

## **DEVELOPMENT OF ULTRA MEGA POWER PROJECTS**

### **1. Provisions of Electricity Act, 2003 and various policies pronounced under the Act**

#### **1.1.1 Provision of Electricity Act, 2003**

Section 63 of the Electricity Act, 2003 provides that the Regulatory Commissions shall adopt the tariff if it is determined through transparent process of bidding accordance with the guidelines issued by the Central Government. This aims at moving away from cost plus approach for tariff determination and it is expected to further encourage private sector investment.

#### **1.1.2 Guidelines for tariff based competitive bidding**

Guidelines for competitive bidding for determination of tariff for procurement of power by distribution licensees were issued on 19<sup>th</sup> January, 2005. Main objectives of these guidelines are promoting competitive procurement, facilitating transparency and fairness, reducing information asymmetry, protecting and finally providing flexibility to suppliers on availability of power while ensuring certainty on tariffs for buyers. A copy of the guidelines is placed below at Annexure -A.

#### **1.1.3 Provisions of the National Electricity Policy**

The aims and objectives of the National Electricity Policy include inter alia supply of reliable and quality power of specified standard in an efficient manner and at reasonable rates and protection of consumer interests.. The policy recognizes that competition will bring significant benefits to consumers, in which case, it is competition which will determine the price rather than any cost plus exercise on the basis of operating norms and parameters. The policy stipulates that all efforts will need to be made to bring the power industry to this situation as early as possible, in the overall interest of consumers.

#### **1.1.4 Provisions of Electricity Tariff Policy**

One of the main objectives of the tariff policy is to promote competition, efficiency in operations and improvement in quality of supply and ensure availability of electricity to consumers at reasonable and competitive rates.. The policy mentions that introducing competition in different segments of the electricity industry is one of the key features of the Electricity Act, 2003 and that competition will lead to significant benefits to consumers through reduction in capital costs and also efficiency of operations. It will also facilitate the price to be determined competitively.

The policy stipulates that all future requirement of power needs to be procured competitively by distribution licensees except in cases of expansion of existing projects or where there is a State controlled / owned company as an identified developer and where regulators will need to resort to tariff determination based on norms. Even PSUs will have to bid for projects for determination of tariff after a period of 5 years.

## **2. Launch of Ultra Mega Projects through tariff based competitive bidding**

2.1 Government of India has envisaged capacity addition of 100,000 MW by 2012 to meet its mission of power to all. It needs huge capacity addition during 10th & 11th plan, which is not feasible from the ongoing and proposed new projects already identified. As such there is need to develop large capacity projects at the national level to meet the requirements of a number of states under the competitive bidding guidelines dispensation. This will give a thrust to development of projects through competitive bidding. Ultra Mega Power Projects are steps in that direction. The projects will substantially reduce power shortage in future.

2.2 Recognizing the fact that economies of scale leading to cheaper power can be secured through development of large size power projects using latest super critical technologies. Ministry of Power, CEA and Power Finance Corporation are working in tandem for development of five projects under tariff based competitive bidding route. The Ultra Mega Power Projects with each having a capacity of minimum 4,000 MW, would have scope for expansion in future as well. The size of these projects being large, they will meet the power needs of a number of states through transmission of power on regional and national grids. In the last six months several rounds of discussions were held with states who have agreed to support Ultra Mega Power Projects. Experience of this initiative would facilitate development of state specific projects in the range of 1000-2000 MW through competition on similar lines.

2.3 In order to enhance investor confidence, reduce risk perception and gets a good response to competitive bidding, it was deemed necessary to provide the site, fuel linkage in captive mining blocks, water and obtain environment and forests clearance, substantial progress on land acquisition leading to possession of land, through a Shell Company. In addition, Shell companies would also be responsible for tying up necessary inputs from the likely buyers of power. In addition shell companies would also facilitate tying up of power off takes from these projects with appropriate terms and conditions and Payment Security Mechanism.

## **3. Role of Ministry of Power**

The role of the Ministry of Power is basically to serve as a facilitator and to co-ordinate with concerned Ministry/ Agencies for ensuring:

- Coal Block Allotment/ Coal Linkage
- Environment/ Forest clearances
- Required support from State Govt. Agencies
- Financial Institutions towards financial closure.

- To facilitate PPA and proper payment security mechanism - with State Govt./ State utilities
- Monitoring the progress of shell companies w.r.t predetermined timelines.

#### **4. Selection of sites:**

##### **4.1; Criteria for selection of sites:**

- Pit head location with domestic coal,
- Coastal location with imported coal,
- Coastal location with domestic/blended coal,
- Through a preliminary scrutiny by CEA of a number of potential sites identified in the country.

4.2 In the first phase, two projects at pit head site and three projects at coastal locations have been identified for development of Ultra Mega Projects. Government approval has already been accorded on 16<sup>th</sup> January, 2006 for setting up of following five Shell companies under the Article No. 86 of Articles of Association of Power Finance Corporation:-

- (i) Sasan Power Limited (M.P.)
- (ii) Akaltara Power Limited (C.G.)
- (iii) Coastal Gujarat Power Limited
- (iv) Coastal Karnataka Power Limited
- (v) Maharashtra Ultra Mega Power Project Co.

4.3 On the basis of this approval, Power Finance Corporation has submitted necessary papers to Registrar of Companies for the registration of the suggested names on 17<sup>th</sup> January, 2006. The names of the Shell Companies have been approved. Shell Companies for Sasan, Akaltara, coastal Gujarat, Coastal Karnataka have been approved on 13.2.2006. Simultaneously, the Technical Consultants, who are required to prepare Project Report and Report on Environment Impact Assessment, have been appointed. RSQ /RFQ Consultancy for Mundra and Sasan projects awarded to Earnest and Young on 16.2.2006. Notice seeking Expression of Interest in respect of Sasan and Mundra Projects has already been advertised in the leading newspapers and also put on the website. Notice seeking expression of interest in respect of Coastal Karnataka and Coastal Maharashtra to be published on 28.2.2006.

#### **5. Functions of the Shell Companies**

5.1 Power Finance Corporation has initiated the process of registration of five shell companies with the Registrar. PFC has also set up a core group having Chief executives from NTPC and members from PFC and CEA for monitoring and expediting the process. The role of the Shell companies is to facilitate following activities:

- Preparation of project report

- Land acquisition
- Allocation of fuel linkages/coal blocks.
- Allocation of water by the state Govt.
- Appointment of consultants for EIA & Project Report
- Appointment of consultants for International Competitive Bidding (ICB) document preparation & evaluation.
- Various approvals and statutory clearances.
- Off-take/sale of power – section 63 of EA2003 provision.
- Power Evacuation/ (Transmission) System.
- Rating of Projects (suggested by FI's in the meeting on 06.01.06)

5.2 PFC has already appointed the Technical Consultants, for conducting these studies and to prepare the bankable Project Report, through a competitive bid process. For this purpose following list of short listed eleven technical consultants were obtained from CEA, having wider experience of power sector and global presence through their international partners.

- WAPCOS
- TCE Engineers Consulting Ltd.
- DCPL Development Consultant Pvt. Ltd.
- Lahmeyer International Pvt. Ltd.
- L&T Sargent & Lundy Ltd.
- NTPC Ltd.
- Fitcher Consulting Engineers
- Desien Pvt. Ltd.
- Macon Pvt. Ltd.
- Tractebel Engineers & Contractor Pvt. Ltd.
- STEAG Encotec (Germany)

M/s Desien Pvt. Ltd. has been appointed as technical consultant by 1.2.2006 for Sasan project and M/s TCE has been appointed as technical consultant on 16.2.2006 for Coastal Gujarat project.

## **6. Payment security mechanism would consist of:**

- (a) Revolving Letter of Credit by distribution licensees;
- (b) Escrow account establishing irrevocable claims of receivables of distribution utility;
- (c) In a likely event of any default, direct supply to HT consumers or any other more credible distribution licensees as per the provisions of Electricity Act, 2003.

## **7. Time Schedule**

The requisite manpower required for making shell companies operative is already in place. It is envisaged that Expression of Interests for pre-qualification would

be issued for each of the five projects between last week of January and last week of February, 2006. The Road Map of critical milestones has been identified as follows:-

(a)	Expression of Interest	-	January '06/Feb'06*
(b)	Selection of qualified bidders	-	March, 2006
(c)	Issue of bid document	-	April, 2006
(d)	Closing date for receipt of final bid	-	September, 2006
(e)	Selection of successful bidder	-	December, 2006
(f)	Transfer of projects of Shell Company to the selected bidder	-	December, 2006

* For one site	-	January, 2006
For four sites	-	February, 2006

## **8. Funds requirement**

The Ultra Mega Projects being developed on super critical technology would entail substantial investment to the tune of Rs. 15,000 crores for each project. From the initial rounds of discussions held with the financial institutions, it emerged that for good and credible developers and for power projects offering less expensive power debt funding may not emerge as a constraint at all. To keep the financial institutions update about the developments in setting up of Ultra Mega Projects, FIs are being involved at various stages including the final evaluation of the bids. However, development of these large projects would have to have the involvement of large private business groups in our country, who either on their own or through consortiums with parties and agencies from outside could take implementation of these projects.

## **9. Discussions with Heads of Financial Institutions**

In order that there is full support of the financial world on the concept and during implementation of these large size projects, as also with a view to inviting their suggestions as to how to make this initiative succeed, a meeting of the Heads of Financial Institutions was organized on 6<sup>th</sup> January, 2006. Chairman, SBI, Chairman, LIC, CMD, IDBI, CMD, HDFC/IDFC, Executive Director of ICICI, CMD, PFC, besides many other senior officers of Financial Institutions and banks participated. They fully supported this initiative and made valuable suggestions. These include the following:

- For good projects with competitive Tariff and credible developer, funds will not be a constraint
- The proposed payment security mechanism is adequate
- F.I. representation in Pre-Qualification Committee
- Rating of Green Field Projects for better terms of funding
- Publicize globally
- Involvement of F.I. in selection of Consultant for Project Report
- Activating Bond Market
- Access ECB (Present limit to be liberalized)

- 20 year debt tenure [12+8 (LIC)]
- Attracting Venture Capital

## **10. Discussions with Top Industry Leaders**

The scheme was discussed in detail with the Finance Minister and at his suggestion, an interaction was organized with the top industry leaders on 13<sup>th</sup> January, 2006. The response was overwhelming. They also made valuable suggestions which include the following:

- (i) Granting mega power status to these projects even though they do not need access to the Central Plan devolution in the payment security mechanism package. In fact, this condition should be deleted from the conditions of mega project scheme because this condition was provided in early days when the system of guarantee was being taken away. Lenders and developers are now convinced that with the changes that have happened in the wake of Electricity Act, 2003, this condition is not necessary to be included for concession under the mega power policy.
- (ii) There should be full State Govt. support so that facilitation like land acquisition, water availability etc, consent of State Pollution Control Board etc. are available to Shell Companies/Project Developers.
- (iii) Since these are large projects, each involving a capital expenditure of the order of Rs.15,000 crores, the sectoral capping and the group capping for the purpose of debt financing, as notified by the RBI, will need to be revisited and properly enhanced.
- (iv) The present expectation of the lenders that debt : equity ratio should be 70 : 30 may also need to be revisited and the proportion of the debt could be enhanced because otherwise, this would entail much larger amount of equity to be raised by the developers.
- (v) Ministry of Power should ensure that power evacuation and transmission system is put in place in time and there should also be sufficient redundancy in the system so that the advantages of Open Access in transmission and distribution are fully availed of.
- (vi) It is good that the pit-head power stations are being provided captive coal blocks rather than linkage. Even for such future projects, the same arrangement should continue.
- (vii) The criteria for evaluation of bids should be comprehensively formulated by the Shell Company on the basis of advice of consultants so that there is no ambiguity and once the bidders have been pre-qualified, the commercial consideration like tariff should be the sole criterion for selection.
- (viii) Long Term debt and take out financing would be useful and render better tariff.
- (ix) 80 1A benefit under Income Tax Act should be extended.

## **11. Support of State Governments in development of Ultra Mega Power Projects**

The Government of India is facilitating development of very large size Ultra Mega Projects at coal pit-heads and at coastal locations (in future, some of the hydro projects would also be taken up). These projects are aimed at using the economies of scale, delivering comparatively cheaper power to the system. While all efforts are being made to coordinate with various agencies at the Government of India level and with the Financial Institutions to see that for smooth development of these projects, all the initial linkages and inputs are properly tied up, State Governments' support in this matter would be extremely useful. State have a role cut out to provide required assistance in ensuring water availability to the project, land availability at reasonable price, environment clearance and all possible help by the district administration at the time of visit by the prospective developers. These points have also emerged during discussions with the heads of Financial Institutions as also with the top leaders of the industry.

Wherever the state governments would be willing to participate by way of part equity in these projects, it should be possible to provide for the same in the bid conditions while inviting competitive bidding for selecting the developers. This route, of course, would be optional to the states. In the Shell Companies, which would deal with the initial issues of sanctions, clearances, land acquisition etc, the concerned States have been approached to ascertain about their willingness to become equity partners.

Similarly, States which have to emerge as likely buyers of power of these plants have to evolve consensus and basic agreement regarding broad framework of the Power Purchase Agreement with mutual rights and obligations properly structured therein.

## **12. Tentative allocation of power from the proposed Ultra Mega Power Projects**

12.1 In the meeting held on 16<sup>th</sup> February, 2006 at Ministry of Power, New Delhi with the Principal Secretaries (Power) / Energy Secretaries of NR, WR & SR States regarding allocation of power from the proposed Ultra Mega Power Projects, States were requested to indicate their requirement of power from the five proposed Ultra Mega Power Projects at Sasan (M.P), Mundra (Gujarat), Akaltara (Chhattisgarh), Coastal Karnataka and Ratanagiri (Maharashtra). The quantum of demand as projected by various States from Ultra Mega Projects is given in the Table below:

<b><u>Sr No</u></b>	<b><u>State</u></b>	<b><u>Sasan (MP)</u></b>	<b><u>Mundra (Guj.)</u></b>	<b><u>Akaltara (Chh.)</u></b>	<b><u>Ratnagiri (Mah.,)</u></b>	<b><u>Coastal Site Karnataka</u></b>
1	Delhi	600		750		

2.	U.P	1000	500	1000		
3.	Uttranchal	200				
4.	Punjab	1000	1000			
5.	Rajasthan	500	750	750	500	300
6.	Haryana	850	700	700		
7.	M.P	1500		1000	500	
8.	Chhatis- garh	500		1500	500	
9.	Gujarat		1600			
10	Maharashtra		1500	1000	2000	1000
11	Karnataka				500	1500
12.	TamilNadu			500		1000
13.	Kerala					200
14.	A.P					
	Total	6150	6050	6300	4000	4000

12.2 After detailed discussions on the above projected demand, tentative power allocation from the proposed five Ultra Mega Power Project was agreed which is summarized in the Table given below:

<b>Sr No</b>	<b>State</b>	<b>Sasan (MP)</b>	<b>Mundra (Guj.)</b>	<b>Akaltara (Chh.)*</b>	<b>Ratnagiri (Mah.,)</b>	<b>Coastal Site Karnataka</b>
1	Delhi	500		-		
2.	U.P	500	300	-		
3.	Uttranchal	100				
4.	Punjab	600	500			
5.	Rajasthan	400	400	-	500	300
6.	Haryana	450	400	-		
7.	M.P	1200		-	500	
8.	Chhatis- garh	250		-	500	
9.	Gujarat		1600			
10	Maharashtra		800	-	2000	1000
11	Karnataka				500	1500
12.	TamilNadu			-		1000
13.	Kerala					200
14.	A.P					
	Total	4000	4000	-	4000	4000

- Demand from this project was noted but final distribution chart would be prepared after Chhattisgarh Government conveys its acceptance to the various conditions associated with development of Ultra Mega Projects.

### **13. The status of proposed five ultra mega power projects**

#### **13.1 Sasan Ultra Mega Project**

The site for the project has been firmed up in consultation with the state government and the required area has been earmarked. A site office has been opened. State Irrigation Deptt has given in principle clearance for the water availability from Govind Ballabh Pant Sagar. Ministry of Power has requested Ministry of Coal to allocate captive coal blocks from Singhrauli coal fields. In its meeting of Energy Coordination Committee held on 8<sup>th</sup> February, 2006 under the chairmanship of hon'ble Prime Minister, it was decided that the Ministry of Coal would allocate the needed coal blocks by 28<sup>th</sup> February, 2006. Technical consultants have been appointed to prepare project report including Environment Impact Assessment Studies. Expression of Interest has been advertised in the leading newspapers on 31.1.2006. Appointment of consultants for preparing bid documents is under process.

#### **13.2 Mundra Ultra Mega Project**

The site at Mundra has been agreed by the state government for development of ultra mega project. The exact area of land for the project is yet to be earmarked for which discussions are underway with the state government. The project will use sea water for cooling. Imported coal is envisaged to be used in this project. The project is near the Adani Port. The Port has agreed to provide coal unloading facilities required for the ultra mega project. Appointment of technical consultant for preparation of Project Report is in advanced stage. Expression of interest has been advertised in the leading newspapers on 02.02.2006. Appointment of consultants for preparation of bid documents is under process.

#### **13.3 Akaltara Ultra Mega Project**

The site for the project has been identified in association with the CSEB officials. CEA has written to Govt. of Chattisgarh on 16th January 2006 to confirm the availability of land and water at the identified site to enable the shell company to issue the expression of interest for the project.. Ministry of Power has requested Ministry of coal to allocate captive coal block from Korba coal fields. In its meeting of Energy Coordination Committee held on 8<sup>th</sup> February, 2006 under the chairmanship of hon'ble Prime Minister, it was decided that the Ministry of Coal would allocate the needed coal blocks by 28<sup>th</sup> February, 2006. A technical consultant for the preparation of project report has been selected. The consultants will commence work after receipt of confirmation from the state government.

#### **13.4 Karnataka Ultra mega project**

Govt. of Karnataka has proposed a coastal site at Tadri in Karwar district. The suitability of this site is under examination by CEA. Further, CEA has requested Government of Karnataka to study the feasibility of development of Port facilities,

transportation of coal from port to the site and power evacuation arrangement. Imported coal is proposed to be used in this project. Further sea water will be used for cooling.

### **13.5 Maharashtra Ultra Mega project**

Government of Maharashtra had proposed Dhopave site in Ratnagiri district for development of ultra mega project. This site was not found suitable by CEA. Alternative sites in Sindhudurg and Ratnagiri districts have been identified. The final site is to be decided based on feasibility of development of coal unloading facilities and transportation to the site. . Sea water for cooling and Imported coal is proposed to be used in this project.

## **14. The project-wise issues on which States have to take action:**

### **14.1 Akaltara Power Limited:**

- ✓ Chattisgarh Government is required to sent the consent for water, land, Power off-take and equity participation.
- ✓ 12% free power demanded by Chhattisgarh is unreasonable. This needs to be withdrawn.
- ✓ Allocation of entire 4000 MW to Chhattisgarh is not feasible as these projects are being developed as Inter State projects.

### **14.2 Mundra Power Limited.**

- ✓ Notification by state government for identified land. –
- ✓ Gujarat Government support regarding price concession for land from SEZ authority/ government of Gujarat, port facilities.
- ✓ Power off-take and equity participation

### **14.3 Sasan Power Limited.**

- ✓ Notification by state government for identified land.
- ✓ Madhya Pradesh government's commitment regarding Power off-take and equity participation.

### **14.4 Coastal Karnataka Power Limited**

- ✓ CEA team visited the site on 1.2.2006. KPCL officials showed the Tadri site. The government land available was 1,800 acres as against the requirement of 3,000 acres. Government of Karnataka's help is required to acquire more land required for the project.

- ✓ Tadri port is to be developed by Karnataka Maritime Board.
- ✓ Forest clearance for the evacuation project.

#### **14.5 Coastal Maharashtra Power Limited**

- ✓ The site at Sindu Durg district was visited by CEA on 2<sup>nd</sup> February, 2006. The land availability was confirmed by the District Collector to the visited team. Coal transportation from port to the site is required to be studied by the State officials.
- ✓ Development of port by Maharashtra Maritime Board.
- ✓ In case transportation problem is not possible to be sorted out, in that event proposal of alternate site at Ratnagiri is to be firmed up.