

Query No. 12

Subject: Capitalisation of borrowing costs for Tunnel Boring Machine in accordance with AS 16.¹

A. Facts of the Case

1. A construction company (hereinafter referred to as ‘the company’) engaged in construction of bridges, roads, jetties, tunnelling etc., is executing Metro Projects involving boring of underground tunnels. For the tunnelling activity, it has imported specialised Tunnel Boring Machines (hereinafter referred to as ‘TBM’), which are funded through borrowings. The TBM is a machine, which has revolutionised the tunnelling industry both making tunnelling a safer, more economic solution for creating underground space and opening the possibility of creating tunnels where it was not feasible earlier.

2. TBM is used to excavate tunnels with a circular cross section through a variety of soil and rock strata. It can bore through anything from hard rock to sand. TBMs are used as an alternative to drilling and blasting. Modern TBMs typically consist of rotating cutting wheel, called a cutter head, followed by a main bearing, a thrust system and trailing support mechanisms. Support mechanisms located on the back-up includes conveyor or other systems for muck removal, slurry pipelines, control room, electrical systems, dust removal, ventilation and mechanisms for transport of precast segments. It is in the nature of a self reliant processing plant.

3. The querist has stated that once the characteristics of the required TBM have been defined, the period of time needed to manufacture the machine can take upto eight months. It is to be noted that every TBM is customised to suit the geo-physical condition of the strata where it will work. Hence, these machines are not available off the shelf. It is always manufactured against order and the manufacturing process typically takes anywhere between

¹Opinion finalised by the Committee on 21.5.2013 and 22.5.2013

8 to 12 months. Considering huge cost involvement, advances are to be paid to the manufacturer during different stages of manufacturing.

4. Tunnel Boring Machine is not a single set of machine, which operates on its own but requires several ancillary equipments and fittings to make it operable. End-to-end length of Main TBM and ancillaries ranges anywhere between 70-80 metres and weighs around 750 to 900 tonnes. The consignment arrives at nearest port in several pieces in containers, which have to be lifted by cranes and loaded in heavy trucks. After the containers reach the construction site, the assembly process which includes continuous and sequential assembly of all separate parts starts and the said process till final commissioning is also time consuming and takes around 6-8 months. Date-wise sequence of the activities performed by the company for one of the TBM is given below:

Activity	Date
Request for Quotes floated	18-03-2011
Letter of Intent issued to party	24-04-2011
Delivery of consignment to the port	06-12-2011
Transported to the construction site	22-12-2011
Final commissioning and ready for intended use	22-11-2012

Assembly operations must be carried out under the supervision of skilled technicians including those from the supplier of the machines. Some of the activities and approximate time involved in the commissioning of TBM are given by the querist as below:

- (i) Construction of launching shaft: It is a box like structure where the TBM is to be lowered. (approx. 30-40 days)
- (ii) Installation of EOT Gantry girder and crane and other preparatory work for lowering of TBM. (approx. 45-55 days)
- (iii) Lowering and fixing of Cradle. (approx. 2-3 days)
- (iv) Lowering of TBM: This is done with the help of 2 heavy cranes and other various lifting. (approx. 4-5 days)

- (v) Installation of Reaction Frame. (approx. 7 days)
- (vi) Pushing of TBM and Cradle for clear space between D'wall and Cradle for Cutter Head Lowering. (approx. 15-20 days)
- (vii) Lowering and fixing of Cutter Head and fitting to Front Shield. (approx. 5-7 days)
- (viii) Lowering of TBM Accessories: Rest of the accessories/equipments are lowered in the following sequence : (approx. 7-10 days)
 - (a) Assembly of Conveyor line
 - (b) Segment Cars
 - (c) Man riders
 - (d) Muck Cars
 - (e) Grout Car
 - (f) Locomotives etc.
- (ix) Pushing the TBM and Cradle for clear space between D'wall and cradle for Screw conveyor fixing. (approx. 12-15 days)
- (x) Removal of Reaction Frame. (approx. 5-7 days)
- (xi) Fixing of Sleepers / Rails in base slab area. (approx. 20-25 days)
- (xii) Connections between Hydraulic and Electrical Circuit. (approx. 20-25 days)
- (xiii) Testing and Commissioning of TBM (approx. 45-55 days): Once the assembly is over, the TBM breaks through the wall of the launching shaft and gradually moves forward. This initial drive is for the alignment / adjustment of the cutter head. This testing and initial drive are normally carried out over a length of 50 or 100 metres under the supervision of supplier's engineers. Once the TBM along with the backup Gantry is fully into the tunnel, the initial drive is stated to be over and the TBM is fully commissioned and ready for operations.

5. The querist has reproduced paragraph 6 and explanation to paragraph 3.2 of Accounting Standard (AS) 16, 'Borrowing Costs', notified under the Companies (Accounting Standards) Rules, 2006 (hereinafter referred to as the 'Rules'), as follows:

“6. *Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset should be capitalised as part of the cost of that asset. The amount of borrowing costs eligible for capitalisation should be determined in accordance with this Standard. Other borrowing costs should be recognised as an expense in the period in which they are incurred.*”

“3.2. ...

Explanation:

What constitutes a substantial period of time primarily depends on the facts and circumstances of each case. However, ordinarily, a period of twelve months is considered as substantial period of time unless a shorter or longer period can be justified on the basis of facts and circumstances of the case. In estimating the period, time which an asset takes, technologically and commercially, to get it ready for its intended use or sale is considered.” (Emphasis supplied by the querist.)

6. The querist has further reproduced relevant extracts from the erstwhile Accounting Standards Interpretation (ASI) 1, ‘Substantial Period of Time’, which was subsequently withdrawn and included as an Explanation to paragraph 3.2 of AS 16 as below:

“2. The issue is what is the meaning of the expression ‘substantial period of time’ for the purpose of this definition.

CONSENSUS

3. The issue as to what constitutes a substantial period of time primarily depends on the facts and circumstances of each case. However, ordinarily, a period of twelve months is considered as substantial period of time unless a shorter or longer period can be justified on the basis of facts and circumstances of the case. In estimating the

period, time which an asset takes, technologically and commercially, to get it ready for its intended use or sale should be considered.

4. The following assets ordinarily take twelve months or more to get ready for intended use or sale unless the contrary can be proved by the enterprise:

- (i) assets that are constructed or otherwise produced for an enterprise's own use, e.g., assets constructed under major capital expansions.
- (ii) assets intended for sale or lease that are constructed or otherwise produced as discrete projects (for example, ships or real estate developments)."

B. Query

7. On the basis of the above and considering the fact that Tunnel Boring Machine is not a general bought-out machinery and requires substantial time and efforts right from the time of identification of manufacturer, studying the geological data of the strata it is going to operate, manufacturing, shipping, custom clearance, ferrying from sea port to construction site, and final assembly before it becomes ready for its intended use, the querist has sought the opinion of the Expert Advisory Committee as to whether interest on borrowings incurred for the acquisition of Tunnel Boring Machines can be capitalised till the machine commences operation.

C. Points Considered by the Committee

8. The Committee notes that the query relates to accounting treatment of borrowing costs incurred on acquisition of Tunnel Boring Machines from the date of identification of manufacturer till it commences operation. The Committee has, therefore, considered only this issue and has not examined any other issue arising from the Facts of the Case including capitalisation in parts/phases, nature of financing arrangements, accounting treatment of borrowing costs incurred on funds utilised for making prepayments towards acquisition of TBM, etc. The Committee notes that at some places, the querist has stated the time needed to manufacture the TBM as 8 months and at other places, it is stated to be 8 to 12 months, which

seems to be an apparent contradiction, however, it does not affect the opinion expressed hereinafter, which lays down the broad principles to be considered while capitalising borrowing costs.

9. The Committee notes from the Facts of the Case that the company has imported specialised TBM to be used in the boring of underground tunnels. The Committee further notes that TBMs are specifically manufactured against the order to suit the geo-physical conditions and later assembled at the construction site. The querist has stated that import of TBM is funded through borrowings though it is not clearly evident from the Facts of the Case as to when the borrowings are taken, viz., before identifying the manufacturer or when the order is placed. Further, it is also not clear whether the assembly activities at the construction site are also funded from borrowings. The Committee has therefore assumed that the entire project including construction / final assembly is funded through borrowings and that such funds have been borrowed specifically to acquire the TBM and its related activities.

10. The Committee further notes the definition of the term ‘qualifying asset’ and paragraph 5 of Accounting Standard (AS) 16, notified under the ‘Rules’, which are reproduced below:

“3.2 A qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale.

Explanation:

What constitutes a substantial period of time primarily depends on the facts and circumstances of each case. However, ordinarily, a period of twelve months is considered as substantial period of time unless a shorter or longer period can be justified on the basis of facts and circumstances of the case. In estimating the period, time which an asset takes, technologically and commercially, to get it ready for its intended use or sale is considered.”

“5. Examples of qualifying assets are manufacturing plants, power generation facilities, inventories that require a substantial period of time to bring them to a

saleable condition, and investment properties. Other investments, and those inventories that are routinely manufactured or otherwise produced in large quantities on a repetitive basis over a short period of time, are not qualifying assets. Assets that are ready for their intended use or sale when acquired also are not qualifying assets.”

The Committee notes from paragraph 3.2 of AS 16 that ordinarily twelve months is considered as substantial time, however, a shorter or longer period can be justified considering the peculiarities of the facts and circumstances of each case. The Committee notes that the querist has stated that the time required to manufacture the TBM is minimum of 8 months and further 8 months are required for getting it ready for its intended use. Accordingly, the time required to construct the TBM and getting ready for its intended use is in aggregate more than twelve months. Therefore, based on the facts given, the Committee presumes that TBM is a qualifying asset.

11. The next issue that the Committee has examined is the nature of activities undertaken for acquisition and for commencement of operation through TBM, which are financed through borrowed funds, so as to determine whether the borrowing cost incurred in relation to them can be capitalised. In this regard, the Committee further notes the following paragraphs of AS 16, notified under the ‘Rules’:

“14. The capitalisation of borrowing costs as part of the cost of a qualifying asset should commence when all the following conditions are satisfied:

(a) expenditure for the acquisition, construction or production of a qualifying asset is being incurred;

(b) borrowing costs are being incurred; and

(c) activities that are necessary to prepare the asset for its intended use or sale are in progress.”

“16. The activities necessary to prepare the asset for its intended use or sale encompass more than the physical construction of the asset. They include technical and administrative work prior to the commencement of physical construction, such as the activities associated with obtaining permits prior to the commencement of the physical construction. However, such activities exclude the holding of an asset when no production or development that changes the asset’s condition is taking place. For example, borrowing costs incurred while land is under development are capitalised during the period in which activities related to the development are being undertaken. However, borrowing costs incurred while land acquired for building purposes is held without any associated development activity do not qualify for capitalisation.”

The Committee notes from the Facts of the Case that various activities are performed before the asset is placed into operation. The activities include identification of manufacturer, studying the geological data of the strata, manufacturing, shipping, custom clearance, ferrying from sea port to construction site and final assembly. The Committee also notes that the manufacture / construction of the asset was performed by the vendor before it is commissioned at the construction site. The conditions for commencement of capitalisation are clearly laid down in paragraph 14 of AS 16. The Committee is of the view that though there are no restrictions for capitalising the borrowing costs incurred on assets manufactured at a vendor site, all the conditions of paragraph 14 above should be satisfied for capitalisation of borrowing costs. The expenditure on the qualifying asset and payment of borrowing costs are not sufficient enough to capitalise the borrowing costs. The activities that are necessary to prepare the asset for its intended use or sale should also be in progress so as to satisfy the conditions for capitalisation.

12. The activities necessary to prepare the asset for its intended use or sale can vary depending on facts and circumstances of each case. The Committee notes that activities such as, identification of manufacturer and studying the geological data of strata are performed by the company even before placing the order. Therefore, these activities cannot be deemed to

be 'activities necessary to prepare the asset for its intended use or sale' as these activities do not add any value to the asset and no activity was in progress to prepare the asset for intended use. In fact, at that point of time, neither the manufacturer was identified nor the design of the TBM was certain. In other words, such activities were not leading to any change in the asset's condition. The Committee is further of the view that manufacturing at the vendor's site, shipping, custom clearance, ferrying from sea port to construction site and final assembly can be considered for capitalisation as the activities necessary to prepare the asset for intended use are in progress. The Committee also wishes to emphasise that the borrowing costs should be capitalised upto the period of completion of all the activities necessary for preparing the asset for its intended use or sale and not upto the period of actual commencement of operation.

D. Opinion

13. On the basis of the above, the Committee is of the view that no borrowing costs can be considered for capitalisation which have been incurred during the period of identification of manufacturer and studying the geological data of strata; however borrowing costs incurred during manufacturing at the vendor site, shipping, custom clearance, ferrying from sea port to construction site and final assembly can be capitalised in accordance with paragraphs 14 and 16 of AS 16. The Committee also wishes to emphasise that the borrowing costs should be capitalised upto the period of completion of all the activities necessary for preparing the asset for its intended use or sale and not upto the period of actual commencement of operation.