Chapter 7

Conclusion

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7.1 Conclusion

7.1.1 Operation and maintenance of generating plants

The generation of the Company declined from 10,567.83 MUs in 2017-18 to 5,466.81 MUs in 2020-21, far below the normative generation approved by the Haryana Electricity Regulatory Commission (HERC) and the shortfall ranged between 42.61 to 69.24 *per cent* during 2017-21. The main reason for low generation was higher variable cost of thermal power stations which resulted in backing down of plants.

The Plant Load Factor (PLF) in respect of all units of the Company decreased substantially due to forced outages on account of various technical problems, poor planning in execution of works pertaining to capital overhauling and backing down of plants due to higher variable cost. Due to non-achievement of normative PLF, Company could not recover fixed cost of ₹ 390.94 crore during 2016-21 from the Distribution companies (DISCOMs) of Haryana. The Company lost the opportunity to earn potential revenue of ₹ 15,576.80 crore on non-production of 49,559.73 MUs of power during 2016-21 due to non-achievement of normative PLF.

As per merit order, plants of the Company were one of expensive plants amongst the 33 Power plants for which merit order is prepared by DISCOMs. Their ranks in merit order ranged between 1st and 13th during 2016-17 to 2020-21. Thus, the position of the thermal plants in merit order deteriorated due to which the Company lost opportunity of earning potential revenue of ₹ 13,449.61 crore by not generating 38,862.43 MUs of power. Further, due to higher transportation cost of coal the units of the Company could not compete with Pithead plants in terms of variable cost.

The HIP Rotor of Unit-II of RGTPP got damaged (September 2020) due to irregular loading pattern, frequent start and stop operations. The Company had however, not carried out any cost benefit analysis either to go for repair or purchase a new rotor in view of high transportation cost against the small amount on repair cost and loss of fixed cost of ₹ 0.97 crore per day besides loss of generation of 12.24 MUs per day. The HIP rotor had been received during January 2022 but unit could not be commissioned due to non-receipt of associated spares resulting in non-recovery of fixed cost of ₹ 396.77 crore from the DISCOMs apart from loss of potential revenue for forced shutdown period.

The Company has suffered generation loss of 63.80 MUs of Green Energy valuing ₹ 30.73 crore in respect of Western Yamuna Canal Hydel Project due to acceptance of non-interchangeable blades and delay in completion of overhauling work of Machines. Due to lesser generation, DISCOMs had to purchase 63.80 MUs of power from other sources which resulted into extra burden to the extent of ₹ 30.73 crore on the State consumers.

7.1.2 Fuel and Inventory Management

The coal consumption pattern of all the three power plants of Company was within the norms of coal approved by HERC in respect of its units except for RGTPP (Unit-II) during 2019-20 and 2020-21.

The quantity and quality claims include compensation for short supplies of Coal Companies, quality claims on un-sampled rakes and compensation pertaining to idle freight. Out of total claims lodged during 2016-21 for ₹ 421.74 crore on account of quantity claims, the Company could reconcile claims of ₹ 21.68 crore (5.14 *per cent* only) during last five years ending 2020-21. The quantity claims of ₹ 494.32 crore and quality claims of ₹ 270.50 crore raised by the Company with coal supply companies were pending as on 31 March 2021. Delay in settlement of claims resulted into blockade of funds.

Differential freight of ₹ 8.43 crore was due for refund from Railways on account of diverted rakes during December 2015 to March 2021, of which the Railways paid ₹ one crore and ₹ 7.43 crore remained to be recovered from Indian Railways as of September 2021. The claims of ₹ 0.78 crore in 33 cases were rejected by Railways on the ground that these cases were preferred after expiry of stipulated time and were time barred.

The working capital involved in Operation and Maintenance (O & M) spares was more than the prescribed norms of HERC in all the three plants of the Company and therefore, the Company could not recover interest amounting to ₹ 105.31 crore on excess working capital involved in O&M spares through tariff.

The mean time taken by the three plants (DCRTPP, RGTPP and PTPS) of the Company in placing purchase orders since the date of requirement ranged between 223 and 328 days for procurement of material. Further, the users received this material in these plants after days ranging between 412 and 682 days since their requirements. The Company has not prescribed any timeline for procurement of material in its Work and Purchase Regulations, 2015 which reflects weakness of internal control system.

7.1.3 Financial Management

The Company recovered excess fixed cost amounting to ₹ 26.46 crore during 2018-19 and 2019-20 due to achievement of higher PLF against the HERC norms which was in contravention of the tariff orders of HERC.

The actual average level of daily coal stock in all thermal plants remained less than the normative level determined by HERC during the period 2016-21. As a result, the Company had claimed and recovered excess interest of ₹ 107.23 crore on working capital during 2016-17 and 2017-18 from DISCOMs through tariff which had put extra burden on the State consumers.

The actual average working capital involved in sales receivables was lesser by ₹ 415.39 crore than normative working capital requirement due to low level of generation during the period 2016-18. Thus, the Company had claimed and recovered excess interest ₹ 43.82 crore on working capital on account of receivables from DISCOMs.

The Company received funds amounting to ₹ 252.12 crore through sale of fly ash during 2016-17 to 2020-21 but utilised only ₹ 15.23 crore during this period. An amount of ₹ 476.20 crore remained unutilised in ash funds collected through sale of fly ash. The Company used this fund in the general business in contravention of instructions of MoEF&CC.

7.1.4 Compliance of Environmental norms and Generation of clean energy

Power plants of the Company met the emission norms regarding Suspended Particulate Matter (SPM) levels as determined by the Ministry of Environment, Forest and Climate Change, (MoEF&CC) in all the years from 2016-21. However, Emission norms of SO_2 and NO_x are not met by the power plants.

The Company has not set any timeline for setting up of 133.20 MW Solar Power plants despite approval of the State Government in October 2016. The Company, however, could install only 10 MW solar power project at PTPS (December 2021) during the period 2016-21 and thus, the objective of green energy could not be achieved.

While entering into Power purchase Agreement (PPA) with DISCOMs for supply of power from solar project, the Company agreed to remove the terms and conditions regarding deemed generation, which has resulted in loss of revenue valuing ₹ 1.12 crore against deemed generation of 35.05 lakh units.

Had the Company proposed the Capacity Utilisation Factor (CUF) of 19 *per cent* as per HERC (RE) Regulations which was more realistic, the tariff rate of ₹ 5.39 per kWh instead of ₹ 4.88 per kWh (at 21 *per cent* CUF) could have been available to the Company for sale of power from solar project. Thus, fixation of lower tariff by ₹ 0.51 per kWh has resulted in loss of ₹ 3.36 crore for the period from 2017-18 to 2020-21.

7.1.5 Power Procurement on the basis of Merit Order Dispatch by Haryana Power Purchase Centre for Haryana State

Against the total tied up capacity of thermal power (as per normative PLF) of 7,204 MW from 30 thermal power plants, the HPPC could utilised maximum 4,378.68 MW from 22 thermal power plants on merit order basis and remaining eight thermal power plants remained backed down/shut down. HPPC had purchased short term thermal power from two private thermal power plants (SKS Power and MB Power) at variable cost of ₹ 4.29 per unit ranging between 208.41 MW to 391.21 MW. Audit observed that instead of purchasing power at the rate of ₹ 4.88 per unit from private plants, Unit-VI of HPGCL having lower variable cost of ₹ 3.90 per unit could have been considered to be scheduled for power purchase. Most of the Intra state Generators (HPGCL Plants and other plants situated in Haryana) are likely to be benefited in case of preparation of Merit Order Dispatch on landed cost basis as their ranks improved in Merit Order Dispatch as their generation cost did not have transmission charges and losses which are being paid by DISCOMs in case of electricity purchased from Inter-State Generating stations. But overall cost of power purchase increased when scheduling was done as per landed cost. Besides revising the components of variable cost to include transmission charges and losses as a component of variable costs is assessed to be beneficial to generating units in Haryana because Haryana is in the northern part of the Country and thermal power plants of HPGCL located in Haryana have to pay significant cost on transportation of coal which is incorporated as component of variable cost and principal reason for low positioning of HPGCL plants in Merit order Dispatch. However, HPGCL plants have negligible transmission cost as its plants are closer to the consuming centres. As per MoD prepared by considering transmission cost as part of variable cost will increase the cost of power purchase to DISCOMs, however, it will be advantageous to Intra State power Generators including State generating Power Plants. HPPC could utilize maximum 5,119 MW and 5,595 MW capacity against the actual available of 7,204 MW capacity during 2019-20 and 2020-21 respectively. Thus, 2,085 MW capacity during 2019-20 and 1,609 MW capacity during 2020-21 remained unutilized. Due to which, the units of thermal power plants including Haryana State owned generating units were backed down (non-operational) for significant period of time during these years. The proportionate fixed cost of unutilized capacity works out to be ₹ 3,030.64 crore (₹ 1,757.92 crore and ₹ 1,272.72 crore) for the period 2019-21. This has resulted into additional financial burden on state consumers due to increase in power purchase cost. HPPC considered the lower of the variable cost in respect of M/s Jhajjar Power Limited while preparing merit order (as per final payment made to generator) despite the fact that the generator was claiming this deducted amount and filed petition in Central Electricity Regulatory Commission (CERC)/APTEL. HPPC was allowing the generator to benefit in form of placing it in merit order on basis of lower of the two variable costs.

Vishal Bansal

Chandigarh **(VISHAL BANSAL)**
Dated: 27 July 2022 **Principal Accountant General (Audit), Haryana**

Countersigned

New Delhi **(GIRISH CHANDRA MURMU)**
Dated: 02 August 2022 **Comptroller and Auditor General of India**