

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

**I.A. Nos. 34/2015 and 5/2016
in
Petition No. 205/MP/2011**

**Coram:
Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

**Date of Hearing: 06.1.2016
Date of Order: 03.8.2016**

In the matter of

Application for restoration of the petitioner for passing consequential orders to judgment dated 13.1.2014 of the Appellate Tribunal for Electricity.

And

In the matter of

Meenakshi Energy Private Limited
Meenakshi House, 8-2-418,
Road No. 7, Banjara Hills,
Hyderabad- 500 034.

..... Petitioner

Vs

1. Southern Regional Load Despatch Centre
29, Race Course Cross Road,
Bangalore-560 009
2. Power System Operation Corporation Limited
B-9, Qutab Institutional Area,
Katwaria Sarai,
New Delhi-110 016
3. Power Grid Corporation of India Ltd.
Sakudamini, Plot No. 2, Sector 29, Gurgaon-122 001
Haryana
4. Southern Regional Power Committee
29, Rae Course Cross Road,
Bangalore-560 009

5. Simhapuri Energy Private Limited
Madhucon Greenlands, 6-3-866/2
3rd Floor, Begumpet,
Hyderabad-500 016

...Respondents

Parties Present:

Shri Sitesh Mukherjee, Advocate for the petitioner
Shri Deep Rao, Advocate for the petitioner
Shri Jafar Alam, Advocate for the petitioner
Shri Himanshu Mishra, MEPL
Shri Apoorva Mishra, Advocate, SEPL
Shri Rohit Venkat, Advocate, SEPL
Shri Patwardhan, Advocate, SEPL
Shri V. Suresh, SRLDC
Ms. Jyoti Prasad, PGCIL

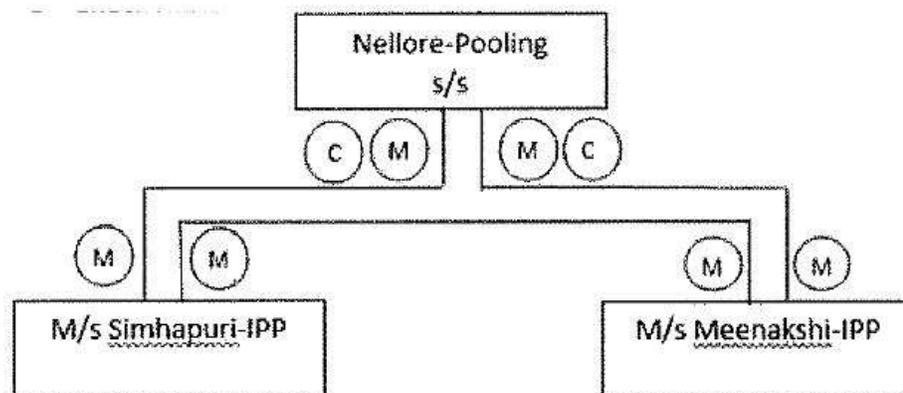
ORDER

Meenakshi Power Limited (MEPL) has filed the present IA No. 34/2015 seeking direction to Southern Regional Load Despatch Centre (SRLDC) to propose and place a suitable arrangement in consultation with the petitioner and Respondents No. 2 to 5 to facilitate the independent scheduling and metering of the entire capacity of the petitioner's generating station in terms of the direction of the Hon'ble Appellate Tribunal for Electricity (Appellate Tribunal).

2. The Appellate Tribunal vide its judgment dated 13.1.2014 in Appeal No.16 of 2013 directed the Commission to devise a suitable arrangement for carrying out scheduling, despatch, metering and energy accounting including UI accounting independently and separately for the generating stations of MEPL and Simhapuri Energy Private Limited (SEPL), and permitted the continuation of the present transmission scheme and metering arrangement (present arrangement) till devising of a suitable arrangement by the Commission for independent scheduling and energy accounting. The present arrangement in the line diagram is as under:

M - Special Energy Meter

C -- Check Meter



3. The petitioner has submitted that under the present arrangement, metering for the generating stations of MEPL and Simhapuri Energy Private Limited (SEPL) is not being carried out separately and independently by SRLDC and POSOCO as per the direction of the Appellate Tribunal. However, metering for the generating stations is being carried out jointly by MEPL and SEPL and the energy data in a worksheet is being sent by them to SRLDC and POSOCO. The petitioner has submitted that the following facts have led to filing of this petition:

- (a) MEPL is developing 1000 MW coal based thermal generating station near Krishnapatnam Port, Andhra Pradesh. The first phase (150x2) of the generating station has achieved COD and second phase (350x2) of the generating station is under construction. PGCIL granted LTA to MEPL through PGCIL's Nellore sub-station as per the terms and conditions of the BPTA dated 24.12.2010 which was subsequently amended on 2.1.2012. Simultaneously, PGCIL also granted LTA to SEPL through its Nellore sub-station. PGCIL devised a transmission scheme with a common evacuation system for the generating stations of MEPL and SEPL.

(b) MEPL vide its letter dated 21.5.2010 informed PGCIL that MEPL and SEPL mutually agreed to modify and build the requisite common evacuation system for their generating stations. Accordingly, PGCIL vide its letter dated 15.7.2011 approved the modified common evacuation system and agreed to incorporate it in the BPTAs. After construction of the common evacuation system, MEPL and SEPL were directed to sort out issues pertaining to scheduling, metering, UI, etc., in consultation with SRLDC.

(c) Based on the stand taken by SRLDC in the meeting of the Commercial Sub-Committee of the SRPC held on 21.6.2011 that common scheduling and accounting would be done for the two generating stations at their common injection point at Nellore and the decision taken by POSOCO vide its letters dated 24.8.2011 and 4.10.2011 considering the generating stations of MEPL and SEPL as a single entity and establishing a 'coordinator centre' to deal with issues of scheduling and despatch, metering and energy accounting including for UI purposes by mutual agreement, the petitioner filed Petition No. 205/MP/2011 seeking directions to SRLDC and POSOCO to carry out the separate and independent scheduling, despatch, metering, energy accounting including UI accounting for the generating stations of MEPL and SEPL.

(d) The Commission vide order dated 9.10.2012 *inter alia* held that the generating stations of MEPL and SEPL be treated as independent and separate for the purpose of scheduling, despatch, metering, energy accounting including UI computation and directed MEPL and SEPL to open the inter-connection line so that

the transmission lines connecting their respective power plants to the Nellore sub-station operate as an independent dedicated transmission line. Aggrieved by the Commission's order dated 9.10.2012, MEPL filed Appeal No.16 of 2013 before the APTEL on the ground that without the inter-connection line, MEPL's generating station would not be able to evacuate power in the eventuality of a breakdown in the dedicated transmission line connecting its generating station to the Nellore sub-station and the resultant transmission system would be in violation of the n-1 principle encapsulated in Regulation 3.5 of the Grid Code and para 6.2.1.a of the CEA Transmission Planning Criteria. APTEL vide its judgment dated 13.1.2014, set aside this Commission's order and directed the Commission to devise a suitable arrangement for independent scheduling and energy accounting including UI accounting for generating stations of SEPL and MEPL.

4. The petitioner has requested to direct SRLDC to propose a suitable arrangement in consultation with SRPC, POSOCO, PGCIL, SEPL and MEPL, to enable and facilitate the independent scheduling and energy accounting for the MEPL's generating station. In doing so, SRLDC, Respondent No. 1 to 4 ought also to ensure that the present arrangement in place is adequate for its secure operation and evacuation of the entire capacity of both MEPL and SEPL's generating stations, i.e. 1000 MW of MEPL's generating station and 600 MW of SEPL's generating station, as Respondent Nos. 1 to 4 are statutorily obliged to ensure under the Electricity Act, 2003.

I.A. No. 5 of 2016

5. The petitioner has filed IA No. 5/2016 seeking expeditious disposal of the I.A. No. 34 of 2015 and seeking permission to draw start-up power till a suitable arrangement for carrying out scheduling, despatch, metering and energy accounting including UI accounting independently and separately for the generating stations of MEPL and SEPL is implemented and operationalized by SRLDC in consultation with SRPC, POSOCO and PGCIL.

6. The facts and circumstances leading to the filing of the present IA are set out below:

(a) In order to expedite the implementation and operationalization of an N-1 compliant evacuation scheme, MEPL has taken the initiative to design an appropriate scheme for the independent scheduling, despatch, metering and energy accounting including UI accounting for the entire capacity of the generating stations of MEPL and SEPL (proposed arrangement) in line with the methodology proposed by the Appellate Tribunal.

(b) The proposed arrangement is an efficient scheme for the independent scheduling, despatch, metering and energy accounting including UI accounting for the entire capacity of the generating stations of MEPL and SEPL and is in compliance with all applicable laws and regulations including Regulation 3.5 of the Grid Code and Manual on Transmission Planning Criteria, of CEA, which *inter alia* requires that a transmission system should be able to evacuate power even during the outage of a 400 kV single circuit transmission line. Further, the proposed arrangement is in accordance with the transmission scheme approved by PGCIL

and SRLDC vide their letters dated 15.7.2011 and 13.3.2013 respectively. The proposed arrangement is based on the existing scheme duly adjusted for increase in number of generators feeding the grid and the change in location of the outgoing transmission lines due to its shift to Phase II switchyard.

(c) Since the proposed arrangement is in terms of the APTEL's Judgment which was not challenged by any party and has attained finality, the Commission should issue appropriate directions to the Respondents to implement and operationalize the proposed arrangement.

(d) SEPL has consistently maintained that it will cooperate with MEPL to implement and operationalize a suitable joint evacuation scheme for the independent scheduling, despatch, metering and energy accounting including UI accounting for the entire capacity of the generating stations of MEPL and SEPL.

(e) MEPL requires start up power by July, 2016. However, SRLDC, in the 108th Meeting of the OCC, has taken a view that MEPL can avail start-up power only if MEPL and SEPL have implemented and operationalized an N-I compliant evacuation scheme for their generating stations.

(f) If the proposed arrangement or a suitable evacuation scheme is not implemented at least by July, 2016, MEPL would be gravely prejudiced. Since, the delay in the implementation of a suitable evacuation scheme would result in undue delays in the establishment of Phase-II and lead to an increase in project costs, MEPL ought to be permitted to draw start-up power from July, 2016 onwards.

MEPL has requested to issue appropriate directions to the Respondents till the proposed arrangement, or a suitable evacuation scheme is implemented.

7. Reply to the IAs has been filed by SEPL. The petitioner has filed its rejoinders. SEL, vide its reply affidavit dated 1.4.2016 to I.A. No. 34/2015 has submitted as under:

(a) In terms of the proposed arrangement, SEPL is compliant with all regulatory requirements including the N-I criteria as prescribed by CEA.

(b) SEPL has no objection to the restoration of present IA so far as it pertains to the implementation of the Appellate Tribunal's Judgment based on (i) The then existing capacity of both generating stations; (ii) The existing line bay equipment of MEPL and SEPL (2000 Amp), and (iii) The existing 400 kV transmission lines.

(c) The subject matters of the present IA and before the Appellate Tribunal only dealt with the issue of a suitable arrangement for independent metering, scheduling, etc., for the then existing capacities of each of the generating stations of MEPL and SEPL.

(d) According to MEPL, PGCIL granted LTA to MEPL for ISTS through PGCIL's Nellore sub-station as per the terms and conditions of BPTA dated 24.12.2010 which was amended on 2.1.2012 and copy of the same has been annexed as Annexure -2 to the Application. On perusal of the said Annexure, MEPL seems to have filed another BPTA agreement dated 24.2.2010 entered into between MEPL, SEPL and PGCIL. The amendment agreement dated 2.1.2012 is to amend the

BPTA dated 24.12.2010 and copy of the same has not been placed on record by MEPL. SEPL was never a party to the BPTA dated 24.12.2010.

8. SEPL has vide its reply affidavit dated 1.4. 2106 to the I. A. No. 5/2016 has submitted as under:

(a) Since the issues in the present I.A. and before the APTEL are completely different, IA is not maintainable.

(b) MEPL vide Record of Proceedings for the hearing held on 8.3.2016 was directed to approach SRLDC for permission to draw start-up power in accordance with the relevant regulations and if there is any technical issue, the same would be dealt with SRLDC. Therefore, the issue regarding start-up power has already been settled.

(c) In terms of the BPTA dated 24.2.2010, SEPL is complying all legal and statutory requirements for the evacuation of power from its generating station and there is no requirement to install the 3000 Amp rated bay equipment as contended by MEPL.

(d) SEPL is complying with the provisions of the BPTA dated 24.2.2010 and N-I criteria.

(e) SEPL is not a signatory to the BPTA dated 24.12.2010, and has only signed the amended BPTA dated 2.1.2012, since it is part of a common transmission system.

The BPTA does not talk about the cost of modifying its switchyard and associated systems for evacuation of power by MEPL.

(f) Assuming without admitting that SEPL has to modify its switchyard and associated systems for evacuation of power by MEPL, SEPL is willing to undertake the exercise of modifying its switchyard and associated systems for evacuation of power by MEPL, provided that MEPL bears all the expenses for the same including all consequential losses if any but not limited to shut down/ tripping of units, etc. and MEPL settles the past expenses incurred by SEPL on developing the common transmission systems, as per the understanding of Rs. 15.55 crore payable by MEPL, between MEPL and SEPL during the construction stage of the Project. In this regard, SEPL vide its letter dated 31.3.2016 requested MEPL to settle all outstanding amounts along with a detailed computation.

(g) The diagram annexed to the letter dated 15.7.2011 of PGCIL states that the total capacity of MEPL is 900 MW and not 1000 MW as pleaded by MEPL.

(h) MEPL is relying on the minutes of OCC meeting dated 25.6.2015, which were not issues before the Commission or the APTEL. If MEPL is aggrieved by the decision of the OCC, then there is a remedy available to MEPL to challenge the said decision before the appropriate forum and the same cannot be raised in the present I.A.

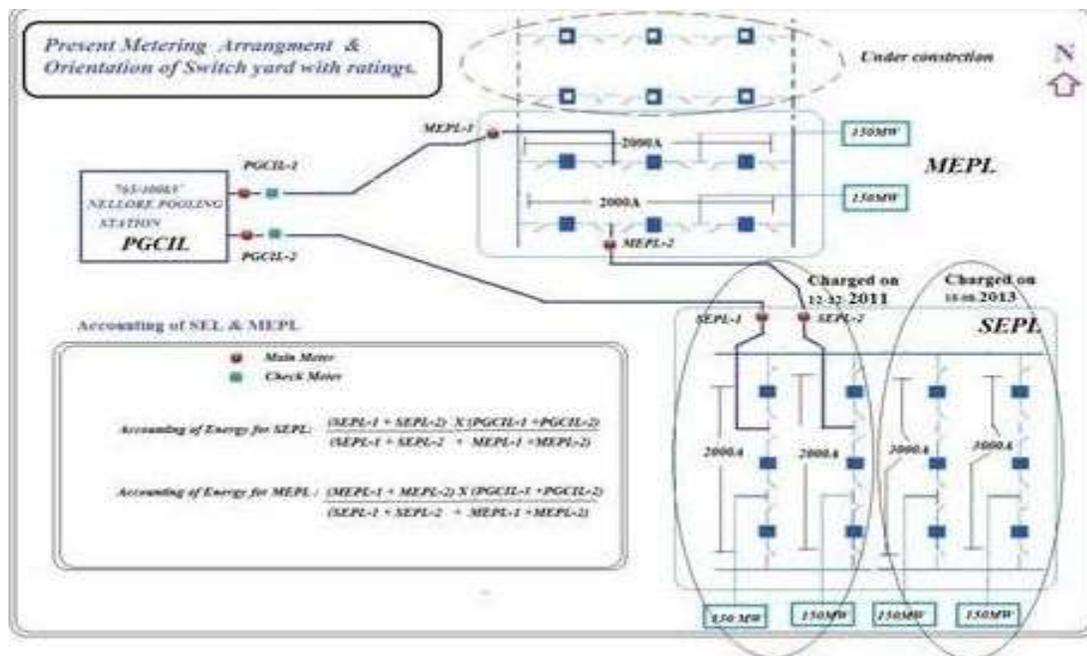
9. As per the Commission's direction dated 8.3.2016, Chief (Engg.) of the Commission convened a meeting on 16.3.2016 with the petitioner, SEPL, CTU,

SRLDC, and SRPC to discuss all the issues raised by the petitioner. The following issues were discussed in the said meeting dated 16.3.2016:

10. **Issue No. 1:** Methodology for metering arrangement for energy accounting independently for MEPL and SEPL: The representative of MEPL submitted that both MEPL and SEPL consented on the transmission scheme jointly and submitted to PGCIL and PGCIL vide letter dated 15.7.2011 approved the same. During finalisation of jointly consented power evacuation arrangement, parties were cognizant of their respective capacities of 1000 MW (MEPL) and 600 MW (SEPL). The representative of MEPL further submitted that its generating station consists of 2 Phases with $2*150MW+1*300MW=600MW$ in Phase-I and $1*300MW$ in Phase-2. Similarly, SEPL also has two phases i.e. $2*150MW=300MW$ in Phase-I and $1*300MW=300MW$ in Phase-2. It was originally envisaged that when Phase-2 would be commissioned, the outgoing line from MEPL and SEPL up to Nellore Pooling Station shall be connected with a 3000A bay rather than 2000A bay. The required 3000A bay is already available in MEPL and SEPL switchyards. The shifting of tower associated with MEPL-Nellore line for connection with 3000A bay has already been carried out by MEPL. However, the same has not been done by SEPL for SEPL-Nellore line. In case of outage of MEPL-Nellore line, the N-1 criteria for evacuation of power from both phases of MEPL and SEPL are not satisfied. SEPL should carry out the modification expeditiously.

11. The representative of SEPL submitted that the current system of metering is adequate for both the generating stations and also PGCIL end for the present generation of power and there is no more requirements from SEPL and MEPL for

carrying out scheduling, dispatch, metering and energy accounting including UI accounting independently and separately to treat both the generating stations as independent generating stations. He further submitted that as per diagram below, SEPL switchyard and other equipment's were completed and charged by the years, 2011 and 2013. Any proposal of augmentation of the same to meet N-1 requirement of MEPL for its enhanced capacity, causes huge expenditure apart from possibility of tripping/stopping of power including break down of other equipment's. Moreover, MEPL has not yet reimbursed its share of costs to SEPL for establishment of double circuit line established on the basis of initial capacity of each 600 MW of SEPL and MEPL.



12. The representative of SEPL submitted that there is the issue of techno commercial settlement by MEPL including provision of reimbursement of additional 400 MW (1000-600 MW) power evacuations by MEPL through double circuit line which has been constructed with equal ownership. There are difficulties in modification and

shifting of SEPL lines from Phase-1 to Phase-2 as the generating station of SEPL is fully operational now.

13. The representative of SRLDC submitted that presently scheduling, despatch and energy accounting are being done independently. The apportionment of injection is being done based on the joint certification of meter reading of inter-connector. If the Commission issues suitable direction, the procedure of joint certification can be avoided by using the meter readings directly by SRLDC. For this purpose, Check Meter and Main Meter should be installed by CTU at outgoing lines of MEPL and SEPL. He further submitted that as per the prevailing PoC Regulations, the transmission loss in the dedicated line/dedicated common system shall be borne by the generator. Accordingly, both MEPL and SEPL shall bear the transmission losses proportional to their respective injection. The representative of SRLDC submitted each out going feeder of MEPL and SEPL shall have both main and check meters at their respective end. In addition, HV side of all the GTs shall be fixed with SEM meters as standby meter for computation in the event of CVT faulty condition. The representative of SRLDC further submitted that the computation methodology recommended by CTU as brought out in para 9 (7) (E) of APTEL judgment dated 13.1.2014 can be continued as it ensure proper apportionment and dispute free accounting. This metering arrangement shall overcome the difficulties expressed by both MEPL and SEPL as well as takes care of any of the known contingencies of failures. The representative of SRLDC submitted SEM meters are required to be installed by MEPL and SEPL in co-ordination with CTU.

14. The representative of SRPC submitted that total energy injected by MEPL+SEPL Complex at Nellore Pooling Station would be appropriated between MEPL and SEPL in pro-rata based on the reading of 400 kV SEM installed as MEPL-NPS, SEPL- NPS and MEPL - SEPL. In terms of the provisions of CEA Metering Regulations, both MEPL and SEPL being regional entity would require installing SEM at HV side of GT and ST as Stand-By Meters and Check Meters on MEPL-NPS, SEPL-NPS and MEPL-SEPL.

15. **Issue No. 2:** Start-up Power drawl by MEPL: The representative of MEPL submitted that Phase-2 of MEPL is likely to be commissioned by July, 2017 and need start-up power from July, 2016. Electrical scheme including metering scheme is one of the pre-requisites of filing application for start-up power. In the OCC meeting of SRPC, the representative of SRLDC stated that the start-up power for MEPL Phase –2 would be permitted only if MEPL and SEPL ensures necessary modification/changes to be attended in the power evacuation system of dedicated portion complying N-1 criteria. The representative of MEPL submitted that detailed procedure for start-up power does not mandate the requirement of N-1 compliance. Phase–2 has two units and this issue is applicable only on commissioning of second unit of Phase–2. As per CTU approval for connectivity, the entire generation of 1000 MW was considered and a tri-party agreement was executed accordingly. The representative of MEPL requested the Commission to give suitable direction to SEPL for shifting of bay and direction to SRLDC / SRPC for permitting start-up power from UI pool as the entire quantum of generation at present is already contracted. The representative of MEPL submitted that since MEPL has arrangement of imported coal for Phase-1 and domestic coal for

Phase-2, SRLDC should carry out unit-wise scheduling for its generating station so that necessary commercial arrangement of energy is taken care of.

16. The representative of SRPC submitted as under:

(a) There would be only N-1 violation due to bay constraint in SEPL switchyard for injection of power from MEPL+SEPL Complex rather than drawl of power for start-up activity by MEPL.

(b) Total Power evacuation with MEPL bay capacity of 3000A and SEPL bay capacity of 2000A would be in order of 1350 MW ($1.732 \times 400 \times 2000 \times 0.98$) /1000 with N-1 of 400 kV MEPL- NPS line.

(c) The present configuration may carry up to 1350 MW for satisfying N-1 criteria. For facilitating full evacuation of 1000MW + 600MW, it needs shifting of bays of outgoing feeders of MEPL and SEPL.

(d) In case 400 kV SEPL - NPS line is emanating from 2000A bay of SEPL then total power from MEPL+SEPL complex with N-1 (contingency of MEPL - NPS hitting constraint on SEPL bay of 2000A) would need to be restricted to 1350 MW.

(e) The restriction would need to be done at scheduling stage by SRLDC in line with the Open Access Regulations.

17. The representative of SRLDC submitted that without finalizing the bay shifting issue, it may not be prudent to avail start-up power as the ultimate goal of availing start-

up power is to get COD in which case evacuation of generating unit could not be ensured under N-1 criteria.

18. In the meeting, the following was decided and agreed upon by the participants:

(a) Both MEPL and SEPL shall separately file copies of BPTA signed by them.

(b) If any modification is required to be done by SEPL in the mutually agreed transmission scheme to meet N-1 criteria, the same should be done by SEPL as it would be beneficial for MEPL, SEPL and the entire system.

(c) MEPL and SEPL shall convene a meeting within 15 days to resolve the issues and come out with amicable solution facilitating full generation of MEPL and SEPL without compromising N-1 security criteria and shall inform the Commission separately within 15 days thereafter.

(d) MEPL and SEPL would co-ordinate with CTU for necessary guidance and facilitation.

(e) In case, the issue is not resolved mutually, the Commission would take a call.

(f) With regard to start-up power, MEPL was advised to apply for start-up power in the specified format and SRLDC was directed to process the application as per the Commission`s approved procedure/relevant Regulations. During commissioning of units, the evacuation shall be limited as per network permissibility without compromising grid security.

Analysis and Decision:

19. We have considered the submissions of the petitioner and the respondents. Appellate Tribunal vide its judgment dated 13.1.2015 directed the Commission to devise a suitable arrangement for carrying out independent scheduling, dispatch, metering and energy accounting including UI accounting in relation to the generating stations of MEPL and SEL. The relevant portion of judgment of Appellate Tribunal dated 13.1.2015 is extracted as under:

“65. Therefore, we direct the Central Commission to devise a suitable arrangement for carrying out independent scheduling, dispatch, metering and energy accounting including UI accounting in relation to the power stations of the Appellant and Simhapuri Energy Pvt. Ltd. (R6). Till the Central Commission devises the arrangement for independent scheduling and energy accounting of the two generating stations, the arrangement decided by this Tribunal in the interim order dated 1.3.2013 shall continue.”

20. As per our direction, Chief (Engg), convened a meeting on 16.3.2016 with the representatives of MEPL, SEPL, CTU, SRLDC, and SRPC to discuss the issues. We have perused the minutes of the meeting held on 16.3.2016. The following issues arise for our consideration:

(a) Issue No. 1: What should be the suitable mechanism for carrying out independent scheduling, dispatch, metering and energy accounting including UI accounting in relation to the power stations of the petitioner and SEPL?

(b) Issue No. 2: Whether SEPL should implement and operationalize the scheme mutually agreed and implement the necessary modifications required, if any, in order to ensure N-I compliance on the common dedicated transmission scheme?

(c) Issue No. 3: Whether the petitioner should be allowed to draw start-up power till a suitable arrangement for carrying out scheduling, despatch, metering and energy accounting including UI accounting independently and separately for the generating stations of the Petitioner and SEPL is implemented and operationalized?

The above issues have been dealt with as under:

Issue No. 1: What should be the suitable mechanism for carrying out independent scheduling, dispatch, metering and energy accounting including UI accounting in relation to the power stations of the petitioner and SEL?

21. In pursuance of the Appellate Tribunal judgment dated 13.1.2014, the petitioner has filed I.A. No. 34/2015 seeking direction to SRLDC to propose a suitable arrangement in consultation with SRPC, POSOCO and PGCIL, as per their respective statutory obligations as well as SEPL to enable and facilitate the independent scheduling and energy accounting for generating stations of MEPL and SEPL. According to the petitioner, in order to expedite the implementation and operationalization of N-1 compliant evacuation scheme, initiative has been taken to design an appropriate scheme for the independent scheduling, despatch, metering and energy accounting including UI accounting for the entire capacity of the generating stations of MEPL and SEPL in line with the methodology proposed by the Appellate Tribunal. The petitioner has submitted that the arrangement proposed by it is an efficient scheme for the independent scheduling, despatch, metering and energy accounting including UI accounting for the entire capacity of the generating stations of MEPL and SEPL and is in compliance with all applicable laws and regulations including Regulation 3.5 of the Grid Code and the Transmission Planning Criteria of CEA, which *inter alia*

requires that a transmission system must be able to evacuate power even during the outage of a 400 kV single circuit transmission line. The petitioner has stated that the proposed arrangement is in accordance with the transmission scheme approved by PGCIL and SRLDC vide their letters dated 15.7.2011 and 13.3.2013 respectively. The proposed arrangement is based on the existing scheme duly adjusted for increase in number of generators feeding the grid and the change in location of the outgoing transmission lines due to shifting of Phase-II switchyard. The petitioner has submitted that the proposed arrangement suggested by the Appellate Tribunal was not challenge by any party and has attained finality. The petitioner has requested to direct the respondents to implement and operationalize the proposed arrangement.

22. During the meeting held on 16.3.2016 the representative of SEPL stated that the current system of metering is adequate for both the generating stations and also PGCIL end for the present generation of power and there is no requirements from SEPL and MEPL for carrying out scheduling, dispatch, metering and energy accounting including UI accounting independently and separately to treat both the generating stations as independent generating stations. The representative of SRPC stated that MEPL and SEPL being regional entity would require installing Special Energy Meter (SEM) at High Voltage (HV) side of GT and ST as Stand-By Meters and Check Meters on the line connecting MEPL- Nellore Pooling Station, SEL- Nellore Pooling Station and MEPL - SEPL as per CEA Metering Regulations. The representative of SEPL further stated that total energy injected by MEPL+SEPL Complex at Nellore Pooling Station would be appropriated between MEPL and SEPL in pro-rata based on the reading of 400 kV SEM installed at MEPL - Nellore Pooling Station, SEPL - Nellore Pooling Station and

MEPL-SEPL. The representative of SRLDC submitted that presently scheduling, despatch and energy accounting are being done independently. The apportionment of injection is being done based on the joint certification of meter reading of interconnector. The representative of SRLDC submitted if the Commission issues suitable direction, the procedure of joint certification can be avoided by using the meter readings directly by SRLDC. As per the prevailing PoC Regulations, the transmission loss in the dedicated line shall be borne by the generator. Accordingly, both MEPL and SEPL shall bear the transmission losses proportional to their respective injection. Further, each outgoing feeder of MEPL and SEPL shall have both Main and Check Meters at their respective end. In addition HV side of all the GTs shall be fixed with SEM meters as Standby Meter for computation of energy in the event of Capacitor Voltage Transformer (CVT) faulty condition. The representative of SRLDC submitted that the computation methodology recommended by CTU should be continued as it ensures proper apportionment and dispute free accounting. This metering arrangement shall overcome the difficulties expressed by both MEPL and SEPL as well as takes care of any of the known contingencies of failures.

23. We have considered the submissions of the petitioner and the respondents. As per Regulation 7 of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time, the generating station is required to provide Main Meter on all outgoing feeders, Check Meter on all outgoing feeders and Standby Meter at (i) High Voltage (HV) side of the Generator Transformer and (ii) High Voltage (HV) side of all Station Auxiliary Transformers. Accordingly, MEPL and SEPL are directed to install meters as per the provisions of Central Electricity

Authority (Installation and Operation of Meters) Regulations, 2006. MEPL and SEPL are directed to install SEMs in co-ordination with CTU and the cost of installing such meters shall be borne by them. Accordingly, SRLDC shall consider all such meters for energy accounting.

24. SRLDC during the meeting held on 16.3.2016 stated that presently scheduling, despatch and energy accounting of the generating stations of MEPL and SEPL are being done independently. Since we have decided that main/check meter is to be installed by CTU on all outgoing feeders of each generating station, there is no need of joint certification. We direct SRLDC to carry out independent scheduling, dispatch, metering and energy accounting including UI accounting of the generating stations of MEPL and SEPL. The acceptance meeting formulae currently in practice as submitted by MEPL is annexed to this order as **Annexure A**.

Issue No. 2: Whether SEPL should implement and operationalize the scheme mutually agreed and implement the necessary modifications required, if any, in order to ensure N-I compliance on the common dedicated transmission scheme?

25. The petitioner has submitted that MEPL and SEPL entered into a BPTA on 24.10.2010 which was amended on 2.1.2012. In pursuance of the BPTA, MEPL and SEPL mutually developed a 400 kV (quad) D/C transmission line and associated facilities to the point of connection at CTU's sub-station at Manabolu, Nellore, as a dedicated transmission line as approved under LTA and BPTA. Subsequently, after establishment of Nellore Pooling station, D/C line was diverted from 400 kV Manabolu sub-station to 765/400 kV Nellore Pooling sub-station (NPS). Once total capacities of both MEPL and SEPL come in operation, total power generation would become 1600

MW and after excluding the auxiliary power (10% of 1600 MW), the balance 1440 MW net power would be available for evacuation through the system. The petitioner has contended that SEPL has already commissioned both phases with installed capacity of 600 MW and MEPL is in the process of establishing Phase-II (2x350MW). The petitioner has submitted that as long as both circuits of 400 kV transmission lines are in service, the respective line bay equipment of MEPL and SEPL is suitably rated (2000Amp) to evacuate the power from the Phase-I of the respective generating station and the same are operating in compliance with N-I requirement of CEA`s guidelines. The petitioner has stated that in case of tripping of either of MEPL-NPS line, entire power from MEPL and SEPL would flow through SEPL-NPS inter-connector line and *vice-versa* and in such case the total current flowing through the circuit would be more than 2000 Amp. According to the petitioner, the transmission lines from MEPL and SEPL to NPS have quad moose conductors having more than 2400 Amps current carrying capacity which is adequate for carrying the total current in case of tripping of either circuit. In order to n-I compliant, the bay and end equipment connected to these lines should also have rated capacity of more than 2400Amp which is not the case. The petitioner has submitted that to overcome the above bay equipment capacity limitation, both, MEPL and SEPL, in terms of the mutually agreed metering scheme, submitted to and approved by PGCIL and in furtherance of which the amendment dated 2.1.2012 was made to the BPTA, undertook to install line equipment of 3000Amp rating in Phase-II of both generating stations upon commissioning of each of their respective Phase-II. The petitioner has submitted that it is in advance phase of completing the agreed installation of equipment. However, SEPL has not yet installed 3000Amp rated

bay equipment, line side equipment viz. LA, WT, CVT, line isolator, or such shifting of towers and changing the relay setting, etc., at its end. As a result, once Phase-II of the petitioner's generating station is commissioned, the Common Transmission Facilities would not be N-1 compliant in terms of the CEA's guidelines for transmission systems. The petitioner has submitted that as per the CEA's guidelines N-1 compliance is the collective responsibility of both parties and failure to make the requisite changes at both ends would render the common transmission system non-compliant with the N-1 criteria.

26. SEPL has submitted that Appellate Tribunal vide interim order dated 1.3.2013 had formulated an interim arrangement for the purpose of scheduling, dispatch, metering and energy accounting for the generating stations of MEPL and SEPL. The arrangement formulated by the Appellate Tribunal treats both the generating stations of MEPL and SEPL as independent and separate and in terms of the arrangement formulated by the Appellate Tribunal, SEPL is complying with all regulatory requirements including the N-1 criteria. SEPL has submitted that it has no objection to the restoration of Petition No. 205/MP/2011 so far as it pertains to the implementation of judgment of the Appellate Tribunal based on the then existing capacity of both the generating stations, the existing line bay equipment of MEPL and SEPL (2000Amp) and the existing 400 kV transmission line. SEPL has submitted that PGCIL granted LTA to MEPL through NPS as per the terms and conditions of BPTA dated 24.12.2010 which was amended on 2.1.2012. However, the petitioner has filed another BPTA agreement dated 24.2.2010 entered into between MEPL, SEPL and PGCIL. The amendment agreement dated 2.1.2012 is to amend the BPTA dated 24.12.2010 and copy of the

same has not been placed on record by the petitioner. SEPL has contended that it was not a party to the BPTA dated 24.12.2010 and only signed amended BPTA dated 2.1.2012 as SEPL was part of the common transmission system. SEPL has submitted that the BPTA does not talk about the cost of modifying its switchyard and associated system for evacuation of power by MEPL. SEPL has submitted that assuming without admitting that it has to modify its switchyard and associated systems for evacuation of power by MEPL, it is willing to undertake the exercise of modifying its switchyard and associated systems for evacuation of power by MEPL, provided that MEPL bears all the expenses for the same including all consequential losses if any but not limited to shut down/ tripping of units, etc. and further, MEPL settles the past expenses incurred by SEPL on developing the common transmission systems. SEPL has submitted that as per the understanding, MEPL is required to pay Rs. 15.55 crore and in this regard SEPL vide its letter dated 31.3.2016 requested MEPL to settle all outstanding amounts along with a detailed computation.

27. The petitioner vide its affidavit dated 1.4.2016 has submitted that the present IA and the order of the Appellate Tribunal dated 13.1.2014 expressly recognizes that the capacity of MEPL's generating station is 1000MW. Therefore, the transmission scheme to be implemented ought to be adequate to evacuate the entire generation capacity of the generating stations of MEPL and SEPL. The petitioner has contended that SEPL's conditional support is untenable in law as the N-1 requirement is a binding regulatory requirement under the Grid Code and the guidelines of CEA. Since, the implementation of a suitable transmission scheme is necessary to comply with the N-1 requirement, SEPL cannot impose any conditions. The petitioner has submitted that PGCIL in its

letter dated 15.7.2011 has recorded that SEPL and MEPL have agreed to a suitable transmission scheme approved by PGCIL and SEPL has undertaken to build a common evacuation system capable of evacuating the entire generation capacity of MEPL and SEPL, including by installing line equipment of 3000 Amp rating in its switchyard. SEPL vide its reply dated 2.1.2012 has also confirmed its adherence to the mutually agreed transmission scheme. SEPL has sought to deny its contractual obligation under the Amendment Agreement dated 2.1.2012 to jointly develop the mutually agreed transmission system, by contending that the Amendment Agreement relates to the BPTA dated 24.12.2010 to which SEPL is not a signatory. However, SEPL consented to the amendment of the BPTA dated 24.2.2010 by signing the Amendment Agreement. The petitioner has submitted that amended agreement was signed pursuant to various meetings of the constituents of the Southern Region and the Joint Co-ordination Committee for IPPs in the Southern Region in which SEPL was an active participant. The petitioner has submitted that SEPL need not have signed the amended agreement if it had no bearing on the BPTA dated 24.2.2010. SEPL's averment that it was unaware of the revision in the capacity of generating station of MEPL from 600 MW to 1000 MW is false and contrary to the record as SEPL in para 8 of its reply dated 2.1.2012 to the Petition No. 205/MP/2011 had expressly recognized that the petitioner's generating station has a generation capacity of 1000 MW had agreed to jointly develop a common evacuation system for its own and the MEPL's generating station. The petitioner has submitted that MEPL has paid Rs. 10.81 crore towards transmission works carried out by SEPL which is sufficient for SEPL to build its section of the mutually agreed transmission scheme.

28. We have considered the submissions of the petitioner and the respondents. It is noted that MEPL and SEPL were granted LTA as per the BPTA dated 24.2.2010 which was signed by the petitioner along with Thermal Powertech Corporation of India Ltd. with PGCIL. It is further noted that the petitioner vide its letter dated 21.5.2010 informed PGCIL about the mutually agreed transmission scheme between MEPL and SEPL and SEPL was signatory to the said mutually agreed transmission scheme. PGCIL vide its letter dated 15.7.2011 informed MEPL and SEPL about the mutually agreed transmission scheme for evacuation of power from the generating stations of MEPL and SEPL. The relevant portion of the said letter dated 24.2.2010 is extracted as under:

“Long Term Open Access was granted to Meenakshi Energy Private Limited & Simahpuri Energy Private Limited vide intimation letter no. C/ENG/SEF/TAL/S/09/001/R2 dated 24.2.2010. Subsequently vide letter dated reference nil Meenakshi Energy, enclosing the mutually agreed scheme between MEPL & SEPL for 400kV Transmission Line arrangement for connecting to POWERGRID existing Nellore Substation, had submitted to POWERGRID.

The transmission line arrangement has been noted and is enclosed at Annexure-A. The same shall be regularized in the BPTA at a later date.”

29. Perusal of letters dated 21.5.2010 and 15.7.2011 reveals that MEPL and SEPL had mutually decided and agreed to the transmission scheme for evacuation of power from both the generating stations. MEPL and SEPL were signatory to the aforementioned letters. The letters contain the schematic diagram of the mutually agreed transmission scheme between MEPL and SEPL specifying the existing arrangement for evacuation of power from MEPL and SEPL and modifications to be carried out by both with Phase-II of generating stations. It is noticed that BPTA dated 24.12.2010 was later amended on 2.1.2012 to incorporate the mutually agreed transmission scheme given by letter dated 15.7.2011. Since, MEPL and SEPL were

signatory to the letter dated 15.7.2011 and were aware about the modifications to be carried out for mutually agreed transmission system to be N-1 compliant and for evacuation of power once phase-II of both the generating stations become operational, we direct MEPL and SEPL to carry out necessary modifications as given in the Annexure-A of the letter dated 15.7.2011.

30. The contention of the SEPL that since it was not party to the BPTA dated 24.12.2010 and the existing system is N-1 compliant, it is not required to carry out the modification as per Annexure-A of the letter dated 15.7.2011 is not correct. MEPL, SEPL and Thermal Powertech were granted LTA through Nellore sub-station vide BPTA dated 24.2.2010 (MEPL and SEPL) and vide BPTA dated 24.12.2010 (MEPL and Thermal Powertech). The transmission systems to be mutually decided and developed by MEPL and SEPL were same in both BPTAs. PGCIL vide its letter dated 15.7.2011 informed MEPL and SEPL about the modified mutually agreed transmission scheme as agreed by them and informed by MEPL vide its letter dated 21.5.2010 and thereafter, vide amendment dated 2.1.2012 amended the BPTA dated 24.12.2010 to incorporate the modified mutually agreed transmission scheme. It is noted that SEPL had also signed the amended BPTA dated 2.1.2012 without any objection. The contention of SEPL that the said amendment does not mention financial commitments of the parties is not relevant as far as BPTA is concerned. It was the joint responsibility of the petitioner and SEPL to execute the inter-connection with sub-station of PGCIL meeting the N-1 criteria as per the agreed scheme. The financial commitment of each party, namely MEPL and SEPL is subject matter to be decided between them. If SEPL had any objection with amended BPTA, it should have protested rather than signing the

same. Therefore, we are of the view that SEPL being part of the integrated grid system cannot run away from its responsibility to make grid safe and reliable. MEPL and SEPL are directed to work in co-ordination with each other to make the mutually agreed transmission scheme N-1 compliant in accordance with the CEA guidelines and the provisions of the Grid Code. SEPL and MEPL shall necessarily have to carry out modification as per Annexure-A of the letter dated 15.7.2011.

31. It is noted that during the meeting held on 16.3.2016, the representative of SRPC stated that the present configuration with MEPL and SEPL bays capacities of 3000A and 2000A respectively may carry up to 1350MW with N-1 criteria and in case 400 kV SEPL- Nellore Pooling Station transmission line is emanating from 2000A bay of SEPL then total power from MEPL+SEPL complex with N-1 would need to be restricted to 1350 MW. We are in agreement with the views of SRPC and direct SRLDC to restrict injection of MEPL+SEPL complex till a allowable limits on pro-rata basis till bays of outgoing feeders of MEPL and SEPL switchyard are not shifted to 3000A and associated modification as per Annexure-A of the letter dated 15.7.2011.

32. It is clarified that the financial issue raised by SEPL regarding non-payment of cost by MEPL to SEPL for construction of common transmission facility is a bilateral issue between MEPL and SEPL. Accordingly, MEPL and SEPL are advised to resolve the financial issue amicably. It is further clarified that non-resolution of financial issue shall not be treated as an excuse for compromising grid security.

Issue No. 3: Whether the petitioner should be allowed to draw start-up power to commence the commissioning activities till a suitable arrangement for carrying out scheduling, despatch, metering and energy accounting including UI

accounting independently and separately for the generating stations of the Petitioner and SEL is implemented and operationalized?

33. The petitioner in its I.A. No. 5/2016 has requested to permit it to draw start-up power till a suitable arrangement for carrying out scheduling, despatch, metering and energy accounting including UI accounting independently and separately for the generating stations of MEPL and SEL is implemented and operationalized by SRLDC in consultation with SRPC, POSOCO and PGCIL. The petitioner has submitted that it is in the process of establishing Phase-II of its generating station comprising two units of 350 MW each. The petitioner has contended that in order to commence the commissioning activities, it urgently requires start-up power from the grid by July, 2016. However, SRLDC in the 108th OCC meeting held on 15.6.2015 has taken a view that the petitioner would not be allowed to avail start-up power for Phase-II till an N-1 compliant evacuation scheme is created by MEPL and SEPL. The petitioner has submitted that MEPL and SEPL are mandated by the prevailing regulations and mutually agreed metering scheme to be compliant with N-1 criteria before the commencement of export of power from Phase-II of MEPL`s generating station.

34. SEPL has submitted that reliefs sought by MEPL are neither the subject matter of the present IA nor was the issue before the Appellate Tribunal. MEPL is seeking directions with regard to supply of start-up power. According to SEPL, since, the issues in the present IA and before the Appellate Tribunal are different, the same are not maintainable. SEPL has contended that the Commission vide Record of Proceedings for the hearing dated 8.3.2016, has settled the issue of start-up power with direction to MEPL to approach SRLDC for permission to draw start-up power in accordance with

the relevant regulations and if there is any technical issue, the same would be dealt with by SRLDC. SEPL has submitted that if MEPL is aggrieved by the decision of the OCC, it should approach the appropriate forum to resolve the issue and the same cannot be raised in the present application.

35. We have considered the submissions of the petitioner and the respondents. It is noted that the petitioner is in the process of setting up of Phase-II (2x350 MW) of its generating stations and in order to commence the commissioning activities, the petitioner needs start-up power from the grid by July, 2016. In the 108th OCC meeting of SRPC held on 15.6.2015 it was decided that the petitioner would not be allowed to avail start-up power for Phase-II till an N-1 compliant evacuation scheme is created by the petitioner and SEPL. During the meeting held on 16.3.2016 with Chief (Engg.) of the Commission and the representatives of the respondents, the representative of SRLDC stated that without finalizing the bay shifting issue, it may not be prudent to avail start-up power as the ultimate goal of availing start-up power is to get COD in which case evacuation of generating unit could not be ensured under N-1 criteria. The representative of SRPC stated that there would be only N-1 violation due to bay constraint in SEPL switchyard for injection of power from MEPL+SEPL complex rather than drawal of power for start-up activities by MEPL. In the said meeting dated 16.3.2016, MEPL was advised to apply for start-up power in the specified format and SRLDC was directed to process the application as per the Commission`s approved procedure/relevant Regulations.

36. In our view, there is no requirement for ensuring N-1 compliance for drawal of start-up power in the present case, since drawal of power would only relieve transmission constraint. Accordingly, the petitioner is directed to approach SRLDC for seeking permission to draw start-up power in accordance with the relevant regulations and approved procedure for drawal of start-up power. SRLDC is directed to process the petitioner`s application as per the approved procedure and relevant Regulations. We further direct SRLDC to limit the evacuation as per network permissibility without compromising grid security after first synchronization of the units and subsequent injection of infirm power.

37. I.A. Nos. 34/2015 and 5/2016 are disposed of in terms of the above.

Sd/-
(Dr. M.K. Iyer)
Member

sd/-
(A. S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson

MEPL Perspective on Metering and Transmission

Present Metering Schematic between MEPL and SEPL

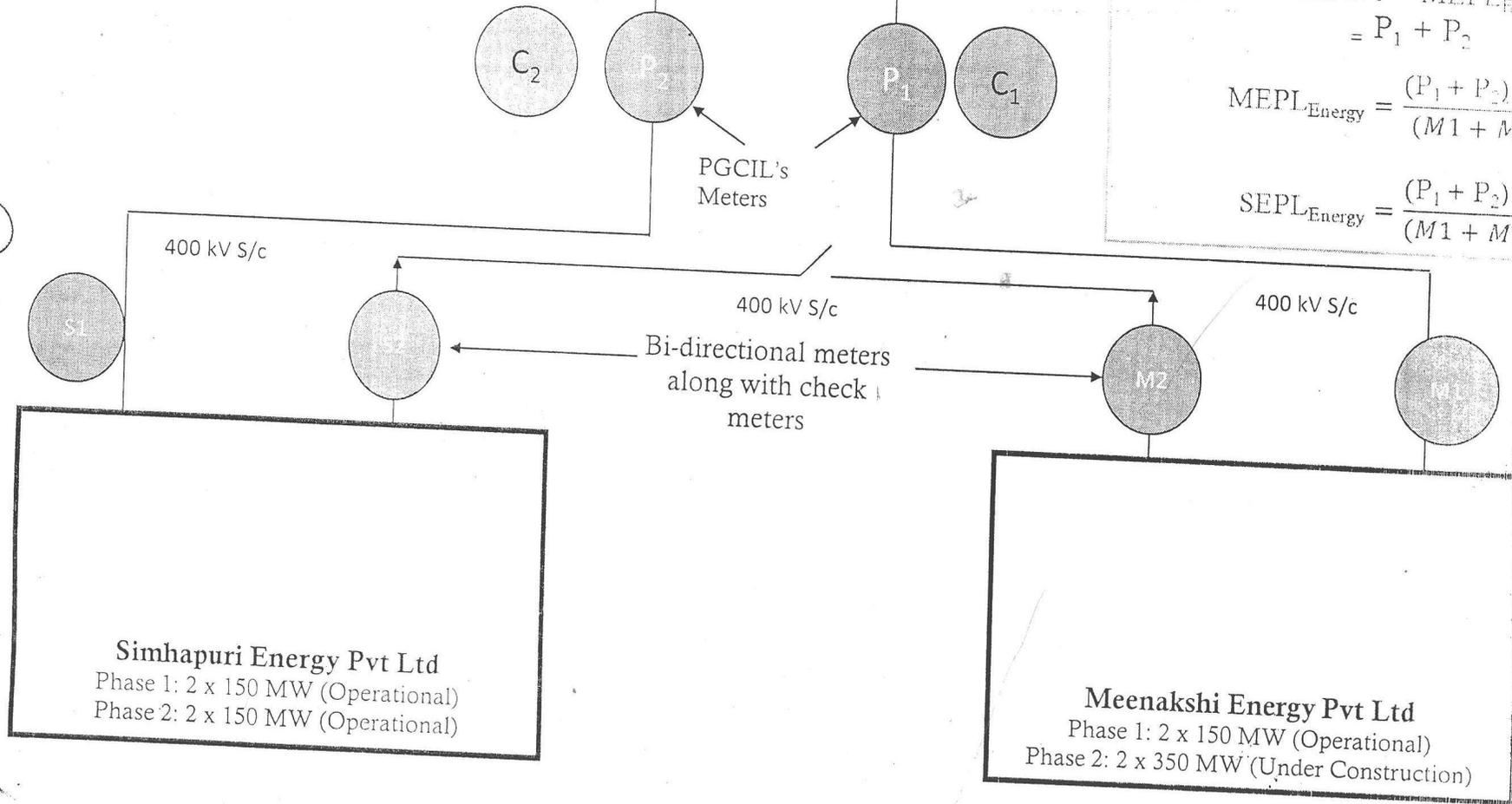
Nellore- Pooling Substation owned and operated by PGCIL

Energy Accounting by SRLDC between MEPL and SEPL

$$\begin{aligned} \text{Energy at PGCIL S/s} &= \text{MEPL}_{\text{Energy}} + \text{SEPL}_{\text{Energy}} \\ &= P_1 + P_2 \end{aligned}$$

$$\text{MEPL}_{\text{Energy}} = \frac{(P_1 + P_2) \times (M1 + M2)}{(M1 + M2 + S1 + S2)}$$

$$\text{SEPL}_{\text{Energy}} = \frac{(P_1 + P_2) \times (S1 + S2)}{(M1 + M2 + S1 + S2)}$$



Simhapuri Energy Pvt Ltd
 Phase 1: 2 x 150 MW (Operational)
 Phase 2: 2 x 150 MW (Operational)

Meenakshi Energy Pvt Ltd
 Phase 1: 2 x 150 MW (Operational)
 Phase 2: 2 x 350 MW (Under Construction)

Answer