CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 373/MP/2022

Coram:
Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member
Shri Harish Dudani, Member

Date of Order:- 10th March, 2025

In the matter of

Petition under Section 79 of the Electricity Act, 2003 read with Regulations 11 and 29 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 seeking approval of additional expenditure on account of installation of Emission Control System to comply with the Notification dated 7.12.2015 issued by Ministry of Environment and Forest and Climate Change (MoEF&CC).

And

In the matter of

Udupi Power Corporation Limited,
Office: No. 160, Om Chambers,
1st Main Road, Sheshadripuram, Near Total Gaz Pump,
Bengaluru-560020 **..........Petitioner**

Vs

(i) Power Company of Karnataka Limited,
KPTCL Building, Kaveri Bhavan, K.G Road,
Bengaluru – 560009

(ii) Bangalore Electricity Supply Company Limited,
Krishnarendra Circle,
Bengaluru - 560001

(iii) Mangalore Electricity Supply Company Limited,
Paradigm Plaza, AB Shetty Circle,
Mangalore – 575001

(iv) Gulbarga Electricity Supply Company Limited,

Station Main Road,
Gulbarga-585102

(v) Hubli Electricity Supply Company Limited,
Corporate Office, Navanagar, PB Road,
Hubli – 580025

(vi) Chamundeshwari Electricity Supply Company Limited,
Corporate Office, No. 927, LJ Avenue,
New Kantaraja Urs Road, Saraswathipuram,
Mysore – 570009

(vii) Punjab State Power Corporation Limited,
The Mall, Patiala – 147001 ..... **Respondents**

Parties Present:

Shri Akshat Jain, Advocate, UPCL
Shri Shubhranshu Padhi, Advocate, PCKL
Shri Jay Nirupam, Advocate, PCKL
Shri D. Girish Kumar, Advocate, PCKL

ORDER

The Petitioner, Udupi Power Corporation Limited (UPCL) has filed the present petition under Section 79 of the Electricity Act, 2003, read with Regulations 11 and 29 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 seeking approval of additional expenditure on account of the installation of Emission Control System at its Udupi Thermal Power Plant (2 X 600 MW) in compliance with the Environment (Protection) Amendment Rules, 2015 (hereinafter referred to as the "2015 Rules") dated 7.12.2015 notified by Ministry of Environment and Forests and Climate Change (MoEF&CC), Government of India.

2. The Petitioner has made the claim with the following prayers: -

(a) Grant in-principle approval for the estimated hard cost of Rs. 936 Cr. claimed towards the installation of FGD in accordance with Regulations 11 and 29 of the CERC Tariff Regulations, 2019;

(b) Declare 'availability' of Udupi TPS as 'deemed availability' for the period of shutdown required to install FGD;

(c) Pass such further order as this Ld. Commission may deem just and proper in the facts and circumstances of the case and in the interest of justice.

Background

3. The Petitioner has set up a 1200 MW thermal power station in Udupi district in the State of Karnataka. The project has been developed as a Mega Power project in line with the policy guidelines issued by the Ministry of Power, Government of India, and is the first thermal power plant designed for 100% imported coal. The date of commercial operation of Unit-I is 11.11.2010, and that of Unit-II is 19.8.2012. Accordingly, the cutoff date of the generating station is 31.3.2015.

4. In May 1986, MoEF&CC notified the Environment (Protection) Act, 1986 (hereinafter referred to as the "1986 Act") and subsequently, in November 1986, by exercising the powers conferred under Section 6 and Section 25 of the 1986 Act, MoEF&CC has notified Environment (Protection) Rules, 1986, (hereinafter referred to as the "1986 Rules") wherein, standards for emission/ discharge of environment pollutants were specified under Schedule-I for various industries, including Thermal Power Plants. MoEF&CC, vide the 1986 Rules, has specified the Suspended Particulate Matter (SPM) norms as 150 mg/Nm^3 for generating stations of 210 MW and more capacities and as 350 mg/Nm^3 for the generating stations with capacities below 210 MW. Thereafter, MoEF&CC issued the Environment (Protection) Rules, 2015 (hereinafter referred to as the "2015 Rules") on 7.12.2015 revised the SPM norms and introduced the norms with respect to Water Consumption, Sulphur Dioxide, Oxides of Nitrogen and Mercury for thermal power plants on the basis of installed capacity and year of installation. Further, in terms of this notification, the subject norms have to be complied with within two years of notification. However, the water consumption norm for new plants installed after 1.1.2017 was enhanced to 3.0 m^3/MWh vide amendment dated 28.6.2018 and the Oxides of Nitrogen

(NOx) norm for plants installed between 1.1.2004 to 31.12.2016 was increased vide amendment dated 19.10.2020. Accordingly, the water consumption and various emission norms for Thermal Power Plants is as follows:

Sl. No	Industry	Parameter	Standard
1	2	3	4
"5A.	Thermal Power Plant (Water consumption limit)	Water consumption	I. All Plants with Once through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption up to maximum of 3.5m3/MW/hr within a period of two years from the date of publication of this notification. II. All existing CT-based plants reduce specific water consumption up to maximum of 3.5m3/MW/hr within a period of two years from the date of publication of this notification. III. New Plants to be installed after 1stJanuary 2017 shall have to meet specific water consumption up to maximum of 3.0m^3 MW/hr and achieve zero waste water discharge.
"5B	Thermal Power Plant (Water consumption limit) using sea water	Water consumption	Items I to III in column 4 in serial number 5A above shall not be applicable to the Thermal Power Plants using sea water"
"25.	Thermal Power Plant	TPPs (Units) installed before 31st December, 2003*	
		Particulate matter	100 mg/Nm^3
		Sulphur Dioxide (So2)	600 mg/Nm^3 (Units Smaller than 500 MW capacity units) 200 mg/Nm^3 (for units having capacity of 500 MW and above)
		Oxides of Nitrogen	600 mg/Nm^3
		Mercury (Hg)	0.03 mg/Nm^3 (for units having capacity of 500 MW and above)
		TPPs (units) installed after 1st January, 2004, up to 31st December, 2016	
		Particular Matter	50 mg/Nm^3
		Sulphur Dioxide (SO2)	600 mg/Nm^3 (Units smaller than 500 MW capacity units) 200 mg/Nm^3 (for units having capacity of 500 MW and above)
		Oxides of Nitrogen (NOx)	300 mg/Nm^3
		Mercury (Hg)	0.03 mg/Nm^3
		TPPs (units) to be installed from 1st January, 2017**	
		Particular Matter	30 mg/Nm^3
		Sulphur Dioxide (SO2)	100 mg/Nm^3
		Oxides of Nitrogen	100 mg/Nm^3

		(NOx)	
		Mercury (Hg)	*0.03 mg/Nm^3*

Submissions of the Petitioner

5. The present Petition is being filed by UPCL seeking (i) in-principle approval for the estimated hard cost of Rs. 936 Cr. claimed towards installation of FGD in accordance with Regulations 11 and 29 of the CERC Tariff Regulations, 2019, and (ii) declaration of 'availability' of Udupi TPS as 'deemed availability' for the period of shutdown required to install FGD.

6. The present Petition has been filed by the Petitioner in accordance with Regulation 11 [In-principle approval in specific circumstances] and Regulation 29 [Additional Capitalization on account of Revised Emission Standards] of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 ("CERC Tariff Regulations, 2019") inter alia seeking approval of the estimated hard cost towards the installation of Flue Gas Desulphurization ("FGD") pursuant to a Change in Law event. The Petitioner has submitted that by way of the MoEF Notification: -

(a) Existing emission norms were amended and/or certain new emission norms were introduced for Sulphur Dioxide ("SO2") and Nitrogen Oxide ("NOx") applicable to thermal power plants.

(b) New investments (CAPEX and/or OPEX) are necessitated to install and operate additional machinery and equipment and/or modify existing machinery and equipment to meet new emission norms. These included the installation of FGD equipment for the reduction of SO2 emissions.

7. This Commission, while considering the same PPA and same parties, by order dated 20.11.2019 in Petition No. 346/MP/2018, has already held that mandatory installation of FGD systems in compliance with the MoEF Notification is Change in Law in terms of Regulation 3(9)(b) of the 2014 Tariff Regulations.

8. UPCL has taken the required steps to comply with the CERC Change in Law Order. In this regard, the following is noteworthy: -

(a) On 29.10.2019, UPCL obtained approval from the Central Electricity Authority ("CEA") for installing Wet Limestone based FGD technology for the Udupi TPS.

(b) Thereafter, on 5.10.2020, UPCL initiated the process for awarding the contract for installing Wet Limestone based FGD technology at Udupi TPS by issuing a Notice Inviting Tender ("NIT") to select the Engineering, Procurement, and Construction ("EPC") contractor.

(c) After the conclusion of the bidding process, Power Mech Projects Ltd. ("Power Mech") was selected as the successful bidder (L1-Lowest Bidder). UPCL executed the EPC contract for Rs. 936 Cr. (excluding taxes & duties) with Power Mech on 18.8.2022.

(d) On 29.8.2022, PCKL wrote to UPCL seeking information regarding the action taken towards filing of the Petition before this Ld. Commission to obtain approval of additional capitalization for installation of FGD.

9. On 20.11.2019, this Commission passed the CERC Change in Law Order and held that mandatory installation of FGD systems in compliance with the MoEF Notification is a Change in Law in terms of Regulation 3(9)(b) of the CERC Tariff Regulations, 2014. The Commission, in the said order, directed UPCL to implement the revised norms in consultation with CEA and approach this Commission for determination of increase in cost and/or revenue expenditure on account of the implementation of revised norms in accordance with the Guidelines to be issued by CEA.

10. The CEA on 11.6.2019, recommended two technically feasible options- (i) Wet Limestone Based FGD and (ii) Sea Water Based FGD and directed UPCL to undertake a lifecycle cost-benefit analysis and technical feasibility before opting for either of the above options. On 29.10.2019, CEA gave approval for Wet Limestone based FGD technology for the Udupi TPS.

11. Hence, the present Petition is being filed by UPCL seeking (i) in-principle approval for the estimated hard cost of Rs. 936 Cr. claimed towards the installation of FGD in accordance with Regulations 11 and 29 of the CERC Tariff Regulations, 2019, and (ii)

declaration of ‘availability’ of Udupi TPS as ‘deemed availability’ for the period of shutdown required to install FGD.

Reply by Respondents

12. Respondent PCKL, on behalf of Respondent No. 1 to 6, vide affidavit dated 20.5.2023, has submitted that all the averments by the Petitioner are denied, and the present petition is misconceived. The Respondents have mainly submitted as under:

(a) The approval of the hard cost sought by the Petitioner is completely unreasonable and exorbitant.

(b) The bid process was not transparent and not as per commercially prudent norms and the Petitioner has failed to justify the huge costs claimed.

(c) The Petitioner did not adopt an open, transparent, and competitive bidding process, and because of the deliberate lack of involvement of the answering respondents in the decision-making process of implementing FGD, the hard cost has become unreasonably high.

(d) The tender was extended on 11 occasions from 16.12.2020 to 20.12.2021. As per the discussion dated 27.8.2021, the PCKL representative stated that to ensure maximum publicity, transparency, and competitive bidding, M/S UPCL is requested to invite the tender through an online portal. However, the same was published in the newspaper as a manual bid on 5.10.2020 and was amended for nearly 12 months. One of the amendments was to make the tender process a single-stage tender, which was never communicated either through newspaper, media, or website.

(e) Eventually M/S Power Mech Projects Limited (PMPL) was selected as successful bidder who is also an L-1 bidder across all bids invited by the Petitioner, i.e. for Kawai TPP Phase-I (2x660 MW), Udupi TPP, Phase-I (2x600 MW), Mundra TPP, Phase-I &II (4x330 MW), & Tiroda TPP, Phase-I, II & III (5x660 MW).

(f) The Petitioner has carried out the tender process for the implementation of FGD via the MOU route without ensuring transparency.

(g) The hard cost sought by the Petitioner is 78 lakh/MW, which is unjustifiably high.

(h) Regulation 29 of the 2019 Tariff Regulations makes it mandatory for the generating station to share its proposal with the beneficiaries before filing a petition and undertaking additional capitalization. Further, the beneficiaries/stakeholders need to be consulted is also a contractual mandate as per the PPA dated 26.12.2005. Despite the abovementioned facts, the respondents were kept abreast regarding the developments.

(i) The recommendation report dated 11.6.2019 of CEA was not communicated to the Respondents, and further, on 18.9.2019, before suggesting of the Petitioner for Wet lime based FGD to CEA, the Respondents were not consulted. The CEA letter dated 29.10.2019 was also not communicated to the Respondents.

(j) On 5.10.2020, NIT was published by the Petitioner without consulting Respondents, and the last date was 13.11.2020, and NIT was shared with the respondents on 12.10.2020 after its finalization and publication. The bid was not opened on 13.11.2020 and the deadline was extended throughout the year 2021.

(k) The prayer of deemed availability ought not to be granted to the Petitioner.

<u>Rejoinder to the Reply filed by the Respondents</u>

13. The Petitioner Udupi Power Corporation Limited, in its rejoinder vide affidavit dated 24.5.2023, has submitted that it has filed the present Petition pursuant to the liberty granted by this Commission in an order dated 20.11.2019 in Petition No. 346/MP/2018. The Petitioner has mainly submitted as under:

(a) On 6.2.2019, CEA requested Adani Power Limited to submit certain data for CEA to recommend the suitable technology to be used for the installation of FGD. On 11.6.2019, CEA, in its Report inter alia, recommended (i) Wet Limestone Based

FGD and (ii) Sea Water Base FGD as SO2 removal technologies being technically feasible for Udupi.

(b) On 29.10.2019, CEA accorded its approval to adopt a Wet Limestone based FGD technology for Udupi's Plant. This was informed to ESCOMs by letter dated 25.1.2020.

(c) Initially, on 29.3.2019, Udupi issued a Notice Inviting Tender ("NIT") for installing FGD at its plant. However, the same did not receive any response from prospective bidders, and therefore, the same was rolled back.

(d) On 5.10.2020, Udupi issued NIT to select the EPC contractor for installing Wet Limestone based FGD technology at Udupi TPS. This bid process was in strict compliance with CEA's direction dated 11.6.2019 to discover the cost of retrofitting of FGD for the plant through open competitive bidding in consultation with ESCOMs.

(e) Pursuant to Udupi's requests and insistence, ESCOMs actively participated in the bidding process all along. In the presence of ESCOM's representatives, the techno commercial and price bids were opened respectively on 20.12.2021 and 14.03.2022.

(f) After the conclusion of the bidding process, Power Mech Projects Ltd. was selected as the successful bidder. This was informed to PCKL on 2.4.2022, and Udupi requested PCKL's approval to issue the award to Power Mech.

(g) On 18.8.2022, Udupi Power executed the EPC contract with Power Mech for Rs. 936 Cr. (excluding taxes & duties). On 29.8.2022, PCKL sought information from Udupi regarding the filing of the Petition before this Commission to obtain approval of additional capitalization for the installation of FGD.

(h) The estimated cost sought to be approved has been arrived at pursuant to a transparent bidding process.

(i) The Petitioner had invited bids for participation in bidding process for installation of FGD system for its following power plants - (i) Kawai (Rajasthan) TPS (2x660 MW); (ii) Udupi (Karnataka) TPS (2x600 MW); (iii) Mundra (Gujarat) TPS, Phase I (2x330 MW) & Phase II (2x330 MW), and (iv) Tiroda (Maharashtra) TPS, Phase I (2x660 MW), Phase II (1x660 MW) & Phase III (2x660 MW).

(j) Regarding the bidding process for Udupi, the tender documents were put up for sale from 6.10.2020 to 16.10.2020. On 5.10.2020, letters were also issued to the embassies of 28 countries notifying them about the bidding process.

(k) Fourteen (14) prospective bidders showed interest in the project and purchased the tender documents. Subsequently, Nine (9) Bidders submitted the techno-commercial and price bids.

(l) In the presence of ESCOM's representatives, the techno commercial and price bids were opened, respectively, on 20.12.2021 and 14.3.2022. Pertinently, the bid evaluation process was undertaken in 4 stages, viz. Stage I: Pre-Qualification check; Stage II: Responsiveness check of the submitted bids; Stage III: Price Bid evaluation; and Stage IV: Selection of successful Bidder.

(m) After the selection of the qualified bidder (Power Mech), Udupi was required to execute the contract with Power Mech for the installation of FGD. At all stages of the bidding process, PCKL was kept aware of the developments.

(n) On 25.1.2020, Udupi informed PCKL regarding CEA having recommended Wet Limestone based FGD as the most suitable technology vide letter dated 29.10.2019. On 20.2.2020, Udupi submitted a copy of the feasibility report and other relevant data to PCKL, as submitted to CEA for determination of appropriate technology for installation of FGD.

(o) On 10.10.2020, Udupi informed PCKL inter alia regarding APL having issued NIT to appoint an EPC contractor for the installation of Wet Limestone based FGD. On

12.10.2020, Udupi submitted the copy of NIT as well as tender documents for the installation of Wet Limestone based FGD at Udupi TPS to PCKL. Vide letters dated 10.10.2020, 19.2.2021, 20.4.2021, and 4.5.2021, Udupi requested PCKL to nominate an officer from PCKL to witness/participate in the bidding process & award of the contract and also requested to consider Udupi's submissions & provide clarifications w.r.t tender conditions at the earliest. However, PCKL failed to nominate any officer to participate within time.

(p) On 19.2.2021, Udupi furnished a detailed reply to the amendments sought by PCKL in the tender document with respect to the estimated cost of the project, types of tenders, scope of work, technical qualifying criteria, EMD/Bid Security, financial qualifying criteria, conflict of interest, public procurement and graded action plan to install FGD.

(q) On 7.6.2021, Udupi provided a detailed response/clarification to the amendments suggested by TEC in its meeting dated 10.5.2021 regarding the estimated cost of the project, Type of Tenders, Scope of Work, Technical Qualifying Criteria, EMD/Bid security. Financial Qualifying Criteria and Conflict of Interest.

(r) On 15.7.2021, a meeting took place between the officials of PCKL and Udupi regarding FGD installation and other pending issues. On 23.7.2021, a meeting between Udupi and PCKL's Tender Evaluation Committee ("TEC") meeting took place. Issues related to Tendering Mode, Estimated Costs, Type of Tenders, Financial Qualifying Criteria, Conflict of Interest, etc. were discussed at length.

(s) On 27.8.2021, another meeting took place between the officials of PCKL and Udupi regarding FGD installation and other pending issues. Vide letter dated 14.12.2021, Udupi duly informed PCKL regarding the opening of a techno-commercial bid on 20.12.2021, and invited PCKL to participate in the same. Vide letters dated

21.1.2022 and 21.2.2022, UPCL kept PCKL duly informed of qualified bidders as per pre-evaluation requirements and techno-commercial bids.

(t) On 22.2.2022, Udupi submitted a Technical Evaluation Report and sought PCKL's approval to enable Udupi to open the price bid.

(u) On 28.2.2022, Udupi arranged for a presentation by consultant M/s FICHTNER regarding the main points of the Technical Bid Evaluation Report for the TEC and finalised the technical bid evaluation on the basis of TEC's discussion before the opening of financial bids. On 9.3.2022, Udupi informed PCKL about the price bid of qualified bidders scheduled to be opened on 14.3.2022. On 9.4.2022, 19.4.2022, 26.4.2022, and 5.5.2022, Udupi requested PCKL to accord its approval to go ahead with the award of the contract to the L1 bidder.

(v) On 26.4.2022, Udupi furnished a detailed point-wise response to clarifications sought by PCKL with respect to price bids. Udupi obtained the bid validity extension of 15 days from the L1 bidder and also held price negotiations with the L1 Bidder on PCKL's request. On 17.9.2022, Udupi submitted a copy of the EPC Contract executed with Power Mech and undertook to share the Contract Performance Bank Guarantee as and when received from Power Mech.

14. The Petitioner has further submitted that on 8.9.2021, PCKL itself agreed to proceed with the bidding process as per the terms and conditions of the tender documents, thereby foregoing its earlier request to re-issue tender documents and adopting the online mode of publishing NIT instead of the physical mode. the following points are noteworthy: -

(a) PCKL/ESCOMs' primary contention to allege unfairness and non-transparency in the bidding process is that the tender documents were not uploaded on the e-procurement portal. However, PCKL/ESCOMs have failed to point out any relevant law that necessitates or mandates the advertisement of tender through e-procurement / online portals.

(b) In any case, the 1st ever request made by PCKL to change the mode of tendering from manual to e-tendering was on 21.6.2021, i.e., after 8 months of NIT having been issued. This would have led to (i) incremental actual costs of re-tendering, (ii) delay in execution of the work with consequent delay in the attainment of the purpose for which procurement is being done, and failure in meeting timelines stipulated by MoEF Notification and CPCB; and (iii) possibility that the re-bid may have resulted in a higher bid.

(c) In the presence of ESCOM's representatives, the techno commercial and price bids were opened, respectively, on 20.12.2021 and 14.3.2022. No mala fide can be alleged at this stage, reg. award of bid to L1 bidder, i.e., Power Mech.

(d) After the discovery of the price in the bidding process, by letters dated 9.5.2022, 29.6.2022, and 29.8.2022, PCKL requested Udupi to negotiate the price of the contract with Power Mech, i.e., the L1 bidder. No concerns were raised qua award of the bid to the L1 bidder, i.e., Power Mech, at this stage. Pursuant to such requests, Udupi requested Power Mech to lower the contract price if possible. However, by letter dated 6.9.2022, Udupi informed PCKL that Udupi's request to lower the bid discovered price was rejected by Power Mech by letter dated 1.7.2022. Eventually, Udupi went ahead with the award of the contract to Power Mech on 18.8.2022 and informed PCKL about the same on 17.9.2022. There was no further response from PCKL.

(e) If at all PCKL/ESCOMs had any objections qua the bidding process, the appropriate approach was to object at the relevant point in time, and before the award of the contract. It is not open for PCKL/ESCOMs to raise their concerns for the first time before Ld. Commission by filing a Reply to the present Petition.

(f) So far as the cost of installation of FGD is concerned, the attempt of PCKL/ ESCOMs to compare the prices discovered in a bidding process concluded in March

2022 [i.e., after COVID-19]; with all prices discovered in a bidding process concluded prior to May 2020 is erroneous. In fact, the Ministry of Power, by its Office Memorandum dated 3.5.2022 inter alia, records CEA's view/observations that due to the huge demand-supply gap, prices quoted in the FGD bid are escalating exorbitantly [increased from Rs. 0.39 Cr. per MW to Rs. 1.14 Cr. per MW, i.e., 2.9 times in a short span]. As against CEA's observation qua FGD installation cost having touched Rs. 1.14 Cr per MW, Udupi's estimated hard cost sought to be approved stands at Rs. 0.78 Cr per MW. Accordingly, the aspersions cast qua bid discovered cost for installation of FGD is baseless and lacks merit.

(g) At this stage, Udupi is not filing a para-wise response to PCKL/ESCOMs' Reply as PCKL/ESCOMs have chosen not to file a para-wise response to the present Petition. Submissions in the Petition may be read as part and parcel of the present Rejoinder. Nothing shall be deemed to be admitted unless expressly stated herein. Udupi reserves its right to file a detailed para-wise response to PCKL/ESCOMs' Reply subsequently.

15. In view of the above, it is most respectfully submitted that the Reply submissions of PCKL/ESCOMs ought to be rejected, and reliefs as prayed for in the Petition may kindly be granted.

Hearing dated 28.3.2023

16. The matter was heard on admission. The Commission observed that the cost of FGD of Rs 936 crore claimed by the Petitioner is on the higher side.

17. In response to a query of the Commission, the learned counsel for the Petitioner submitted that the award for installation of FGD has already been issued and it is being installed. In response to another query, he submitted that in-principle approval of the installation of FGD by the Commission would help the Petitioner in availing cheaper loans.

18. The Commission admitted the Petition and directed to issue notice to the Respondents. The Commission further directed the Respondents to file their reply by 28.4.2023 with an advance copy to the Petitioner, who may file its rejoinder, if any, by 16.5.2023. The Commission further directed the parties to comply with the directions within the specified timeline.

Hearing dated 25.5.2023

19. Learned proxy counsel for the Petitioner sought a short adjournment. The Commission acceded to the request of the Petitioner and adjourned the matter. In the meanwhile, the Commission directed the Petitioner to furnish additional information, with an advance copy to the Respondents.

Hearing dated 18.8.2023

20. Learned counsel for the Respondent, PCKL, sought a short adjournment as the main arguing counsel is unavailable today. Request for adjournment is unopposed on behalf of the Petitioner. Considering the request of learned counsel for Respondent PCKL, the Commission adjourned the matter for further hearing on 6.9.2023.

Hearing dated 6.9.2023

21. Learned counsel for the Petitioner, referring to the Note of Arguments, has submitted that the bidding process was transparent, and based on the suggestion of PCKL, a single stage 2 envelope process was followed and reiterated its contention.

22. The main objection of PCKL is that the Petitioner invited bids in an opaque manner and awarded the contract to M/S Power Mech for the installation of FGD. The Petitioner should have invited online bids for FGD through the Central Government portal or the State Government portal to make it available in the public domain to a large number of bidders for their probable participation.

23. The learned Senior Advocate for the Respondents sought time for further arguments, and the Commission allowed the same.

Additional submission by the Petitioner

24. The Petitioner Udupi Power Corporation Limited on 29.9.2023 in its additional submission, has reiterated its submission and requested to the Commission to grant in-principle approval for the estimated hard cost of Rs. 936 Crores claimed towards the installation of FGD in accordance with Regulations 11 and 29 of the CERC Tariff Regulations, 2019.

Additional submission by Respondent

25. The Respondent PCKL, vide its additional submission dated 16.10.2023, has mainly submitted the details of the correspondences exchanged with the Petitioner with regard to their objections to the bidding process for installation of FGD and prayed the Commission to issue necessary directions to the Petitioner and direct it to provide the details of breakup of costs as previously sought by the Respondent.

Hearing dated 10.11.2023

26. Learned counsel for Power Company of Karnataka Limited (PCKL) sought a short adjournment as the main arguing counsel was unavailable. Request for adjournment was unopposed on behalf of the Petitioner. Considering the request of learned counsel for PCKL, the Commission adjourned the matter for further hearing.

Hearing dated 2.2.2024

27. Learned proxy counsel for the Petitioner sought an adjournment on the ground that the arguing counsel is not available today. In response to the Commission's query, he submitted that the LoA had been awarded to the L1 bidder. In response to another query, he submitted that the existing FGD has been dismantled.

28. The learned senior counsel for PCKL submitted that the tender process carried out by the Petitioner was not transparent, and the Petitioner has not provided the cost break-up of the FGD proposed to be installed. He submitted that the Petitioner did not consult the Respondents beforehand regarding the tendering and bidding process as required under

the PPA and as per the directions of the CEA. Therefore, a prudence check of the capital cost incurred is required before granting the in-principle approval of the FGD.

29. The Commission observed that the implementation of the Emission Control System, including FGD, is of time bound necessity. The Commission directed the Petitioner to submit all the information sought by PCKL and, if required, directed the Respondent to mutually discuss and resolve the issues with the Petitioner after visiting the site, if required and submit a detailed report to this effect by 4.3.2024. The Commission directed the Petitioner to submit the additional information on affidavit with an advance copy to the Respondents.

<u>RoP compliance by the Petitioner</u>

30. The Petitioner in compliance vide affidavit dated 20.2.2024, has submitted the details as sought by the Commission as per ROP of the hearing dated 2.2.2024. However, the Petitioner with respect to some of the issues has not made clear and satisfactory replies with regard to the exact date of the dismantling of the existing FGD and breakup of the FGD cost.

<u>Reply by the Respondent</u>

31. The Respondent PCKL, in its reply vide affidavit dated 2.3.2024, has mainly submitted that on 20.11.2023, the Petitioner issued a letter wherein it disclosed that its request for cost break-up was not available to Adani Power Limited. Notably, the Petitioner also informed that the approved contractor, i.e., M/s Power Mech, had run out of existing credit limit for issuing Bank Guarantee and that the same will be submitted on or before 31.3.2024 and the contract being an EPC award, cost break-up is not available.

32. Further, the dismantling work of FGD, which is underway presently, was commenced without any request or authorisation by the Petitioner. In the absence of a break-up of costs, the Commission is hereby prayed to apply prudence check as per law in the captioned Petition based on (a) the information on costs provided by the Respondent Nos.

1-6 in its previous affidavit (dated 16.10.2023) or (b) undertake prudence check on the costs based on the information available with the Commission from other similarly situated projects that it has adjudicated.

Hearing dated 6.3.2024

33. The learned counsel for the Petitioner and the learned senior counsel for Respondent No.1, Power Company of Karnataka Limited (PCKL), argued at length and made exhaustive submissions in the matter. The learned senior counsel for PCKL emphasized that PCKL was not consulted as mandated under the PPA, the bidding process was not transparent, and the cost of the proposed WFGD is higher compared to similarly placed NTPC and other projects. Per contra, the learned counsel for the Petitioner submitted that the bidding was conducted in a transparent manner and PCKL was involved at all stages of bidding.

34. The Commission observed that the parties are at liberty to file to submit consolidated written Submissions emphasizing the bidding process and the cost discovered through the bidding process by 19.3.2024. The Commission directed the Petitioner to furnish the following information on an affidavit by 19.3.2024, with a copy to the Respondents:

(a) Cost break-up of proposed ECS, including the cost of dismantling the existing FGD.

(b) Current status of the Project and the date of completion.

(c) Per MW cost of the proposed ECS of the present project and Kawai, Mundra, and Tiroda TPS.

(d) Whether (a) the LoA has been issued, (b) whether the work has been started by the contractor, and (c) the payment has been made to the contractors till date.

35. Subject to the above, the Commission reserved the order in the matter.

Reply by the Respondent

36. The Respondent PCKL, in its reply vide affidavit dated 2.3.2024, has mainly submitted that the approval of the hard costs sought by the Petitioner is completely unreasonable and

exorbitant. The bid process was not transparent and was not as per commercially prudent norms. Based on the facts narrated, there are serious flaws in the tender process carried out by the Petitioner, which the Answering Respondents have pointed out in its objections. The Respondent had time and again highlighted the issues in the bidding process and had asked for remedial steps to be taken.

<u>Reply to the RoP of the hearing dated 6.3.2024 by the Petitioner</u>

37. The Commission vide Record of Proceedings dated 6.3.2024 directed the Petitioner to furnish the following information: -

"4. …
(a) Cost break-up of proposed ECS, including the cost of dismantling the existing FGD.
(b) Current status of the Project and the date of completion.
(c) Per MW cost of the proposed ECS of the present project and Kawai, Mundra and Tiroda TPS.
(d) Whether (a) the LoA has been issued, (b) whether the work has been started by the contractor, and (c) the payment has been made to the contractors till date."

38. In compliance, the Petitioner vide affidavit dated 19.3.2024 has mainly submitted as under: -

(a) As per the 'tender forms and schedules,' the bidders were required to quote only a lumpsum figure on a 'turnkey EPC basis' for the entire 'scope of services' at Petitioner's TPS. As such, none of the bidders (including the L-1 bidder) provided any element-wise cost break-up of the proposed ECS, including the cost of dismantling the existing FGD. Accordingly, the Petitioner is not in a position to provide the cost break-up of the proposed ECS, including the cost of dismantling the existing FGD.

(b) The dismantling of the existing FGD system has been initiated and is under process. Basic and detailed engineering is in progress. Power Mech (L-1 bidder) has placed major orders with the sub-contractors. The scheduled commissioning of the FGD system at both Unit 1 and Unit 2 of Petitioner's TPS is 31.3.2025. Supply of all spares, tolls, and tackles- within 31.3.2025. Successful conduct of

Performance Guarantee tests within three (3) months of commissioning of the works for the respective unit. Notably, the due date for completion is within 31.12.2026, i.e., the timeline for compliance with emission control norms as per Environment (Protection) Second Amendment Rules, 2022, notified by MoEF dated 5.9.2022.

(c) A comparative chart of the price discovered for installation of FGD system (ECS) in the present Project and that in (i) Kawai (Rajasthan) TPS; (ii) Mundra (Gujarat) TPS, Phases I & II, and (iii) Tiroda (Maharashtra) TPS was already furnished through Petitioner's Affidavit dated 29.9.2023. The price discovered for installation of FGD at Petitioner's Udupi TPS is NOT comparable with other TPS since the scope of retrofit installation in Petitioner's Udupi TPS varies significantly from other aforesaid plants due to: -

(i) inclusion of dismantling of existing system,
(ii) adding pre-treatment and desalination system,
(iii) intake pump house capacity enhancement,
(iv) different civil works due to different layouts,
(v) varied electrical and C&I works,
(vi) different PG parameters as per design coal thus, the difference in system design.

(d) The Letter of Award ("LoA") has been issued to L-1 Bidder on 11.8.2022. The work has been started by the contractor. As stated above, (1) the dismantling of the existing FGD system has been initiated and is under process, (2) basic and detailed engineering is in progress, and (3) Power Mech (L-1 bidder) has placed major orders with the sub-contractors. Yes, part payments have been made to the contractors. Power Mech raised certain invoices against various milestones as per the milestone schedule. After verification of the invoices, the Petitioner has made part payment to Power Mech.

<u>Hearing dated 17.9.2024</u>

39. Since the order in the matter, which was reserved on 6.3.2024, could not be issued prior to the Members of the Commission, who formed part of Coram, demitting office, the matter was re-listed for the hearing.

40. Learned counsel for the Petitioner submitted that Pleadings and the arguments in the matter are already completed, and the Petitioner has also filed the additional information as called for vide Record of Proceedings for the hearing dated 6.3.2024 and thus, the matter may be reserved for the order.

41. Learned counsel for the Respondent, PCKL, however, sought liberty to seek necessary instruction on the need to re-hear the matter and respond to the additional information furnished by the Petitioner, if required.

42. Considering the above, the Commission directed the Respondents to file their further comments, if any, to the information/details furnished by the Petitioner within a week with a copy to the Petitioner, who may file its response thereon, if any, within a week thereafter.

Reply by the Respondent PCKL.

43. The Respondent PCKL, vide affidavit dated 7.10.2024, has submitted that the Respondents Nos. 1 – 6 do not wish to present any further arguments and respectfully pray that the Commission may kindly reserve the order/judgment in the captioned matter.

Hearing dated 10.10.2024

44. At the outset, learned counsel for the Petitioner submitted that the matter had already been argued at length by the parties and was previously reserved for order on 6.3.2024. However, due to the change in Coram, the matter was re-listed on 17.9.2024, and during the said hearing, the Commission had permitted the learned counsel for the Respondents to seek necessary instruction as to the need for re-hearing. Learned counsel further submitted that in this regard, the Respondents, vide their letter dated 7.10.2024, have indicated that they do not wish to present any further arguments, and accordingly, the Commission may reserve the matter for order. Learned counsel sought to point out that

insofar as the per MW cost of wet lime-based FGD system is concerned, the Ministry of Power's OM dated 3.5.2022 records the relevant submission of CEA that the project cost of wet lime-based FGD technology had reached nearly Rs. 1.14 crore per MW, whereas the per MW cost of the Petitioner's FGD system is Rs.0.78 crore/ MW.

45. Learned counsel for the Respondents, Karnataka Discoms, submitted that the Commission may reserve the matter for order.

46. Considering the submissions made by the learned counsel for the parties, the Commission directed the Petitioner to submit the following details/information, on affidavit, within two weeks:

(a) Details as per the requirement of clauses (2) and (3) of Regulation 29 of 2019 Tariff Regulations, such as the scope of work, phasing of expenditure, schedule of completion, reasonableness of the cost estimates, financing plan, schedule of completion, and cost-benefit analysis, etc.

(b) Status of implementation of the FGD system.

(c) Detailed breakup of existing FGD-related assets such as chimney & other major assets that are being dismantled being replaced by new assets along with the reason for the same.

(d) The information provided to the beneficiaries with regard to the availability of the plant or schedule of shutdowns during the erection period of the FGD system

47. Subject to the above, the Commission reserved the matter for order.

<u>Reply of the Petitioner</u>

48. The Petitioner, in compliance vide affidavit dated 29.10.2024, has mainly submitted as under:

(a) W.r.t. the scope and other details, the Petitioner has submitted that: -

S.No.	Requisitions of this Ld. Commission	APL's Response

1.	Scope of work	As per Article 12 of the Engineering, Procurement, and Construction ("EPC") contract signed between APL and Power Mech Projects Ltd. (i.e., L1 bidder) dated 18.8.2022, the scope of work includes: • Supply of all plant and equipment and performance of all installation services, including design, engineering, manufacturing, procurement, quality assurance, supply, transportation, including marine insurance, custom clearance, port handling, inland transportation including transit insurance, storage at site, installation, erection, construction supervision, construction and associated civil works, drawings, plans, procedures, codes, and standards, etc. • Perform Acceptance Tests, Commissioning, handing over services, and related activities, etc. • Supply of laborers and experienced personnel and arrange deputation of contractor's technical experts at the site. • Incidental work and services which may be inferred or required as necessary to complete and render Works operable. • Supply all commissioning and consumable spares required for the installation.
2.	Phasing of expenditure	• As per the EPC Contract, eighty percent (80%) of the Contract Price along with applicable GST shall be released against a milestone basis and would be paid on a pro-rata basis against completion of a particular milestone as per mutually agreed Milestone Payment Schedule through milestone invoice. • The Milestone Payment Schedule agreed between APL and the EPC Contractor is placed on record through PCKL's Affidavit dated 1.3.2024.
3.	Schedule of completion	• APL's new FGD installation is expected to commission well within the timeline of 31.12.2026 as stipulated by the Ministry of Environment, Forests and Climate Change's Environment (Protection) Second Amendment Rules, 2022 for 'Category-C' thermal power projects.
4.	Reasonableness of the cost estimates	• Ministry of Power's ("MoP") Office Memorandum dated 3.5.2022 inter alia recorded CEA's view/ observations that due to the huge demand-supply gap, prices quoted in the FGD bid are escalating exorbitantly.

		• As against MoP/CEA's estimates dated 3.5.2022 of Rs. 1.14 Cr. per MW, the price discovered for installation of FGD at Udupi TPS is only Rs. 0.78 Cr./MW (price bids opened on 14.3.2022). • APL provided detailed justification for the reasonableness of the cost estimates for installation of FGD at Udupi TPS vide Compliance Affidavit dated 29.9.2023.
5.	Financing plan	• APL will be self-financing the capital expenditure towards the installation of new FGD through its equity.
7.	Cost-benefit analysis	• On 6.2.2019, CEA requested APL to submit certain data for CEA and to prepare a feasibility report to facilitate CEA to recommend a suitable technology for meeting MoEF emission norms. Adani submitted such data to CEA. • On 11.6.2019, CEA, in its Report, inter alia, recommended (A) Wet Limestone Base FGD and (B) Sea Water Base FGD as SO2 removal technologies being technically feasible for UPCL. CEA, however, directed APL to make lifecycle cost-benefit analysis and technical feasibility before opting for either of the said technologies. • On 18.9.2019, following CEA's direction and based on the lifecycle cost-benefit analysis and technical feasibility conducted by APL for the technologies suggested by CEA, APL confirmed Wet Limestone FGD as the most feasible technology and sought CEA's approval to proceed. • On 29.10.2019, CEA, having analyzed the lifecycle cost-benefit analysis conducted by APL, approved the use of Wet Limestone based FGD at APL's Udupi TPS.

(b) With respect to the status of implementation of the FGD system, the Petitioner has submitted that it has awarded the EPC contract to Power Mech Project Ltd. for the installation of a Wet Limestone based FGD system on 18.8.2022 and Power Mech Project Ltd. has awarded the contract for technological supplier during September 2022. Dismantling work of the existing FGD was completed in April 2024, and installation work of the new FGD is under process. The Petitioner has also submitted that the basic Engineering was completed in April 2024, and detailed engineering is under progress, which includes layout finalization, finalization of equipment sizing and capacity, detailed examination of system process, detailed technical specification, etc. Civil and mechanical work, is under progress, which includes excavation and foundation work, etc. Further, the EPC Contractor has mobilized civil and mechanical contractors at the site, and the work is in progress.

(c) The Petitioner, with respect to the detailed breakup of existing FGD and the assets that are being dismantled and replaced by new assets, has submitted that the Commission vide Order dated 25.10.2005 in Petition No. 40 of 2005 approved Rs. 150 Cr. towards the existing (now dismantled) FGD. The cost of FGD of Rs. 150 crores was a part of the total EPC cost discovered through International Competitive Bidding, and the same was approved by this Ld. Commission after prudence check and the break-up of Rs. 150 Cr. towards installation of FGD is not available. Further, it is installing a new chimney in addition to the existing chimney for the following reasons:

(i) In view of the installation of Wet Limestone based FGD with a flue gas outlet temperature of 55 to 60 degrees Celsius from the absorber outlet, a new wet stack with lining is envisaged. The existing chimney of carbon steel cannot be used without lining for such high flue gas temperatures.

(ii) For lining the existing chimney of 275 meters, a shutdown period of approximately 90 days for each unit is required, which will lead to loss of generation of the units.

(iii) With the construction of a separate new chimney, the interconnection of the FGD system will take approx. 15 to 25 days, which can be carried out within the normal/planned shutdown period of the plant.

(iv) The existing chimney is not being dismantled since it can be used for bypassing FGD in case of any emergency conditions.

(d) With regard to the information provided to the beneficiaries regarding the availability of the plant or schedule of shutdowns during the erection period of the FGD system, the

Petitioner has submitted that the beneficiaries have yet not been informed regarding the availability of the plant or schedule of shutdowns during the erection period of the FGD system. However, it undertakes to duly inform the beneficiaries at the relevant stage with respect to the availability of the plant or schedule of shutdowns during the erection period.

49. Based on the submissions, replies and rejoinders and the documents available on record and in consideration of the Regulations, we now proceed to decide upon the claim of the Petitioner, seeking approval of additional expenditure on account of the installation of Emission Control System at its Udupi Thermal Power Plant (2 X 600 MW) in compliance with the Environment Amendment Rules, 2015 dated 7.12.2015 notified by Ministry of Environment and Forests and Climate Change, Government of India.

Analysis and Decision

50. We have considered and perused all the submissions of the Petitioner and the Respondents, along with all the documents available on record. The instant petition is filed under Section 79 of the 2003 Act read with Regulations 11 and 29 of the 2019 Tariff Regulations seeking approval of additional expenditure towards the installation of ECS for compliance with the MoEF&CC Notification.

51. Regulation 11 of the 2019 Tariff Regulation provides for in-principal approval in specific circumstances, which states that: -

(1) The generating company or the transmission licensee undertaking any additional capitalization on account of change in law events or force majeure conditions may file petition for in-principle approval for incurring such expenditure after prior notice to the beneficiaries or the long term customers, as the case may be, along with underlying assumptions, estimates and justification for such expenditure if the estimated expenditure exceeds 10% of the admitted capital cost of the project or Rs.100 Crore, whichever is lower.

(2) The generating company undertaking any additional capitalization in integrated mine(s) on account of change in law events or force majeure conditions may, after intimating the beneficiaries, file petition for in-principle approval for incurring such expenditure, along with underlying assumptions, estimates and justification for such expenditure, if the estimated expenditure exceeds 10% of the admitted capital cost of the integrated mines or Rs.100 crore, whichever is lower;

52. Essentially, the above regulation sets out a framework for the prior approval process of significant capital expenditures arising from external factors such as legal changes or unforeseen events, ensuring transparency and accountability in such cases. However, approval is required if the estimated expenditure exceeds 10% of the admitted capital cost of the project or Rs. 100 Crore, whichever is lower.

53. Further, the Commission has specified the procedure for claiming ACE on account of the implementation of ECS in Regulation 29 of the 2019 Tariff Regulations, which provides as follows:

"29. Additional Capitalization on account of Revised Emission Standards:

(1) A generating company requiring to incur additional capital expenditure in the existing generating station for compliance of the revised emissions standards shall share its proposal with the beneficiaries and file a petition for undertaking such additional capitalization.

(2) The proposal under clause (1) above shall contain details of proposed technology as specified by the Central Electricity Authority, scope of the work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange component, if any, detailed computation of indicative impact on tariff to the beneficiaries, and any other information considered to be relevant by the generating company.

(3) Where the generating company makes an application for approval of additional capital expenditure on account of implementation of revised emission standards, the Commission may grant approval after due consideration of the reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission.

(4) After completion of the implementation of revised emission standards, the generating company shall file a petition for determination of tariff. Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on reasonableness of the cost and impact on operational parameters shall form the basis of determination of tariff

54. As per Regulation 29(1) of the 2019 Tariff Regulations, a generating company intending to incur ACE towards the installation of a revised ECS shall share its proposal with the Respondents/ beneficiaries and file a petition for undertaking ACE. The proposal should contain the details of the proposed technology as specified by CEA and other relevant information under Regulation 29(2) of the 2019 Tariff Regulations. On an application by the generating station, the Commission may approve additional capital expenditure towards the implementation of ECS after prudence check as per Regulation 29(3) of the 2019 Tariff Regulations. As per Regulation 29(4) of the 2019 Tariff Regulations, the generating station, after implementation of the revised ECS, shall file a petition for determination of tariff.

55. The Petitioner had earlier filed Petition No. 346/MP/2018 seeking regulatory certainty with respect to the treatment of cost for mandatory installation of additional systems in compliance with the Environment (Protection) Amendment Rules, 2015, issued by the Ministry of Environment, Forest and Climate Change dated 7.12.2015 for thermal power stations. The scope of Petition No. 346/MP/2018 was limited to seeking a declaration of the 2015 MoEF&CC Notification as an event under a change in law. Accordingly, the Commission, vide order dated 20.11.2019, had declared it as a change in law event and directed the Petitioner to approach the CEA to firm up the technology to be used for the installation of FGD and for compliance with revised environmental norms as stipulated by the 2015 MoEF&CC Notification.

56. Subsequent to the above, the Petitioner approached CEA and has submitted that it has obtained approval from the Central Electricity Authority ("CEA") for installing Wet

Limestone based FGD technology for the Udupi TPS on 29.10.2019. Thereafter on 5.10.2020, UPCL initiated the process for awarding the contract for installing Wet Limestone based FGD technology at Udupi TPS by issuing a Notice Inviting Tender to select the EPC contractor, and Power Mech Projects Ltd. ("Power Mech") was selected as the successful bidder (L1-Lowest Bidder). UPCL executed the EPC contract for Rs. 936 Cr. (excluding taxes & duties) with Power Mech on 18.8.2022. Accordingly, the Petitioner is claiming in principal approval of hard cost of Rs. 936 Cr. towards the installation of FGD.

57. The main contention raised by the Respondent PCKL is that the approval of the hard cost sought by the Petitioner is completely unreasonable and exorbitant. Further, the respondent has contended that the Petitioner did not adopt an open, transparent and competitive bidding process. The tender was extended on 11 occasions from 16.12.2020 to 20.12.2021, and the bid process was not transparent and not as per commercially prudent norms.

58. However, the Petitioner , in its rejoinder vide affidavit dated 24.5.2023, has provided a detailed explanation in response to the points raised by PCKL and ESCOMs regarding the process of installing the Flue Gas Desulfurization (FGD) system at Udupi's thermal power station. The Petitioner has mainly submitted that Fourteen bidders showed interest, and nine submitted their bids. The bidding process was carried out in multiple stages: pre-qualification, responsiveness check, price bid evaluation, and selection of the successful bidder (Power Mech Projects Ltd.). The Petitioner has further clarified that the ESCOMs were involved throughout the bidding process, and Udupi repeatedly requested PCKL to nominate a representative to participate in various stages of the process. ESCOMs did not raise objections during the process or at the time of contract award but later questioned the fairness of the process and the cost.

59. The Petitioner has claimed a total hard cost of ₹936 Cr, i.e., 78 lakh/MW, towards the installation of the FGD system in Udupi Thermal Power Station (2x600 MW) against the

CEA recommended hard cost of ₹40.50 lakh/MW for units of 500 MW. With respect to the contention of the Respondents PCKL and ESCOMs about the fairness and transparency of the bidding process, particularly regarding the tender not being advertised online, the Petitioner has submitted that there is no legal requirement to publish the tender online, and PCKL's request to switch to e-tendering came eight months after the initial NIT, which would have caused delays and additional costs. The Petitioner has further submitted that no concerns were raised about the L1 bidder or the bidding process at the time of bid discovery in 2022, and PCKL's subsequent requests to negotiate the contract price were not successful, as Power Mech rejected any price reduction.

60. The Petitioner asserts that the cost of installing FGD, discovered in the post-COVID-19 bidding process, is reasonable despite the price escalation in the industry. It references the Ministry of Power's memorandum indicating the escalation of FGD prices from Rs. 0.39 Cr. per MW to Rs. 1.14 Cr. per MW. Accordingly, the estimated cost sought to be approved for Udupi's FGD system is Rs. 0.78 Cr. per MW, which is lower than the prices recorded by the CEA. The Petitioner has submitted that the cost provided by CEA was only indicative and that the cost of the WFGD system in the case the subject generating station is discovered through competitive bidding.

61. In conclusion, Udupi defends the transparency and fairness of the bidding process and the costs associated with the FGD installation, emphasizing that the steps taken were in compliance with the relevant regulations and in consultation with ESCOMs. It also highlights that concerns raised by ESCOMs were not timely and were only presented after the contract award.

62. The Petitioner is yet to install FGD to cater to the 100% requirement of the generating station. The Petitioner in Petition No. 346/MP/2018 had submitted that at the time of investment approval of the generating station, it was mandated to only meet Ambient Air Quality Standards as per NAAQS, and the existing FGD is designed to meet the limits

specified in NAAQS 1994. However, vide 2015 MoEF&CC Notification, the norms for control of emission of SO2 and NOx in stack emissions was introduced.

63. Further, the Petitioner in Petition No. 346/MP/2018 had clarified that the generating station will fall under the Category-C and Non-retiring units, and accordingly, the compliance timeline for the Petitioner will be up to 31.12.2024, as against 31.3.2022 and 30.6.2022 stipulated by CEA earlier for Units-I & II, respectively. The Petitioner has further submitted that the Notice for inviting tender to appoint an EPC contractor for the installation of a wet limestone-based FGD system was floated by Adani Power Limited on 5.10.2020 for all its generating plants, including the generating station. After the discovery of the price in the bidding process, PCKL requested Udupi to negotiate the price of the contract with the L-1 bidder M/s Power Mech. Accordingly, the Petitioner, Udupi, requested Power Mech to lower the contract price. However, the request to lower the bid discovered price was rejected by Power Mech by letter dated 1.7.2022. Eventually, the contract to Power Mech was awarded on 18.8.2022 and PCKL was informed about the same on 17.9.2022.

64. It is noticed that the Commission vide order dated 25.10.2005 in Petition No. 40 of 2005 [Nagarjuna Power Corporation Ltd. v. Karnataka Power Transmission Corporation Ltd. & Anr.] approved Rs. 150 Cr. towards the existing (now dismantled) FGD and further vide order dated 4.1.2024 in Petition No. 21/GT/2021 had made it clear that it had approved the capital cost of Rs.150 crore towards FGD for 25% capacity. In compliance with the specific query by the Commission vide ROP of the hearing dated 10.10.2024, the Petitioner, vide affidavit dated 29.10.2024, has submitted that the new FGD installation is expected to be commissioned well within the timeline of 31.12.2026 as stipulated by the Ministry of Environment, Forests and Climate Change’s Environment (Protection) Second Amendment Rules, 2022 for ‘Category-C’ thermal power projects. Regarding the status of the FGD, the Petitioner has submitted that the EPC contract to Power Mech Project Ltd. The installation of a Wet Limestone based FGD system was awarded on 18.08.2022, and

the dismantling work of the existing FGD was completed in April 2024, and the installation work of the new FGD is under process. However, the Petitioner has not mentioned the date of the start of the dismantling work of FGD. The Commission, in the said ROP, had also directed the Petitioner to submit the detailed breakup of existing FGD-related assets, such as chimney & other major assets that are being dismantled and replaced by new assets, along with the reason for the same. In response, the Petitioner has submitted that the Commission vide order dated 25.10.2005 in Petition No. 40 of 2005 had approved Rs. 150 Cr. towards the existing FGD, which is dismantled now. The cost of FGD of Rs. 150 crores was a part of the total EPC cost discovered through International Competitive Bidding. The Petitioner has further clarified that it has executed the EPC Contract with Lanco Infratech Ltd. which had quoted a lump sum bid for EPC. Therefore, the break-up of Rs. 150 Cr. towards the installation of FGD is not available with APL. Further, the Petitioner is installing a new chimney in addition to the existing chimney.

65. The Commission, in various orders dated 11.11.2019 in Petition No.152/MP/2019, order dated 23.4.2020 in Petition No. 446/MP/2019, and order dated 6.5.2020 in Petition No. 209/MP/2019, has already recognised that the cost provided by CEA was indicative in nature and the cost of FGD has increased due to various factors.

66. We observe that the per MW hard cost suggested for the FGD system by CEA is indicative in nature, and that the cost claimed by the Petitioner has been discovered through a competitive bidding process. Further, we also note the cost recommended by CEA is more than two or three years old and that CEA has already recognised the need for revising the cost recommended by it earlier. Taking into consideration the above facts, we grant in-principle approval of only the hard cost of the FGD system, but the other components of the cost of the FGD system including soft cost such as IDC and IEDC are not considered in this order. However, considering the fact that the Petitioner has

dismantled the existing FGD of Rs 150 Crore, the same would be accounted for while are allowing the additional capital expenditure towards the ECS system.

67. In view of the foregoing discussions, it is observed that the process of the bidding has been carried out in a fair and transparent manner as the ESCOMs were involved throughout the bidding process, and Udupi repeatedly requested PCKL to nominate a representative to participate in various stages of the process. No such objections were raised during the process or at the time of contract award. The Petitioner has identified and proposed WFGD systems for a reduction in SO2 emissions, taking into consideration the effectiveness, availability and cost, size of the plants, operational expenses, and availability of the reagents, which is also approved by CEA. With respect to the higher cost claimed by the Petitioner towards the installation of WFGD Systems than the indicative cost it is observed that the cost provided by CEA was only indicative and that the cost of the WFGD system in case of the subject generating station has been discovered through competitive bidding. Further, CEA has also acknowledged that the earlier cost estimation given is approximately three years old, and the cost of FGD installation has increased due to an increase in demand for FGD equipments, shortage of indigenous manufacturing capacity, etc., and it therefore, requires to be revised.

68. In view of the above, we grant in-principle approval for the estimated hard cost of ₹936 crores (excluding taxes and duties) for the additional capital expenditure associated with the installation of the FGD and other components, especially IDC and IEDC. The Petitioner is, however, directed to furnish the (i) Auditor-certified statement showing the reconciliation of capital cost claimed as on ODe of ECS as well as the additional capital expenditure claimed thereafter; (ii) Detailed clarification regarding the expenditure towards contingencies, as on the ODe of ECS system, included in I.A. approved cost; (iii) Detailed workings in respect of IDC, FC and FERV calculations, as on the respective ODe of ECS system; The Petitioner is also directed to submit the complete details of the scheme of the

ECS system along with the major components capitalized as per Form-9A of the 2019 Tariff Regulations along with the details of the old items de-capitalized as per Form-9B(i) of the 2019 Tariff Regulations. The Petitioner after the implementation of FGD, shall furnish the complete bifurcation of cost of each component duly reconciled and audited. The final cost will be considered after the implementation of ECS in UPCL in a petition to be filed by the Petitioner under Regulation 29(4) of the 2019 Tariff Regulations/2024 tariff regulations as per the date of commissioning of FGD and the additional capital expenditure approved as above, is subject to truing-up.

69. The Petitioner has further prayed to allow deemed availability on account of shutdown for installation of ECS. As the instant petition is for “in-principle” approval of ACE towards the installation of ECS, we do not deem fit to go into this prayer at this stage, and we would consider them in petitions to be filed by the Petitioner under Regulation 29(4) of the 2019 Tariff Regulations/2024 Tariff regulations after installation of ECS. However, we would like to point out that the Petitioner shall ensure that the period of installation of FGD may be matched with the planned shutdown of the unit of the generating station so as to minimize the loss due to availability and deemed availability on account of the shutdown will be dealt with on a case-to-case basis on a petition filed by the Petitioner under Regulation 29(4) of the 2019 Tariff Regulations. Accordingly, as stated above, we are not going into submissions made by the Petitioner and the Respondents in this regard.

70. Petition No. 373/MP/2022 is disposed of in terms of the above.

Sd/	Sd/	Sd/
(Harish Dudani) **Member**	**(Ramesh Babu V.)** **Member**	**(Jishnu Barua)** **Chairperson**