CHAPTER IV: MINISTRY OF POWER

Damodar Valley Corporation

4.1 Metering and Billing

4.1.1 Introduction

Damodar Valley Corporation (Corporation) supplies power in accordance with the provision of the DVC Act, to its consumers in core Sectors like Traction (Railways), Steel, Coal and other load categories at 33, 132 and 220 Kilo-Volt (KV) level at different locations within the Damodar Valley area and also at few locations beyond the valley areas with the permission of the concerned State Governments. The Corporation's Transmission and Distribution network is spread over seven districts of the Jharkhand State and six districts of West Bengal. As on 31st March 2014, the Corporation had 283[♥] High Tension (HT) Consumers with 3,156.195 Mega Volt Amperes (MVA) Contract Demand (CD) who were being fed from 41 Sub-stations and at three voltage levels viz. 220/33 KV (73 Consumers), 132/33 KV (208 Consumers) and 132/25 KV (two Consumers). Besides the HT consumers, power is also fed into the Low Tension (LT) infrastructure of its colonies set up around the Corporation's power plants.

4.1.2 Audit Framework

4.1.2.1 Scope of Audit

A review on "Metering, Billing and Collection of Energy Charges" was conducted covering the period 1999-2000 to 2002-03 and was incorporated in the Annual Report of the Corporation for the year 2002-03 in accordance with Rules 31 of DVC, 1948. The significant issues highlighted by audit in the above report were:

- Delay in implementation of the modernised metering system.
- Unfavourable debtors' ratios.
- Absence of time frame for rectification of defective meters.

The Action Taken Note (ATN) on these issues has not been received so far (October 2014). In the meantime power generation capacity, number of consumers and sales of power increased considerably. The Corporation had also taken up implementation of modernised metering system i.e. Remote Automatic Meter Reading (RAMR) system by upgrading or replacing the existing 0.2 accuracy class meters and installation/implementation of System Energy Measurement Accounting and Auditing (SEMA). In the backdrop of these developments, a follow up audit on the metering and billing system of the Corporation was undertaken which covered a period of three years (2011-12 to 2013-14).

♥ ***Regarding number of consumers as on 31.03.2014 different figures were furnished by different divisions/sections of the Corporation. We have considered 283 consumers (as furnished by Commercial section of the Corporation) on conservative approach.***

4.1.2.2 Audit Objectives

The Audit objectives were to ascertain whether:

- An appropriate metering system for the consumers of power supplied by the Corporation was there and the same was effectively functional.
- The Corporation has been able to install/configure the electronic revenue protection system as intended, in a time bound manner to achieve efficiency in billing and monitoring of Distribution loss respectively.
- The collection of dues from the consumers was efficient and effective.

4.1.2.3 Audit criteria

The following audit criteria were adopted:

- Electricity Act, 2003;
- Notifications of Central Electricity Authority (CEA);
- Corporation's internal orders/circulars; and
- Tariff orders/ notifications of Central Electricity Regulatory Commission (CERC).

4.1.2.4 Audit methodology

Audit examined the records maintained at different departments of the Corporation. Besides this, Audit also test checked records of nine out of 41 sub-stations (*22 per cent*) under six Grid Operation and Maintenance Divisions (GOMDs). Private consumers were predominant in 7 out of 9 sub-stations while in the rest 2 sub-stations, PSU consumers were predominant.

4.1.3 Audit Findings

All the HT power consumers of the Corporation were being metered since 1952. As on 31 March 2014, there were 283 HT power consumers with active Contract Demand (CD). All tariff meters of HT consumers were of 0.2S[♠] accuracy as specified by CEA regulations 2006. Apart from this, the Corporation had Low Tension (LT) consumers (employees, outsiders and commercial establishments) in its colonies. The LT consumers of the Corporation are situated in the colonies set up around its power plants and most of them were not metered.

4.1.3.1 Unproductive investment in implementation of modernised metering system

Corporation was aware (2000) of the higher T & D losses and decided to take up a time bound programme for energy audit. CEA meanwhile notified (March 2006) installation of System Energy Accounting and Audit (SEMA) meters at all locations.

[♠] ***0.2S Class Accuracy Meter has the accuracy of +/- 0.2 percent when the current of the meter is within the band of >5 percent and within 120 per cent of rated current (the maximum current that can be applied continuously under specified conditions without harming a component, circuit etc.)***

(a) System Energy Measurement (Accounting & Audit) – SEMA

The work for establishment of SEMA (Phase- I) for implementation of energy accounting system at 33KV and 415V level distribution network of the Corporation, was awarded (December 2007) at a cost of ₹ 6.38 crore with scheduled completion by December 2009. However, the work was completed in May 2013 with a delay of 41 months. The Corporation accepted (January 2015) that the delay was mainly on execution of its part of the job. However, implementation of SEMA (Phase– II) scheme at 132KV & 220KV level of Corporation's power system was pending (March 2014).

It was observed from the data captured by SEMA system (Phase – I) for around 15 to 47 consumers for the period June to December 2013, that the difference between SEMA energy and consumer energy ranged from (-) 1 *per cent* to (+) 6.14 *per cent*. The Corporation stated (November 2014) that the difference indicated insufficient accuracy due to manual feeding of data (without software), erratic functioning of communication network, breakdown of link due to outage of auxiliary equipments in Global System Mobile (GSM) technology, non-availability of auxiliary colony consumption of energy and non coverage of new consumers under the SEMA system. It was also stated that post February 2014, energy accounting study was not being done.

It was further observed that T&D losses have been on an increasing trend from 3.91 *per cent* in 2011-12 to 4.30 *per cent* in 2013-14. Records revealed that the Jharkhand State Electricity Regulatory Commission (JSERC) in its provisional tariff order of 2012-13 approved T&D loss of three *per cent* for the Corporation. Analysis of data of the selected sub-stations revealed that there was 6.32 MU of T&D loss (beyond three *per cent*) during 2013-14 (i.e. after implementation of SEMA) with a financial implication of ₹ 2.66 crore. This loss could have been arrested by the Corporation, if it had ensured that SEMA was in proper working condition. Thus, the very objective for which the project was taken up was not fulfilled and the investment of ₹ 6.38 crore remained unproductive.

The contention of the Corporation (January 2015) that the increasing trend of T&D loss was due to enhancement of CD of a few consumers and over drawal of power by JSEB is not acceptable as the consumers had drawn power more than their CDs which could have been restricted with the implementation of SEMA.

(b) Global System for Mobile Communication (GSM) Metering

With a view to implementing revenue protection system for accurate and faster billing through remote metering and thereby improving cash flow cycle as well as revenue management cycle, the Corporation took up (September 2007) GSM metering system. The main purpose of the GSM metering system was to raise the consumer bill on first day of the month and reduce billing cycle. The other purposes of the system were to monitor the consumer loading pattern, tamper events, if any, as well as identify loss prone system components and to develop the infrastructure for SEMA. Out of total 283 consumers, the work for installation and commissioning of GSM connectivity at different locations in respect of 250 consumers along with remote automatic meter reading system (RAMR) was completed (March 2014).

Audit, however, observed as follows:

(i) Even after implementation of RAMR there were 92 instances where the Corporation did not raise consumer bills accurately on first day of the month and raised Energy Adjustments Bills for ₹ 12.51 crore with a delay ranging from 1 to 9 months. Main reason for such delay was non-tallying of meter reading of RAMR with the reading of sub-stations caused either by defective meters or outage of auxiliary equipments of GSM system.

(ii) Many consumers were drawing power in excess of their contract demand (CD). Out of 9094 instances of drawal of power in respect of consumers each month from June 2011 to March 2014, there were 2558 instances (28 *per cent* of 9094 instances) of overdrawal. In 473 instances of 2558, the consumers had overdrawn even 100 to 28901 *per cent* of their CD. Though Eastern Regional Load Despatch Centre (ERLDC) had warned the Corporation of this indiscipline in power drawal, the same continued even after implementation of GSM scheme. It had since increased considerably from 1711388 KVA in 2011-12 to 7533718 KVA in 2013-14.

The Corporation agreed (January 2015) that there was scope for improvement by way of maintenance and monitoring of GSM system.

4.1.3.2 Unfavourable debtors' ratio resulted in increase in working capital loan

Prior to the implementation of Electricity Act 2003 (effective 10 June 2003), the Corporation was authorized to determine its own tariff under section 20 of the DVC Act, 1948. The Corporation, however, continued to bill its consumers at its own determined tariff rate and did not approach CERC in time to determine the tariff. Hence, CERC initiated suo-motu proceedings and determined the tariff effective for the period 2006-2009 by allowing two years' transition period upto March 2006. The Corporation did not accept the same and took legal recourse. Consumers were continued to be billed as per Corporation's own tariff. Meanwhile, the tariff order of CERC for 2009-14 had already been issued which was accepted by the Corporation and consumers were billed accordingly. However, reconciliation of consumer dues with reference to the applicable tariff of 2006-09 and 2009-14 was pending (March 2014). This affected the realisation of old dues from the consumers. The position of book debts of the Corporation on account of Energy Charges vis-à-vis Sales, average collection period and current assets for the last three years ending 31 March 2014, is as follows:

Year	Sales (₹ in crores)	Debtors (₹ in crores)	*Per cent* of Debtors to Sales	Average Collection Period (in months)	Current Assets (₹ in crores)	*Per cent* of Debtors to Current Assets
2011-12	7,067.40	5,318.21[1]	75.25	7.80	8,108.44	65.59
2012-13	10,603.87	6,538.03[2]	61.66	6.80	11,297.77	57.87
2013-14	11,672.08	8,605.02	73.72	7.89	13,486.91	63.80

[1] ***Excluding un-billed amount of ₹ 919.82 crore.***
[2] ***Excluding un-billed amount of ₹ 1,103.87 crore.***

Thus, outstanding debts for more than three years reached ₹ 3,260.57 crore as on 31 March 2014 which was 38 *per cent* of the total debtors of ₹ 8,605.02 crore. The outstanding dues coupled with higher revenue collection period resulted in increase in working capital loan of the Corporation and consequential interest outgo. Records revealed that the short-term loan of ₹ 1,602 crore in 2011-12 had reached ₹ 3,349 crore in 2013-14 and the Corporation had to shoulder interest burden of ₹ 577.79 crore during the period 2011-12 to 2013-14, which in turn, increased the cost of short term loan interest per megawatt of power[♣].

The Corporation, in its reply (January 2015) attributed accumulation of debtors mainly to litigation. However, they were silent on non-adherence to CERC tariff for the period 2006-09 and non-reconciliation of debts after finalisation of tariff by CERC for 2006-09 as well as 2009-14.

4.1.3.3 Delay in raising of Fuel Price Adjustment bill

The monthly bills for energy charges covering primary fuel cost should be raised on consumers along with bills for fuel price adjustment (FPA), if any.

It was observed that during the period 2011-12 to 2013-14, the Corporation delayed issuing FPA bills amounting to ₹ 178.92 crore. Test check revealed delay ranging from one to ten months. The main reason for such delays was late furnishing of fuel data by the thermal power stations (TPSs) of the Corporation. This resulted in delayed recovery of adjustment bills from consumers, which could have been avoided if there had been an appropriate mechanism and/or information system for raising FPA bills in time.

The Corporation attributed (January 2015) the delay in raising of FPA to non-receipt of monthly coal values from TPSs and availability of performance incentive (PI) value for coal consumption only at year end. The reply is not convincing as flow of information from TPSs regarding consumption of coal was possible to have been streamlined and strengthened for timely raising of FPA bills. Further, there was scope for proper estimation of PI value of coal consumption after considering the annual contracted quantity (ACQ) on the basis of Fuel Supply Agreement (FSA) which was well known to the Corporation.

4.1.3.4 Irregular Meter Reading (HT)

The Corporation had set up two meters (M1 and M2) and a check meter for capturing power consumption and billing thereof as per Power Purchase Agreement (PPA) with HT consumers. Both M1 and M2 meter readings were to be taken regularly for ascertaining proper functionality of meters and accurate billing. Audit observed that out of the 155 HT consumers of the selected sub-stations, M2 meter reading of 106 consumers was not taken at all. Further scrutiny of 29 consumers in respect of whom M1 and M2 meter readings were both taken regularly, revealed that billing for their power consumption was made from the reading of M1 meter irrespective of deviations (both negative and positive) of the meter reading as compared to M2 meter reading. Further, in some cases deviation of

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[♣] ***Cost of short term loan interest: ₹ 50/mwh in 2011-12, ₹ 80/mwh in 2012-13 and ₹ 100/mwh in 2013-14.***

the above meter reading was much higher than meter's accuracy class. No analysis of such deviation was found on record. Further, the Corporation did not clarify reasons for sub-stations' not ensuring that readings of both the meters were taken.

The Corporation stated (January 2015) that in case of a difference of more than 0.4 *per cent* between M1 and M2 meter readings, the Corporation raised bills on average basis and in the case of a difference of more than 0.4 *per cent* in M1 meter and check meter reading, investigations and corrective actions were taken. The reply does not answer the audit observation which was on irregular reading of both M1 and M2 meters and non-monitoring for proper functioning of the same.

4.1.3.5 No time frame followed in rectification of defective meters

As per CEA regulations 2006, if the meter was found erratic and the error was beyond the permissible limit as provided in the relevant standard, the meter should be replaced immediately with a correct meter. The Corporation did not prescribe any timeline in this regard. During the period covered by audit, out of 61 cases of complaints made by HT consumers, meters required replacement in 55 cases. Replacement of defective meters which was required to be done immediately in all cases as per CEA regulations, took one to 12 weeks' time in 32 cases (**Annexure–XVIII**). It was also observed that the monthly stock position was sufficient to meet the required replacement.

The Corporation stated (January 2015) that in 70 *per cent* of the cases, defective meters were replaced within a timeframe of 11 days. This contention is not acceptable as defective meters were to be replaced immediately as per the regulation for accurate reading and raising of power bills. The contention that action was being taken for replacement of defective meters within 2 weeks, was not in line with CEA regulations and hence not acceptable.

4.1.3.6 Non-levy of disconnection & reconnection charges

As per Section 56 (Disconnection of Supply in default payment) of Electricity Act, 2003, the Corporation was entitled to discontinue the power supply of a defaulting consumer until such charge or other sum, together with any expenses incurred by it in cutting off and reconnecting the supply were paid. During the period covered by audit, there were 110 cases of disconnections, out of which in 89 cases, the lines were reconnected. In the context of numerous cases of disconnection and reconnection, the Corporation estimated (September 2011) an amount of ₹ 4.55 lakh and ₹ 8.51 lakh for disconnection plus reconnection of a consumer's line fed from Single Circuit (S/C) feeder and Double Circuit (D/C) feeder respectively. The total expenditure incurred by the Corporation for disconnection and reconnection stood at ₹ 4.33 crore during period covered under audit, which was not levied.

The Corporation's view (January 2015) that there were no disconnection and reconnection charges in the JSERC Supply Code Regulations, 2005, is not borne out by facts. Further, there was no bar in the WBERC Electricity Supply Code for levy of such charges. Also, as per section 56 of Electricity Act, 2003, the Corporation was entitled to levy disconnection and reconnection charges on consumers and non-levy of the same resulted in extension of undue benefit to such consumers.

4.1.3.7 Loss of revenue due to non-installation of meters to LT consumers:

The Corporation supplies power in the LT infrastructure of its residential colonies, employees of outside agencies residing in the quarters, its offices, government offices, public utilities, commercial establishments, shops etc. Scrutiny of records of six field formations of the Corporation viz. BTPS, CTPS, DTPS, MTPS♦, Maithon and Panchet revealed that neither any mechanism existed to restrict the drawal of power by residents (including employees) nor any functional metering arrangement was made to measure the power consumed by individuals for residential quarters. Bills based on actual power consumption were neither issued nor charges collected from employees during the period covered by audit. Only a nominal fee of ₹ 7/10/15/20 per employee per month based on their grade pay was recovered from the pay bills of employees posted at the above field formations. The total amount collected during the period covered by audit from employees of all the six units was ₹ 9, 69,937/-. Such collection was based on provisional rates decided by the Corporation more than a decade ago and the provisional rates were not replaced (October 2014) with final rates. Though the basic ceiling of free power units for different grades of employees was fixed only in March 2009 but the ceiling was not adhered to in the absence of any metering system. An assessment exercise during July 2012 at MTPS done by the Corporation revealed that ex-employees of the unit staying in Corporation's quarters had an assessed load ranging from 590 watt to 9,560 watt. Outsiders staying in quarters at all the units either paid on load assessment basis or fixed charge/ charge for fixed units. Some commercial establishments such as banks, ATMs etc. were fitted with meters but most of the commercial establishments (including shops) were billed on fixed charge basis which was not based on actual consumption. The Corporation initiated (2011) a load assessment exercise for commercial establishments to bill them on the basis of load assessment which was not accepted by shopkeepers at Maithon as they considered it un-scientific and demanded installation of meters. Metering of commercial shops was done only in BTPS (2012). As a result, billing and realization for 2013-14 increased by 498 *per cent* as compared to 2011-12 for the Corporation. Non-installation of meters in the premises of the LT consumers to ascertain actual consumption of electricity resulted in the Corporation not enforcing recovery of ₹ 142.72 crore towards electricity charges during the period covered in audit (**Annexure– XIX)**.

While accepting the audit observations, the Corporation stated (January 2015) that the billing would be started on LT consumers as per actual energy consumption after completion of installation of energy meters.

Conclusion

Most of the deficiencies pointed out in the review carried out by Audit of the Corporation in 2003 were still persisting. Investment made by the Corporation for implementation of modernised metering system, i.e. SEMA and GSM remained unproductive and ineffective resulting in non-fulfilment of objectives. The Corporation did not adhere to the time frame of the tariff petition as prescribed by CERC as per Electricity Act, 2003 which was one of the reasons for the accumulation of huge outstanding dues from consumers. Both M1 and M2 meters

♦ ***BTPS = Bokaro Thermal Power Station, CTPS = Chandrapura Thermal Power Station, DTPS = Durgapur Thermal Power Station and MTPS = Mejia Thermal Power Station.***

were not regularly verified and replacement of defective meters was unduly delayed. The Corporation did not collect disconnection and reconnection charges from its consumers allowed under Electricity Act, 2003 and also did not install meters in respect of most of LT consumers. Non-installation of meters in the premises of the LT consumers prevented the Corporation from ascertaining the actual consumption of electricity which resulted in the Corporation not enforcing recovery of ₹ 142.72 crore towards electricity charges during the period covered in audit.

The matter was reported to the Ministry in January 2015; their reply was awaited (March 2015).

4.2 Loss of opportunity to recover Engine Detention Charges

The Corporation had lost the opportunity to recover ₹ 24.25 crore paid by way of Engine Detention Charges on account of under-performance of Contractor due to absence of suitable contractual provision.

Mejia Thermal Power Station (MTPS) of Damodar Valley Corporation (Corporation) receives bulk quantity of coal through railway wagons. Railway authority levies demurrage charges for delay in unloading of rakes beyond specified schedule time. In addition, Engine Detention Charges (EDC) are also levied in case Railway LOCO is detained for such delay in unloading. As MTPS does not have its own LOCO facility, it has no other option but to engage the LOCO provided by the Railways for placement of wagons at the track hopper in order to facilitate unloading of coal.

The Corporation entered into a contract agreement with a contractor (June 2009) for various services including supervision of loading of coal at loading point and unloading at unloading point in respect of MTPS Units # 1 to 6. The value of the contract was ₹ 20.88 crore for a period of one year with a provision to extend it for further period. As per the provisions of the agreement, the contractor was to ensure loading of sized coal (below 200 mm) without any extraneous materials, boulders and slurry etc. at loading point. It was also stipulated that demurrage charges payable to Railways due to delay in unloading of coal was to be recovered from the contractor. However, there was no provision in the agreement towards recovery of EDC levied by the Railways from the contractor for such delay in unloading of rakes. The Corporation incurred EDC amounting to ₹ 35.31 crore during the period, June 2009 to January 2014.

Audit examination revealed that ₹ 24.25 crore of the EDC had arisen due to delay in unloading coal containing stone/boulders, oversized coal and slurry which was attributable to under performance of the contractor at the time of loading. As there was no provision in the agreement, the Corporation could not recover it from the contractor. Audit also observed that while finalizing the above contract, the management did not safeguard the financial interest of the Corporation as there was no clause in the agreement to recover EDC from the contractor on account of delay in unloading of coal. It was also observed that the above contract was extended from time to time, but the Corporation did not consider incorporation of a suitable clause towards recovery of EDC from the contractor.

The Corporation in its reply (July 2014) contended that EDC was in fact engine hiring charges and the same came under freight. They further stated that the same was recoverable from consumers and hence, there was no loss to the Corporation on account of EDC.

This contention is not acceptable as EDC is payable to Railways for detaining LOCO beyond the free time allowed whereas engine hiring charge is payable for the materials transported through Railway wagons from one station to another. Further, both EDC and demurrage charges were billed by Railways separately in addition to the freight bill. Their further contention that EDC was recoverable from consumers is also not acceptable as EDC did not form part of energy charges as prescribed by CERC and hence had to be borne by the Corporation.

Ministry stated (September 2014) that the provision for recovery of EDC was not kept in the terms of contract, because the same would have inflated the bidders' quoted price and consequently total contract cost, as nobody would bear such unavoidable cost. It was further stated that in case of non-occurrence of Engine Detention beyond free time (say unloading of good quality indigenous coal/imported coal) payment at inflated rate would have been criticized otherwise.

The above plea of the Ministry that any provision for recovery of EDC would have inflated the bidder's quoted price is not tenable as it was purely hypothetical and not based on detailed assessment of figures that could have been used by the contractor. It is also pertinent to note that the contractor would not have had to perform any additional work for avoidance of EDC. Moreover, the audit observation does not relate to the entire EDC but to the extent of EDC that was incurred due to failure on part of the contractor like recovery of demurrage. Thus, in the absence of appropriate clause in the agreement, the financial interest of the Corporation was not safeguarded. The fact that the Ministry stated that inclusion of EDC under contractor's scope would be reviewed during finalization of the scope of work for the next contract is also a tacit admission that there was deficiency in the agreement with the contractor.

Thus, the Corporation had lost the opportunity to recover ₹ 24.25 crore towards EDC arising out of under-performance of the contractor, due to absence of a suitable provision in the contract agreement.

4.3 Avoidable expenditure towards additional UI charges

Non adherence to IEGC Regulation for maintaining grid discipline by the Corporation led to an avoidable expenditure of ₹ 16.21 crore towards additional Unscheduled Interchange charges.

As per the System Security Aspects of The Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (IEGC Regulation), State Load Dispatch Centres (SLDCs) shall take all possible measures to ensure that the grid frequency always remains within the range from 49.5 to 50.2 Hz. band. For the purpose of the above regulation, Central Load Dispatch, Maithon (CLD) of the Corporation is to perform functions of SLDC and have the total responsibility for scheduling/ dispatching of its own generation. The CLD should also initiate action to restrict the drawal of power of its

command area, from the grid, whenever the system frequency falls to 49.7 Hz. It was also stipulated that in case the grid frequency is 49.5 Hz or below, CLD of the Corporation should ensure that requisite load shedding is carried out in its command area so that there is no over-drawal of power. CERC Regulation[1] stipulated that for every over-drawal or under-injection of power when the grid frequency is below 49.5 Hz, additional Unscheduled Interchange (UI) charges at a specified rate is applicable over and above the applicable UI charges[2].

Audit observed that during the period from April 2011 to March 2014, the Corporation overdrew power on various occasions when the grid frequency was 49.5 Hz or below for which it had to pay ₹ 16.21 crore towards additional UI charges. This indicated that the CLD of the Corporation did not take appropriate steps to restrict drawal of power in its command area while the grid frequency reached to 49.7 Hz and also did not resort to requisite load-shedding as prescribed by CERC even when the frequency fell to 49.5 Hz or below.

Management while admitting the fact of payment of additional UI charges stated (June 2014) that random load shedding could be done only in a limited quantum of load. Ministry, while endorsing the views of the Management, further added (October 2014) that the Corporation has been supplying power to some core sectors providing essential services and due to its criticiality load shedding was not resorted to.

The above statement of Management and Ministry has to be seen in the context of maintaining Grid Discipline. Drawal of power when the Grid Frequency was 49.5 Hz or below constituted a serious act of indiscipline. Such action, besides putting Grid stability to danger, also resulted in higher expenditure of ₹ 16.21 crore by way of additional UI charges.

Power Grid Corporation of India Limited

4.4 Incorrect evaluation and award of contracts to Joint Ventures led by a financially weak firm

Power Grid Corporation of India Limited (PGCIL) awarded seven tower contracts between February 2010 and July 2010, valuing ₹ 927.69 crore to joint ventures led by a financially weak firm based on incomplete evaluation by internal Assessment Committee resulting in cost overrun and delay in completion of works and transmission constraints.

PGCIL awarded seven tower contracts aggregating ₹ 927.69 crore to three Joint Ventures (JVs)[3] led by SPIC-SMO[4], a division of Southern Petrochemical Industries Corporation Limited (SPIC), Chennai during February to July 2010.

[1] ***Central Electricity Regulatory Commission (Unscheduled Interchange Charges and related matters Amendment) Regulations 2010 dated 28.04.2010***

[2] ***UI charge is a commercial mechanism to maintain grid discipline. The UI charges are payable depending upon what is deviated from the schedule drawal of power given by the power generators/distributors themselves and also subject to the grid conditions at that point of time.***

[3] ***(i) JV of SPIC-SMO & SUJANA (ii) JV of SPIC-SMO & ASTER and (iii) JV of SPIC-SMO & BS TRANSCOM***

[4] ***Maintenance Organisation Division of Southern Petrochemicals Industries Corporation Limited (SPIC), Chennai***

Award of first contract for tower TW-03 associated with system strengthening scheme for Sasan and Mundra UMPPs to Joint Venture of SPIC-SMO and SUJANA led by SPIC-SMO (L1 bidder) at ₹ 99.34 crore was approved (December 2009) by the Board of Directors (Board) of PGCIL based on the recommendation of the Management that the bidder had requisite capability and capacity to execute the contract.

Subsequently, in January 2010, while approving award of two more contracts for towers A2 and A8 associated with Central Part of the Northern Grid to JVs led by SPIC-SMO (being L1) at ₹ 201.59 crore, Board observed that though M/s SPIC met the bid evaluation criteria of Minimum Average Annual Turnover (MAAT) and Liquid Assets (LA), an assessment of SPIC was required to be carried out in view of their financial health before awarding further contracts. Accordingly, an internal Assessment Committee[♥] was constituted by PGCIL on 27 January 2010 *inter alia* to carry out assessment of SPIC-SMO including SPIC's financial analysis.

The Assessment Committee after visit to office of SPIC in Chennai in January 2010 reported (February 2010) that despite substantial losses in fertilizer business of SPIC during period 2004-05 to 2008-09, their net worth remained positive. However, it was noticed in audit that the Assessment Committee while calculating net worth of SPIC had ignored not only the accumulated losses of SPIC as appearing in their financial statements for the concerned periods, but also the impact of qualifications of the statutory auditors on financial statements of SPIC. If the impact of accumulated losses and qualification of statutory auditors was considered, the net worth of SPIC would have been 'Negative' as shown in the table below against 'Positive' reported by the Assessment Committee.

(₹ in crore)

Sl. No.	**Particulars**	**2008-09**	**Year ending March 2008 (18 months)**	**Year ending September 2006 (18 months)**	**2004-05**
1	Share capital	120.45	120.45	120.45	100.55
2	Reserves	237.71	237.71	237.71	101.45
3	Accumulated Profit (loss)	(1755.21)$	(880.32)^	(219.22)*	(325.51)
4	Net Worth (1+2-3)	(1397.06)	(522.16)	138.94	123.51

*** After considering qualification of statutory auditor amounting to ₹ 44.13 crore under para 5 (ix) of his report for the period. During the year accumulated loss of ₹ 533.79 crore were adjusted against Revaluation Reserve.**

^ As per Statutory Auditor's report under para 5 (vii) a & b

$ After taking into effect qualifications of Statutory Auditors' under para 4 (vii) a & b of their report

While reporting that SPIC had not been maintaining satisfactory financial health for the last two to three years, the Assessment Committee observed that financial position of SPIC had not impacted the operations of its SMO division which was responsible for erection of transmission lines under JV arrangement. Assessment Committee in addition to already awarded three contracts for tower packages, recommended award of four more contracts for towers D1, D2, A1 and A3 to JVs led by SPIC-SMO stating that the annualized value of the scope of work to be executed by SMO division of SPIC

[♥] ***Comprising representatives from Finance, Engineering and Contract Services departments of PGCIL***

aggregated to around 1.5 times of their turnover of ₹ 125 crore during 2009. Considering the report and recommendations of Assessment Committee, the Board approved (February to July 2010) award of four more tower contracts to JVs led by SPIC at ₹ 626.76 crore.

However, it was noticed in audit that just before the award of seven packages to the JVs led by SPIC, the debts of SPIC had been restructured under the Corporate Debt Restructuring Mechanism[♣] and a 'Rework Package' of SPIC was approved by Asset Reconstruction Company (India) Limited and other financial institutions in October 2009. The 'Rework Package' *inter alia* provided that SPIC should sell its SMO division on or before 31 March 2011. Thus, when Assessment Committee visited the office of SPIC in January 2010, SPIC was under an obligation to sell its SMO division as per 'Rework package'. The Assessment Committee's Report mentioned about approval of the restructuring scheme of SPIC but was silent on further details regarding impending sale of SPIC-SMO. SPIC-SMO was sold in September 2011 to M/s Mirador Commercial Private Limited (MCPL). Thus, uncertainties arising from change in ownership/management of SMO Division during the crucial period of execution of the projects were not brought to the notice of Board by Assessment Committee and consequently, Board was denied the opportunity to take an informed decision. Poor financial health and inadequate mobilization of resources by M/s SPIC was one of the significant reasons for delay in execution of contracts because the resources of SPIC were found by PGCIL (January 2011) to be overstretched and inadequate to achieve the desired rate of progress of works. After take over of SMO division of SPIC from August 2011 by MCPL, the latter was also reluctant to deploy resources for the above contracts leading to further delay in completion. Four out of seven contracts were completed with delays ranging from 22 to 30 months and three contracts are still under execution (March 2015) despite delays ranging from 23 to 38 months. Out of the four completed contracts, liquidated damages of ₹ 41.79 lakh had been levied on the contractor for delay on their part while decision by PGCIL on levy of liquidated damages in respect of remaining three contracts was awaited (March 2015). One out of the contracts under execution had to be terminated by PGCIL in May 2014 due to poor performance of contractor and was yet (December 2014) to be re-awarded leading to further delay.

Delay in completion of transmission lines under the above contracts not only led to cost over run of ₹ 53.50 crore but also constraints in transmission systems. It was observed in Audit that Talwandi Saboo and Rajpura thermal power stations had been synchronized in March 2014 but the associated transmission lines linked to towers A1 and A3 were commissioned in May 2014 and August 2014 respectively. National Load Despatch Centre *inter alia* observed (April 2014) constraints in evacuation of power due to delay in commissioning of Punjab transmission systems for evacuation of power from Talwandi Saboo and Rajpura thermal power stations. Severe constraints were observed in Wardha Parli and Wardha Akola Transmission lines due to non-commissioning of 400 kV Wardha Aurangabad transmission lines linked to tower contracts D1 and D2.

PGCIL stated (March 2013/March 2015) that (i) contracts were awarded to JVs of M/s SPIC-SMO and other tower manufacturers. In financial terms the share of responsibility

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[♣] ***The objective of Corporate Debt Restructuring or CDR introduced by Reserve Bank of India was to ensure timely and transparent mechanism for restructuring of corporate debts of viable entities facing problems for the benefit of all concerned.***

of M/s SPIC-SMO and tower manufacturers was approximately in the ratio of 45 *per cent* and 55 *per cent* (ii) though financial performance of SPIC was not very much encouraging at the time of assessment, the performance of their SMO division was satisfactory and was ring fenced (iii) facts as brought out by the Assessment Committee were deliberated by Board of PGCIL before approving the award of contracts in favour of JVs of SPIC and (iv) details of impending sale of SMO division of SPIC were not brought to the notice of Assessment Committee by SPIC.

The reply is to be viewed against the facts that (i) M/s SPIC-SMO was the lead partner in JVs responsible for critical and specialized nature of work *i.e.* tower erection and stringing. Moreover, in view of negative and deteriorating trend of their net worth, award of even 45 *per cent* share of responsibility in financial terms to SPIC was not free from risk of under-performance, (ii) as per Board's decision of January 2010, the Assessment Committee was required to carry out financial analysis of M/s SPIC as a whole and it was not appropriate to view the performance of SMO division in isolation, (iii) Board's decision was based on the report of Assessment Committee which provided incorrect information regarding net worth of SPIC and did not indicate the updated status of impending sale of SMO division to a new owner during crucial period of execution of the projects, and (iv) having been aware of the ongoing restructuring of SPIC, it was in the interest of PGCIL to update itself of the latest status of restructuring of SPIC from independent sources rather than relying solely on the inputs from SPIC.

Ministry stated (May 2014) that mention regarding positive net worth of SPIC in the report of Assessment Committee was inadvertent and would not have affected the final conclusion since PGCIL awarded contracts to Companies having negative net worth also. Ministry, however, acknowledged that change of ownership of SPIC-SMO and unwillingness of MCPL to execute the works contributed to delays. Ministry added that PGCIL had brought in systemic improvements and had introduced assessment of bidder's capacity by Standing Committee at Executive Director level, based on the contractor's performance in PGCIL contracts.

The fact remains that Board's decision was based on favourable recommendations of the Assessment Committee which downplayed the actual financial condition of SPIC and did not report crucial information about impending sale of SPIC-SMO.

Thus, furnishing incorrect and incomplete information by the Assessment Committee to the Board resulted in award of contracts to JVs led by a financially weak firm leading to cost overrun and delay in completion of awarded works along with transmission constraints.

Rural Electrification Corporation Limited

4.5 Loss of interest due to disbursement of soft loans under RGGVY

REC suffered loss of ₹ 153.36 crore upto December 2014 as it did not approach MoP to reimburse the differential interest on soft loans extended under RGGVY.

Ministry of Power (MoP), Government of India (GoI) notified (18 March 2005) Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY) and appointed Rural Electrification

Corporation Limited (REC) as nodal agency for implementation of the scheme. There was no specific condition stipulated by MoP for providing soft loans under RGGVY. However, at the time of launching of RGGVY, a brochure issued by MoP *inter alia* included that 'REC has been designated as the nodal agency for implementation of the programme. All funds for the programme would be channelized through REC, which apart from the capital subsidy being provided by the Government, would give the remaining funds, as loan assistance, on soft terms.'

Instead of approaching MoP for further directions on the rate of interest to be charged on the soft loans to be provided under RGGVY and requesting MoP to make good the differential interest rate between the normal lending rate and rate of interest chargeable on soft loans under RGGVY, REC on the basis of above brochure issued by MoP, in its Board of Directors (BoD) meeting (30 August 2005) decided on its own, to provide loans to the State Governments at 5 *per cent* rate of interest as against the then prevailing rate of 8 *per cent*. No cost and impact analysis was carried out while deciding to charge concessional rate of interest under the RGGVY.

The issue of soft term loans was deliberated again by the Board on 7 September 2007 and in view of the increased cost of loans under RGGVY, it was decided that the lending rates under RGGVY needed upward revision and might be kept softer by only 50 basis points than those being charged by REC under T&D schemes.

Till December 2014, REC had suffered a loss of ₹ 153.36 crore[♦] on account of charging interest at the rates less than the rates applicable to normal rates applicable on similar REC loans from time to time. The loss of interest would continue to increase further till repayment of outstanding balances of RGGVY loan and further disbursement/repayments of soft loan, if any. REC being a separate listed commercial entity should have taken up the issue of reimbursement of differential interest cost on soft loans under RGGVY with MoP.

The Management stated (December 2014) that:

- Rate of interest of 5 *per cent* was being charged on the loan given under 'Accelerated Electrification of One lakh villages and One crore households' scheme which was later merged with RGGVY. REC released ₹ 557 crore only at 5 *per cent* per annum interest rate for three years up to 9 September 2007. Thereafter, loans were released only at 0.50 *per cent* per annum lesser than the then prevailing lending rate for T&D schemes. The changed interest rate to 0.5 *per cent* lower than the prevailing rates of interest was sufficiently covering the cost of borrowing as well as adequate spread for REC.
- RGGVY has a social objective to electrify the rural households and REC is a GoI Enterprise and also the nodal agency of RGGVY. Moreover, all RGGVY loans

[♦] ***The loss of ₹ 93.88 crore is worked out on the basis of difference between prevailing rate of interest (8 per cent to 10.90 per cent) of REC at the time of loans disbursed under RGGVY and 5 per cent being the rate charged on RGGVY loans between 31 January 2005 to 08 August 2007 plus ₹ 59.48 crore worked out on account of charging of rate of interest softer by 50 basis points than the rate of interest under T&D schemes on loans disbursed between the period from 27 September 2007 to 31 December 2014.***

are sanctioned to the State Govt. and not to the utilities. Major beneficiaries of these loans have been states like Bihar, Uttar Pradesh, Assam, Jharkhand etc. and the financial health of power sector in these states is in bad shape since these states are not able to develop the infrastructure due to lack of finance.

- The Government is supporting REC by allowing it to raise funds through Section 54EC capital gain tax exemption bonds and Section 88 Infrastructure Bonds at low rate.

The reply of the Management is to be viewed against the facts that:

- Adoption of rate of interest of 5 *per cent* charged under erstwhile scheme without any impact analysis under RGGVY was not justified. Further, MoP had not directed REC to bear the loss on account of extending soft loans under RGGVY. Even after enhancement of interest rate on RGGVY loans from 10 September 2007, REC suffered a loss of around ₹59.48 crore.
- REC confirmed that in the absence of CSR concept in existence at that time they were unable to claim the differential cost of soft loans as CSR expenditure. Therefore, it was desirable for REC to have first safeguarded its commercial interests before disbursing soft loans.
- The benefit of Section 54EC capital gain tax exemption bonds was available to REC even before the launch of RGGVY and MoP did not provide means of raising cheaper funds to REC as a compensation for soft loan to be disbursed by REC under RGGVY.

Thus, REC suffered a loss of ₹ 153.36 crore upto December 2014 as it did not approach MoP to reimburse differential interest on soft loans extended under RGGVY. The loss would further increase till the existing loan is fully repaid as well as depending upon further soft loan disbursements, if any, under RGGVY in future.

The matter was reported to the Ministry in December 2014; their reply was awaited (March 2015).