



Extract from the report to the
Public Accounts Committee on
the progress of the Cityringen
construction project

June
2014

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1. Introduction and conclusion

1.1. Purpose and main conclusion

1. This report provides a status on the progress of the construction of the Cityringen (city circle metro line), which will add 15.5 kilometres and 17 new stations to the current metro system in Copenhagen.

2. The Cityringen Act was adopted on 6 June 2007 and determines that Metroselskabet I/S (Metroselskabet) is in charge of project design, construction and operation of the new city circle line and the minister of transport may make arrangements relating to project design and construction of Cityringen. In 2011 Metroselskabet signed the contract to build the Cityringen with the contractors – Copenhagen Metro Team I/S (the CMT). The costs of the construction project are estimated at DKK 21.3 billion (2010 prices) with the CMT contract accounting for DKK 12.3 billion hereof.

3. Metroselskabet has made a commitment to its owners and the Danish Folketing (parliament) to ensure that the construction of the Cityringen is completed and the new section ready to transport passengers by December 2018. This date is reflected in the schedule that is incorporated in the contract. The actual construction work, however, follows another schedule – an accelerated plan – with a completion date that was originally set for December 2017. The accelerated plan provides the basis for working schedules and Metroselskabet's internal follow-up on progress of the project and Rigsrevisionen's status report is therefore also based on the accelerated plan.

4. In February 2014, Metroselskabet announced that the completion of the Cityringen might be delayed and the costs increase. Following this announcement, the minister of transport entered into a new political agreement on the project, which prepared the ground for an amendment of the Cityringen Act. It appeared from the bill that the project faced a delay of two to three years and additional costs of DKK 2.5 to 4.5 billion. To mitigate the risk of delays and increased costs, the amended act allowed wider use of extended working hours and more noisy construction activities at the sites. The act was passed on 11 June 2014. The Ministry of Transport will present a proposal to a new schedule and adjusted estimate of construction costs to the Folketing in the late summer 2014.

5. The purpose of the study is to assess how the construction of Cityringen has progressed up to May 2014. The report answers the following questions:

- Has the Cityringen project been on schedule since 2011?
- Has the Cityringen Project been managed adequately by Metroselskabet?
- Did the minister of transport inform the Folketing that the completion of the Cityringen might be delayed and costs increase?

Metroselskabet I/S is jointly owned by the City of Copenhagen (50 per cent), the Ministry of Transport (41.7 per cent) and the City of Frederiksberg (8.3 per cent). The chairman of the board of the company is appointed by the Ministry of Transport and the members are appointed by the three owners.

MAIN CONCLUSION

Metroselskabet expects to open the city circle line for passengers in December 2018 as planned. Metroselskabet has informed Rigsrevisionen that the project is currently two months behind schedule, but expected to catch up with the delay thanks to the amended Cityringen Act of June 2014 that allows work around the clock at all sites under eased noise restrictions. Negotiations between Metroselskabet and the contractor on the economy and timeline of the project are planned for the summer 2014. During these negotiations, the contractor may request an extension of time, which may postpone completion and increase costs.

Rigsrevisionen's overall assessment of the status of the construction of Cityringen in May 2014 indicates an increased risk of delays and/or additional costs. Rigsrevisionen has therefore concluded that the construction work must be sped up if Cityringen is to open as planned in December 2018.

Rigsrevisionen's study has shown that the project lagged behind the accelerated plan both in 2011, 2012 and 2013. When complaints from the neighbours in the summer 2013 suspended the previously accepted extension of working hours on certain sites, the construction work on several stations and the boring of tunnels were already lagging far behind the accelerated plan. Our examination also showed that this negative development continued into 2014 and that the buffer of 12 months that Metroselskabet is managing by no longer exists. Last, the study showed that Metroselskabet – in an effort to catch up with current backlogs and prevent new ones – has extended working hours far more, and at more stations, than originally anticipated in the contract and addressed in the environmental impact assessment report (EIA) that was elaborated on the Cityringen project in 2008.

Immediately after closing the contract with the CMT, Metroselskabet and the CMT agreed on an accelerated plan according to which the project would be completed 12 months earlier than indicated in the contract.

Metroselskabet has informed Rigsrevisionen that the accelerated plan is not relevant for the assessment of whether the project will be completed by December 2018, but serves only as an incentive for the contractor to speed up completion of the project. Metroselskabet has also stated that its initial assessment was that the accelerated plan would not be feasible. In the opinion of Rigsrevisionen, bonus incentives can serve to speed up completion of construction projects. Yet, Rigsrevisionen's examination shows that although Metroselskabet does not consider the accelerated plan feasible, the company has based its management of the project on this plan. This means that the contractor is working on the basis of the working hours indicated in the accelerated plan, and Metroselskabet's follow-up on the progress of the construction work is also based on the accelerated plan.

Rigsrevisionen finds that Metroselskabet's management of the Cityringen project has been inadequate. Rigsrevisionen arrives at this conclusion on the basis of its examination of the management framework, follow-up on project progress and the extension of working hours.

The framework defined for the management of the construction of Cityringen is reflected in an all-inclusive contract between Metroselskabet and the contractor. It is Rigsrevisionen's assessment that the contract is based on well-established principles for the relationship between developer and contractor.

Metroselskabet follows up on and compares the progress of the individual elements of the project like, for instance, the building of stations, with the accelerated plan. On the basis of its findings, Metroselskabet then projects the status of the construction work compared with the original plan. Metroselskabet has compared the milestones of the accelerated plan with the milestones of the original plan, but has neither on an on-going basis nor directly followed up on the original plan. Rigsrevisionen's review of the information made available to the management of Metroselskabet on the construction of the stations shows that the delays compared with the accelerated plan have not been compared with the milestones of the original plan. In the opinion of Rigsrevisionen, the lack of close follow-up makes it impossible to determine with any certainty whether the construction work has progressed to a stage that will allow opening of the Cityringen in December 2018.

Metroselskabet has informed Rigsrevisionen that it will take steps to change internal reporting in order to ensure that progress in relation to both the accelerated plan and the original plan is reported in the same document. Rigsrevisionen will expect this document to include the status of the project compared with the milestones of the original plan.

Instead of managing the project on the basis of the milestones set in the original plan, Metroselskabet has based its management on a built-in time buffer that allowed the project to fall 12 months behind the accelerated plan before it would affect the planned opening in December 2018. Delays compared with the accelerated plan do, however, in the opinion of Rigsrevisionen, affect also the original plan. It is Rigsrevisionen's assessment that because delays used up the time buffer in the early phases of the project, construction activities in the remaining period should be sped up to ensure completion by December 2018.

In the opinion of Rigsrevisionen, the backlog of construction work that has built up over the past years, has made Metroselskabet dependent on being able to work in the evenings and weekends at all sites, and nights at the Marble Church station. Rigsrevisionen is of the opinion that the proposal presented by Metroselskabet in the spring 2013 concerning an extension of working hours at all the stations, went beyond the terms of the contract. The contract provided Metroselskabet with an opportunity to work round the clock at four stations only. Metroselskabet's proposal thus went far beyond the environmental impact assessment report, which had addressed limited extensions of working hours at the stations in connection with specific construction tasks only.

It is Rigsrevisionen's assessment that the minister of transport has kept the Folketing informed of the risks of delays and cost increases that faced the Cityringen project. However, Rigsrevisionen finds that the minister of transport should have emphasized the backlog of construction work and the delays that had built up before the extension of the working hours at certain sites was suspended in the summer 2013.