Fremtidens Tog

Summary of findings from the 2018-RFI process

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1. Background

DSB operates a 1668 km network of railways across Denmark. Some 640 km of the rail network is electrified, and programs are on-going to significantly extend 25kV AC electrification across the Danish rail network. The remaining rail network is currently operated with diesel rolling stock, many of which will soon be replaced.

To upgrade the Danish rail network, the Danish State has initiated two separate, but related programs for the infrastructure: 1) to significantly extend 25kV AC electrification across the Danish rail network, and 2) implement ERTMS signaling throughout the rail network. In addition to these, the Rolling Stock program Future Trains will procure new electric passenger rolling stock (hereafter referred to as the "Programme").

The Programme comprises the procurement and introduction of new electric rolling stock compatible with the Danish rail network. Furthermore, different options for sourcing maintenance support from suppliers are being explored by DSB.

In 2018, DSB carried out a comprehensive market investigation to assist the writing of the requirements for procuring maintenance services and, specifically, asked information regarding a Full Service Agreement (FSA) maintenance model. The information gained from the market investigation contributed as the necessary foundation for several decisions to be made when procuring the new trains. Such decisions will then result in the final specifications included in the tender package.

As a key part of the market investigation a Request for Information (RFI) was organized, providing DSB with a deeper understanding of the market. The RFI 2018 build upon the RFI 2017 and 2016 and included the same suppliers. The RFI 2016 was initiated via an open invitation to all interested suppliers send out via the European public procurement journal, Tender Electronic Daily (TED). Ten rolling stock suppliers participated in the RFI-process; Alstom, Bombardier Transportation, Construcciones y Auxiliar de Ferrocarriles (CAF), CRRC Corporation Limited, Hitachi Rail Europe, Siemens Mobility, Skoda Transportation, Stadler Rail and Talgo. After an initial interest, Pesa decided not to participate in the RFI 2017 or 2018. CRRC, which participated to the RFI 2016 and 2017, decided not to participate to the RFI 2018. The eight participating suppliers in the RFI 2018 have an estimated market share of more than 90% in the relevant European market and, hence, are regarded representative for the relevant market.

The RFI 2018 consisted of a written questionnaire. The suppliers handed in their responses to DSB via e-mail.

All RFI-related information has been shared on a "without prejudice" basis. In the following, DSB has made a short summary of the topics and findings of the RFI. Since the information shared during the RFI process has been subject to a confidentiality declaration, the summary has been made with respect of this confidentiality obligation.

2. Summary of Findings

FSA Maintenance Solution

Through the RFI, DSB obtained further knowledge about which split of responsibilities in a FSA maintenance model would be most suitable to DSB. DSB requested input from the suppliers on the following setup:

a. Supplier: all preventive and corrective maintenance including material supply
b. DSB: daily servicing (washing, interior cleaning, waste water, fresh water)
c. Shunting (mixed): Supplier performing all shunting inside their premises. DSB performing shunting activities in and out of the supplier's area

All suppliers agreed, on a general level, on the proposed setup, although the suppliers were open to various ways of splitting responsibilities. Moreover, the suppliers underlined the importance of clearly defining the split in responsibilities.

Pricing mechanism was another area discussed in the RFI. All suppliers supported the possibility to work with a fixed price with indexation mechanisms. Partnering contracts with open book calculations and benchmarking contracts were not recommended.

Concerning contract length, although some suppliers suggested contract length of 15-20 years, most of the suppliers recommended a contract length for the whole life cycle of the trains, i.e. 30 years.

DSB requested input from the suppliers concerning the transfer of maintenance personnel from DSB to the supplier – and from the supplier to DSB or another third party maintainer in case of expiry or termination of the contract. I relation to the possibility to transfer maintenance from DSB to the suppliers, answers varied; some suppliers did not see it as a problem, while others deemed it possible, but not to be recommended. In relation to the possibility to transfer maintenance back to DSB or another third party maintainer in case of expiry or termination of the contract, the suppliers did not raise any concerns.

Maintenance Facilities

DSB asked the suppliers to provide input on the overall strategy on maintenance facilities. DSB received various input on a number of aspects, such as the equipment to be included in the different depots, catenary and roof accesses, height of track pillars et cetera.

The suppliers also provided their view on how many fully equipped tracks (with roof access, lifting equipment, cranes etc.) should be optimal, to provide maintenance for DSB New Train fleet in a scenario where the DSB workshops are split between the cities of Aarhus, Copenhagen and Fredericia[1]. Responses varied. However, on average, the suppliers recommended a total of approximately 11 tracks equipped with cranes, 4 tracks with lifting equipment and 8 roof accesses platforms.

DSB asked the suppliers to provide their view on the choice of repairing rotables elsewhere from the workshop. Half the respondents were positive about this choice, some suppliers chose not to comment and one supplier disagreed.

[1] In the RFI it is assumed that there will be 3 workshops as mentioned. However it is not given that DSB will actually provide all three workshops. This will be subject to further analysis.

DSB asked the suppliers what would be a suitable timeframe that DSB should grant the supplier for accessing the workshops (i.e. a building shell) to install all relevant equipment. According to the respondents, a minimum of 6 months is necessary before the workshop should be fully functional/ready for test trains.

Storage space, lifting equipment and bogie drop zones were other aspects discussed in the RFI.

Maintenance Management System (MMS)

The Suppliers described their previous experiences regarding a Maintenance Management System (MMS) from assignments similar to what DSB is anticipating for New Trains. Some suppliers suggested their own ERP and MMS system, while others recommended to use an off-the-shelf technology.

Data transfer was also discussed. The suppliers were asked how they would ensure that data is transferred to DSB in case of expiry or termination of the contract. Suppliers provided different possibilities on how to deal with data transfer, such as through open data transmission formats (e.g. CSV) or by giving DSB a version of the software and a personal password upon contract expiry/termination. In all cases, the suppliers described the topic as solvable without particular issues.