

ULTRA MEGA POWER PROJECTS

1. Background

1.1. A need was felt to develop large capacity projects at the National level to meet the power requirements of a number of states through tariff based competitive bidding. Keeping this larger canvas in mind, the Government of India launched a unique initiative in 2005-06 to facilitate the development of Ultra Mega Power Projects (UMPPs) each having a capacity of 4,000 MW and above, at both the coal pitheads and coastal locations. Secretary (Power) made a presentation on development of UMPPs on 10th February, 2006 during the 5th meeting of the Energy Coordination Committee (ECC) chaired by the Prime Minister. On 14th February, 2006, PMO had informed that the Prime Minister has approved creation of up to 30,000 MW thermal power generation capacity based on ultra mega power plants located at pithead or on the coasts (Annex.I). Pithead projects are envisaged to utilize the indigenous coal whereas coastal projects are based on the imported coal. This initiative, aims at delivering power at competitive cost to consumers by achieving economies of scale. The Central Government has accordingly taken the initiative for facilitating the development of UMPPs under tariff based competitive bidding route using super critical technology on build, own and operate (BOO) basis. Central Electricity Authority (CEA) is the Technical partner and Power Finance Corporation (PFC) has been appointed as the Nodal Agency.

1.3. “Guidelines for Determination of Tariff by Bidding Process for Procurement of Power by Distribution Licensees” (Guidelines) were issued by GOI through Gazette Resolution on 19th January 2005.

2. Role of the Ministry of Power

2.1. The Ministry of Power is playing a crucial role for the development of the UMPPs by coordinating between various concerned Ministries/Agencies of the Central Government, and with various State Governments/Agencies. Some of the key areas requiring the Ministry of Power’s intervention include:

- Coordination with Central Ministries/Agencies for ensuring:
 - Coal block allotment/coal linkage
 - Environment/forest clearances
 - Water linkage
- Required support from State Governments and their agencies.
- Working out allocation of power to different States from UMPPs in consultation with the States. Facilitating PPA and proper payment security mechanism with State Governments/State Utilities. Monitoring the progress of the SPVs with respect to predetermined timelines.

3. Nodal Agency:

3.1. The Ministry of Power identified Power Finance Corporation (PFC) as the nodal agency for the UMPP initiative. In order to enhance investors’ confidence, reduce risk perception and get good response to competitive bidding, PFC incorporates Special Purpose Vehicles (SPVs) for each UMPP to undertake the bidding process on behalf of the power procuring (beneficiary) States. The purpose of the SPVs is to carry out the bid process

management and obtain various clearances/consents for the projects so that the same are transferred to the successful bidder along with the SPV, who is selected through the tariff based International Competitive Bidding (ICB) in accordance with the Guidelines issued by Ministry of Power.

4. Salient features

4.1. The Ultra Mega Power Projects would use Super Critical Technology with a view to achieve higher thermal efficiency, which results in fuel saving and lower green-house gas emissions.

4.2. Flexibility in unit size subject to adoption of specified minimum Supercritical parameters.

4.3. Integrated power project with dedicated captive coal blocks for pithead projects.

5. The Bidding Process

5.1. For these projects, as per the provisions of the competitive bidding guidelines, a two stage selection process has been adopted. The first stage of bidding involves Request for Qualification (RfQ) containing qualifying criteria for selection of bidders. The RfQ documents submitted by the bidders are evaluated to identify those bidders who will be eligible to participate in the second stage of the process. The second stage of the bidding process invites Request for Proposals (RfP) from the bidders so qualified. After evaluation of the RfP documents, the successful bidder is identified on the basis of the lowest levelled tariff.

6. Selection of Sites for Setting up of UMPPs

6.1. Originally nine such projects had been identified to be taken up, 4 at pithead and 5 at coastal locations. Later few more sites are identified on the requests of the State Governments. CEA/ PFC examine the suitability of location in consultation with the States.

7. Concept of Special Purpose Vehicles (SPVs)

7.1. PFC is the nodal agency for the development of these projects. PFC sets up separate Special Purpose Vehicles (SPVs) for each UMPPs to act as authorized representatives of the procurers (distribution companies of the power procuring States).

- I. **Operating SPV:** To obtain all the statutory clearances & approvals and carry out the bidding process for the project. This SPV at present held by PFC would be transferred to Selected Bidder. at the end of the bidding process.
- II. **The Infrastructure SPV:** The captive coal block, the total coal block land along with the land required for the construction of the Power Station and corridors shall be held in the name of the Infrastructure SPV. The Infrastructure SPV at present held by PFC shall be transferred to the Procurers at tile end of the bidding process and the land required for the Power Station shall be leased by the Infrastructure SPV to the Operating SPV/Seller. Further, the Infrastructure SPV shall enter into an appropriate agreement with tile Operating SPV and appoint the Operating SPV as the Mine Development Operator, so as to enable it, to carry on the mine development operations in the allocated Captive Coal Block Land and utilize the coal mined exclusively for the purpose of the Project.

7.2. The SPVs are responsible for carrying out various activities on behalf of the procurers. Completion of these activities prior to award of the project is considered necessary to enhance the investor's confidence, reduce risk perception and get a good response to the competitive bidding process. Some of the main activities undertaken by the SPVs are:-

- Appointment of Consultants to undertake preparation of Project Report, preparation of Rapid Environment Impact Assessment Report etc.
- Appointment of Consultants for International Competitive Bidding (ICB), document preparation & evaluation
- To carry out bidding process and award of project
- Initiation of land acquisition process for the project
- Allocation of Coal blocks for pit-head projects
- Getting clearance regarding allocation of water by the State Govt. for pithead locations
- Approval for use of sea water from Maritime Board/ other Govt. Agencies for coastal locations
- Obtain clearance from the State Pollution Control Board, initiate forest clearance etc. as are required for the project and for the coal mines, followed by environment and forest clearances from the Central Government.
- Obtaining geological reports/ other related data from CMPDI for the coal blocks.
- Tie up the off-take/ sale of power

8. Role of States

8.1 From the initial step to the final commissioning of the UMPPs, the role of concerned State Governments is of immense importance. In fact, no major activity can be started without a clear identification of a suitable site by the State Government concerned (including water linkage in case of a pit head project).

8.2 After the site identification, the host State and the other power procuring States are required to continue to play a highly pro-active role. In particular, some of the activities in which the concerned States are required to play a decisive role include implementation of the R&R Plan, provide authorization to the PFC/SPV to carry out the bidding process on behalf of the distribution utilities, participate through its representatives in various committees set up for undertaking the competitive bidding process, facilitate signing of the Power Purchase Agreement, ensure proper payment security mechanism with the distribution utilities etc.

9. Pre-requisites for RfQ

9.1. Following milestones are required to be completed before embarking on RfQ stage:

- **Land:** Section 4 notification under the Land Acquisition Act, 1894 should have been issued for land of power station.
- **Environmental clearance:** Rapid EIA report for power station should be available.
- **Fuel arrangements:** Fuel linkage or allocation of coal mine(s) should be available, if applicable.
- **Water linkage** should be available.

10. Pre-requisites for RfP

10.1. Following milestones are required to be completed before embarking on RfP stage:

- **Land:** Section 6 notification under the Land Acquisition Act, 1894 should have been issued for land of power station.
- **Environmental clearance:** The proposal for environmental clearance for power station should have been submitted before the concerned authority responsible for according final approval.
- **Forest Clearance (if applicable):** Requisite proposal for forest clearance for the land for the power station should have been submitted before the concerned authority responsible for according final approval.
- **Data:** For preparation of DPR, following data should be available: Hydrological, geological, meteorological, seismological data

11. Bidding process after revision of SBDs

- After notification of “Guidelines for Procurement of Electricity from Thermal Power Stations set up on Design Build Finance Operate and Transfer (DBFOT) on 21st September, 2013, UMPPs are following the Model Bidding Documents on DBFOT basis circulated by GOI on 20th September, 2013.
- A two-stage bidding process is followed for selection of the bidder for award of the project. The first stage (Request for Qualification (RFQ)) involves qualification of interested parties/ consortia who make an Application in accordance with the provisions of RFQ. In the second stage of bidding (Request for Proposals (RFP)), the bidders shortlisted after the RFQ stage are eligible for submission of their financial offers. The bidder who quotes the lowest tariff is the selected bidder.
- There are no pre-requisites for issuance of RFQ and RFP as per the revised Guidelines. However, as per the Model PPA, the following significant Conditions Precedent have to be satisfied by the Procurers within a specific time period after signing of the PPA with the developer:
 - i. Environment and forest clearance for Power Station
 - ii. Environment and forest clearance for the main Coal block and the same for the other coal blocks to be procured within three years(if applicable)
 - iii. Acquisition of land for power station and give leave and license rights to the concessionaire
 - iv. Acquisition of land for the main coal block and for the remaining coal blocks within a period of four years(if applicable) and give leave and license rights to the concessionaire
 - v. Acquisition of land for corridors (water, coal, POL etc)
 - vi. Sign Escrow/ hypothecation agreements
 - vii. Assured supply of water for the project
 - viii. Tariff adoption by Appropriate Commission
 - ix. Execute Procurer Consortium Agreement
- In case of Odisha and Cheyyur UMPPs these Conditions Precedent are to be satisfied within 360 days of signing of the PPA which is extendable by a period of 180 days.
- Land for the power station and coal blocks are acquired by the Procurers and leave and license rights of the land is granted to the developer for the contract period. At the end of the contract period the project is transferred to the Procurers.

UMPPs identified

Initially following nine (9) numbers Ultra Mega Power Projects (UMPPs) were proposed to be set up in different states:

- i. **Sasan UMPP in Madhya Pradesh - coal pithead**
- ii. **Mundra UMPP in Gujarat- coastal**
- iii. **Krishnapatnam UMPP in Andhra Pradesh - coastal**
- iv. **Tilaiya UMPP in Jharkhand- coal pithead**
- v. **UMPP in Chhattisgarh- coal pithead**
- vi. **Bedabahal UMPP in Odisha - coal pithead**
- vii. **Cheyur UMPP in Tamil Nadu - domestic coal based**
- viii. **UMPP in Maharashtra- coastal**
- ix. **UMPP in Karnataka - coastal**

In addition to nine UMPPs originally identified, request has come from some of the State governments for installation of additional UMPPs in their States. These are given below:

- i) **Two Additional UMPPs in Odisha**
- ii) **2nd UMPP in Gujarat**
- iii) **2nd UMPP in Jharkhand – Deoghar UMPP**
- iv) **2nd UMPP in Tamil Nadu**
- v) **UMPP in Bihar – Banka UMPP**
- vi) **UMPP in Uttar Pradesh.**
- vii) **2nd UMPP in Andhra Pradesh**

Ministry of Power has taken policy decision to encourage Brownfield project for setting up of new Thermal Power Plants and no new large Greenfield Projects would be taken up in light of the Government of India's endeavor for transition from Fossil Fuels towards Non-Fossil Fuels. In light of this decision, no new Ultra Mega Power Projects would be implemented. A Standard operating procedure has been formulated for closure of non-progressing UMPPs. The procuring States were requested for their consent for closure of UMPPs and accordingly various UMPPs have either been closed or are at various stages of closure.

Status of Operational UMPPs

- I. **UMPPs Operational:** Four UMPPs namely Sasan in Madhya Pradesh, Mundra in Gujarat, Krishnapatnam in Andhra Pradesh and Tilaiya in Jharkhand were transferred to the identified developers. Out of the four awarded UMPPs, two UMPPs namely Mundra UMPP and Sasan UMPP are in operation. A brief detail of operational UMPPs is as below:
 - a. **Mundra UMPP in Gujarat:** The project was handed over to the successful Bidder i.e. Tata Power Company Ltd., on 23.04.2007 at the evaluated levelised tariff of Rs. 2.26367/kWh. Mundra UMPP is fully commissioned.
 - b. **Sasan UMPP in Madhya Pradesh:** The project was handed over to the Successful Bidder i.e. M/s Reliance Power Ltd., on 07.08.2007 at the evaluated levelised tariff of Rs. 1.19616/kWh. Sasan UMPP is fully commissioned.

Status of UMPPs that were envisaged to be bid out but are now either closed or at various stages of closure

II. **UMPPs that were on fast-track:** 02 UMPPs were being fast-tracked for bidding. Various clearances were taken. The bidding was to be initiated after the issuance of Standard Bidding Documents (SBDs). The status of these 02 UMPPs is as follows:-

- a. **Bedabahal UMPP in Odisha:** The site for this UMPP is in village Bedabahal in Sundergarh district. RfQ and RfP issued in 2013 were withdrawn. Taking into considering the decision of Ministry of Power to defer notification of Standard Bidding Documents (SBDs) and allocation of the coal blocks being linked to SBDs, the Board of Odisha Integrated Power Ltd (OIPL) in its 78th meeting held on 29.06.2022, has also agreed upon closure of Odisha UMPP.
- b. **Tilaiya UMPP in Jharkhand:** The project was handed over to M/s Reliance Power Ltd. (RPL) on 07.08.2009 at an evaluated levelised tariff of Rs. 1.770 per kWh. The developer, Jharkhand Integrated Power Ltd (JIPL), (a subsidiary of RPL), has issued notice of termination of Power Purchase Agreement (PPA) on 28.04.2015 citing non transfer of land to the developer by Jharkhand Government. Jharkhand Urja Vikas Nigam Ltd. vide letter dated 19.06.2018 informed that JIPL has been taken over by the procurers from RPL.

III. **UMPPs that were in pipeline:** 02 UMPPs were under various stages of development. Various clearances, coal block allocation, land allocation were being sought. The status of these 02 UMPPs is as follows:-

- a. **Banka UMPP in Bihar:** A site at Kakwara in Banka District was identified for setting up of UMPP in Bihar. Infrastructure Special Purpose Vehicle (SPV) namely Bihar Infrapower Limited was incorporated on 30.06.2015. Operating SPV namely Bihar Mega Power Limited (BMPL) was incorporated on 09.07.2015.
- b. **Deoghar UMPP in Jharkhand:** A site at Husainabad, Deoghar District has been identified for setting up of 2nd UMPP in Jharkhand. Operating SPV namely Deoghar Mega Power Ltd and Infrastructure SPV namely Deoghar Infra Limited was incorporated on 26.04.2012 and 30.06.2015 respectively. The Commitment Advance from 4/7 Procuring States was awaited. Approval from State Government for site for UMPP was awaited. The identification/allocation of Coal Block was awaited from MoC. Water Study was been deferred till receipt of Commitment Advance from all procurers.

IV. **UMPPs that were stalled due to various reasons:**

- a. **Cheyuur UMPP in Tamil Nadu:** The site at Cheyyur in Kanchipuram district in Tamil Nadu was identified along with captive port at Panaiyur village. Cheyyur UMPP was originally envisaged to be setup on imported coal. However, Ministry of Power was examining the possibility of setting up Cheyyur UMPP on domestic coal instead of imported coal. Ministry of Coal was requested to allocate suitable explored coal block.
- All the procurers including TANGEDCO decided to opt out from the Project. Government of Tamil Nadu has accorded its consent for closure of UMPP. The TANGEDCO decided to take over the land from CTNPL. It was decided that closure of UMPP would be taken up as per the SoP formulated for this purpose.
- b. **Krishnapatnam UMPP in Andhra Pradesh:** The project was handed over to Reliance Power Ltd. (RPL) on 29.01.2008 at the levelised tariff of Rs. 2.33/kWh. The developer has stopped work at site, citing new regulation of coal pricing in Indonesia. Lead Procurer has issued termination notice to the developer. Delhi High Court has issued judgment in the case on 15.01.2019 and has dismissed the appeal by Coastal Andhra Power Limited (CAPL) finding no merit in the appeal. MoP forwarded the RPL request for procurers meeting to finalize the modalities of transfer of CAPL from RPL to PFC consequent upon termination of PPA. PFC requested the Transmission Corporation of Andhra Pradesh Limited that Andhra Pradesh (Lead Procurer) may like to convene all procurers meeting for Krishnapatnam UMPP for further course of action.

Closure of UMPPs

- V. **Closure of UMPPs:** Ministry of Power has taken policy decision to encourage Brownfield project for setting up of new Thermal Power Plants and no new large Greenfield Projects would be taken up in light of the Government of India's endeavor for transition from Fossil Fuels towards Non-Fossil Fuels. In light of this decision, no new Ultra Mega Power Projects would be implemented. The status of consent for closures received for the aforementioned UMPPs along with the UMPPs already closed is as below:

#	UMPP	Closure Status
1	Odisha 2nd Additional UMPP(Ghogharpalli UMPP)	MoP Consent for closure sent to PFCCL
2	Odisha 1st Additional UMPP(Sakhigopal UMPP)	MoP Consent for closure sent to PFCCL
3	Cheyzur UMPP	MoP Consent for closure sent to PFCCL
4	Bhedabahal UMPP	MoP Consent for closure sent to PFCCL
5	Bihar UMPP	MoP Consent for closure sent to

		PFCCL
6	Deoghar UMPP	MoP Consent for closure sent to PFCCL
7	Gujarat UMPP	Closed
8	Tamil Nadu 2nd UMPP	Closed
9	Uttar Pradesh UMPP	Closed
10	Karnataka UMPP	Closed
11	Maharashtra UMPP	Closed
12	Andhra Pradesh 2nd UMPP	Closed
13	Chattisgarh UMPP	Closed