

spårvagns
städerna

Spårvagnsstäderna's
Recommendation for
Contractual Terms
regarding Trams

Spårvagnsstäderna

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Recommendations for contractual principles

The board of Spårvagnsstäderna has November 24, 2011 executed a recommendation regarding the contractual models which may be used in procurement of tramcars in Sweden. The purpose of the initiative is to promote further introduction of trams in Sweden, to minimize unnecessary costs in future procurements and to render procurement- and delivery processes more effective. In this work, representatives of both suppliers and purchasers have discussed and agreed on solutions for important contractual principles for deliveries of tramcars. The parties of the market are still free to set the conditions for procurements and deliveries, but by way of the recommendations, the actors are provided with tools designed to simplify the process. The initiative from Spårvagnsstäderna is based on the substantial change which is taking place in the business with regards to the view on contracts and deliveries, e.g. by a shift of the duty to secure verification of the delivery's correspondence to the agreed requirements from the purchaser's organization to the supplier. Swedish purchasers and European suppliers have taken part in the project.

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1. Background

Within the scope of Spårvagnsstäderna, representatives from the customer side as well as the supplier side have discussed certain principles for supply and delivery of trams. The issues covered are those that the parties have considered to be particularly important in order to avoid unnecessary costly requirements and to improve the delivery process. The purpose with the discussions has been to find technical, practical and commercial type solutions in order to secure an effective and balanced agreement.

The initiative is based on the fact that there are material changes in how the industry looks at contracts and deliveries, and in particular:

- There is a paradigmatic shift in progress in the form of a joint wish that the supplier more clearly shall be responsible for ensuring contract requirements prior to delivery rather than, as has often been the case historically, referring a lot of the verification to the customer's organization. One important change is therefore that the process of verification regarding delivery of trams shall be concretized – in regard to both the customer's and the supplier's verification.
- The agreement models should enable a more cost-effective delivery, by removing elements that drive the supplier's costs, without imposing direct positive impact on the quality of delivery. At the same time, there is an important need on the customer's side to create efficient means of pressure to ensure that delivery is made on time and meet agreed requirements.

The intention is that the parties, through this recommendation, will have a tool to use in procurements as well as a support to use in agreement negotiations. The recommendation is not binding for the parties involved in the production of the same. The parties are free to expose procurements to competition and, in negotiations, to suggest changes to the recommendation in accordance with the parties' wishes in the specific procurement.

2. Takeover and passing of risk

The delivery is made through a clear regulation of the different steps / milestones of the delivery process and criteria for when each milestone shall be deemed fulfilled. Some of the milestones are also connected to partial payments and warranties, see sections 3 and 5 below, as well as attachment 2, which provides an overview of the system. Attachment 2 is enclosed to illustrate the principles. The text in this recommendation shall always precede any contradiction or unclarity in attachment 2. The delivery agreement will be based on the following principles:

- The delivery and takeover process shall be applicable for each single tram, unless set forth otherwise, for example that a milestone shall comprise the entire project, i.e. the entire delivery under an agreement.

- The agreement shall contain a description of the milestones relevant for the manufacturing and delivery process at hand.

- Prior to the takeover by the customer ("PTO", in accordance with the below), a number of milestones shall be agreed to ensure and verify that the project is progressing according to plan. There shall be clearly defined acceptance criteria for each milestone. For this recommendation, the parties have agreed the starting point that at least the following milestones shall be at hand prior to the PTO:

- Signed agreement: Duly authorized representatives have signed the agreement and any requirements for the validity of the agreement have been fulfilled.

- Milestone "Final Design Review": At this point, the final technical design of the tram shall be agreed and it shall be possible for the supplier to begin construction and production. Acceptance criteria for Final Design Review are normally that the customer approves the proposal developed by the supplier. The milestone applies to the entire project.

- Milestone "Completed Cabin": Design and production has come so far that the cabin is finished. Acceptance criteria for Completed Cabin are normally that the supplier has carried out agreed inspections of the construction. The milestone applies per tram.

- Milestone "Preliminary documentation and education": the supplier shall in good time (usually six months prior to the PTO in regard to the first delivery), provide agreed documentation (technical, maintenance and user documentation) and initial education. By this milestone, special tools shall further have been developed and be available during the education. The supplier shall place trams and special tools at the customer's disposal during education. The documentation and education delivered under this milestone shall be sufficient in order to educate drivers and maintain the tram during a first period which shall be set forth in the agreement. The supplier shall be able to prove that the documentation covers the maintenance requirements during the first year from PTO. Thus, the supplier shall speed up the maintenance measures and validate and document these in accordance with the maintenance plan and secure that the instructions in the documentation are correct, sufficient and easy to understand. The customer shall attend at the validation, but only as an observer. Acceptance criteria for "Preliminary documentation and education" are that the supplier can document its validation in accordance with the above through a written certificate. The milestone applies to the entire project.

- Delivery of a completed tram shall be made in connection with Preliminary Take Over ("PTO"). PTO is the time when the trams shall be ready to be put in traffic by the customer. The agreement shall state the criteria for PTO to take place as well as what tests and verifications the supplier shall perform on the trams before PTO. This should be expressed as (i) requirements of what types and number of deviations that may exist (see attachment 2) and (ii) a minimum number of kilometer and time that the tram has been in simulated traffic.

- The customer shall be entitled to take part in a number of tests performed by the supplier (in any event for the first of the series). The supplier is however fully responsible for all tests performed prior to PTO and any presence of the customer is as an observer.

- In conclusion the criteria for PTO are:

- The acceptance criteria for all milestones preceding PTO shall be fulfilled.
- The tram shall have been in simulated traffic at the supplier for a certain minimum number of kilometers and time, as set forth in the agreement.
- Tests, verifications and the simulated traffic shall have proved that the deviations, if any, does not exceed the maximum number allowed in each category, see attachment 1 which provides an example of how this classification of deviations can be expressed.
- The supplier shall have certified in writing that the criteria have been met. If the supplier's tests showed that deviations were at hand, the supplier shall provide documentation showing that the deviations have been rectified, and how the rectification has been carried out.
- Any regulatory approvals shall be in place.
- The delivery shall have been made at the customer site and been approved by the customer (not through tests of function but through verification of the physical delivery). As regards deliveries of prototypes, the parties may agree that the customer, notwithstanding the above, shall perform its own tests and verifications prior to PTO in regard to the deliveries of prototypes. In other aspects, the acceptance criteria set forth above apply also to prototypes. The customer shall accept the tram if these acceptance criteria have been fulfilled, or if the time for the customer's verification expires without the customer having notified deviations or omissions in excess of agreed acceptable level.

- Ownership, risk and responsibility of insurance shall pass from the supplier to the customer at PTO.

- The customer shall be able to accept PTO for a certain tram even if the tram has more deviations than what has been agreed as an acceptable level. If so the customer shall pay a smaller amount, which shall be agreed, than the amount agreed in the payment plan, section 3. The "additional" amount withheld by the customer in such situation, shall be paid as such deviations are rectified. Hence, payment is not dependent on FTO for the tram.

- Milestone "FTO": At PTO, some deviations may still exist. However, only at an acceptable level, see examples of classification of deviations, attachment 1. Accordingly, the agreement shall specify the acceptable level of deviations, if any.

The remaining deviations shall be listed on a back list and shall be repaired by the supplier before Final Take Over ("FTO"). During the period between PTO and the agreed date for FTO the customer shall put the delivered trams in to traffic. The verification period between PTO and FTO shall normally be set to a certain time period (6-12 months). Different verification periods can apply for the first series and the subsequent series. The verification period can also be set to both a certain minimum amount of kilometers and a certain time. In such case, the agreement shall set forth that the customer is obliged to use the tram in traffic so far as practically possible to avoid that the time between PTO and FTO is too long. If the customer lacks in this regard, the minimum amount of kilometers shall be reduced correspondingly. The deviations that have been discovered by the customer at PTO but have been listed in the back list and any new deviations discovered by the customer during the time before FTO shall be repaired by the supplier before the agreed date for FTO. The parties can agree that a certain number of deviations can exist without affecting FTO, in which case the principles stated in attachment 1 shall apply. In conclusion the criteria for FTO are:

- The agreed time period has elapsed
- Any agreed number of kilometers in traffic has been met
- No remaining deviations in excess of agreed acceptable deviations. If the agreement contains a specification of the number of deviations that can exist without affecting FTO, such remaining deviations shall be transferred to a new back list and the supplier shall rectify these without delay according to the warranty obligation.
- The updated documentation has been delivered and approved by the customer, see section 6 below.

- If there is a substantial delay of PTO or FTO due to circumstance for which the supplier is responsible, it shall be possible for the supplier to cancel the agreement in regard to delayed tram. If the customer can show that it is probable that also subsequent deliveries will be substantially delayed, the customer shall be entitled to cancel the entire agreement.

- Milestone "final documentation delivered". The agreed documentation has been delivered and verified by the supplier and possibly the customer, see section 6. This milestone normally occurs in close connection to the milestone "the expiry of the warranty period". Changes and updates to the trams made during the period up to this milestone shall be included in updated documentation. The occurrence of this milestone does not limit the supplier's responsibility to maintain documentation in general under the agreement, for example during the remaining warranty period. Acceptance criterion is that the supplier can document its verification and - if the parties so agree - the customer has approved the documentation. This milestone applies to the entire project.

- Milestone "the expiry of the warranty period": The general warranty period (see section 5) has expired. Any deviations reported during the warranty period have been rectified. The milestone applies per tram.

- Milestone "LCC warranty approved". The warranty period for LCC calculation has expired and the actual cost corresponds to agreed requirements according to LCC warranty, and this has been approved by the customer.

3. Payment terms

- The terms of payment shall be based on a cash flow that assures that the supplier cash flow corresponds to the cost flow for the supplier's costs for i.a. design, construction and manufacturing, and that the customer has a protection for pre-payments and reasonable pressure in order to secure that the delivery is made as agreed. The parties agree that incentive models may be suitable for some parts of the delivery in order to ensure that delivery is made in accordance with the agreement in combination with pressures.

- The payment terms shall be divided into two flows – one part of the payment is connected to the project as a whole, ie. all deliveries under the agreement, and one part of the payment is connected to delivery of a specific tram. Thus, the entire contract sum is divided into two parts – one that follows the entire agreement / the entire project, and one that follows the individual trams. Normally, 30 % of the total contract sum follows milestones that apply to the entire agreement / entire project, and 70 % of the contract sum follows delivery of individual trams. The exact allocation is set forth in the agreement. The below percentages per milestone indicate the importance of each milestone. As set forth in the proposal, the parties agree that a significant part of the payment shall be paid at PTO and that a sufficient part of the payment shall be withheld to secure that deviations are rectified before FTO and during the warranty period.

- Part 1 – 30 % of the total contract sum is divided on payment at the following milestones:

- One part of Contract Sum 1 is divided on three different milestones prior to PTO:

- 1) The first part of the payment to the supplier shall be made at the signing.
- 2) Next payment in this payment flow is at the milestone "Final Design Review".
- 3) The third partial payment is connected to the milestone "Preliminary documentation and education".

Normally app. (20-25) % of the total contract sum shall be paid by the three above milestones. A reasonable allocation between the different milestones shall be agreed in the agreement.

For the period after PTO, (5-10) % of the total contract sum shall be divided on one or both of the following milestones:

- 1) Final documentation
- 2) LCC warranty approved.

- Part 2: 70 % of the total purchase price is allocated per tram in accordance with the following (calculated per tram):

- 1) Completed Cabin (20-25) % of the total contract sum calculated per tram

2) PTO: (30-40) % of the total contract sum calculated per tram. As mentioned above, the customer may decide that PTO shall occur, even though the acceptance criteria have not been fulfilled. In this case, the payment is reduced to a lower amount (30-40) %. This "extra" withholding is paid when the deviations noted during the verification phase have been rectified and accepted by the customer, which is no later than at FTO.

The parties further agree that it can be suitable to have different levels for payment obligation at PTO depending on how far the delivery has come in the project.

The payment level can be increased in later deliveries since the need to withhold payment as security for milestones normally is reduced in regard to later deliveries for the same type of tram.

3) FTO: (10-15) % of the total contract sum calculated per tram.

4) Expiry of the warranty period: (5-10) % of the total contract sum calculated per tram.

- The supplier shall issue a bank guarantee as security for the pre payment, i.e. the amount paid before PTO takes place and trams are delivered to the customer. The bank guarantee shall gradually be reduced as PTO takes place for trams, with an amount correspondent to the price per tram.

- As an alternative for withholding of additional payments after FTO, the parties may agree that the supplier shall supply a so-called on-demand warranty which provides the customer with a right to claim benefit payments for the customer's repairs made on the cost of the supplier according to agreed terms or other agreed compensations, such as penalties.

4. Delay

Delivery in accordance with agreed requirements in a timely manner is an important undertaking under the delivery agreements. To ensure this, the agreement should contain a combination of incentives and delay sanctions in accordance with the following principles.

- As a main rule a penalty for delay shall only be payable in case of delay of PTO, i.e. when the actual PTO occurs later than the agreed PTO. The penalty shall be paid unless the delay is attributable to the customer, circumstance for which the customer is responsible or force majeure. The penalty shall be specified in the agreement, either by specifying the actual amount or a percentage of the delivery value. Normally the penalty for delay is 0.5 % of the purchase price, per initiated working week, for the tram delayed, as from the second week of delay. The supplier shall inform the customer of the risk that the delivery will be delayed (such information shall not affect the right to penalties).
- If the delay is attributable to the customer or circumstance for which the customer is responsible, delay sanctions shall not be applied and the parties shall agree that the delivery time shall be adjusted accordingly. The concrete change shall be agreed in accordance with the agreed change management process. The supplier shall notify the customer if there is a risk that a delay occurs that is attributable to the customer. If the supplier does not notify the customer in accordance with the aforementioned, the agreement should include consequences of such passivity, e.g. that the supplier shall lose its right to invoke such circumstances as ground for discharge from liability.
- There shall be a limitation of penalties for each tram (normally 10 % of the purchase price for the delayed tram). The agreement may also contain a total limitation of penalties for the entire project. Provided that the limitation of penalties is not reached, the delay penalty shall be the exclusive remedy for compensation due to late delivery, and the customer shall not be entitled to additional compensation for damages. If the penalties reach the limitation of penalties, or if the customer cancels the contract due to late delivery, the Customer is, in addition to obtained penalties, entitled to damages (within the agreed limitation of liability). Obtained penalties should thus be deducted from any damages.
- If a delivery is delayed, the parties shall agree on suitable measures and adjustment of the project plan to the extent necessary to avoid delay in regard to subsequent deliveries. This assumes that it can be done without inconvenience to the customer.

5. Warranties

The deliveries under the agreement shall be comprehended by warranties meaning that the supplier, at its own cost, shall rectify deviations in the delivery. Different types of warranties apply parallelly:

A. General warranty – functional warranty. The agreement shall contain a general warranty to rectify deviations that consist of delivered trams not fulfilling agreed requirements. The warranty period is set as a time period after PTO for each tram, normally 2 years. The warranty period shall always start if the customer puts the tram in traffic. In other words, the warranty follows the tram. A pre-requisite for a deviation to be deemed rectified is that it has been permanently rectified. The root cause shall have been identified and rectified. Any temporary solutions and work-arounds do not mean that the error is rectified, but will be taken into consideration in case of e.g. availability warrantys and/or other service levels.

The agreement shall further state a certain service level for rectifying deviations, either in the form of response time (time within which measures are taken) or action time (time within which the deviation has been rectified in accordance with the definition above). The service level should separate between different types of deviations, where the definitions in attachment 1 can serve as a starting point. Deviations shall be rectified without interference to the customer's business, e.g. by securing site capacity in regard to the depot in question for warranty work.

If the service level is not reached, the customer shall be entitled to rectify the deviation on the expense of the supplier. The agreement shall set forth which time limit that shall apply for this right. If nothing else has been agreed the timeframe shall be 30 days from the customer's notification with reference to the customer's right to rectify on the expense of the supplier. If such remedy on the expense of the supplier is claimed, the costs for the repair/replacement shall not be included in the limitation of liability under the agreement, the costs shall however always be reasonable. If the customer can document that the rectification has been made in accordance with the supplier's instructions and applicable documentation or otherwise in workmanlike manner, the supplier reassumes responsibility for the tram also in this part, after the customer has rectified the deviation on the expense of the supplier. If the supplier can show that he has taken measures or developed an action plan that shows that he has the ability to rectify the deviation, the deviation should be returned to the supplier and the customer's right to rectify the deviation on the expense of the supplier shall cease.

B. Warranty for material. In addition to the general warranty, certain components shall have a warranty that covers material, design, workmanship and function in accordance with what has been agreed. This warranty applies during the time period set forth in the agreement in respect of each component. Examples of components that should be covered by the warranty are boggies, wheels and door systems. This warranty, as well, applies as from PTO for each tram. When a component is replaced as a warranty obligation, a new warranty period starts for this component. This does not apply if the component is repaired. The warranty period can be restarted like this one time, i.e. the obligation to replace/rectify the same component on the same tram is limited to a maximum of two times.

C. Warranty for systematic deviations. The supplier shall be responsible for systematic deviations. The warranty comprehends the entire delivery, with the exemption of such components that have been excluded from the warranty for systematic deviations. The warranty period for systematic deviations applies from the PTO for the first delivery under the project and applies for a period counted from the point of time when PTO has taken place for the last delivery during the project. The time period for systematic deviations may vary between different components and should therefore be specified per component in the agreement.

Systematic deviations shall be deemed to exist if there is a deviation in the construction, manufacturing, material or workmanship and the same deviation has occurred in a certain number of trams of the agreed delivery in a certain series. Normally, the definition of systematic deviation shall be specified as a percentage of the total delivery (example: at least 5-15% of the component in question is affected by the same deviation). If the project comprehends a smaller amount of trams, the level should instead be determined through a number. The agreement shall include a final date for calculating the number of deviations per component for it to be considered a systematic deviation. Typically this final date consists of the expiry of the warranty period for the last tram during the project.

The parties recommend that the agreement provides a process for appointing a technical committee or expert group which shall have the right to determine whether a systematic deviation is at hand. The expert group should consist of independent experts, but may also include representatives from the parties. If an expert group is appointed, the parties shall be unable to initiate normal dispute settlement (court or arbitration) until after the expiry of a period specified in the agreement, normally 2-3 months.

The parties are aware that some subcontractors in the line of business do not take responsibility for systematic deviations but only general warranty in regard to material. Thus, the parties can agree to draw a list of components to be excluded from the systematic deviations warranty.

If a systematic deviation occurs the main rule is that all corresponding components shall be replaced in all trams. But if the supplier can prove that the systematic deviation is attributable only to certain trams or that the systematic deviation has another explanation which makes a general replacement of components unnecessary, then the responsibility of the supplier shall be limited to the trams with the deviated components. This means that unnecessary replacements shall be avoided. In such case, replacement shall be made to such a faultless component which is installed in the trams. Thus, the trams shall after replacement consist of the same components.

If the same type of tram has been delivered to other customers in Sweden and systematic deviations, according to the deficiency in the parties' agreements, have occurred in these deliveries, the supplier shall have an obligation to inform the customer thereof and inspect if trams that shall be delivered to the customer also are affected.

D. LCC warranty – warranty for lifecycle cost. The agreement shall normally also contain a warranty that the customer's total cost for the tram does not exceed agreed amounts (eg. including maintenance and operating cost). The LCC warranty should be linked both to pre-determined penalties in the event that the LCC exceeds the agreed level, and an incentive model, in the form of the parties sharing any profits obtained through the LCC being lower than the agreed level.

The LCC warranty applies and shall be calculated as from FTO for the last tram in the project. The LCC warranty covers the total number of trams comprehended by a delivery agreement. The LCC warranty applies until the agreed LCC level has been verified and approved by the customer.

E. Availability warranty. The contract may include a warranty for certain availability. In such case, the parties shall clearly specify what availability means. An example of such availability is to measure how many trams that are in traffic at a certain hour per day, whereas trams that are not in traffic, due to circumstances for which the customer is responsible for, should be counted as being in traffic. Availability warranty can also be linked to maintenance agreement, which separately regulates the supplier's responsibility for availability.

F. Exceptions from the warranty responsibility. Normal wear and tear, vandalism, improper use, deficient maintenance, and articles of consumption (however, components shall not have to be replaced more often than stated in the maintenance plan agreed between the parties) are exceptions from the current warranty responsibility. The parties recommend that the agreement provides a process for appointing a technical committee or expert group which shall have the right to determine whether a defect shall be exempted from the warranty responsibility or not. Such group may be appointed in accordance with the agreement in general, or be formed ad hoc. The costs for the expert group shall be divided equally between the parties.

G. Parent company guarantee. If the supplier is a subsidiary in a group of companies, the parent company shall issue a requisite guarantee as security (e.g. a parent company warranty) for the supplier's fulfillment of the agreement.

H. Documentation. As actions are taken during the warranty period, the supplier is responsible for updating relevant documentation

6. Documentation and education

A correct documentation is essential for the supplier to be able to use and maintain the trams. The agreement shall therefore specify the delivery of documentation. The obligation should be based on the following principles:

A. The purpose of the documentation. The documentation shall:

- Contribute to the fulfillment of security requirements in regard to traffic, personal and electronic security.
- Facilitate the fulfillment of goals and requirements identified in the operational safety, security and LCC-analysis.
- Enable for operation, maintenance and management to be carried out in the most efficient manner.
- Ensure the technical lifetime of trams, systems, components and specific equipment.
- Secure that recycling and disposal of trams, systems and components is made in an environmental friendly manner.
- Be used at and simplify education.

General requirements:

The supplier shall, as part of the delivery, deliver the documentation required for the operation, maintenance and management of the tram during its technical lifetime (which must be specified in the agreement). This also includes drawings, complex repairs, recycling and disposal. In addition, the customer's need for alterations shall be taken into consideration. The documentation shall be sufficiently designed and complete, so that all of the works mentioned above can be performed by the customer or its appointed subcontractor.

The supplier shall ensure that all documentation, including documentation from subcontractors, complies with the requirements set forth in this specification and other requirement documents.

The maintenance documentation and procedures shall be based on the RAMS process containing traceability to the operational safety and security analysis, as well as LCC data or equivalent data from operating experiences. Function documentation, such as assembly drawings, wiring diagrams, software diagrams, pneumatic diagrams, and technical descriptions of hardware and software will be based on tram suppliers and subcontractors specifications, and shall show input and output values for system and component interfaces, and how the various input and output values may be affected by intermediate adjustable parameters. The technical descriptions will describe how systems and subsystems interact in the tram.

The documentation shall describe the tram's current configuration. Any variations of systems and components shall, throughout the delivery, be set forth in the documentation.

The placement of systems, subsystems, components and spare parts must be clearly stated and be able to be unambiguously determined, for example according to EN 15380-3 or equivalent placement system.

There shall be complete preventive, troubleshooting, rectifying, repair descriptive and tested instructions for all maintenance activities and in regard to each defined maintenance object. As guidance, these instructions shall exist in regard to all parts, components and / or components that have a compound value exceeding SEK 5000.

The supplier shall ensure that a joint classification system is used to obtain full traceability between the final documentation and data delivery, operational safety, security and maintenance analysis in accordance with the requirements for configuration management. The requirement for joint classification means e.g. that the classification and content for maintenance activities in operational safety, security and LCC data shall be consistent with activities in the maintenance plan and instructions. The requirement for joint classification also means that for any given location, system, component or maintenance activities, it shall be possible to compile clear information concerning safety, resource requirements and descriptions.

Consequence: If the client is unable to maintain the trams due to inadequate or improper documentation or education and the supplier is unable to show that the content of delivered documentation and education is in fact sufficient in order to rectify deviations and perform maintenance, the supplier must carry out required maintenance at its own expense. This shall apply in addition to other penalties due to breach of contract.

Education: The maintenance plan shall be clearly specified (including timeframe) with clear goals and information about what the students will be able to handle after the education. It shall be clearly stated what education needed in order to maintain the trams during their entire life cycle. The education shall include everything that is needed in order to drive as well as maintain/repair the trams. The supplier shall educate drivers and technical personnel as specified. This education shall normally enable for the customer's employees or consultants to further educate. The education shall be validated by the educator through course evaluation/certification.

7. Damages and limitation of liability

The agreement shall regulate the parties' responsibility for damages. Party shall be responsible for damage caused by that party, subject to the following limitations of liability and principles:

- Direct damages shall be reimbursed. However, indirect damages are excluded from the liability for damages.
- The customer must be able to prove additional costs occurred due to the delay/damage in order to receive damages.
- The agreement shall include a limitation of liability which sets forth a maximum amount for damages under the agreement. Such shall normally be 20 % of the total value of the agreement. The agreement shall specify whether penalty for delay is included in the maximum amount or not. Product liability, personal injuries and damages due to intellectual property infringements shall be excluded from the limitation of liability. The supplier's costs for rectifying deviations, and any warranty deviations fixed by the customer on the cost of the supplier, do not constitute damages. It is clarified that such costs shall be excluded from the limitation of liability. The parties further agree that a specific, higher maximum level for the limitation of liability shall apply in case the customer cancels the agreement

8. Currency

The purchase price shall be stated in EUR without any currency regulations.

9. Amendments of law

Requirements stipulated in law and official regulations in force or known at the time of signing the agreement, shall be fulfilled at no additional cost in excess of the purchase price for the delivery. In case of additional or changed circumstances with regard to regulatory requirements, these changes are handled in the delivery and delivery is adjusted so that regulatory requirements are met. The supplier shall be entitled to adjust the remuneration under the agreement, in accordance with the commercial principles agreed in the agreement.

10. Intellectual property rights

- The customer shall obtain a non exclusive license to use the intellectual property rights which shall be included in the delivery. The terms and conditions of the license scope must be carefully considered in each project and agreement. For documentation, however, the following rule normally applies:

- The customer shall be granted a right to use the documentation, including technical documentation, and this right shall include a right to let third party take part of the documentation in order to e.g. manage operations, maintenance and repairs. The customer's license comprehends a right to, for its own purposes, develop documentation and material for its use of the tram, e.g. in education, work instructions or modification of the tram.

- In addition, the parties shall consider whether the right of use also shall comprehend a right to provide technical documentation to third parties for the manufacturing of spare parts. This regulation shall be made in consideration of the commercial obligations in the agreement. For example, this right can be limited if there are rules regarding so-called open books, i.e. that the customer is informed of costs for the production of the relevant spare part. This right can further be limited to the period after the warranty period (general warranty) and/or to a special compensation for the customer's, by itself or through a third party, manufacture spare parts. The agreement shall specify which items that are not covered by such right.

- The customer shall ensure that any such third party is covered by a non disclosure agreement in relation to the customer. Such non disclosure agreement shall at least comprehend the confidentiality obligation set forth in the agreement.

- Furthermore, it shall be allowed to transfer the documentation together with the tram.

- Confidentiality shall apply in general in regard to the intellectual property rights (with the exemption of the right to grant third party the right to take part of information on the customer's behalf in accordance with the above) and the customer shall be bound not to commercialize the intellectual property rights.

- The supplier shall make a deposit of source code for steering systems, software and similar to a third party as agreed. The third party shall be bound to hand over the source code to the customer should the supplier go into bankruptcy or otherwise cease with its business. The customer shall have the right to use such source code for its own personal use, including a right to change the source code and engage a third party to perform the changes and other measures on behalf of the customer.

Appendices:

1. Examples of classification of deviations
2. Overview delivery and payment

Appendix 1

to Recommendation Spårvagnsstäderna

Classification of deviations - Examples

Type	Definition	Example (without limitation)
A	<p>A deviation of this category is a security related deviation in the tram which implies a risk of damage to person, major damage to materials or equipment or other unacceptable consequences. Category A deviation is also at hand if</p> <ul style="list-style-type: none">- Agreed security related tests have not been carried out by the supplier- Regulatory approvals are not at hand.	<ul style="list-style-type: none">- Sunshield for driver is out of order- Exterior lighting is out of order- Brakes are out of order or have strongly limited braking power- Interior emergency lighting is out of order- Attachment to underground cables have not been correctly labeled (Swe. momentmärkta)- Lack of regulatory approval
B	<p>A non-security related deviation that is not a category C or category D deviation, which affects the construction, qualification, condition or function of, or the possibility to maintain or otherwise use the tram.</p> <p>Category B deviation is also at hand if</p> <ul style="list-style-type: none">- Agreed tests for corresponding function has not been carried out by the supplier- The deviation is a systematic deviation	<ul style="list-style-type: none">- Interior ordinary lighting is out of order- Limited braking power- Door or footstep is out of order- PIS is not fully functioning- Alcohol lock is not functioning correctly.- Limited traction- Visible damages on floors and severe scratches
C	<p>A deviation which does not affect the tram's functions or systems. Category C deviation has less impact on the use or design of the tram. If a category C deviation occurs at a number of occasions, it shall be regarded as a category B deviation.</p>	<ul style="list-style-type: none">- Radio in driver's compartment is out of order- Single reading lamp is out of order- Single armrest is out of order- Minor damages on painting or coach which does not affect function
D	<p>A deviation with minimal or no impact on use or design of the tram. If a category D deviation occurs at a number of occasions, it shall be regarded as a category C deviation.</p>	<ul style="list-style-type: none">- To be completed during design phase

Criteria for PTO

- Below is set forth the maximum number of deviations that may occur at PTO, in order for PTO to take place for a certain delivered tram:
 - Zero deviations of category "A"
 - Zero - X deviations of category "B"
 - Y (set forth in the agreement) deviations of category "C"
 - Z (set forth in the agreement) deviations of category "D"

Appendix 2

