment, set-offs for income from the sale of tickets, if applicable, reference is made to Contract Appendix A.

(3)

The amount for driver's facilities (see clause 5.1) is inclusive of VAT and must be billed using an invoice.

6 Ownership

(1)

The Operator is registered as a …..…….. company – "……." - (CVR no. …….).

(2)

If the Operator is organised as a public or private limited company (A/S or ApS), Movia may demand to be given notice of the name(s) of the owner(s) of the shares. Any shareholding below 10 % of the share capital may not be disclosed unless special circumstances give the holder of such shareholding a controlling interest in the company.

(3)

In case the shareholding specified changes during the contract term, notice shall be given to Movia in writing without undue delay.

(4)

In case of any material changes to the ownership of the shareholdings in the contract term, including any changes to the controlling interest in the company, Movia is entitled to terminate this Contract by giving three months' notice in writing, provided that such notice is given within one month of Movia becoming aware of the circumstances giving rise to termination.

(5)

Notwithstanding the above, Movia is not entitled to terminate under clause 6.4 without good reason. It is good reason if the new owner(s) is (are) excluded from participation in the procurement process for the mandatory grounds for exclusion set out in sections 135 or 136 of the Danish Public Procurement Act.

7 Assignment of rights

(1)

The Operator's rights and obligations under this Contract may not be assigned to a third party in whole or in part without Movia's prior written approval. The Operator is however entitled to assign his claim for payment under the Contract to a third party, including the Operator's bank. In case the Operator assigns payments under the Contract, Movia is entitled to demand further details on the Operator's financial situation.

(2)

Movia may on unaltered terms assign its rights and obligations under the Agreement to another public institution or an institution wholly or partly owned by public authorities or essentially operated by public funds.

8 Sub-suppliers

(1)

If the Operator uses sub-suppliers to fulfil his obligations, the Operator guarantees fulfilment of the Contract to the same extent as if the Operator had performed the service himself. The use of sub-suppliers will not release the Operator from any obligation to Movia.

(2)

The Operator will notify Movia in writing of the name, contact details and representative of each of its sub-suppliers, specifying the parts of the service to be performed by the relevant sub-supplier, on or before the start of operations. The Operator is obliged to ensure that Movia has, at all times, up-to-date current information thereon.

(3)

Movia shall in advance approve any use of sub-suppliers who are not expressly covered by the Operator's tender. Any transfer of bus services, change of sub-suppliers after commencement of this Contract or any other changes relating to sub-suppliers must be approved by Movia in writing before the change is implemented.

(4)

Any sub-suppliers shall be duly licensed to perform the bus services put out to tender. At the request of Movia, the Operator shall present documentation showing that that is the case.

(5)

Movia is entitled to withhold approval of a new sub-supplier or a change in the mutual allocation of responsibility for performance of the Contract.

(6)

If a sub-supplier is subject to mandatory grounds for exclusion under the Danish Public Procurement Act, Movia is entitled to demand replacement of the sub-supplier.

(7)

Movia's contact goes through the Operator.

9 Control procedures

(1)

Movia is entitled to supervise the Operator's performance of this Contract by carrying out inspections of the buses used while they are in service. Such supervision will not release the Operator from his responsibility for ensuring that the buses meet the agreed conditions.

(2)

Movia is further entitled to supervise the Operator's compliance with and performance of his obligations under the Contract by visiting the Operator's business premises, including a detailed inspection of the Operator's operating equipment. The Operator is obliged to assist in connection with such inspections at no extra charge.

(3)

If the Operator has appointed sub-suppliers to perform this Contract in whole or in part, the Operator is obliged to include a provision in the contracts with the sub-suppliers entitling Movia to carry out inspections at the sub-suppliers' premises to the extent described in clauses 9.1, 9.2 and 9.3.

10 Quality measurements

(1)

Movia will carry out continuous quality measurements and the measuring period for defects in quality, service level and quality index of the services covered by this Contract will run from 1 January 2020 to 31 December 2020, from 1 January 2021 to 31 December 2021, etc.

The measurements will be made on a per unit basis.

The results will be published approximately three months after the expiry of each measuring period.

The agreed targets for the units in this Contract:

Unit X

Quality index	at least XX

Service level	at least XX
Financial penalties in connection with quality defects (DKK 5,000 per bus, see clause 3.)	no more than DKK XX.

11 Annual reports and budget

(1)

Regardless of how the Operator's business is organised, the Operator is obliged to submit annual reports to Movia in the contract term. The annual reports must contain a profit and loss account and a balance sheet and be audited by a registered accountant or a state-authorised public accountant.

(2)

Regardless of how the Operator's business is organised, Movia is entitled to see the budget for the first full year of operation. The budget must further show how necessary new acquisitions as well as day-to-day operations are funded.

(3)

Movia will treat the financial information mentioned in clauses 11.1 and 11.2 as confidential.

12 Injury and damage

(1)

If, in the performance of their obligations under this Contract, the Operator or his sub-suppliers cause injury to persons or damage to property to be transported by the Operator or to a third-party person or third-party property, whether by act or omission, the Operator or his sub-suppliers alone are be liable for such injury and/or damage.

(2)

In the event that the injured party raises a claim against Movia on account of the injury or damage as described in clause 12.1, the Operator shall indemnify Movia for any claims and expenses, including legal costs, interest, etc., incurred by Movia as a result of such claim.

(3)

It is the obligation and responsibility of the Operator to take out the necessary insurance, including general liability insurance, etc. in accordance with Contract Appendix A. At the request of Movia, the Operator shall present documentation for the continued existence of the general liability insurance cover.

13 Confidentiality

(1)

The Operator and Movia are under a mutual obligation to treat as confidential all information about each other's business affairs and any other information which may reasonably be said to be confidential. But see clause 1.7 of Contract Appendix A on duty of confidentiality, access to information and publication.

(2)

This duty of confidentiality shall survive the termination of this Contract, howsoever caused.

14 Bankruptcy etc.

(1)

If the Operator files for bankruptcy or reconstruction, goes bankrupt or goes into liquidation or reconstruction, Movia will, subject to the provisions of the Danish Bankruptcy Act, be entitled to terminate the Contract with immediate effect unless the estate in bankruptcy becomes a party to the Contract with Movia as a result of its right of subrogation and/or the termination is contrary to the rules on reconstruction contained in the Danish Bankruptcy Act. Movia shall without undue delay be given notice in writing of any filing for reconstruction or bankruptcy etc., issue of bankruptcy order, appointment of supervisors, etc.

(2)

Movia may terminate the Contract with immediate effect if the Operator is a company dissolved by the Danish Business Authority. The right to terminate the Contract applies from the time when the Authority makes a request for dissolution.

15 Replacement of drivers

(1)

If one of the Operator's drivers gives rise to serious or repeated criticism justifying dismissal or summary dismissal, Movia is entitled to require the driver removed from the bus service covered by this Contract.

16 Damages

(1)

The Operator is liable to Movia under the general rules of Danish law for any documented financial loss caused by the Operator, including breach of this Contract, unless such breach is caused by weather conditions which the Operator cannot reasonably be required to overcome or by force majeure.

(2)

Force majeure means extraordinary events which prevent the performance of this Contract and which occur through no fault of the Operator under circumstances beyond the Operator 's control and circumstances which the Operator ought not to have foreseen.

(3)

Payment of penalty will not reduce any claim for damages for the same event or circumstance.

17 Breach of contract and termination for breach

(1)

If the Operator is in material breach of his obligations under the Contract, Movia may demand that the Operator remedies the breach within a reasonable time limit defined by Movia. If the Operator fails to remedy the breach within the defined time limit, Movia is entitled to give notice that Movia will terminate the Contract for breach (in whole or in part) unless the breach is remedied within another five business days. Any failure to remedy the breach within such additional time limit of five business days will entitle Movia to terminate the Contract for breach at its discretion, in whole or in part. If Movia terminates the Contract for breach under this clause, the Operator is entitled to payment for the services delivered prior to the termination for breach.

Any termination of the Contract for breach will not prevent Movia from claiming damages under clause 16 on Damages.

(2)

If Movia is in material breach of its obligations under the Contract, the Operator may demand that Movia remedies the breach within a reasonable time limit defined by the Operator. If the Movia fails to remedy the breach within the defined time limit, the Operator is entitled to give notice that the Operator intends to terminate the Contract for breach unless the breach is remedied within another five business days. Any failure to remedy the breach within such additional time limit of five business days will entitle the Operator to terminate the Contract for breach. The Operator may not terminate the Contract for breach in part. If the Operator terminates the Contract for breach under this clause, the Operator is entitled to payment for the services delivered until the termination for breach.

(3)

Serious or repeated breach of the provisions of this Contract – in the absence of material breach, if viewed separately – will be deemed to constitute a material breach.

(4)

In case of the withdrawal of the Operator’s licence or permission to perform the bus services covered by this Contract, Movia is entitled to terminate the Contract in its entirety with immediate effect.

18 Penalty/Set-offs against the payment

(1)

If the breach is not such as to justify termination with immediate effect, but the non-compliance with certain aspects of the Contract is nevertheless of inconvenience to the passengers or has contributed to the failure to maintain the presupposed standard for the bus services, Movia may impose the below sanctions.

(2)

The Operator will be imposed financial penalties in case of defects established by Movia during an inspection of and in the buses or otherwise registered or documented, including data extracted from installed IT equipment.

It is not Movia's intention to punish the individual flaws in a well-working cooperation. Instead, penalties will be imposed if the Operator fails to take the necessary measures to minimise the number of defects and the number of defects thus represents a trend, i.e. reaches the level set out in Table A below. Movia intends to apply sanctions only to give and retain the Operator's incentive to fully perform the Contract, and therefore, Movia is entitled to waive any claim for penalty, etc.

Movia's approach will primarily be - by contacting the Operator - to have the defect remedied and, if possible, prevent it from occurring again. Where possible, Movia will contact, for example, the driver directly to cooperate with him or her to have the matter rectified on site.

In the following situations, Movia will always impose a penalty, unless Movia specifically deviates from this, and make a set-off of DKK 3,000 against the amount payable to the Operator for each of the following confirmed defects:

- Failure to replace defective ticketing equipment before the time-limit set out in the IT section and where correct ticketing is rendered impossible by the defect. It must be possible to use all types of tickets. This includes incorrect and unclear stamping of tickets/passes.
- Failure to check tickets
- Log-on failure in the Travel Card System (correct log-on includes that the driver has logged in and selected the correct route and journey)
- Failure to report operation irregularities
- Lacking, ineffective or incorrectly maintained safety equipment. Safety equipment includes holding brake, door safety system, light and sound when doors open and close, TV surveillance of exit doors, video surveillance, automatic fire extinction (does not apply to electric and hydrogen-powered buses), reversing alarm, reversing camera and blind spot mirrors, etc.

(3)

A trend will be deemed by Movia to exist if the number of quality defects reaches the level shown in Table A below.

Quality defects for which Movia has granted an exemption will be excluded from the calculation of recorded incidents.

Quality defects are divided into categories and sub-categories.

The number of quality defects will be recorded on a per sub-category basis (i.e. A1 and B2 and so on).

If the Operator reaches the number of recorded defects per sanctionable sub-category, Movia will set it off against the monthly billing. Subsequently, a new registration cycle will begin and the next time the Operator reaches the sanctionable number of recorded defects, Movia will make a set-off again. Recorded defects will also be reset at the end of each calendar year.

Defects will be recorded and penalties imposed as shown in the table below. The categorisation will be based on the number of in-service buses in the Contract most favourable to the Operator or the number of in-service buses existing at the date of calculation.

Table A

Defects Category	Number of recorded defects giving rise to a penalty (per calendar year)			Amount of penalty (DKK)
	1-15 in-service buses per tender unit	16-30 in-service buses per tender unit	31+ in-service buses per tender unit	
A1, A2	8	16	24	40,000
B1, B2, B3, B4	8	16	24	20,000
CF1, CF2	8	16	24	10,000

Defects Category	Number of recorded defects giving rise to a penalty (per calendar year)	Amount of penalty
D1, D2	20	10,000

Defects Category A:

A1 Real-time system - log-on

- Failure to log onto real time system (correct log-on includes correct selection of run and journey).

A2 Timetable compliance

- Left the bus terminal/check point too early.
- Departing the bus terminal more than 120 seconds too late.
- Using more than 120 seconds to replace driver on the run.

Defects Category B:

B1 Driver behaviour

- Failure to wear presentable uniform.
- Incorrect bus signage.
- Failure to advertise zones and bus stops.

- Incorrect time and zone in combination sign.

B2 Use of bus

- Using a different bus than agreed.

B3 Maintenance of bus

- If the bus does not meet the contractual requirements with respect to appearance, state of repair and maintenance and functions, including noise, heating and inadequate lighting. Defects in safety equipment will be set off separately.
- Failure to replace defective ticketing equipment before the time-limit set out in the IT section and where correct ticketing is rendered impossible by the defect. It must be possible to collect fares correctly using all types of cards and tickets.

B4 Cleaning of bus

- Unacceptable cleaning of the exterior or interior of the bus.

Defects Category C:

C1 Operation irregularities

- Late reporting of operation irregularities, see Contract Appendix A, section 8.2.

C2 Customer information material

- Lack of customer information material in the buses or customer information material which is not up-to-date. This includes folders, rate posters, hanging signs, route panels and infotainment screens.

Defects Category D:

For a commissioning period of thirty days from the start of operations with zero emission buses, Movia will exempt from payment of penalties in case of failure to log data. In such case the below terms and conditions apply. Movia may exempt from payment of penalties and intends to do so if the Operator presents action plans for the correction of defects in data logging and the Operator implements the planned measures to the effect that problems with the data logging are dealt with satisfactorily.

D1 Defects in the logging of data from zero emission bus

- Failure to log data from zero emission buses automatically or incomplete registration of agreed data parameter, see Contract Appendix A, section 9.

D2 Defects in the logging of data for energy consumption for garages

- Failure to log data for the energy consumption for charging stations/fuelling installations at garages automatically, see Contract Appendix A, section 9.

For units 1, 2 (zero emission buses) and 4 basic in particular

B2 Use of bus

- Using a different bus than agreed.
  The first two years of operation after the zero emission buses are brought into service, the below terms and conditions apply if a bus other than the one agreed is brought into service.

The terms and conditions are subject to the condition that the buses used for the bus services meet the requirements for temporary bus equipment corresponding to the requirements for the temporary equipment, see Contract Appendix A, section 3.2.1.

First year of operation
The first year after the agreed date of commissioning of zero emission buses, the below terms and conditions for insertion of a type of bus which differs from a zero emission bus.
α = the total number of registered defects for the unit which do not give rise to penalties.

Tender unit	Number of registered defects which do not give rise to penalties (α)
1	949
2	838
4	257

Faults are recorded for each bus per day. Consequently, it is only possible to have one fault per day per bus.

For units 1 and 4, Movia will pay a bonus to the Operator if the total number of registered faults from the agreed date of commissioning of zero emission buses until the end of the twelve-month period thereafter is less than 0.6*α, The bonus rate is shown in the below table.

The total number of registered faults for the unit (R)	Bonus
0.3*α ≤ R <0.6*α (≈ at least 91% zero emission bus service)	DKK 100,000
0.1*α ≤ R <0.3*α (≈ at least 95.5% zero emission bus service)	DKK 200,000
0.05*α ≤ R <0.1*α (≈ at least 98.5% zero emission bus service)	DKK 400,000
R <0.05*α (≈ at least 99.2% zero emission bus service)	DKK 500,000

Second year of operation
α = the total number of registered faults for the unit which do not give rise to penalties.
The second year after zero emission buses are brought into service, the below terms and conditions apply if a type of bus other than a zero emission bus is brought into service.

Tender unit	Number of registered faults which do not give rise to penalties (β)
1	633
2	559
4	171

For units 1 and 4, Movia will pay a bonus to the Operator if the total number of recorded defects from the beginning of the 13. month after the agreed date of commissioning of zero emission buses until the end of the 24. month is less than 0.6*β. The bonus rate is shown in the below table.

The total number of registered faults for the unit (R)	Bonus
0.3*β ≤ R <0.6*β (≈ at least 94% zero emission bus services)	DKK 100,000
0.3*β ≤ R <0.6*β (≈ at least 97% zero emission bus service)	DKK 200,000
0,05*β ≤ R <0,1*β (≈at least 99% zero emission bus service)	DKK 400,000
R <0.05*β (≈at least 99.5% zero emission bus service)	DKK 500,000

(4)

Units 1, 2 and 4 (basic) in particular

Movia understands that in an implementation phase, the operation of zero emission buses may, compared to the operation of conventional buses, imply more cases of cancelled journeys and delays which makes it impossible to keep the timetable. For a period of up to six months from the commissioning of zero emission buses on the unit (does not apply because of an extension of the Contract, see Contract Appendix A, section 12.2), Movia intends to exempt from penalties for cancelled journeys and non-compliance with the timetable, if the Operator presents action plans to Movia for rectification of faults which results in cancelled journeys and/or non-compliance with the timetable and that the Operator implements the contemplated measures to handle problems satisfactorily.

(5)

Penalties in connection with cancelled journeys:
If some of the journeys under this Contract are not completed as scheduled, Movia will make a setoff against the payment.

Movia will also regard a journey as cancelled in case of a delay which – regardless of its cause – is longer than the service frequency on the route according to the timetable and in any case – regardless of the route frequency – when the delay exceeds 20 minutes.

Movia will make a setoff against the payment for cancelled journeys according to the following rates on a per contract (also in cases where a contract includes several tender units):

- DKK 350 per timetable hour when a journey is cancelled up to 0.05%
- DKK 700 per timetable hour when a journey is late from 0,05 % up to 0.10%
- DKK 1.400 per timetable hour when a journey is late from 0,10 % up to 0.15%
- DKK 2.100 per timetable hour when a journey is late from 0,15 % up to 0.20%
- DKK 2.800 per timetable hour when a journey is late from 0,20 % up to 0.25%
- DKK 3,500 per timetable hour for cancelled journey from 0.25% and above

(6)

In the following situations, Movia is entitled to make a setoff of DKK 500 for each recorded case:

- If the Operator fails to inform Movia of complaints of fundamental importance or information for use when responding to complaints, etc.
- If the Operator does not comply with the response times for customer enquiries etc. stated in section 8.3 of Contract Appendix A.
- If Movia repeatedly receives complaints regarding the Operator's responses to customer enquiries as well as handling and administration of lost property etc.
- Failure or incorrect use of, or failure to report faults in the IT equipment in buses, including bus radios, bus computers, in-bus surveillance cameras, passenger counting equipment, IT for travel cards and the Operator's work stations, for which an actual agreement has been concluded with the Operator(DKK 500 per recorded occurrence/journey, respectively)

(7)

If the Operator fails to ensure the completion of agreed or compensatory runs with APC buses, see Contract Appendix A, Movia is entitled to make the following set-off:

- DKK 100 per journey per month for agreed runs not completed

(8)

If the Operator fails to ensure the completion of an agreed passenger count on tender units without APC buses, Movia is entitled to have a third party carry out such count and then set off the associated expenses against the payment to the Operator.

(9)

If the standard of cleaning, clean-up and maintenance of Movia's drivers' facilities is clearly unsatisfactory, Movia is entitled to impose the following penalty:

- DKK 2,000 for each recorded case

(10)

If a random check shows that a bus exceeds the agreed level of emissions, Movia is entitled to impose a penalty of DKK 3,000 for each recorded incident.

(11)

Movia will continually calculate the number of certified drivers. After the first two months of the contract term, Movia may impose a penalty of DKK 5,000 per non-certified driver in case of failure to meet the certification requirements.

(12)

If the Operator fails to use environmentally friendly fuel or fails to secure the agreed fuel reserves at the beginning of a crisis situation, Movia is entitled to reduce the payment to the Operator by 150% of the calculated savings achieved by the Operator.

(13)

At the written request of Movia, the Operator shall submit written documentation of continued environmental certification of the enterprise's administration as well as the bus garages and workshops which will form part of the provision of the services put out to tender, see the requirements listed in Contract Appendix A, section 5.

If the Operator fails to fulfil the environmental certification action plan, see the requirements described in Contract Appendix A, or submit the above-mentioned documentation for continued certification, Movia is, subject to a notice of 30 days, entitled to charge a penalty of DKK 1,000 per calendar day per bus departing from the facilities which do not fulfil the requirements in question where the bus is included in this tender.

After an additional 30 calendar days, Movia is entitled to terminate this Contract without further notice, see clause 17. Movia will continue to charge penalties until the certification requirement has been fulfilled or the contract has been terminated, see clause 17.

(14)

The above penalties may be imposed even if Movia cannot render probable/document that it has suffered a financial loss. If Movia is capable of documenting a loss, Movia is entitled to claim compensation under clause 16. Any penalty paid will not be set off against Movia's damages. The fact that the Operator will have to tolerate the penalties provided for above does not exempt him from an obligation to remedy immediately. If the Operator fails to do so, the Operator shall accept additional penalties will be made, also for the same matters, and other penalties available under the Contract may also be imposed.

(15)

Movia is entitled to suspend any penalties in special circumstances such as force majeure etc. However, suspension of sanctions for cancelled journeys cannot result in payment related to timetable hours for non-performed services.

(16)

In cases where Movia decides to remove an advertisement from the buses which is contrary to Movia's advertisement rules, and the advertisement has not been approved by Movia in advance, the Operator will be liable to pay a penalty.

The amount of the penalty will be determined by Movia with due regard to the seriousness of the violation and the circumstances in general. The penalty may not exceed DKK 50,000 per campaign per contract.

19 Termination of the Contract (for cause or convenience)

(1)

If Movia is ordered by a court of law or a competent public authority (including the Complaints Board for Public Procurement) to terminate the Contract in whole or in part, or if Movia is obliged to do so as a result of the cancellation of the contract award by order of the court or the Complaints Board for Public Procurement, Movia is entitled to terminate subject to a reasonable notice.

In such case, the Operator is entitled reliance damages and reasonable remuneration for his assistance in connection with the termination. However, the Operator is not entitled to compensation if the order to terminate the Contract or to cancel the contract award is due to the circumstances of the Operator or the Operator has been fallen within a ground for exclusion at the time of the award or if the Operator has submitted a non-conformant bid in the preceding procurement process.

In addition to the above, the Operator has no claim against Movia.

(2)

On termination of the Contract (for whatever cause) the Operator is, at the request of Movia, obliged to handle the deliverables under the Contract for a transition period until the Contract can be assigned to a third party with reasonable notice.

(3)

On termination of the Contract (for whatever cause), the Operator is obliged to use its best endeavours to secure a smooth transfer of the services to a third party.

In that connection, the Operator shall transfer all relevant materials, information, data, etc. for the purpose of ensuring that the services can continue without causing inconvenience to Movia.

20 Performance bond

(1)

In security of his performance of the Contract, the Operator must provide an unconditional and irrevocable demand guarantee of DKK 100,000 per in-service bus (but DKK 150,000 per in-service bus on unit 1) through a reputable bank/bonding company. The guarantee must be provided no later than 14 days after Movia has officially awarded the contract for the bus services and will be in force until three months after the expiry of the contract term, unless a claim has been made on the guarantee before expiry of the Contract. Movia must approve the wording of the guarantee prior to its issue.

In case of any changes in the number of in-service buses during the term of this Contract, the amount of the guarantee provided will be adjusted accordingly to ensure that the total guarantee amount always reflects the current number of in-service buses.

At the request of Movia, the guarantee amount must be released to Movia, without Movia having documented its right to such release by an out-of-court settlement, a final and conclusive judicial decision or an arbitral award.

Payments under the guarantee will be made to Movia on demand within five working days after the guarantor has received a written demand from Movia.

The legal relationship between the guarantor and Movia shall be governed by Danish law, and any dispute between the guarantor and Movia shall be decided by the Danish courts.

This guarantee shall be returned to guarantor on its termination.

21 Renegotiation

(1)

If, in the contract term, regulatory intervention or similar measures result in material financial changes to the assumptions forming the basis of the submission of the Operator's tender, the Operator is entitled to demand renegotiation of the fixed remuneration in order to be compensated for the financial net consequence of the relevant regulatory intervention, etc.

(2)

If the Operator and Movia cannot reach agreement on whether or not the conditions for an adjustment of prices exist, or if the Operator and Movia cannot reach an agreement on the result of a price adjustment, either Party may bring the matter before the courts.

22 Confidentiality

Either Party shall not disclose to any third party information received by the Party from the other Party during the performance of the Contract and information which is not in public domain.

The Operator shall ensure that any sub-suppliers also assume the duty of confidentiality.

Movia's duty of confidentiality shall give way if Movia is obliged to disclose information to a third party, including when responding to requests for access to information.

When making announcements to the public, including statements to news media, the Operator and Movia must act in good faith to each other.

23 Disputes and choice of law

(1)

This Contract is governed by Danish law.

(2)

Any dispute or disagreement between the Operator and Movia will not entitle either Party to suspend or postpone the delivery of agreed services.

(3)

Any disputes shall, to the extent possible, be solved amicably by negotiation between the Parties. Subject to agreement between the Parties, an independent mediator may be appointed to resolve the dispute. The costs of the mediator shall be divided equally between the Parties unless otherwise agreed between the Parties at the time when the mediator is appointed.

(4)

Any dispute concerning the existing contractual relationship or the understanding of the Contract which cannot be resolved amicably may be brought before the courts by either Party - Movia's home court being the court of first instance.

24 Amendments

(1)

This Contract may be amended only by an addendum signed by both parties and appended to the Contract.

25 Signatures

(1)

This Contract is executed in two identical counterparts, either Party receiving one counterpart.

…… , …… Copenhagen, ……

…… ……..
(for the Operator) (for Movia)