

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

**Shri Gireesh B.Pradhan, Chairperson**

**Shri V.S. Verma, Member**

**Shri M. Deena Dayalan, Member**

**Shri A.K. Singhal, Member**

**Suo Motu Petition No. 308/SM/2013**

**Date of order : 23.12.2013**

**In the matter of**

Development of Modified Composite Index for Imported Coal for Payment Purposes.

**ORDER**

Clause 5.6 (vi) of the Government of India, Ministry of Power (MOP) Notification No. dated 19.01.2005 (as amended from time to time) on Guidelines for Determination of Tariff by Bidding Process for Procurement of Power by Distribution Licensees enjoins on the Central Electricity Regulatory Commission (CERC) to notify the Escalation Rates for the imported coal, both for bid evaluation and payment purposes. In pursuance with the said provisions, the Commission has been notifying the escalation rates every six months.

2. For payment purposes, the Commission uses a composite index for imported coal that considers the Australian Coal and South African Coal. In view of predominant share of Indonesian coal in steam coal imports, and based on feedback from stakeholders on need for inclusion of Indonesian coal in the composite index, a need was felt to modify the 'composite index' to include Indonesian coal. Accordingly, a revised methodology for computing the Composite Index and escalation was prepared as under:

### **"1.5 Development of the Modified Composite Index (modified) for imported coal for payment purposes- proposed methodology**

Latest data for one year is sufficient for computing the escalation rate for imported coal sub-component for the purpose of payment. The composite index, that currently includes only Australian and South African Coal prices, is proposed to be modified to include Indonesian coal prices in the index.

The data on import of steam coal in India from various countries for the last three years (2010-13) can be seen in the Appendix B to this Annexure. It can be observed from the table in the Appendix that in 2010-11, about 73% coal was imported from Indonesia and 24% from South Africa. Data on average import of steam coal for the last 3 years shows about 76% from Indonesia and 19% from South Africa. The import from Australia was 1%, the average for last three years.

Considering the above import statistics and other criteria (stated below), it is proposed to reconstitute the Composite Index as follows:

- (i) *Weight assignments: 50% weight to Indonesian coal- Platts Indo Coal index, 25% weight to South African Coal- API 4 index, and 25% weight to Australian Coal (with 12.5% weight each to Coalfax index and Global COAL index). Both Coalfax and GlobalCOAL are currently in use.*
- (ii) *Calorific value harmonization across indices and normalization: Indonesian coal calorific values given in the Platts index are on gross as received (GAR) basis, and that of API-4, Coalfax and Globalcoal are on gross air dried (GAD) basis. To maintain consistency, Indonesian coal calorific value was also converted to GAD basis. Considering that available API-4, Coalfax, GlobalCOAL, and Platts-Indo Coal indices are for 6000, 6700, 6700, and 5900 Kcal/ kg coals, and whereas, steam coal imports from Indonesia for use in power plants can be of different caloric values but in all likelihood not exceed 5000 Kcal/ kg, it is proposed to*

*normalize the indices for 5000 Kcal/kg. Since indices are actually real prices, normalization can be done easily.*

- (iii) The Australian coal index is proposed to be retained in the composite index despite insignificant steam coal imports. This is because many contracts still use Australian coal index, and it keeps open the possibility of use of Australian coal. Australian coal index is acceptable for a variety of contracts- future coal contracts for example. It can also help diversify the supply sources.*
- (iv) The composite index can be reviewed periodically and indices of other coal exporting countries added once they have at least 10% share in the coal imports in India, and subject to availability of reliable price indices as per the requirement. "*

3. Comments/suggestions/objections of the stakeholders and other interested persons on the above revised methodology were invited through a public notice dated 18.6.2013. In response to the public notice, the comments/suggestions have been received from the following:

- (i) L&T Power Development
- (ii) Adani Power Ltd.
- (iii) GMR Energy Ltd.
- (iv) Thermal Powertech Corporation India Ltd.
- (v) IL&FS Energy Development Company Ltd.
- (vi) Platts
- (vii) Argus Media Ltd
- (viii) IHS McCloskey

4. The comments submitted by these stakeholders are discussed in brief in the following paras (para 4.1 to 4.8).

#### **4.1 L&T Power Development**

- (i) The rationale for selecting the Platts Indo coal Index needs to be further elaborated. Also, the justification for selecting Platts Indo coal Index over other leading indices published by Argus, McCloskey etc. needs to be provided.
- (ii) Since the source country of coal and index may be different, key requirement is historical validation and credibility of the Index.
- (iii) Considering the lack of transparency in the Indonesian coal market, the proposed composite index should include 30% weight to Indonesian Coal, 30% weight to Australian COAL (15% weight to GlobalCOAL index and 15% weight to Coalfax) and 40% weight to South African Coal (API4).

#### **4.2 Adani Power Ltd.**

- (i) Escalation rates should be country specific, depending on actual import of coal, namely, HBA Index for Indonesian coal, API4 index for South African coal, and Coalfax and GlobalCOAL index for Australian Coal.
- (ii) If any seller uses two or more types of coal, then the Commission should publish a composite methodology, which should cover the impact of actual import from the respective coal sourcing country.
- (iii) The reason for proposing separate escalation index is that it will give the actual escalation index and there will be no loss or no gain for the seller and actual benefit will be passed on to the energy consumer.

#### **4.3 GMR Energy Ltd.**

- (i) Majority of the power producers are using Indonesian Coal, therefore, it is important that the proposed index should fully capture the price movements of actual imports.

- (ii) The proposed composite index should include 75% weight to Indonesian Coal (Platts Indo Coal Index), 12.5% weight to South African Coal (API4 Index) and 12.5% weight to Australian Coal (New Castle Index)

#### **4.4 Thermal Powertech Corporation India Ltd**

- (i) CERC, in the proposed index, has reduced the weight to Australian coal from 50% to 25% based on coal imports from Australia to India. However, the international coal contracts (especially Indonesian miners) prefer Australian New Castle index for benchmarking. Thus, in spite of lower physical delivery of coal from Australia, CERC composite index should retain higher percentage for Australian coal index.
- (ii) The proposed composite index should include 50% weight to HBA index, 25% weight to API4, and 25% weight to Global COAL New Castle index. This is proposed for the following reasons:
  - (a) Post 2011, change in Indonesian regulations have made it mandatory to use HBA for all future exports from Indonesia.
  - (b) Internationally, miners prefer Global COAL New Castle Index for benchmarking medium to long term coal contracts. For instance, in 2012, TPCIL has signed 10 year coal contract with Indonesian miner benchmarked at New Castle Index.
  - (c) The usage of Barlo Joankar Index (BJI), i.e. for Australian coal, has been reduced in the international coal market, therefore, it is proposed to replace the BJI with Global COAL New Castle Index.

#### **4.5 IL&FS Energy Development Company Ltd**

- (i) The Commission may notify the escalation rates for all the major indices individually and discontinue the composite index. The country specific escalation rates can be used for both evaluation and payment purposes. This would induce transparency and minimize the fuel cost risk for bidders and thus avoid artificial increase in the bid price due to such perceived risk.

- (iii) Use of individual indices will result in accurate and transparent calculation of costs for the benefit of all stakeholders.

#### 4.6 Platts

(i) **Recommended Composite Index:** The proposed composite index should include 60% weight to Indonesian coal (30% to FOB Kalimantan 5000 KCal/kg GAR and 30% to FOB Kalimantan 4200 KCal/kg GAR), 20% weight to South African Coal (FOB Richards Bay 6000 KCal/kg NAR), 20% weight to Australian Coal (10% to FOB Newcastle 6000 KCal/kg NAR and 10% to FOB Newcastle 5500 KCal/kg NAR). The reasons for recommending this composite index are as under:

- (a) This has the benefit of increasing Indonesian participation to a realistic, yet conservative measure and also balances the escalation index with a portfolio of higher quality coals.
- (b) The Australian component was evenly split between the GlobalCOAL FOB Newcastle 6000 kcal/kg NAR and the more liquid Platts FOB Newcastle 5500 NAR kcal/kg index. This will ensure that the Australian component will reflect the current export strategy and buying behaviour of Asian consumer nations.
- (c) This basket of indices achieves a balance between the existing benchmarks and the current establishment of indices representing lower calorific value coals.

(ii) **Why include Platts Kalimantan 5000 and 4200 kcal/kg GAR indices?:** Platts is a trusted source for information and accounts for 25% of the Indonesian government's royalty system, the HBA. The vast majority of Indonesian exports is attributed to the growth in lower calorific coal, particularly in grades from 4200 to 5000 GAR.

(iii) **Why reduce the higher calorific value component?:** Reduction in South African input to 20% is in line with the smaller role it is playing in India's import

strategy. The share of Indian imports from South Africa declined to 15.91% in 2012, from 18.5% in 2011 and 23.55% in 2010.

**(iv) Why include the Platts FOB Newcastle 5500 NAR index?:** Platts were the first to acknowledge the emergence of a second thermal coal market in Australia with the launch of a FOB Newcastle 5500 kcal/kg NAR index. This market has since become the centre of liquidity for Australian exports and Platts is the only provider with two full years of historic data. The Platts index considers not only volumes traded to China but also volumes traded to Korea, Taiwan and increasingly to Japan.

**(v) Why reduce the globalCOAL FOB Newcastle index?:** Japan is the primary buyer for FOB Newcastle 6000 kcal/kg NAR coal and they do so on annual and term contracts. This has reduced spot market liquidity to the lowest levels in six years, and has caused periods of great volatility that are not reflective of movement in any other market, including the Platts FOB Newcastle 5500 kcal/kg NAR index.

#### **4.7 Argus Media Ltd**

Argus Media Ltd has proposed the inclusion of an Argus price assessment in the revised Composite Index for imported Indonesia coal (Indonesian Coal Index (ICI-3 5000 GAR) for the following reasons:

- (i) The ICI index series is the most widely accepted price reference for Indonesian coal since June 2006. The ICI (ICI-1 for 6500 kcal thermal coal) is the driver for official Indonesian HBA (or known also as Indonesia Coal Price Reference, ICPR).
- (ii) ICI has drawn strong attention and support from the Indonesian government and the Indonesian Coal Mining Association (ICMA), as well as from the market.

Companies in more than 30 different countries currently subscribe to the ICI indices.

- (iii) ICI is used to calculate the Domestic Market Obligation (DMO) for Indonesian coal producers.
- (iv) Most of the coal imported by India from Indonesia is of a lower CV than 6500 kcal. In fact, much of it is below 5000 kcal. Nevertheless, Argus suggests that 5000 kcal is a more appropriate price reference to track Indonesian coal shipments to India, as it reflects more closely the typical grade of coals being supplied.
- (v) ICI-3 specifications were developed in collaboration with Indonesian exporters and purchasers of the grade.

#### **4.8 IHS McCloskey**

##### ***(i) Basis for the Composite Index***

- (a) Traditionally 6000 kcal NAR has been the international benchmark pricing basis. Since 2009 the international coal market has moved away from the standard 6000 kcal NAR to the use of lower grade coals. Other than Japan, Asia is largely dominated by demand for low CV bituminous and sub-bituminous coals.
- (b) There are separate markets for different grades of coal and as such price movement can be independent of each other. This means that while the price may rise for the 6000 kcal/kg NAR Australian market, for example, the price could be falling in the market for 4900kcal/kg Indonesian coal. This is commonly termed “basis risk” and so when measuring escalation costs a high CV coal may not reflect price movement in the lower CV coals.

- (c) As the Indian market largely takes lower grade coal, IHS has suggested 5500 kcal NAR (which may become the regional Asian standard) or 4900 kcal/5000 kcal NAR, which might be more appropriate for India.
- (d) Most state generators, through PSU trading companies, evaluate imported coal on a 6300 kcal GAD basis. This is roughly equivalent to 5500 kcal NAR. However, the actual CV of the coal awarded is much lower, typically around 4900 kcal NAR.
- (e) IHS has recommended using NAR as the basis as opposed to GAR or GAD. GAR is popular for pricing Indonesian coals. NAR is used by China and Korea, and the wider international market.
- (f) While Indonesia has largely been dominated by GAR, it has quickly adopted NAR when selling to China and Korea, and in the current economic landscape, the buyer is increasingly setting the terms of reference. Private Indian buyers tend to buy GAR for lower CV coal and NAR for high CV coal (especially out of South Africa).

***(ii) Price origin composition of the Composite Index:***

- (a) The composition of the Composite Index should be 50% Indonesian coal index, 25% South African coal index and 25% Australian coal index.
- (b) The Indonesian coal should be a lower CV coal (4900 kcal/5000 kcal NAR) to represent the base load of imported Indonesian coal.
- (c) South African imports do represent around 25% of Indian imports and so should still be included for a 6000 kcal NAR basis coal. API-4 represents a physical liquid market that has a highly visible spot trade and is an internationally accepted index that underpins a large OTC financial swap market. In addition, a very sizeable number of physical supply agreements use this index to price on a floating basis.
- (d) Even though Australian imports are very small, they should be included for three reasons:

- (i) Imports from Australia is closely linked to the very competitive Chinese (5500 kcal NAR) CFR market, which is currently the 'de facto' Asian delivered pricing point for this quality of coal.
- (ii) New developments in Queensland will see significant volumes of this quality coal emerge from Australia.
- (iii) Coal from Australia will undoubtedly price into the Indian market in the future.

**(iii) Recommended Indices for use in the Composite Index**

- (a) The IHS McCloskey indices (including the APIs, which are a joint venture with Argus) should be adopted for the Composite Index as they are transaction based indices that are already used by the coal market to settle physical and OTC financial swap contracts.
- (b) Their credibility is further underlined by the fact that major exchanges have adopted these indexes for clearing (Chicago Mercantile Exchange, SGX, Intercontinental Exchange, London Clearing House).
- (c) The recommended composite index should include IHS McCloskey Sub-bituminous marker (4900 kcal/kg NAR) for Indonesian coal, API-4 (6000 kcal/kg NAR) for South African coal, and API-5 (5500 kcal/kg NAR) for Australian coal.

5. The comments of the stakeholders as discussed in paras 4.1 to 4.8 are mainly from the generating companies and price index developers. Keeping in view the requirements for wider public consultation on such an important issue, the Commission conducted a public hearing on 30.7.2013. About 43 representatives from various organizations attended the public hearing. Oral submissions were made by the representatives of the following organizations:

- (i) Adani Power Ltd (APL)
- (ii) Thermal Powertech Corporation India Ltd (TPCIL)
- (iii) Jaiprakash Power Ventures Ltd (JPEL)
- (iv) Lanco for Udupi Power Corporation Ltd (UPCL)

- (v) L&T Power Development (L&T)
- (vi) MP Power Management Company Ltd (MPPMCL)

6. The submissions made during the public hearing are briefly discussed in the succeeding paragraphs.

6.1 **Adani Power Ltd (APL):** The representative of APL has submitted that existing methodology does not capture the Indonesian indices, though Indonesia is the biggest coal sourcing country for Indian power sector. The proposed methodology does not capture HBA which is the basis for import of coal for Indian market. The representative of APL emphasized three points in his presentation:

- (i) Proposed country specific price index instead of composite index should be adopted;
- (ii) The index should be on actual imports basis; and
- (iii) Platts Indo Coal to be replaced by HBA index for Indonesian coal since it forms basis of import of coal from Indonesia.

6.2 **Thermal Powertech Corporation India Ltd (TPCIL):** Representative of TPCIL, in his presentation, made the following points:

- (i) The composite index should include 50% weight to Indonesian coal index (HBA), 25% weight to South African coal index (API-4) and 25% weight to Australian coal index (GlobalCOAL, New Castle). Barlow Joankar Index (BJI), which is presently used for Australian coal in the composite index, is rarely used in the international market, therefore, it may be removed from the composite index.
- (ii) Escalation for the purpose of payment as computed by CERC as per the methodology at present is based on past one year data (i.e. variation in the current 6 months average index with the previous 6 months average index) is not capturing the actual monthly escalation. Therefore, true up mechanism should be introduced for the purpose of payment to capture the actual escalation. Alternatively, the representative of TPCIL also proposed that CERC should

publish quarterly notification in place of half-yearly notification with 3 monthly escalation values applicable for the following 3 months. He submitted that this would reduce the time lag and align the cost to the payment for each month.

(iii) In the "CERC Notification on escalation factors" escalation for evaluation is high whereas the escalation for payment purpose is negative during the same period. The representative of TPCIL proposed that escalation based on domestic coal should be used for imported coal for the purpose of bid evaluation.

6.3 **Jaiprakash Power Ventures Ltd (JPVL):** Representative of JPVL agreed with the proposed composite index. However, he pointed out that the composition is not reflecting the coal imports in India. He submitted that API prices are the key indices used for international coal business. In case of coal calorific value, NAR may be considered in place of GAD.

6.4 **Udupi Power Corporation Ltd (UPCL):** Representative of UPCL submitted that HBA itself is a composite index and is used for the purpose of royalty and taxation in Indonesia. However, it should be used for computing the escalation for payment purpose.

6.5 **L&T Power Development (L&T):** Representative of L&T agreed with proposed composite index.

6.6 **MP Power Management Company Ltd (MPPMCL):** Representative of MPPMCL proposed that the composite index should be based on imports of coal in India.

7. We have considered the submissions of the stakeholders as summarised in the preceding paragraphs. The following broad points can be inferred:-

(a) Weight assignments: The stakeholders have suggested different composite index by assigning specific weights to various price indices. Some of the generating companies have suggested country specific index in place of composite index. All three index developers (Platts, Argus and IHS

McCloskey) have recommended their own index for Indonesian coal to be incorporated in the composite index.

- (b) *Calorific value harmonization across indices and normalization:* Price index developers as well as generating companies have suggested calorific value harmonization across indices and normalization.
- (c) *Australian coal index in the composite index:* Since there are no imports from Australia to India, some of the stakeholders have suggested removal of the Australian coal index in the composite index, whereas some others have suggested that the Australian coal index is to be retained in the composite index despite insignificant steam coal imports since a large number contracts still are based on Australian Index. Most of the stakeholders have suggested for removal BJI from the composite index, since it is no more relevant due to very low trade.
- (d) *Review of composite index:* All the stakeholders have suggested for review of the composite index periodically. L&T Power Development has suggested that it should be mandatory to review the Composite Index every year.

8. The Commission, after considering the views received in response to the public notice during the public hearing and considering the composition of steam coal imports into India, and the importance and acceptability of indices in international contracts has decided that the weights and corresponding indices shall be as under:

- (A) *Weight Assignments:* The weights of different coal in the composite index shall include 25% Australian Coal, 25% South African Coal, and 50% Indonesian Coal. Australian coal has been retained in the composite index despite very low volume of consumption in India due to its liquidity, acceptability for contracts, and possibility of increased use of Australian coal in future.

(B) *Indices:* The following indices shall be used for computing escalation rates for imported coal:-

- (a) *South African Coal:* API4, a well-established index, and used widely for contracts, shall continue to be used as the representative index for South African Coal with weightage of 25%.
- (b) *Australian Coal:* In case of Australian Coal, NEX index (also referred as Coalfax), which had a 12.5% weight in the existing composite index, is no more relevant due to its low liquidity. The other Australian Coal Index, Global COAL, 6000 Kcal/ kg on NAR basis also has 12.5% weight in the existing composite index. Actual coal imports in Asian countries are around 5500 Kcal/kg or lower (on NAR basis). Correlation between prices of higher calorific value Australian Coal and low calorific value Indonesian coal is weak, and therefore, availability of low calorific value Australian Index was also explored. From the information made available to the Commission by index publishers (Platts, Argus, and IHS McCloskey), the following low calorific value indices are available;
  - (i) API5 index launched by Argus and IHS McCloskey in May 2012, evaluated on 5500 Kcal/ Kg NAR basis.
  - (ii) Platts Newcastle index 5500 kcal/kg NAR basis, launched in January 2012, primarily in response to Chinese imports of Australian Coal.

Considering that both indices are of recent origin, it is considered prudent to watch their performance and acceptability over a period of time before a switch over can be made. Accordingly, Current GlobalCOAL Newcastle index shall continue to be used with the 25% weight assigned to Australian coal.

(C) *Indonesian Coal:* The following relevant indices are available for Indonesian coal:

- (i) Argus: Indonesian Coal Index (ICI3), 5000 Kcal/kg GAR, launched in June 2006. Argus has other Indonesian coal indices as well, including ICI4, 4200 Kcal/kg GAR, launched in August 2008, and ICI5, 3400 Kcal/kg GAR coal launched in November 2011.
- (ii) Platts: FOB Kalimantan 5000 kcal/kg GAR, launched in 2006 and FOB Kalimantan 4200 kcal/kg GAR, launched in June 2012.
- (iii) IHS McCloskey: Indonesian Sub-bituminous marker, 4900 Kcal/kg NAR, launched in 2002.
- (iv) Government of Indonesia: HBA Index 6322 Kcal/kg GAR, available since January 2009.

Since weight of the Indonesian coal in the composite index is substantial (50%), it has been decided to use indices from two publishers, with 25% weight for each. However, as far as consideration of individual indices is concerned, it is noticed that HBA index is only benchmark price, relevant for the purpose of royalty payment to the Government of Indonesia. HBA itself is a composite index which includes ICI-1 of Argus, Platts-1, New Castle Export index (NEX), New Castle GlobalCOAL index etc. Therefore, we have decided not to include HBA index in the composite index to be notified by CERC. IHS McCloskey Indonesian coal index (4900 Kcal/kg NAR) is available since 2002. However, keeping in view the representative index for import of coal from Indonesia to India (Calorific value of coal at 5000 Kcal/kg GAR or less), it has not been considered. Argus has an added advantage of having a local partner (Coalindo) in Indonesia, and the index captures assessment by both of them. The ICI-1 of Argus is the driver for official Indonesian HBA and is having 25% share in HBA. ICI is used to calculate the Domestic Market Obligation (DMO) for Indonesian coal producers. Platts has its own merit as it has developed an index for India i.e. for both eastern coast and western coast. Moreover, Platts accounts for 25% of the Indonesian government's

royalty system, the HBA. Both Argus and Platts are having 5000 Kcal/kg GAR index with good history since 2006. Considering the relative merits of the above indices, the indices published by Platts (5000 Kcal/kg GAR) and Argus (ICI3, 5000 Kcal/kg GAR) shall be included for the Indonesian coal for 25% each.

9. Two other issues need clarification in the contest of the indices decided by us in this order :

(a) *Coal measurement:* We notice that NAR (net as received) is now most internationally used as the basis for coal pricing. Though GAR (gross as received) is more in use in Indonesia, it is noticed that Indonesia has adopted NAR while selling coal to China and Korea, who prefer NAR as the basis. API4 (South African coal index) and globalCOAL (Australian Coal Index), both constituents of the composite index, also use NAR as the basis. Therefore, to maintain consistency across indices being used, and considering international trend, NAR shall be used as a basis for the indices.

(b) *Calorific value harmonization across indices and normalization:* Calorific values shall be harmonized across indices by normalizing the values for 5000 Kcal/Kg by assuming a linear trend across indices of different calorific value of coal.

10. A suggestion was made by some of the stakeholders to use country specific indices. We have considered the suggestion and are of the view that country specific indices may not always be available, or reliability could be an issue. Moreover, the rationale for using composite index instead of country specific index is to induce efficiency in procurement and diversification of supplies. As regards the suggestion for prudence review of indices, we are of the view that the composite index shall be reviewed and revised as and when the need arises.

11. We direct that the escalation rates for the six months commencing 1.4.2014 shall be notified in accordance with the Composite Index discussed in Para 8 of this order.

Sd/-  
**(A.K.Singhal)**  
**Member**

Sd/-  
**(M. Deena Dayalan)**  
**Member**

Sd/-  
**(V.S.Verma)**  
**Member**

Sd/-  
**(Gireesh B.Pradhan)**  
**Chairperson**

**Stakeholders Present :**

- 1 Shri V.Jayakumar, TANGEDCO
- 2 Shri Dr.Ashish Voerma
- 3 Shri H.S.Thakur, MPPGCL
- 4 Shri M.J.Parekh, GSECL
- 5 Shri A.J.Mehta, GSECL
- 6 Shri G.P.Verma, UPRVVNL
- 7 Shri K.M.Seam, Videocon Industries Ltd
- 8 Shri Amber Atal, Videocon Industries Ltd
- 9 Shri Ramulla, UPCL
- 10 Shri R.Parthasarathy, UPCL
- 11 Shri S.K.Bagat, Jaippee Group
- 12 Shri R.S.Kaushal, HPGCL
- 13 Shri Paramjeet Singh, PSPCL
- 14 Shri Kedar Guttikar, TPCIL
- 15 Shri Rajesh Bharadwaj, NTPC TNECL
- 16 Shri Deep Gupta, Adani Group
- 17 Shri Manoj Malviya, Adani Enterprise Ltd
- 18 Shri Namrata Mukherjee, IL&FS Energy Devt.co.Ltd
- 19 Shri Neha Deshwal, IL&FS Energy Devt.co.Ltd
- 20 Shri Biswadeep Parida, NTPC
- 21 Shri Ajasra Gupta, MPPMCL
- 22 Shri N.K.Gupta, Jaypee Group
- 23 Shri A.K.Datta, Mallicka Bezbaruah
- 24 Shri Ashok Shukla, Jaippee Group
- 25 Shri T.Sanwappa, KPCL
- 26 Shri G.A.Purushotham, KPCL
- 27 Shri T.Sudarshan, KPCL
- 28 Shri R.B.Sharma, GRIDCO
- 29 Shri P.K.Pradhan, GRIDCO
- 30 Shri S.R.Sarma, GRIDCO
- 31 Shri R.K.Bhat, THDCIL
- 32 Shri Anand Mohan, THDCIL
- 33 Shri Sameer Ganju, Adani Power
- 34 Shri Vipul Jadhav, Adani Power
- 35 Shri S.K.Mehta, CSPGCL
- 36 Shri P.J.Jani, GUVNL
- 37 Shri A.K.Sidhwani, MPPGCL
- 38 Shri G.S.Mandal, SJVNL
- 39 Shri Devendra, L&T
- 40 Shri Saurabh Gandhi
- 41 Shri Kuldeep Saini, HPPC
- 42 Shri Vikrant Saini, HPPC
- 43 Shri D.V.S.S.Rao