

CHAPTER - 1

Introduction

1.1 Profile of Power Sector

Energy is one of the most critical components of infrastructure that determines the economic development of a country. The growth rate of demand for power is generally higher than the GDP growth rate. Studies point that in order to have 8 per cent GDP growth per annum, power supply needs to grow around 12 per cent annually. The XI Five Year Plan emphasized the need for removing infrastructure bottlenecks for sustained growth. It, therefore, proposed an investment of around ₹ twenty one lakh crore (US \$500 billion) in infrastructure sectors through a mix of public and private sectors to reduce deficits in identified infrastructure sectors. Public-private partnership (PPP) model was introduced to augment resource availability as well as to improve the efficiency of infrastructure service delivery.

During the X Five Year Plan, the capacity addition achieved by the power generation sector was 21,080 MW as against the target of 41,110 MW. The cumulative installed capacity at the end of X Plan was 1,32,329 MW including 86,015 MW of Thermal. The XI Plan initially envisaged a power generation capacity addition of **78,700 MW**, of which **59,655 MW** was to be added in Thermal. At the time of the Mid Term Appraisal of the XI Plan, the total target was revised to **62,374 MW** with target for Thermal getting reduced to **50,757 MW**. Against this the capacity addition achieved at the end of XI Plan was 54,964 MW¹ which included capacity addition of 48,540 MW in the Thermal Sector.

The Ministry of Power (MOP), Government of India is primarily responsible for the development of electrical energy in the country. It is concerned with perspective planning, policy formulation, processing of projects for investment decision and enactment of legislation in regard to power generation, transmission and distribution. Electricity is a concurrent subject under the Constitution of India.

¹ Source: Central Electricity Authority (CEA)

1.2 Development of Ultra Mega Power Projects

To augment the generation capacity, the Government of India (GoI) decided (November 2005) to develop Ultra Mega Power Projects (UMPPs) using Super Critical Technology². The UMPPs would meet the power needs of a number of states/distribution companies located in the states and were to be developed on Build, Own and Operate (BOO) basis through creation of "Shell" companies. Each UMPP was projected to have a capacity of around 4,000 MW with cost of ₹ 16,000-20,000 crore per project. The identification of the Project Developer was to be done on the basis of tariff based competitive bidding as per "Guidelines for determination of tariff by bidding process for procurement of power by distribution licensees" issued by Ministry of Power (MOP) in January 2005.

The MOP has a crucial role in the development of UMPPs. Some of the key areas requiring MOP's intervention include coordination with Central Ministries/Agencies for ensuring coal block allotment/coal linkage, environment/ forest clearances, water linkage etc. MOP designated (November 2005) Power Finance Corporation Limited (PFC) as the nodal agency for the purpose of development of UMPPs.

An Empowered Group of Ministers (EGOM) was constituted on 14 June 2007 for facilitating expeditious decisions on all major issues concerning UMPPs. While the 1st meeting of EGOM took place on 20 June 2007, the latest (14th) meeting was held on 28 April 2012.

1.3 Concept of Special Purpose Vehicles

MOP prescribed the Special Purpose Vehicles (SPVs) route for the UMPPs. SPV is a legal entity (usually a limited company or a limited partnership) created to fulfill narrow, specific or temporary objectives and are typically used by companies to isolate them from financial risk. As per the methodology followed, SPVs acted as the 'Authorised Representative' for carrying out the bidding process on behalf of the procurers³ and facilitated preliminary activities like site identification with Central Electricity Authority (CEA), land acquisition, coal block allocation (in the case of

² *Supercritical technology means technology with the following minimum steam parameters at steam turbine inlet:*

Main steam pressure : 247 kg/cm2 (abs)

Main steam temperature : 535 deg C

Reheat steam temperature : 565 deg C

³ *Procurers – Beneficiary States and their Power distribution utilities*

pithead stations) obtaining various clearances relating to environment, forest etc. After the bidder was identified, the SPV was transferred to the successful bidder on execution of the Share Purchase Agreement and payment of the acquisition price to PFC.

The SPVs, being separate companies, were managed by a Board of Directors (BoDs). The Chairmen of the BoDs were nominated by PFC from its own Functional Directors. The day to day affairs of each SPV were looked after by its Chairman and Chief Executive, who was also represented in the BoDs.

1.4 Status of UMPPs

Initially, nine UMPPs were identified to be taken up and later on seven more projects were added to the list of UMPPs. Out of the 16 UMPPs so far identified (March 2012), PFC floated 12 shell companies (SPVs) as its wholly owned subsidiaries, each with a paid-up share capital of ₹5 lakh during 2005-06 to 2011-12 for development of UMPPs at six pithead sites and six coastal sites. The six pithead sites are Sasan in Madhya Pradesh, Tilaiya in Jharkhand, Surguja in Chhattisgarh and Sundergarh, Sakhigopal & Ghogarpalli in Odisha. The six coastal sites are Mundra in Gujarat, Krishnapatnam in Andhra Pradesh, Tadri in Karnataka, Munge in Maharashtra, Cheyyur in Tamil Nadu, and Tatiya in Andhra Pradesh.



Mundra UMPP

The SPVs invited bids from prospective bidders for six UMPPs during March 2006 to March 2012. Bidding process had been completed and contracts were awarded in respect of four UMPPs viz. Sasan, Mundra, Krishnapatnam and Tilaiya while the remaining eight are yet to be awarded (March 2012). Details of the four UMPPs awarded so far are tabulated below:

Name of the UMPP	Name of the SPV	Developer to whom awarded	Levelised Tariff accepted (₹ per unit of electricity) *	Tariff collection for 25 years (₹ in crore) [@]	Current Status
Mundra 4000 MW (5 x 800 MW)	Coastal Gujarat Power Limited (incorporated on 10-02-2006)	Tata Power Company Limited	2.264	1,67,784	One unit of 800 MW commissioned in February 2012 and the Project is scheduled to be commissioned on 30 th October 2013.
Sasan 3960 MW (6x660 MW)	Sasan Power Limited (incorporated on 10-02-2006)	Reliance Power Limited	1.196	87,749	Not yet commissioned as scheduled date of commissioning of first unit of 660 MW is 31-01-2013. The Project is scheduled to be commissioned by 30 th June 2014.
Krishnapatnam 3960 MW (6x660 MW)	Coastal Andhra Power Limited (incorporated on 24-08-2006)	Reliance Power Limited	2.333	1,71,169	Not yet commissioned. Scheduled date of commissioning of first unit and the Project is September 2013 and October 2015 respectively. However, Developer has stopped work at Project site citing new regulation of Government of Indonesia as a reason which prohibits sale of coal below benchmark market price.
Tilaiya 3960 MW (6x660 MW)	Jharkhand Integrated Power Limited (incorporated on 02-01-2007)	Reliance Power Limited	1.77	1,29,862	Not yet commissioned as scheduled dates of commissioning of first unit and Project are May 2015 and June 2017 respectively.

*Note: Levelised tariff is the weighted average tariff.

[@] Worked out on levelised tariff basis.

1.5 Status of Remaining UMPPs

The Status of the remaining 12 UMPPs is detailed below:

Sl. No.	Name of SPV	Location of UMPP	Date of Incorporation of SPV	Present Status as on 31.3.2012
1.	Chhattisgarh Surguja Power Limited (Pithead)	Village Salka and Khamaria, District Surguja, Chhattisgarh.	10.02.2006	RFQ Bids issued in March 2010. Last date of submission of RFQ extended from time to time till June 2012.
2.	Coastal Karnataka Power Ltd. (Coastal)	State Government has suggested Tadri as suitable site.	10.02.2006	Site has not been finalized due to opposition by local people because of environmental impact of the project.
3.	Maharashtra Mega Power Limited (Coastal)	State Government has given the consent for the site near village Munge in Tehsil Deogarh	01.03.2006	The local agitation prevented site visit. Site to be finalised in consultation with Govt. of Maharashtra and people's representatives of that area.
4.	Orissa Integrated Power Limited, (Pithead)	Sundergarh Distt. Meenakshi,	24.08.2006	RFQ Bids opened in August, 2011 and evaluation was in progress.
5.	Coastal Tamil Nadu Power Limited, (Coastal)	Cheyyur Village in Kancheepuram district	09.01.07	Initial notification for land acquisition issued. Amount of compensation for land was being finalized.
6.	Tatiya Andhra Mega Power Limited (Coastal)	Kothapeta site in Prakasam district received from Govt of Andhra Pradesh	17.04.2009	Site finalized but land was not given by the GOAP due to resistance by local residents.
7.	Ghogarpalli Integrated Power Limited (Pithead)	Site is yet to be finalized (Odisha)	09.02.2010	Site has not yet been finalized.
8.	Sakhigopal Integrated Power Limited, (Pithead)	Site is yet to be finalized (Odisha)	09.02.2010	Site has not yet been finalized.
9.	SPV not yet formed	Gujarat 2nd UMPP	Not applicable	Site has not yet been finalized.
10.	SPV not yet formed	Jharkhand 2nd UMPP	Not applicable	Site has not yet been finalized.

Sl. No.	Name of SPV	Location of UMPP	Date of Incorporation of SPV	Present Status as on 31.3.2012
11.	SPV not yet formed	Tamil Nadu 2nd UMPP	Not applicable	Site has not yet been finalized.
12.	SPV not yet formed	Andhra Pradesh 3rd UMPP	Not applicable	Due to want of clarity on site, MOP decided to shelve the project.



Krishnapatnam Site