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भारत सरकार
Government of India
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
ईंधन प्रबंधन प्रभाग
Fuel Management Division
तीसरी मंजिल, सेवा भवन, आर.के.पुरम, नई दिल्ली -110066
3rd Floor, Sewa Bhawan, R.K. Puram, New Delhi – 110066

(I.S.O. 9001:2008)

No. CEA/Plg/FM/1/37/2016/779-836 Date: 8th June, 2016

To,

As per list attached.

Subject: Methodology for flexibility in utilization of domestic coal for reducing the cost of power generation.

Sir,

The Union Cabinet has approved the proposal of the Ministry of Power for flexibility in utilization of domestic coal on 04.05.2016. As per approval of the Cabinet, Central Electricity Authority (CEA) shall in consultation with all the stakeholders issue the methodology for utilization of domestic coal in generating stations in a flexible manner including any other related issues. Accordingly, a committee under the Chairmanship of Chairperson, CEA was constituted with members from Ministry of Power, Ministry of Coal, Ministry of Railways, CERC, NTPC, CIL, POSOCO.

The Committee has finalized the methodology in consultation with stakeholders which has further been approved by Ministry of Power vide letter No. 5/3/2015-OM dated 08.06.2016. Accordingly, the "methodology for flexibility in utilization of domestic coal for reducing the cost of power generation" is enclosed for information and necessary action.

Encl: As above.

Yours faithfully,

8/6/2016
(A. K. Mishra)
Chief Engineer

List of addressee:

1. The Chairman & Managing Director, NTPC Ltd., Core 7, Scope Complex, Lodhi Road, New Delhi – 110003.
2. The Chairman, Coal India Ltd., Coal Bhawan, Plot No. AF-III, Action Area-IA, New Town, Rajarhat, Premise No. 04 MAR, Kolkata-700156
3. The Chairman, Damodar Valley Corporation, DVC Tower, Ultadanga, VIP Road, Kolkata – 700054.
4. The Managing Director, Haryana Power Generation Corp. Ltd., Room No.411, 3rd Floor, Urja Bhawan, C-7, Sector-6, Panchkula, Haryana.
5. The Chairman, Punjab State Power Corporation Ltd, The Mall, Patiala 147 001.
6. The Chairman & Managing Director, Rajasthan Rajya Vidyut Utpadan Nigam Ltd., Vidyut Bhawan, Jyoti Nagar, Janpath, Jaipur – 302 005
7. The Managing Director, Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. Shakti Bhawan, 14 Ashok Marg, Lucknow – 226 001.
8. The Chairman, Chhattisgarh State Power Generation Company Ltd, Dangania, P.O. Sunder Nagar, Raipur – 492013.
9. The Chairman & Managing Director, Gujarat State Electricity Corporation Ltd., Sardar Patel Vidyut Bhawan, Race Course, Vadodara – 390 007.
10. The Chairman & Managing Director, M.P. Power Generating Co. Ltd., Shakti Bhawan, Vidyut Nagar, Jabalpur – 482008
11. The Managing Director, Maharashtra State Power Gen. Co. Ltd.6th Floor, Prakashgad, Plot No. G 9, Bandra (East), Mumbai – 400 0051.
12. The Managing Director, Andhra Pradesh Power Generation Corpn. Ltd. Vidyut Soudha, Khairatabad Hyderabad – 500082.
13. The Managing Director, Karnataka Power Corporation Ltd., Shakti Bhavan, No. 82, Race Course Road, Bangaluru – 560 001.
14. The Chairman & Managing Director, Tamil Nadu Generation and Distribution Ltd., IInd Floor, NPKRR Maaligai, 144, Anna Salai, Chennai. (044-28520131).
15. The Chairman & Managing Director, Telangana State Power Generation Corporation Ltd, Vidyut Soudha, Khairatabad, Hyderabad-500082. Fax No. 040-2349166
16. The Chairman, Jharkhand State Electricity Board, Engineering Building, P.O. Dhurwa, Ranchi, Jharkhand – 834004.
17. The Managing Director, Odisha Power Generation Corp. Ltd., Zone A, 7th Floor, Fortune Tower, Chandrashekharpur, Bhubaneshwar – 751022
18. The Managing Director, The West Bengal Power Development Corp. Ltd., Bidyut Unnayan Bhawan, 3/C LA Block, Sector-III, Salt Lake City, Kolkata – 700 098.
19. The Managing Director, Torrent Power Ltd, Torrent House, Off Ashram Road, Ahmedabad – 380009.
20. The Managing Director, Tenughat Vidyut Nigam Ltd, Hinoo, Doranda, Ranchi-834002.
21. The Chairman, Durgapur Projects Ltd., 1593, Rajdanga Main Road, Kolkata-700 107, West Bengal.
22. The Chairman Cum-Managing Director, Reliance Energy Ltd., Reliance Energy Centre, Santa Cruz (E), Mumbai 400055.
23. The Managing Director, M/s Adani Power Ltd., Achalraj,Opp Mayor Bungalow,Law Garden,Ahmedabad 380 006 ,Gujarat,.
24. The Director, LANCO Amarkantak Power Private Limited, Lanco House, Plot# 397, Udyog Vihar, Phase-3, Gurgoan-122016. Ph-0124-4741000.

25. The General Manager (CA &PM), Aravali Power Co. Pvt. Ltd., 1st floor, Pawan Hans towers, C-14, Sector-1, NOIDA -201301 (UP).
26. The Managing Director, CLP India Private Limited, 15th Floor, Oberoi Commerz International Business Park, Goregaon (East), Mumbai- 400 063.
27. The Chief Executive Officer, Sterlite Energy Limited, Jharsuguda, Orissa.
28. The Chief Executive Officer, NTPC SAIL Power Co. Pvt. Ltd.,4th floor, 15, NBCC Tower, Bhikaji Cama Place, New Delhi-110066.
29. The Chairman & Managing Director, Kanti Bijlee Utpadan Nigam Ltd., NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, New Delhi-110003
30. The Vice President, Bajaj Energy Pvt. Ltd., Bajaj Bhawan, Jamnalal Bajaj Marg, B-10, Sector-3, Noida-201301 (UP).
31. The Head (Fuel), LANCO Anpara Power Ltd., LANCO HOUSE, Plot No. 397, Udyog Vihar, Ph-3, Gurgaon-122016.
32. The Director, Rosa Power Supply Co. Ltd., 1st floor, I-Block, Dhirubhai Ambani Knowledge City, Kopar Khairana, Navi Mumbai – 400710.
33. The AGM (Coal), Maithon Power, A-5 Govana Maithon Dam 828207, Dhanbagh, Jharkhand.
34. The Vice President (Generation & Fuel Management), CESC Ltd., Statesman House, 4 Chowringee Square, Kolkata-700001.Ph:033-22129890, Fax: 033-22129875.
35. The Director, EMCO Energy Ltd., 9th & 10th floor, IBC Knowledge Park, 4/1, Bannerghatta Road, Bangalore- 560029. Fax- 80 40432180.
36. The Associate Vice President (Commercial), Talwandi Sabo Power Ltd Village Banawala, Mansa - Talwandi Sabo Road, Distt. Mansa, Punjab – 151302
37. The Executive Director, M/s Jindal India Thermal Power ltd.(Derang), Plot No. 12, Local Shopping Complex, Sector B-1, Vasant Kunj, New Delhi-110070.
38. The Vice President (Thermal Projects), MB Power Limited. 235, Okhla Industrial Estate, Phase-III, New Delhi-110020.
39. The Managing Director, Thermal Powertech Corporation Ltd, 6-3-1090, 2nd & 3rd Floors, C- block, TSR Towers, Rajbhavan Road, Somajiguda, Hyderabad-500082.
40. The Managing Director, Avantha Power & Infrastructure Limited, Thapar House, 124 Janpath, New Delhi-110001.
41. The Managing Director, NTECL, Vallur Thermal Power Project, Vellivoyal Chavadi Post, Ponneri Taluk, Thiruvellur Dist., Chennai – 600 103
42. The Managing Director, Jaypee Bina Thermal Power Plant, Sector-128, Noida-201304, Uttar Pradesh.
43. The Managing Director, L&T Ltd, Ambadeep Building, 9th Floor, 14, Katurba Gandhi Marg, New Delhi-01.
44. The Managing Director, KSK Energy (Wardha Warora), 307 Silver Arch Apartments, 22 surkasha road, New Delhi-01 (Fax No. 41505802)
45. The Managing Director, GMR Kamalanga Energy Ltd., HIG-28, Gangadhar Meher Marg, Jaydev Vihar, Bhubaneswar, Odisha.
46. Sr. Vice President, RattanIndia Nashik Power Limited, 5th Floor, East Wing, Tower B, Worldmark 1, Aerocity, New Delhi-110037
47. Director General, Association of Power Producers, 501-502, 5th Floor, Mohan Dev Building, 13, Tolstoy Marg, New Delhi - 110001

Copy for information to:

1. Joint Secretary (OM), Ministry of Power, Shram Shakti Bhawan, New Delhi
2. Joint Secretary (Thermal), Ministry of Power, Shram Shakti Bhawan, New Delhi
3. Joint Secretary (LA), Ministry of Coal, Shastri Bhawan, New Delhi
4. Additional Member (Traffic Transportation), Ministry of Railways, Rail Bhawan, New Delhi

Copy also for information to:

1. Director (Operation), NTPC Ltd., Core 7, Scope Complex, Lodhi Road, New Delhi – 110003
2. Chief (Engg.), CERC, 3rd & 4th Floor, Chanderlok Building, 36, Janpath, New Delhi-110001
3. CEO, POSOCO, B-9, Qutub Institutklional Area, Katwaria Sarai, New Delhi - 110016
4. Chief Engineer (GM), CEA, Sewa Bhawan, New Delhi
5. Chief Engineer (IRP), CEA, Sewa Bhawan, New Delhi
6. Director (CPD), Ministry of Coal, Shastri Bhawan, New Delhi- 110001
7. Director (TT (G)), Ministry of Railways, Rail Bhawan, New Delhi-110001

Methodology

for

flexibility in utilization of domestic coal

for

reducing the cost of power generation

June, 2016

Methodology for flexibility in utilization of domestic coal for reducing the cost of power generation

The Cabinet has approved the proposal for allowing flexibility in utilization of domestic coal amongst power generating stations to reduce the cost of power generation on 04.05.2016. As per approval given by the Cabinet, the Central Electricity Authority shall in consultation with all the Stakeholders issue the methodology for implementation of proposal for allowing utilization of domestic coal in a flexible manner including any other related issues. The flexibility in utilization of domestic coal would result in reduction of cost of electricity to the consumers.

A committee under the Chairmanship of Chairperson, CEA was constituted with members from Ministry of Power, Ministry of Coal, Ministry of Railways, CERC, NTPC, CIL and POSOCO to finalize the methodology.

The methodology as finalized after consultation with Stakeholders, for allowing flexibility in utilization of domestic coal amongst power generating stations to reduce the cost of power generation is as follows:

1. The methodology detailed herein shall be implemented for use of domestic coal by States/ Central Generating Company in State Generating Stations and / or Central Generating Stations only. Based on the experience gained during the implementation process, Ministry of Power shall separately notify the methodology for use of transferred coal in Independent Power Producers (IPPs) generating Stations.
2. All the source wise-coal company wise long term coal linkages of individual States (States would include UTs) or Centre owned generating stations to be aggregated and consolidated with respective States / (or State notified agency (to be notified from among the existing power utilities)) or company owning the Central Generating Stations (CGSs), as the case may be, instead of individual Thermal Power Stations, to enable efficient coal utilization amongst end use generating stations.
3. The coal company wise Annual Contracted Quantity (ACQ) of each individual coal linkages (as per Fuel Supply Agreement, FSA) to be aggregated as consolidated ACQ for each State and company owning the Central generating stations as the case may be, instead of individual generating stations. The terms and conditions of coal company wise FSA will be applicable on the aggregate ACQ of State as a whole or Company owning Central generating stations as the case may be. However, the FSAs of IPPs would not be aggregated.
4. The utility-wise (Central Generating Company or State notified agency) supplementary agreement would be signed with the CIL and SCCL.

5. To achieve the objective of reduced energy charges the Generating company / State shall communicate to CIL/SCCL its station wise requirement from different coal sources within the ambit of overall ACQ allotted to the Company/ State. If supply from the identified source is not possible/feasible, CIL/SCCL shall have the flexibility of offering coal supply from its various subsidiaries to facilitate assured level of supply for that State and CGS and for meeting MOEF stipulations regarding transportation etc. As far as possible, alternate source of supply of coal of CIL/SCCL shall be of similar landed cost and quality as sought by the Generating company/State.
6. The existing practice of determination of Station-wise energy charges as per applicable Tariff Regulations shall be continued based on station-wise coal accounting with respect to coal quantity, quality and price.
7. The requisition for transfer/supply of coal would be given by the State/Central generating company to the coal companies at least one month in advance from the agreed date of commencement of supply of electricity. The Coal companies will give their consent / response within 15 days from the receipt of requisition, else it will be deemed to be approved. The State notified agency/ Central Gencos having supplementary agreement will be responsible to ensure supply of transferred coal at the generating stations.
8. The Ministry of Railways would be conveyed for transportation of coal at least one month in advance from the agreed date of commencement of supply of electricity by the State notified agency /Central generating company and the Ministry of Railways would convey their approval or otherwise within 15 days from the date of receipt of request. The Ministry of Railways would endeavor to transport coal as per the requirement given by the State notified agency / Central generating company. However, in case there are some constraints in movement of rakes by the Ministry of Railways, an alternative plan would be made by the State/ Central generating company in consultation with the Ministry of Railways. The State notified agency / Central Gencos would ensure overall optimization of the cost while going for alternative plan.
9. To enable utilities identify Stations for transfer of coal, the State/ Central generating company will display information on their respective website and the web portal being developed for this purpose, related to normative fixed and variable charges of electricity for the previous month as well as the margin available for additional generation.
10. There will be one energy charge rate of the power station based on coal received from all sources including the coal transferred by the other State notified agency /Central Generating company.
11. The equivalent quantum of power calculated based on normative operating parameters of the station specified by the appropriate Electricity Regulatory Commission against the quality and quantity of coal received by the

Generating Company at the Generating station will be worked out and agreed to by the concerned parties well in advance for the purpose of scheduling and billing. After meeting the state power requirement, the surplus power, if any, would be sold as per the tariff policy/ regulations of CERC.

12. The Coal transferring State shall make the payment to Coal companies as per existing FSA and the supplementary agreement for the coal being transferred under this arrangement to other State's Generating stations and/ or Central Generating Stations. The other State's Generating company or Central Generating Company shall reimburse the payment made based on quantity and quality of coal received at Power Station to the State supplying coal as per mutually agreed terms and conditions after adjusting any freight charges paid to Indian Railways including demurrages etc, if any.

13. The transfer of coal between one State to another State as well as between any State and Central Generating companies will be implemented as per mutually agreed terms and conditions, in the ambit of the regulations of CERC/SERC so as to reduce the cost of power generation. This transfer of coal and energy generated and supply in lieu thereof, would not be treated as trade or barter arrangement for taxation purpose. The agreement will specify the source, quantity, quality and duration of supply of coal, identified generating station for use of this coal, estimated quantum and duration of electricity to be supplied in lieu of the coal, payment security mechanism and any other terms and conditions as agreed for this transaction. The Agreement will be for a minimum duration of one month at a stretch and maximum duration of the agreement shall be as mutually agreed between the parties. The agreement can be extended for further period of time, as mutually agreed between the parties. The RLDCs/SLDCs will facilitate scheduling of power under this arrangement as per mutually agreed terms & conditions between the State supplying coal and the other State's Generating Stations or Central Generating Station(s), as the case may be. There will be no pre-mature termination of this arrangement and both the parties to abide by the terms and conditions of the agreement during its tenure.

14. The State/Central generating company using the additional coal, will intimate the concerned SLDCs/RLDCs/ RPC about such arrangement as and when finalized. Necessary Open access application needs to be filed for this purpose by the beneficiary State supplying the coal.

15. The scheme of diversion of additional coal to/ from Central generating stations will be implemented subject to the consent of the original beneficiaries of the respective power station(s) to the extent of agreed quantum of power from additional coal. The State supplying additional coal under this arrangement shall be treated as original beneficiary for all purposes during the period of this agreement.

16. Reconciliation of the quantity of coal transferred and the equivalent quantum of power received, including deviations etc. would be done as per the mutually agreed terms and conditions preferably on quarterly basis.

17. An inter-ministerial sub-group consisting of representatives from Ministry of Power, Ministry of Coal, Ministry of Railways, CEA and POSOCO would be constituted to look into various operational issues arising during implementation of this scheme. The sub-group would meet at least quarterly and the methodology will be reviewed periodically for amendments, if any, based on the experience gained during the process.

18. Any disputes arising out of this arrangement shall be referred to Chairperson, CEA for a decision.

19. **Utilization of Coal amongst generating stations of the State/Central Generating Companies**

The coal would be used in an optimal manner in different stations of the Central/ State generating companies. Central/ State generating companies may utilize coal in its own generating stations by considering various factors such as operational efficiency of the generating stations, transportation logistic / feasibility depending upon location of generating stations, fixed and variable charges including transportation cost, relative merit order dispatch of power etc. However, generating company to ensure availability of coal to each generating station corresponding to its normative availability.

20. There are five cases envisaged for allowing flexibility of utilization of coal under this arrangement:

a) **Case-1**: Use of Coal aggregated with the State in its own State Generating Stations
b) **Case-2**: Use of Coal aggregated with the one State in Generating Stations of other state's utilities
c) **Case-3**: Use of Coal aggregated with State in Central Generating Stations and vice versa
d) **Case-4**: Use of Coal by any State/ Central generating company in Private Generating Stations (IPPs)
e) **Case-5**: Use of coal assigned to the Central Generating Company in their own plants or any other more efficient plants.

The case specific methodologies are specified as below:

Case 1: <u>Flexibility of utilization of coal aggregated with the State in its own State Generating Stations</u>

(i) The States would use their coal optimally in the power stations of the state power utility within the limits of overall coal company wise ACQ aggregated with them for all FSAs.

(ii) The guiding objective, in this process would be to reduce the transportation cost thereby reducing the variable charges of its plants and also ensure adequate availability of coal to all power plants as per their optimized requirement starting from most efficient to least efficient in terms of total variable charges.

Case-2: Flexibility of utilization of Coal aggregated with one State in Generating Stations of other state's utilities

(i) The state will be allowed to transfer their coal to the more cost efficient power stations of other state's power utilities for generation and supply of cheaper power to the State transferring coal.

(ii) The landed cost of power generated and delivered to the State transferring coal shall include corresponding fixed charges, variable charges and transmission charges at coal transferring State periphery and should be cheaper than the variable charge for generation of electricity from the existing options of using the coal in their own State power stations.

(iii) Techno-commercial feasibility for such an arrangement will be worked out beforehand subject to transmission system availability. This need to be coordinated with POSOCO by the State transferring coal. For power transfer across the region, an early decision is required to be taken. As Short Term Open Access (STOA) are granted three months in advance, such an arrangement should be finalized at least 3 months in advance, so that before clearing STOA applications for a month, POSOCO may consider request under this scheme. The open access shall however, be as per CERC Regulations as amended from time to time.

(iv) The State supplying this additional coal will have to schedule the power generated from this coal as agreed under this arrangement and will be obligated to pay the corresponding tariff and all other related charges as per prevailing regulations.

Case-3: Flexibility of utilization of Coal aggregated with State in Central Generating Stations and vice versa

(i) In case of availability of additional margin for generation at any Central generating station and sufficient coal is not available, any state utility (including other than original beneficiaries also) having unused/ surplus coal can approach the Central generating company for supplying coal and availing the electricity generated from this coal. The state would divert their coal to central generating company for use in cost effective central generating stations.

(ii) In case of availability of additional margin for generation at any Central generating station and sufficient coal is not available, the generating company may also approach the original beneficiaries for supply of

additional coal and availing the electricity generated from the coal. In case of their inability to supply additional coal, with the consent of the original beneficiaries, the generating company will have the option to approach any other willing states for additional coal supply and availing the electricity generated from the coal.

(iii) If the enabling state is the original beneficiary of the CGS, then it would have the first right /priority to provide additional coal to CGS to generate and receive additional power subject to consent of other original beneficiaries of the power Station. For this CGS would obtain the consent of all other original beneficiaries of the generating stations.

(iv) If the enabling state is other than the original beneficiary of the CGS, then CGS would first obtain the consent of the original beneficiaries of that generating stations for use of additional coal from a non-beneficiary state and supply of power to that state for the period as identified.

(v) Techno-commercial feasibility for such an arrangement may be worked out before-hand subject to transmission system availability. This need to be coordinated with POSOCO by coal providing State. For power transfer across the region, an early decision is required to be taken. As STOA are granted three months in advance, such an arrangement should be finalized at least 3 months in advance, so that before clearing STOA applications for a month, POSOCO may consider request under this scheme. The open access shall however, be as per CERC Regulations as amended from time to time.

(vi) While transferring its coal, state utilities need to compare variable charge for the electricity generated at their own stations where such coal is being used with the applicable fixed charges, variable charges of power to be procured from CGSs alongwith the transmission charges etc for delivery of such power at the coal providing State periphery. The landed cost of power from CGS should be cheaper than the variable cost of power at the State generating station.

(vii) The tentative equivalent quantum of energy calculated based on normative operating parameters, corresponding to the quality and quantity of coal received by the Generating Company at the Generating station will be worked out and quantum of power as well as period of requirement of state/ beneficiary supplying the additional coal, will be deemed to be reallocated from the generating station to the concerned State transferring the additional coal. The allocation of power to the original beneficiaries will be reallocated to that extent, as consented to for that time period.

(viii) The transmission constraints, if any, will be taken into consideration for such temporary reallocation of the power by CEA in consultation with

POSOCO. However, already approved STOA transactions will not be curtailed.

(ix) The State/ beneficiary supplying this additional coal will have to schedule the power generated from this coal as per mutually agreed terms & conditions and will be obligated to pay the corresponding Tariff and all other related charges as per applicable Regulations.

(x) The generating company will intimate CEA who in-turn will intimate will intimate RLDCs/ RPC about such arrangement as and when finalized for accounting purposes. The RLDCs/SLDCs will facilitate scheduling of power under this arrangement as per mutually agreed terms & conditions.

Case-4: Flexibility in utilization of Coal by any State/ Central generating company in Private Generating Stations (IPPs)

Ministry of Power shall separately notify the methodology for use of transferred coal in Independent Power Producers (IPPs) generating Stations.

Case-5: Flexibility in utilization of coal assigned to the Central Generating Company in their own plants or any other more efficient plants.

(i) The central generating company will have the flexibility to use their coal optimally in their more efficient plant including their Joint Venture companies and subsidiary companies within the limits of overall ACQ assigned to them.

(ii) In case of availability of additional margin for generation at any Central generating station, it may approach other central generating companies for supply of additional coal.

(iii) The consent of the original beneficiaries of the concerned generating stations will be taken before making such an arrangement.

(iv) The Central Generating Company would ensure that there is savings in coal transportation cost and reduction in energy charge of electricity generated on account of diversion of coal.

(v) Transmission constraints, if any, will be taken into consideration. However, already approved STOA transactions will not be curtailed.

(vi) The generating company will intimate CEA who in-turn will intimate will intimate RLDCs / RPC about such arrangement as and when finalized for accounting purposes. The scheduling of power will be done by the concerned RLDC and accounting would be done by the concerned RPC. The RLDCs/SLDCs will facilitate scheduling of power under this arrangement as per mutually agreed terms & conditions.

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