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**STANDING COMMITTEE
ON ENERGY
(1995-96)**

TENTH LOK SABHA

**FAST TRACK POWER PROJECTS
—AN EVALUATION**

MINISTRY OF POWER

THIRTY-SIXTH REPORT



सत्यमेव जयते

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**LOK SABHA SECRETARIAT
NEW DELHI**

February, 1995/Phalguna, 1917 (Saka)

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(TENTH LOK SABHA)

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MINISTRY OF POWER

Presented to Lok Sabha on _____
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7 MAR 1996



LOK SABHA SECRETARIAT
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* Not printed. One cyclostyled copy laid on the Table of each House and 5 copies placed in Parliament Library.

**COMPOSITION OF STANDING COMMITTEE
ON ENERGY (1995-96)**

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Shri Jaswant Singh

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Lok Sabha

2. Shri Bhawani Lal Verma
3. Shri Murli Deora
4. Shri Motilal Singh
5. Shri Khelsai Singh
6. Shri Khelan Ram Jangde
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20. Shri Haradhan Roy
21. Shri Anil Basu
22. Shri Keshari Lal
23. Shri Rajesh Kumar
24. Shri Vijay Kumar Yadav

* Ceased to be a Member of the Committee consequent upon his appointment as Minister in the Union Council of Ministers w.e.f. 13.9.1995.

25. Dr. Venkateswara D. Rao
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28. Shrimati Dil Kumari Bhandari
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41. Dr. Naunihal Singh
42. Shrimati Kamla Sinha
43. Shri Joy Nadukkara

SECRETARIAT

1. Smt. Roli Srivastava — *Joint Secretary*
2. Shri G.R. Juneja — *Deputy Secretary*
3. Shri A. Louis Martin — *Under Secretary*

.

* Ceased to be a Member of the Committee consequent upon his appointment as Minister in the Union Council of Ministers w.e.f. 13th September, 1995.

** Ceased to be a Member of the Committee consequent on his retirement from Rajya Sabha w.e.f. 24th July, 1995.

**COMPOSITION OF SUB-COMMITTEE ON FAST TRACK
POWER PROJECTS**

1. Shri Murli Deora — *Convenor*
2. Shri P.C. Chacko
3. Prof. Rita Verma
4. Shri Shankersinh Vaghela
5. Shri Anil Basu
6. Shri Vijay Kumar Yadav
7. Shri Chitta Basu
8. Shri Dipankar Mukherjee
9. Smt. Ila Panda

INTRODUCTION

1. the Chairman, Standing Committee on Energy having been authorised by the Committee (1995-96) to present the Report on their behalf, present this Thirty-Sixth Report on the subject, "Fast Track Power Project—An evaluation" The task of examining the subject "Fast Track Power Projects—An Evaluation" and preparation of this Report was entrusted to a Sub-Committee of Standing Committee on Energy.

2. The Sub-Committee held 7 sittings in all out of which 5 sittings were devoted to recording of personal hearing of experts and official witnesses and 2 sittings for in-house deliberations.

3. The Committee wish to express their thanks to the Ministry of Power, Ministry of Finance and Shri S.N. Roy, former Chairman, Central Electricity Authority for placing before them the requisite material/Memorandum in connection with examination of the subject. The Committee also wish to express their thanks to the State Governments of Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Orissa and Tamil Nadu for furnishing information desired by the Sub-Committee.

4. The Committee also wish to thank in particular, the representatives of the Ministry of Power and the Ministry of Finance and the following experts/representatives of organisations who appeared before the Sub-Committee for oral evidence/personal hearing and placed their considered views before it :

- (i) Central Electricity Authority.
- (ii) Representatives of Independent Power Producers Association of India.
- (iii) Shri S.N. Roy, Former Chairman, Central Electricity Authority.
- (iv) Representatives of Dabhol Power Company.
- (v) Dr. Homi N. Sethna, Chairman, Tata Electric Companies.

5. The report was considered and approved by the Sub-Committee at it's sitting held on 30th January, 1996 and adopted by the full Committee on 26th February, 1996.

6. The Committee place on record their appreciation of the work done by the Sub-Committee on Fast Track Power Projects of the Standing Committee on Energy.

NEW DELHI;
26th February, 1996
7 Phalgun, 1917 (Saka)

JASWANT SINGH,
Chairman,
Standing Committee on Energy.

PART— I

PART— A

BACKGROUND ANALYSIS

A. Fast Track Power Projects

1.1 The Committee in their 26th Report (1995-96) on "New Policy initiatives in Power Sector—Status of Implementation and their impact on the economy" have dealt with various issues relating to the New Power Policy introduced in 1991 and its implementation. The 32nd Report (1995-96) of the Committee has dealt with the Action Taken by the Government on the recommendations contains in the 26th Report.

1.2 The present report relates to evaluation of nine Fast Track Power Projects. The information regarding Fast Track Power Projects furnished by the Ministry of Power (MOP) on 1.8.1995 is tabulated in the statement at para 2 and 3.

1.3 The Sub-Committee noted that the list of Fast Track Power Projects furnished by the Ministry included the Bhadravati TPS in Maharashtra, which had not been included in the list of Fast Track Power Projects furnished earlier in August, 1994. Asked to specify the basis on which a Project is categorised as 'Fast Track' the Ministry of Power in a written reply, informed as under :

"At the initial stage of the private power programme, some projects which had progressed faster were identified as fast track projects. They were also amongst the first to be cleared from foreign investment angle. Since counter guarantee could be available for only limited number of projects, it was limited to 8 out of 9 initial projects cleared from foreign investment angle. The ninth project viz. Paguthan CCGT of M/s Gujarat Torrent Energy Corporation, did not ask for a counter guarantee. The nomenclature of "fast track projects" may be viewed in this background. Hence there are 8 fast track projects with counter guarantee and one without counter guarantee."

1.4 The Ministry of Power also informed on 29.8.1995 that "any project which progresses fast is considered to be on the fast track and its progress is monitored closely. At present we have a list of 16 fast track projects including the 9 projects identified earlier. We closely monitor these projects, with a view to see that they achieve financial closure early. No extra concessions are available to these projects."

FAST TRACK POWER PROJECTS

Location	Installed Capacity MW	Type	Completion Cost Rs. Cr.	Cost per MW Rs. Cr.	Tentative cost of Generation (levelised) Rs./Kwh	CEA's 'In Principle' clearance	Status
Andhra Pradesh							
1. Jegurupadu, GVK Inc., USA	216	Gas/Naptha	827 (1996 level)	3.83	2.22	6.11.92	All clearances obtained except GOI counter guarantee
2. Godavari (Kakinada), Spectrum Tech.,	208		748.43 (1996 level)	3.60	1.98	7.4.93	-do-
3. Visakhapatnam, Ashok Leyland and National Power, U.K.	1,000	Coal	4797 (provisional)	4.80 (provisional)	N.A.	15.5.95	DPR under examination by CEA
Maharashtra							
4. Dabhol, Enron, Bachtel and GE of USA	695 (Phase-I)	Distillate Oil	(i) 2912 (including jetty and fuel facilities (1997 level) (ii) 2634 (excluding jetty and fuel facilities) (1997 level)	4.10	2.86	20.9.93	Financial closure achieved.

5.	Bhadravati, Nippon Denro Ispat Ltd. GEC and EDF, France	1072	Coal	5187 (1998 level)	4.84	2.66	20.6.94	PPA under negotiation with MSEB.
Gujarat								
6.	Paguthan, Torrent Group & GPCL	654.7	Gas/Naptha	2298.14 (1996 level)	3.51	2.17	30.3.93	Counter guarantee not required- Financial Closure soon.
Karnataka								
7.	Mangalore, Cogentrix & GEC	1,000	Coal	4387.48 (1997 level Provisional)	4.39 (Provisional)	2.59 (Provisional)	27.7.95	Revised PPA under consideration
Orissa								
8.	IB Valley units 3 & 4 AES Transpower, USA	420	Coal	1993.63 (1997 level)	4.75	2.18	13.7.93	Financial Closure awaited
Tamil Nadu								
9.	Neyveli (Zero Unit), ST Power System & CMS Generation, USA	250	Lignite	1325 (1997 level)	5.30	2.72	28.12.93	Counter guarantee awaited

1.5 The details of seven additional fast track power projects as on 29.8.1995 as furnished by MOP are given below :

Additional Fast Track Power Projects

Name of Project	Capacity MW	Cost Rs. Crore	MOU Date	Status
1. BASPA-ST-II Himachal Pradesh, Jaiprakash Industries	300	949.23	23.11.92	PPA under finalisation
2. JTPC Co Karnataka, Jindal Group	2 x 120	838.90	09.12.94	DPR under preparation
3. Maheswar HEP, Madhya Pradesh, S. Kumars/Bechtel, USA	10 x 40	1073.00	28.7.93	All clearances obtained, FIPB recommended
4. Pillai Perumal Nallur, Tamil Nadu, Dyna Vision	320	1120.00	09.12.92	DPR under examination in CEA
5. ROSA TPS, Uttar Pradesh, Indo-gulf Fertilisers & Chemicals India /Power GEN. PLC, UK.	2 x 250 + 1 x 250	2587.47	17.11.93	-do-
6. Ballagarh TPS West Bengal, CESC / ADB / TFC	2 x 250	2235	01.1.93	Financial closure in progress.
7. Budge Budge West Bengal, CESC Ltd.	2 x 250	1959	—	All clearances obtained. Work in progress

1.6 Regarding Fast Track Power Projects the Power Secretary stated during evidence :

“Today, we have sixteen fast track projects. We have identified these projects on the basis of our internal assessment and we are trying to monitor their clearances more closely to help them achieve financial closure quickly so that work starts on the ground. When we review next, we might have more projects as fast track projects. It only helps the Government of India identify the projects for proper monitoring to ensure early commissioning.”

1.7 Asked about the anticipated completion time of a fast track project as compared to other projects, the Ministry of Power stated in a written reply that for the private sector projects identified as fast track or otherwise

the completion time is reckoned from the date of financial close whereas for public sector projects it is reckoned from the date of order for the main plant (boiler and turbine-generator). The Ministry indicated that the typical completion time of Private Sector Projects cleared by Central electricity Authority as under :

Typical completion time of private sector projects cleared by CEA	Completion Time in months
Combined cycle gas turbine project	26—36
Coal based project with 210/250 MW units	41
Coal based projects 500 MW units	48

1.8 Speaking on the Private Power Policy in view of the recent developments in respect of the Fast Track Power Projects, an Experto (Dr. Homi N. Sethna, Chairman, Tata Electric Companies) pointed out during personal hearing :

“A policy has to keep pace with times and therefore it has to be changed in the newer contexts. I will tell you why. The price of power equipment where I was staying three years ago was something like Rs. 3.5 crore per megawatt. I can now buy that for Rs. 2.8 crore. I may just give you numbers and I am sure if I negotiate, it will come down still further.”

1.9 When the Sub-Committee observed that the fast track power projects needed to be reviewed from every angle, that is, cost, counter guarantee etc., in view of non-materialisation of these projects during the last three years, the Secretary, Power, stated :

“Out of 8 fast-track projects (with counter guarantee) there are six projects whose techno-economic clearance has been given by the CEA. As far as the two other projects, i.e., Cogentrix in Karnataka and Ashok Leyland in Andhra Pradesh are concerned, a thorough scrutiny is being done. Out of the six projects, we have given counter guarantees for the two projects, i.e., Enron and AES. As for the remaining four projects in which PPAs have already been made among the State Governments, the Electricity Boards and the private developers, a thorough scrutiny is being done. The PPAs are thoroughly scrutinised to see that conditions are acceptable to the developer as well as the Electricity Boards. Sir, that is the reason why we have taken so much time.”

1.10 The very objective of inviting the private investors in power sector will be defeated if the projects do not come up in time. The Ministry of Power informed in a written reply that against the target of 30,537.7 MW, the likely achievement during the 8th Five Year Plan (1992-97) is Rs. 20,729.7 MW. According to Ministry of Power the slippage is due to the fact that there were reportedly changes in the sectoral emphasis in the State Plans and slowing down in the investible fund support to the generation schemes in some States even for continuing schemes. In addition, there were many project specific problems which adversely affected the project implementation.

1.11 Quoting from a reply to parliamentary question, the Sub-Committee pointed out that on the one hand there is a huge external assistance of Rs. 18,775 crores which remained unutilised while on the other hand, Public Sector Power Projects are starved of funds. Explaining the position in this regard, the Power Secretary, stated during evidence:

"The funds really come to us from the World Bank, ADB and the OECF... We are regularly following it up about the utilisation of funds. I'll give you a few reasons. In so far as the Central Sector Projects are concerned we have been utilising the funds almost to the last paisa... It is the money which has to be spent from year to year basis, not that this entire amount of Rs. 18,775 crore should be spent in a day. This is not really the case. It is over a period of time depending on yearly allocation.

The second reason is, for most of the loans which have been sanctioned in the last two or three years, in the initial stages the expenditure is always less.

The third reason, as far as the Government of India Undertakings are concerned, is that we have been able to fully utilise the external assistance. But when it comes to the question of the State Governments, they have not been able to utilise these funds primarily because when the Planning Commission approves the plan, they do not earmark a particular allocation for a particular project. Let us take the example of the Chanderpur Project. The State Government generally allocates the funds to the various projects but it does not say that you transfer the funds from one project to another project. The Electricity Boards and the State Governments keep on changing it from one head to another head.

So, most of the money which is unutilised in so far as the targets for every year are concerned, is of the State Government projects.

We have been pursuing this matter with the Planning Commission. The Planning Commission, this year, have agreed that the matching funds will have to be provided by the State if that money has to be utilised. So, I think from this year onwards, the situation will improve."

B. Competitive bidding and Tariff

2.1 Regarding award of fast track projects, the information as received by Ministry of Power from two State Governments is given below :

Government of Karnataka: NTPC's proposal to establish 2140 MW multi-fuel generation station with collaboration of the erstwhile Soviet Union did not materialise in view of their internal problems.

Government of India revised its policy in 1991 and allowed the entry of private sector in the field of generation. Conferences were also organised by Ministry of Power, Government of India with a view to attract private sector to set up generating stations in the country. In one such conference held in Delhi during June 1992, the Secretary, Energy Department and the Secretary to Chief Minister, Government of Karnataka addressed the delegates and extended an invitation to set up power plants in the State.

In July 1992, M/s Cogentrix visited Karnataka and examined some of the locations. They were the first to request the Government of Karnataka to permit them to set up a generating plant at Mangalore as they found the site suitable. MoU with the company was signed on 30.07.92.

Government of Andhra Pradesh:

(a) Jegurupadu: The developer M/s GVK Industries Ltd., was selected by Government of Andhra Pradesh on the basis of competitive bidding (prequalification stage) and then MoU approach was adopted.

(b) Godavari: For Godavari Gas based power project at Kakinada, the Government of Andhra Pradesh has selected M/s Spectrum Technologies USA and NTPC for implementation of the project on a competitive bidding on prequalification and later MoU approach. M/s Spectrum Power Generation Limited was formed for execution of this project as a Joint Venture of M/s Spectrum Technologies USA, and M/s Jaya Food Industries, Hyderabad.

(c) Visakhapatnam: In response to the advertisement issued in September, 1990 for this project by Government of Andhra Pradesh, four out of nine firms viz. M/s Larsen & Toubro Limited, M/s NTPC Limited,

M/s Bhadrachalam Paper Boards Limited and M/s NTPC Limited, M/s Bhadrachalam Paper Boards Limited and M/s Birla Technical Services were shortlisted by the Government of Andhra Pradesh for implementation of this project. Even these four firms expressed their inability to take up this project for a variety of reasons. As their response for participation in the project of this magnitude was found to be not encouraging, the State Government requested Government of India for implementation of this project by securing external assistance. However, these efforts were not successful. Finally M/s Ashok Leyland Limited was selected in collaboration with Mission Energy USA for implementation of this project and an MoU was signed on 17.7.1992. Mission Energy withdrew from the project in June' 93, due to their lack of understanding with Ashok Leyland Limited on partnership issues. Finally this project was entrusted to a joint venture company with National Power Plc., UK and Ashok Leyland Limited. Subsequently M/s Hinduja National Power Corporation Limited has been formed as a joint venture of M/s National Power Plc., UK and M/s Ashok Leyland Limited for implementation of this project.

2.2 Pointing out that the initial response from the Private Sector for Power Projects was poor, the Power Secretary, stated during evidence:

"In the first nine months, we hardly received about 26 responses. Out of these 26, 12 were for small projects, for 60 megawatts and 100 megawatts. The remaining 14 were for major projects. Even that response has come from foreign companies and not from Indian companies. So, at that time many States have chosen the Memorandum of Understanding route".

2.3 The Competitive bidding route for selection of projects was made mandatory since 18.02.1995. Asked to specify the differences between fast track and other Projects and how they are reconcilable, the Ministry of Power stated in a written reply furnished on 29.8.1995 as under:

"Prior to 18.2.1995 both negotiation and bidding routes were adopted by the States. As per information received from various State Governments/SEBs and other agencies, 189 projects have been awarded through the negotiation route including the fast track projects. About 54 projects are being awarded through bidding route. None of the projects on bidding route are anywhere near financial closure. Since every project which has been awarded through either MoU route or bidding route has to obtain the same set of necessary statutory and non-statutory clearances, the question of reconciling the difference between the fast track projects and other projects does not arise."

2.4 Enquired about the MoUs signed subsequent to issue of instructions regarding mandatory competitive bidding, the Ministry of Power, stated that the Government of Uttar Pradesh had intimated that they have signed MoUs on 21.3.1995 for setting up four projects (100 MW each) and that the Government of India is examining the matter in detail in consultation with the State.

2.5 During Personal hearing Dr. Homi H. Sethna, Chairman, Tata Electric Companies indicated the aspects that have to be looked into for any project proposal viz. standing of the Party, adoption of World Bank standards for inviting bids, cost of fuel and careful consideration of PPA.

2.6 As a part of private power policy, the Electricity (Supply) Act was amended in October, '91 after obtaining approval of the Parliament. One of the amendments viz. Section 43A of Electricity (Supply) Act, 1948 *inter-alia* authorised the Central Government to notify the norms for tariff for sale of electricity by a Generating Company to the Board. In pursuance of this Ministry of Power has notified the tariff norms *vide* notifications No. 251(E) dated 30.3.92 and amendments issued thereon from time to time.

2.7 The notification published on 30th March, 92 is structured on a two-part tariff mechanism which ensures recovery of the fixed costs (essentially the capital costs and reasonable return) and the variable costs (basically the fuel costs).

2.8 The notification allows 16% return on equity as an element of fixed cost at 68.5% Plant Load Factor (PLF) and provides additional incentive up to 0.7% of return on equity for each percentage increase of PLF above 68.5%.

2.9 The relevant provisions of the notification dated 30th March, 1992 are as follows:

"Full fixed charges shall be recoverable at generation level of 6000 hours/kw/year. Payment of fixed charges below the level of 6000 hours/kw/year shall be on prorata basis. There shall not be any payment for fixed charges for generation level above 6000 hours/kw/year. For generation of above 6000 hours/kw/year, the additional incentive payable shall not exceed 0.7 per cent of return on equity, for each percentage point increase of Plant Load Factor above the normative level of 6000 hours/kw/year. While computing the level of generation, the extent of backing down, as ordered by the Regional Electricity Boards shall be reckoned as generation achieved. The payment of fixed charges shall be on monthly basis, proportionate to the electricity drawn by the respective Boards and other person. Necessary adjustment based on actual shall be made at the end of each year."

2.10. The amendment to the notification dated 18th January, 1994 provides that for generation above 6000 Hours/KW/year, the additional incentive payable shall not exceed 0.7% of return on equity for each percentage point increase of PLF above that level.

2.11. According to a view expressed in some quarters the tariff notification issued under Section 43(A) of Electricity (Supply) Act, 1948 was based on Cost-Plus approach and not relevant in case of competitive bidding. Enquired whether it was not necessary to review the notification, the Power Secretary stated during evidence:

"We ourselves felt that there is a need for changes. You might have observed that in the Notification, there are lot of operational parameters. Suppose the auxiliary consumption should be nine per cent and O & M must be three per cent and so on and so forth. Now, we have changed these operational parameters to ceilings and provided that the Electricity Boards and the State Governments could negotiate for lesser than the ceiling. To that extent we have modified the guidelines. Similarly, we have been incorporating the changes ever since the policy was made. First time we did not put any ceiling for incentives on PLF beyond 68.5% but we found that some people negotiated for almost two per cent return on the equity on every one per cent increase in PLF. We felt that this was not the correct approach as everybody will go haywire and will ruin the policy. We thought that reasonable incentive should be given to negotiate the investment. There should be a ceiling of 0.7 per cent for one per cent increase. This is again one of the remedies which we modified."

2.12 The Ministry of Power, however, stated in this connection in a written reply as under:

"For awarding power projects through competitive bidding our tariff notification could act as a guide. The tariff notification could act as an yardstick to arrive at a reasonable sale rate of power expected from the power project proposed to be awarded through competitive bidding. This facilitates evaluation of the bids received which may be based on sale rate of power."

2.13. Pointing out a recent modification made in the notification in the context of Project cost, the Power Secretary stated during evidence:

"We have decided that even if the ceiling fixed by CEA is high, the State Electricity Boards can negotiate for the less cost. For example, if the cost of a project is Rs. 2,000 crores which is fixed by the CEA, the Electricity Boards can negotiate for Rs. 1,600 crores and that will be accepted. This is another modification which we have done."

2.14 Pointing out that the existing tariff notification will have to be changed in case the competitive bidding route is resorted to for selection of Project Promoters, the Finance Secretary stated during evidence:

"If you want to do the competitive bidding, then the tariff notification which presently have the force of law has to be changed because under the tariff notification this is how a tariff is determined. If we are going to do competitive bidding then the tariff is going to be independent of costs."

2.15 Stating that it cannot be unambiguously said that a competitive tendering situation produces a better result than the negotiated agreement the Finance Secretary also pointed out during evidence:

"The general approach which we have taken is that in future in our system the more transparency the better it is. Therefore, we should move towards more competitive tendering."

2.16 The Sub-Committee enquired whether the question of having a fixed tariff was considered. In reply, the Power Secretary stated:

"The very potential that a consumer optimises is tariff. So, we have really given instructions for competitive bidding. This is one of the points. When you are really going in for a competitive bidding, you also get best tariff."

2.17 Enquired whether it is not desirable that criterion for Competitive bidding should be the ultimate price at which power is to be purchased, the Ministry of Power stated in a written reply that ultimate sale rate of Power could also be a criteria for awarding projects through competitive bidding.

2.18 Enquired about the actual tariff of Dabhol Project at 68.5% PLF, the Ministry of Power stated in a written reply that "Tariff furnished by Maharashtra State Electricity Board is based on 90% availability of the Project. If the project were to operate at 68.5% PLF as per Government of India norms, the levelised tariff at 12% discount rate would be Rs. 3.12/Kwh which includes escalation of fuel and O & M charges. If these two escalations are removed, the levelised cost of generation at 68.5% works out of Rs. 2.69/Kwh."

2.19 From the information furnished by the Ministry the Sub-Committee observed that the levelised cost of generation per Kwh. Of Godavari GBPP being set up in Andhra Pradesh was Rs. 1.98 in comparison to Rs. 2.86 per Kwh in respect of Dabhol Power Project. Asked as to what was the justification for such a wide variation in levelised

tariff between two gas based projects, the Ministry of Power informed in a written reply as under:

"The primary reason for the variation in the levelised tariff between the Godavari project and the Dabhol project is because of the difference in fuel. Whereas the Godavari project will use natural gas as the primary fuel, the Dabhol project would use No. 2 distillate. Moreover, unlike Dabhol tariff the tariff of Godavari is dependent on the depreciation schedule. Godavari project was cleared with lower rate of depreciation as was notified at that time. Subsequently, the depreciation rates for steam power plants were increased. If the increased depreciation is applied, the cost of generation would go up correspondingly. The tariff of Godavari CCGT does not assume any increase in the cost of fuel whereas Dabhol tariff has assumed increase in the cost of fuel. Since the increase in fuel prices are pass through in both cases the tariff of Godavari project has also to be escalated as per the escalation in the fuel cost, whereas Dabhol tariff has to be corrected if there is difference in the assumed escalation in the cost of the fuel."

2.20 The returns upto 68.5% and incentive ceiling rate for performance beyond 68.5% are equally applicable to all types of Projects viz. Gas, LNG, Coal and Lignite based Power Plants. Asked whether the Ministry had adopted a judicious approach by fixing the base PLF at 68.5% for giving incentives to both Coal as well as Gas based Power Plants whose efficiency and operational levels of PLF are well known to be much higher in comparison to Coal based Power Plants, the Secretary, Power stated during evidence:

"I agree that there are several areas where the policy could certainly be improved upon."

2.21. Regarding the expected rate of return to the Dabhol Power Project, Dr. Homi N. Sethna stated during personal hearing:

"The point is, when you talk about return, you have got to look at the climate. When it is cold you get a particular return, if it is warm, it would be a little better. If you get gas, the return is high and with Naptha you get another type of return. Originally the first phase of DPC (Dabhol Power Company) was on gas. Or, if I remember correctly initially it was on diesel oil. At that time it was 30 to 35 per cent at 90 per cent PLF. In the second stage when they were changed to LNG, etc. it became 40 to 41 per cent."

2.22 Following suggestions have been made to speed up implementation of private power projects in case competitive bidding route is followed by State Governments:

(i) The requirement of statutory clearance of company's estimates under Section 29, Techno-economic clearance under Section 30 and prior consent under Section 44 (2A) from the Central Electricity Authority under the Electricity (Supply) Act, 1948 be dispensed with.

(ii) Except where inter-state water issues are involved, clearance from CWC under Irrigation Act may be dispensed with.

(iii) Fuel linkage and transportation clearance can be replaced by the commercial contracts between Coal/Oil Companies, Railways and IPP with appropriate conditions precedent to enforcement of the contract. This will enable a prospective developer to negotiate fuel supply & transportation agreement even during the process of bidding and negotiations.

(iv) The registration of Company should not be construed as a clearance/pre-requisite of other clearances as it will be otherwise enforced by State Governments under 1A and also by lending institutions.

(v) The Ministry of Environment & Forests is to give Forest clearance, Environment clearance and clearance of rehabilitation and resettlement of displaced families. In respect of rehabilitation and resettlement of displaced families, it will be appropriate if the Central Government in consultation with State Governments formulates guidelines to be followed by the State Governments and in case any deviation is sought from then only the clearance from Ministry of Environment and Forests should be required. Even Forest & Environment clearance can be merged.

2.23 Asked about the Ministry's reaction to each of the above suggestion, the Ministry of Power, stated as under:

"Since these suggestions have far reaching implications, these need to be examined in depth in its entirety and in all its ramifications. Various other Ministries and other statutory bodies would have to be consulted and then a view taken in the matter."

C. Counter Guarantee and PPA

3.1 Counter guarantees from the Government of India are given for SEB's payment obligations in respect of Private Power Projects cleared by the Cabinet Committee on foreign Investment. The Committee in their 26th Report had emphasised that counter-guaranteeing for any project is uncalled for.

3.2 Enquired about the necessity of giving counter guarantees, the Power Secretary stated during evidence:—

“Despite announcing an attractive package, there were not many takers for the policy. Even the Indian business houses did not want to deal with SEBs with very poor payment record. It was in this background that Government of India had to announce that it would give counter-guarantees to the first few projects.”

3.3 On the method of selection of projects for giving counter-guarantees, the Secretary, Power informed :—

“The Ministry had a quick look at the progress made and identified the projects which had made the maximum progress and announced that it would give counter-guarantees to these projects as an instrument to expedite early investment and to answer the doubts of the international investors in the credibility of the SEBs to pay for the power, the IPPs would generate.”

3.4 According to the Ministry of Finance the Cabinet Committee on foreign Investment has accorded in principle approval for the extension of counter-guarantee to the following eight Fast Track Power Projects :—

- (a) Dabhol Power Project (Phase I 695 mw).
- (b) Visakhapatnam Thermal Power Station (1000 mw).
- (c) Mangalore Thermal Power Station (1000 mw).
- (d) Jegurupadu Power Project (235 mw).
- (e) Godavari Power Project (208 mw).
- (f) Neyveli Power Project (250 mw).
- (g) Ib Valley Power Project (Units 3 & 4 : 420 mw).
- (h) Bhadravati Power Project (1000 mw).

3.5. Of these, only two counter-guarantees have been signed in respect of Dabhol Power Project (Phase 1) and AES Ib Valley Power Project (Units 3 & 4). As per the information furnished by Ministry of Finance, ‘the other cases are yet to fulfil the conditions precedent to the examination of their proposal for counter guarantee’.

3.6. The Sub-Committee enquired whether it was justified to give counter guarantees to IPPs proposing to set up power projects in States such as Tamil Nadu, whose Electricity Board was financially credible and was regular in meeting its payment obligations for purchase of power

from public sector power projects. In reply, the Power Secretary stated during evidence :—

“We do not have the credit rating system for the electricity boards. I know that it (Tamil Nadu Electricity Board) is good. But the foreign investor must also know how long has it been good, whether it is for the last two or three years or for the last 20 years and would it be for 20 years more. This is how, when an investor is coming here and investing his money he would want to have his money as secured as possible. These are the initial necessities. So, we should give a kind of confidence for these people. So, once we know that these companies have come and set up their industries, then more and more opportunities will be given. That is one of the aspects.

The second is counter-guarantee is given only on the basis of specific recommendation made by the Electricity Board and the State Government. Unless the State Government says it is not given. If it is able to convince the investor that it is financially credible, there is no need for counter-guarantee. There is also a fee levied by the Government of India for providing counter-guarantee. Obviously, they were not able to convince the investor. So, when the State Government recommends, we have given this counter-guarantee from our side. It is basically a measure of giving confidence to the new investors. That is why we have said that only eight projects would be given this guarantee and no more than eight.”

3.7 Asked whether a company which is once given a counter-guarantee would not cite this instance for claiming such guarantees yet again in the future, the Secretary, Power, informed the Sub-Committee as under :—

“These projects with counter-guarantee were cleared sometime in 1994. Thereafter, the Government has made it very, very clear that beyond this eight, there are going to be no more counter-guarantees.”

3.8 The Ministry of Power had indicated various alternatives to counter-guarantee such as direct supply of power by private projects to HT consumers; opening of a Escrow account, PPA with Power Grid Corporation, Escrow arrangement with Central devolution, etc. To a query whether these alternatives were posed to the promoters of fast track projects the Ministry of Power stated in a written reply as under :—

“The exercise on alternatives to counter-guarantee began after a decision was taken that Government of India counter-guarantee could not be extended beyond 8 power projects. As such, posing these alternatives to the fast track projects at this stage does not arise. Moreover, the States are still working on some of the alternatives and Government of India is also yet to take a final view on World Bank

guarantee and Escrow arrangement with Central devolution also committed to such an account, backed up State Government Guarantee."

3.9 During the course of evidence of representatives of Ministry of Finance, the Sub-Committee pointed out that the Finance Secretary had earlier stated that the Ministry was not in favour of giving counter-guarantees. In reply, the Finance Secretary stated :—

"In my earlier appearance before the Committee I had indicated that at an early stage in June the Finance Ministry had taken the view that we should not be giving counter-guarantee. However, we were persuaded based on inter-Ministerial discussion and recognising the time at that point that we would not have been able to attract investor interest without giving a counter-guarantee. Whether that is a right conclusion or not, that was what we were convinced of and that is reflected in the Cabinet decision that we will give some counter-guarantee, but not to all. And the idea was that let us give this guarantee and start something going."

3.10. Drawing reference to the scrapping of Dabhol Power Project by Maharashtra State Government the Sub-Committee desired to know the Central Government's liability as a counter-guarantor and enquired whether Central Government would be loosing much money. In reply, the Finance Secretary said :—

"No Sir, the Government of India will not lose so much money because one of the key elements in the counter-guarantee—that is really what the Finance Ministry had been trying to protect—is that if the Government of India is called upon to pay any kind of compensation under the counter-guarantee then we have what the Law Ministry has certified to be adequate recourse that in effect this would simply be debited to the State Government through a new tripartite agreement. We have to remember that we are not a party to the PPA. So, in a way there is nothing in the legal nature of relationship between the State Governments, SEB and the power producers that directly involves us."

3.11 Asked to specify whether the counter-guarantee given to Dabhol Project and Ib Valley Project which was done after satisfying with all the criteria for granting the same still hold good as both the projects were under revision, the Finance Secretary stated, "as of today, if the PPA is being revised that means the counter-guarantee is not effective."

3.12. It was observed from the information furnished by Ministry of Power that the financial closure of the Jegurupadu Power Project, Godavari

Power Project and Neyveli Power Project (Zero Unit) have been pending for more than an year due to non-finalisation of counter-guarantee. Pointing out that all the prerequisites for giving counter-guarantee, viz. reasonability of Project Cost and tariff were decided by the concerned State Electricity Board, CEA etc., the Sub-Committee enquired about the reasons for delay in processing the applications for counter-guarantee. In reply, the Finance Secretary stated :—

“The first point is that very often a project may have techno-economic clearance in one sense, but we find that the PPA includes a number of factors which are not appropriate given the Cabinet guidelines. For example, who should bear the fuel supply risk ? We have come across cases where PPAs have said that if the fuel is not supplied to the project, no electricity is produced. Nevertheless, the State Electricity Board must pay the project producer for electricity up to 68.5 per cent of PLF as if this electricity has been produced and delivered. This amounts to saying that if there is risk in the access to fuel, that risk will be borne by the State Electricity Board, by the State Government and ultimately by the Central Government. In our view, this is not correct. The fuel supply risk should not be thrust into the PPAs. We have seen PPAs like this. We have sent them back. This is only one example. There are many other cases where we find that in the fine print of PPA, a large number of conditions are introduced which are contrary to the spirit of PPA. We bring this to the notice of the Central Electricity Authority...what is happening is we are utilising international expertise, the best we can get, to look at these documents in great detail and to certify for the CEA the kind of fine print which is necessary to look at if you want a reliable arrangement. In this process, we are also learning.”

3.13. According to Dr. Homi N. Sethna, Chairman, Tata Electric Companies the ‘maximum damage’ occurs at the stage of Power Purchase Agreement (PPA) for the Projects. Pointing out that the PPA’s being entered into at present are not right, Dr. Sethna emphasised on standardisation of PPA. In this regard, Dr. Sethna stated that the CEA should “lay down the principles under which the PPA should be prepared.”

3.14 On the procedural requirements for dealing with Private Sector Projects, the Finance Secretary pointed out during evidence :—

“When you deal with the private sector, one of the fundamental requirements is that the private producer must bear the entire risk of constructing the plant, operating it up to the required level of efficiency. We feel that the procedures that we have evolved over the years, because we are dealing with the public sector, are not very tight. Now that we are dealing with the private sector, we have to

make them much tighter. It is a second check, if you like. It is a little inconvenient also and I am sure that bureaucratically there is an overlap. But we need at least one thorough examination of the PPA, whether it is done in CEA or Power Ministry or Finance Ministry. I think this is a matter of choice. We would have no difficulty in setting up an inter-ministerial team in which we can be represented but which goes through all the aspects with due diligence.

The fact is that these are very complex projects and all over the world when it is a negotiated project, it will take a long time. The only way of doing it fast is to specify the PPA yourself, specify the terms and conditions yourself and then ask the bidder to fill in the price. Then we can do it within one week. But then all the work has to be done in advance, in specifying the project, in specifying the details of the project and specifying PPA. So, either way I do not think that time taken to finalise these projects is too large by international standards. The fact of the matter is there are very few private sector projects all of which have come up only in the last four or five years internationally. I do not think that there is that much of delay."

3.15 Asked whether it would be possible to formulate a model PPA the Finance Secretary stated during evidence :—

"There can be certain aspects, for example, which will be projects specific but which can be left blank. But we can have a model PPA. At least, we can cut out the danger that something has sneaked in the fine print and we will know the standard. Then, whatever pages that are different, may be five pages, we will be able to resolve very quickly."

D. Backing down of generation

4.1 The figures relating to region-wise and national level backing down of generation from 1990-91 to 1992-93 as furnished by the Ministry of Power are given in the table below :—

BACKING DOWN OF GENERATION (GWH)

Region	1990-91	1991-92	1992-93	1993-94
1	2	3	4	5
Northern	4,559	3,644	2,676	1,253
Eastern	74	213	—	90
North-eastern	—	—	—	—

1	2	3	4	5
Southern	393	1,068	265	130
Western	8,432	4,779	5,699	6,466
Total	13,458	9,704	8,640	7,939

4.2 The Sub-Committee desired to know the norms adopted for determining the price of power during peak and off-peak hours at the busbar, to the Grid and to the consumer. In reply the Ministry of Power stated that it has notified the tariff norms *vide* notification Nos. 251(E) dated 30.3.92 and amendments issued thereon from time to time. The notifications do not distinguish pricing of power between peak and off peak hours. Price of Power to the grid is stated to be same as the price of power sold at the station busbar. Cost of power to the consumer/end user is reportedly fixed by SEBs. This is normally based on "pooled cost" of generation and distribution.

4.3 It is observed from the information obtained by Ministry of Power from the State Governments that Government of Karnataka, Andhra Pradesh and Tamil Nadu have followed the norms prescribed in the notification. For all the three projects in Andhra Pradesh the power delivered at the 'interconnection point' *i.e.*, power delivered to the grid, is adopted to the 'Base Load Facility' and there is no variation of price during peak hours and off peak hours. Karnataka State Government has pointed out that the notification of Government of India stipulates that the plants should be operated as base load plants. The Government of Gujarat informed the Sub-Committee that Pakuthan Project would be a base load station and will not be subject to grid discipline.

4.4 An expert (Shri S. N. Roy, Former Chairman, Central Electricity Authority) speaking about the ailment of the Power Sector stated during a personal hearing as follows :—

"First of all, we must see the ailment of the power sector. They (Government) thought that there is shortage of energy. In fact, the country is not short of energy at all. The country is short of peaking power. Energy-wise, you will find that the country is surplus. In the last year, we backed down energy to the extent 10 billion units. Our energy shortage is 8-10 percent and our peaking shortage is 30 percent. If we provide for peaking shortage, the energy problem is taken care of because the entire shortage is only during the peak time. My opinion is that the country absolutely does not need thermal power stations at the present moment. A thermal station is required to meet only base load demand. Today we as a whole country, are in surplus

in base energy. If there is a seriousness on the part of our operating engineers, today itself the country can become surplus in power. It is not difficult to take the generation from 57 percent (PLF) to 75 percent PLF".

4.5 Emphasising that the planning for power should completely match with the pattern of demand throughout the year, the expert opined as under in regard to requirements of power for different sectors :—

"Domestic consumption of power is rising at a high rate of 15 percent and it is only a peak demand. We do not require a thermal station for that. Industrial demand is going downyou will find that that component of industrial load which was 52% in 1972 has come down to 32% now...This decline will continue as most of the industries are either changing over to energy efficient technologies or setting up their own captive power stations. The base demand is mostly accounted for by HT industries and therefore, in future the growth rate of this demand will sharply decline. On the other hand, the domestic demand is increasing fast at about 15 percent and this demand will jack up the peak requirements. The country, therefore, is heading for a serious shortage of peaking power but may be very much surplus in base load capacities."

The expert added in this connection :—

"I do not know how the Government of India had projected an additional installed capacity of 48,000 MW. The country does not require 48,000 MW installed capacity.....We require only 25,000 MW peaking power stations costing Rs. 50,000/60,000 crores which can be managed within available resources."

4.6 Enquired about the basis of his assessment regarding energy requirements, the expert said :—

"Our base load requirement is only 30,000 MW to 35,000 MW. At present, the PLF is 52 percent and full capacity is not being utilised. Our existing thermal power stations can operate at a high PLF to take care of energy shortages provided there is matching peak."

4.7 The Committee enquired how the list of fast track projects does not include any hydro-based project for a pump storage scheme which are essential for stabilising a national grid at present. In reply the Ministry of Power stated that the only new pumped storage scheme proposed to be executed in the private sector is Bhivpuri PSS (90 MW) by M/S. Tata Electric Companies in Maharashtra. The final clearance of the project is pending due to inter-State aspects involved in the proposed use of the Krishna waters for the project. Since the project is unlikely to be ready

for execution in the near future, the proposal was not included in the fast track projects.

4.8 Regarding the Bhivpuri PSS, Dr. Homi N. Sethna, Chairman, Tata Electric Companies informed the Sub-Committee that though it is a very good Project which would have permitted supplies to Maharashtra, 'for the peak loads, during evening and morning', it cannot be taken up owing to inability to resolve inter-State aspects.

4.9 Dr. Sethna pointed out that guaranteed off-take of Power of 90% PLF from Fast Track Power Projects would be 'most costly' and have a 'very bad affect on the existing Power Stations'. He indicated in this connection that guaranteed PLF should not go beyond 80%.

4.10 Regarding Dabhol Power Project proposed to be set up in Maharashtra by Enron Development Corporation, Shri S.N. Roy stated that there is a surplus of power in nights in case of Maharashtra. The expert stated as follows :—

"There is no question of Enron designing Dabhol as baseload station. The Maharashtra system is very much surplus in power in nights. The backing down in the case of Western Region is the worst. There is a backing down in the whole western region of about seven billion units because they are very much short of peaking power. If Enron is there, they have to close down most of their thermal power stations in nights."

4.11 The Ministry of Power informed in a written reply that studies were carried out in Central Electricity Authority in June, 1993 based on the information that the 1st phase of the Dabhol CCGT project (695 MW) would be completed by 1996-97. As per these studies, "the thermal plants of Maharashtra System would be operated at 56.4% PLF. The corresponding Energy Generation from Dabhol Phase-I is 3336 GWH which works out to 45.7% PLF."

4.12 The Ministry of Power informed in a post-evidence reply that, in case Dabhol CCGT has to operate at 90% PLF, the expected backing down of Thermal Power Stations in Maharashtra is 2144 GWH in 1996-97, which is equivalent to a thermal capacity of 408 MW at 60% Load factor.

4.13 CEA have carried out preliminary generating capacity addition planning studies for the 9th Plan period based on the demand projections of 14th Electric Power Survey Report and likely 8th Plan capacity addition of 20729.7 MW. These studies were completed in December, 1994 and

based on these studies the assessed capacity addition during 9th Plan was 56783.2 MW. This capacity addition is subject to the availability of essential inputs including funds. This capacity comprises of 18783.7 MW hydro, 37559.5 MW thermal including gas and diesel and 440 MW nuclear.

4.14 The category-wise break-up is given below :—

Category	9th Plan likely benefits (MW)
Hydro	
(a) Hydro Plants	15943.7
(b) Pump storage	2840.0
Total (Hydro)	18783.7
Thermal	
(a) Coal/Lignite Based	30505.0
(b) Diesel	180.0
(c) Combined cycle gas plant	6640.0
(d) Open cycle gas plant	234.5
Total (Thermal)	37559.5
Nuclear	440.0
Grand Total : (Hydro + Thermal + Nuclear)	56783.2

4.15 The total energy availability in the terminal year of the 9th Plan has been assessed as 644032 MU against the requirement of 594520 MU as projected in the 14th Electric Power Survey Report. Thus the country may have the surplus energy of 49512 MU in the terminal year of the 9th Plan. The energy generation from thermal stations during the 9th Plan has been assessed as per the capacity planning norms which are given below :—

Type of Thermal Plant	PLF
500 MW units	75.00
200/210/250 MW units	68.50

4.16 The Ministry of Power have stated that the likely year-wise phasing of capacity addition during 9th plan from sanctioned, CEA/PIB

cleared and new schemes is as follows :—

Year	Capacity addition (MW)
1997-98	7066.5
1998-99	10795.0
1999-2000	14206.8
2000-2001	15669.4
2001-2002	9045.5
Total	56783.2

(1997-99 to 2001-02)

4.17 Based on Synchronisation programme of 20729.7 MW in 8th Plan and on the above year-wise capacity addition and demands as per the 14th Electric Power Survey Report, the year-wise anticipated power supply position for the 9th Plan period as worked out by the Ministry of Power is given in the statement at page 24.

E. Capital Cost

(i) Break-up of cost

5.1 The Central Electricity Authority determines the cost of any project taking into consideration various factors such as size and number of units, type of fuel, technology adopted, location, method of execution (turnkey or contract packages), sources of equipment, sources of financing etc. Therefore, the cost of the project is examined taking into account specific features and scope of project.

5.2 Asked to give details of the cost break-up of the fast track power projects, the Ministry of Power stated as follows :—

“The IPPs including fast track projects are executed through turnkey contractor with firm completion cost. In some projects the cost of infrastructure is included in the turnkey contract. Further, the detailed cost of individual equipment and systems (which are available for public sector projects executed through a number of contract packages) are not furnished for a turnkey cost.”

5.3 When asked to clarify, how, in the absence of the information regarding detailed cost of individual equipment and systems, CEA examines the reasonableness of the cost of equipment and other items of expenditure, the Ministry of Power indicated in a written reply that the project cost essentially consists of (i) cost of works, (ii) Taxes and duties,

ANTICIPATED POWER SUPPLY POSITION

Region	1996-97	1997-98	1998-99	1999-2000	2000-2001	2001-2002
Peak Surplus/Deficit in Percentage						
North	-38.5	-31.9	-30.7	-24.2	-12.9	-7.3
West	23.0	-5.1	-0.9	2.2	3.5	1.1
South	-25.3	-15.1	-15.2	-15.7	-7.1	0.1
East	-24.7	-13.8	-14.8	-11.2	-8.0	3.1
North East	20.8	-20.2	-3.9	5.5	3.7	1.0
All India	-28.9	-17.9	-16.3	-12.8	-6.2	-2.3
Energy Surplus/Deficit in Percentage						
North	-18.7	-11.9	-12.3	-8.7	2.7	9.7
West	-11.2	1.6	4.4	7.3	6.9	3.9
South	-20.1	-11.5	-11.4	-12.8	-6.7	5.0
East	-4.5	5.3	2.6	5.6	9.8	18.2
North East	-0.7	0.2	9.0	26.7	28.4	23.0
All India	-14.7	-5.4	-4.9	-2.5	3.0	8.3

(iii) overheads and (iv) interest during construction (IDC) and financing charges. Explaining further, the Ministry of Power stated as under :—

“CEA has been carrying out appraisal of the cost of projects since its inception. These projects include domestic and foreign funded projects and covers both coal based conventional thermal power plants as well as combined cycle gas turbine power plants. The cost of equipment and works of on going thermal projects is also available in the CEA as it monitors the power projects. The cost of imported equipment for power projects as furnished by the project authorities in connection with foreign exchange clearance is also available in CEA. Further, the confidential cost appraisal reports of independent consultants for some of the Private Sector Projects Reports and relevant report of Electric Power Research Institute (EPRI), USA on power project cost of various types are available in the CEA.

Taking into account the technical features of the project and the scope involved for the specific project in view and based on the above cost data, the reasonableness of the works cost is assessed.

The taxes and duties are furnished by the project authorities based on the current rates. The break-down of these taxes and duties are obtained at the time of appraisal so that variations, if any, could be checked at the time of completion of the project.

The cost of overheads furnished by the companies supported by break-down of various components are examined and ensured that it is within the value allowed for public sector projects.

As regards IDC and financing charges, these are checked with respect to the phasing of expenditure during construction and the terms of payment as per the financial package submitted by the company.”

5.4 The Sub-Committee desired the Ministry to furnish cost break-down under the following heads in respect of 9 Fast Track Power Projects :

(i) Land, (ii) Turnkey Construction Contract, (iii) Duty, (iv) Additional Taxes, (v) Technical Consultancy, (vi) Misc. Fixed Assets, (vii) Development Fee, (viii) Preliminary Expenses, (ix) Pre-Operative Expenses, (x) Contingency, (xi) Working Capital, (xii) Total.

5.5 The Ministry of Power stated in a written reply that of the 9 Fast Track Projects, 7 projects have been cleared by CEA and the 2 remaining projects, namely, Vishakhapatnam-1000 MW TPS and Mangalore-1000 MW TPS are yet to be cleared by CEA. Therefore, the cost break-down is furnished for the 7 Fast Track Projects cleared by CEA. The Ministry

of Power has stated that since the heads of cost break-down available in CEA are different, heads of cost break-down as available in CEA have been furnished for 3 coal based thermal power stations and for 4 combined cycle gas turbine Fast Track Projects which are attached in separate statements. The Ministry of Power have further mentioned that the working capital is not included in the capital cost cleared by CEA, as interest on working capital margin is provided in the Tariff. Further, the Dabhol Project cost available in CEA is stated to be in terms of US dollars. Therefore, the figures have been given in US\$ for Phase-I of Dabhol project (with Phase-II delinked).

5.6 The Sub-Committee wanted to know the norms for permitting expenses which could be incurred by IPPs on account of (a) promotional costs (b) legal costs (c) technical consultancy charges (d) any other preoperative expenses (e) interest during construction (f) operation and maintenance costs/charges (g) fuel supply. In reply the Ministry of Power informed as follows :—

“CEA norms for overheads in case of public sector projects (which include technical consultancy, pre-commissioning, training, establishment, Tools & Plants, contingencies) are of the order of 11% of the cost of works. For IPPs cleared by CEA, the overheads (which include technical consultancy, preoperative expenses, training, establishment, promotional/development costs, legal costs, contingencies) are of the order of 8% of the cost of works. The interest during construction is determined based on phasing of expenditure during the construction and interest, as per terms of loan.

The tariff notification *inter-alia* provides that O&M expenses for the first full year of commissioning of the plant shall be calculated either @2.5% of the actual capital expenditure as cleared by CEA or ceiling on capital expenditure provided in the PPA or @2% of actual capital expenditure as cleared by CEA or ceiling on capital expenditure provided in the PPA together with actual expenditure on insurance subject to overall ceiling of 3% of the capital expenditure. The O&M expenses in each subsequent year shall be revised as may be mutually agreed upon between the Board and the generating company on the basis of weighted price index.

The above provisions have been notified by the Government of India notification based on the values as per K.P. Rao Committee Report applicable to NTPC projects and specific requirement for private sector project on insurance. The fuel charges are determined based on fuel cost and heat rate and auxiliary power consumption specified in tariff notification which are also based on the norms applicable to NTPC projects.”

**BREAK-DOWN OF CAPITAL COST OF COAL
BASED POWER PROJECTS**

Sl. No.	Item	Ib Valley TPS -Unit 3 & 4 -2 x 210 MW	NLC Zero Unit 1 x 250 MW	Bhadravati TPS 2 x 536 MW
		Rs. Crores	Rs. Crores	Rs. Crores
1.	Works			
(a)	Turnkey	1155.94	910.35	3423.10
(b)	Non-turnkey (Excluding land and land development)	193.17	13.23	157.60
(c)	Land & land development	Included in item 1(b)	3.15	31.50
(d)	Taxes and duties	152.83	86.0	508.30
(e)	Total of works	1501.94	1012.73	4120.50
2.	Overheads	126.94	74.35	277.00
3.	IDC & Financing	364.75	237.83	789.50
	Total	1993.63	1324.91	5187.00

BREAK-DOWN OF CAPITAL COST OF CCGT PROJECTS

Sl. No.	Item	Dabhol 695 MW (net)	Paguthan 655 MW (Gross)	Jagurupadu 216 MW (Gross)	Godavari 208 MW (Gross)
		US \$ Million	Rs. Crores	Rs. Crores	Rs. Crores
1.	Works				
(a)	Turnkey		1575.56	567.91	524.30
(b)	Non-turnkey (Excluding land and land development)	551.389	64.06	14.0	9.45
(c)	Land and land development	3.0*	2.58	10.0	3.60
(d)	Taxes and Duties	76.324	263.51	87.46	81.35
(e)	Total of Works	630.713	1905.71	679.37	618.7
2.	Overheads	101.123	139.32	46.54	36.73
3.	IDC & Financing	160.911	253.11	101.09	93.0
	Grand Total	892.747	2298.14	827.0	748.43

* land and permitting.

5.7 Pointing out that there were a number of articles in the Press about the high cost of projects that have been cleared by CEA, the Sub-Committee cited, the instances of Mangalore Cogentrix Project and Ib Valley Project which were being reviewed from cost angle by the concerned State Governments. The Sub-Committee in this connection enquired whether it is not felt that something is radically wrong in the evaluation system of the CEA. The Power Secretary, stated in reply :—

“As far as the Mangalore project is concerned, that is the project which is being promoted by M/s. Cogentrix. We have only the project cost which we received a few years ago. They are purely tentative and purely provisional. Now, they have gone in for international competitive bidding. Based on the competitive bidding now they find that the tentative cost given a few years ago was high.”

5.8 Regarding the Ib Valley Project, the Power Secretary stated that the Government of Orissa was presently reconsidering the configuration of the Project. The Power Secretary informed that, “when you change the configuration of the project from 210 MW to say 500 MW, obviously, the per MW cost will come down. There will be one facility being created for two units.”

5.9 According to press reports, the promoters of Ib valley, Mangalore and Bhadravati projects have offered to cut down costs and reduce tariff.

5.10 Asked what was the sanctity of CEA's earlier clearances if the project costs are to be reviewed subsequently, the Secretary, Power stated :—

“If the State Government and AES agree to review a project, they can again come to CEA for fresh clearance.”

5.11 Asked whether the fact that in case of some of the projects the companies are willing to bring down the project cost and amend PPA, when challenged indicate that a lot of padding was inherent in the project cost submitted earlier, the Ministry of Power stated as follows in a written reply :—

“In appraising the projects for techno-economic clearance, efforts are made by CEA to bring down the cost of the project to a reasonable level.”

5.12 The CEA Chairman admitted during oral evidence that competitive bidding for procurement of equipment can result in reduction of capital cost of a project.

5.13 Regarding competitive bidding for procurement of equipment by the private promoters the Finance Secretary stated as under :—

"If the equipment is competitively bid, then you are changing the system because CEA will have to certify that this equipment comes under competitive bidding. There is also a problem there. A producer wants to have a competitive tendering for his equipment. He can specify the details of the tender in such a way that only a preferred supplier will be able to bid into that detail. Therefore, a competitive bid is not useful for purchase of equipment unless the CEA clears the bidding documents. There is no provision in the tariff notification for that."

5.14 Asked as to why the Finance Ministry should not insist that counter guarantee would not be given to the projects to which it has been envisaged unless procurement of equipment was made through a transparent bidding procedure, the Finance Secretary stated in response :

"Sir, that would go against the policy as currently approved by the Cabinet because the policy as currently approved by the Cabinet requires us to ensure that the Ministry of Power and the Central Electricity Authority certify the reasonableness of price."

5.15 The Sub-Committee observed that the present duty structure stipulates a lower tariff of 20% for import of power equipment while the rate for import of components by domestic producers of power equipment attracts higher tariff. Enquired whether it is not detrimental to the domestic manufacturers of power equipment, the Finance Secretary stated during evidence :

"There may be cases where the import on some components may be higher than 20 percent. If that happens, there is what we normally call, 'a tariff anomaly'. We have recognised that in this process of reducing tariffs, there will be odd cases where such anomalies exist. If the producers bring this to our notice, we will try and correct that. I certainly agree with you and that is why, we have consistently said that we should get rid of the high duty rates. It is not reasonable to have duty on capital goods which is very high because you make production uncompetitive. Therefore, I agree with you that the duty on raw materials should be reduced; and that is what we are trying to do. It may be that we have not been able to reduce it in all cases. It is because we are having a staged process of tariff reduction hopefully."

5.16 When pointed out that indigenous power equipment has become uncompetitive because of the anomaly, the Finance Secretary informed :

"The indigenous manufacturers in one or two cases may come up with a tariff anomaly. But as a general rule, I do not think that

indigenous equipment is made uncompetitive by this. You may have a situation where the indigenous producer has got a lot of other advantages; and here and there you will have such a thing. In principle, it should be the object of tariff policy that the input duty should not be higher than the final duty. Unfortunately in the process of transition, it is not possible to guarantee that this can be achieved in a very short period of time. But, wherever we find a problem, we are trying to correct it. There may still be some anomalies. I can only say that we are looking into these representations and we are very seriously trying to correct them as soon as possible."

5.17 To an observation that domestic manufacturers of power equipment such as BHEL should be provided credit facilities, the Finance Secretary stated:

"We would be willing to explore with BHEL for any reasonable financing mechanism that can do well. The credit cannot simply come from the internal resources. What we have to do is to try to find it from outside, channel it in a manner which is not linked to any new project."

(ii) Mangalore Project

5.18 The Ministry of Power had, in August, 1994, informed that the cost of 1000 MW Mangalore Project of Cogentrix Development Corporation was Rs. 5088 crores, that is, 5.09 crores per MW. As the latest information furnished by the Ministry indicated that the cost of the project was Rs. 4387 crores, the Sub-Committee enquired as to when and how the Project cost was brought down by as much as Rs. 700 crores. The Ministry of Power informed in a written reply as under :

"The cost estimates for Mangalore TPS furnished by M/s. Cogentrix in their Project Report (PR) submitted to CEA in June, 1993 included cost of transmission lines. The cost of generation scheme was Rs 4702 crores. Corresponding to 6×167 MW net capacity proposed by the company, the installed capacity of the power plant worked out to 6×182 MW. Therefore, the cost per MW worked out to Rs. 4.31 crores at 1993 level. The company was informed by CEA that the cost was high and that they should consider higher size units for economy of scale. Subsequently, M/s. Cogentrix revised the unit configuration to 4×250 MW and a fresh Project Report was submitted to CEA in March, 1995. The cost of generation scheme has been indicated as Rs. 4387 crores at 1997 level which corresponds to Rs. 4.39 crores/MW. However, the firm cost estimates are yet to be submitted by the company. Hence, the cost of Rs. 5058 crores indicated

by Cogentrix in June, '93 were provisional figures and final figures are yet to be furnished to CEA. The project cost is yet to be cleared by CEA."

5.19 Regarding the cost of Mangalore Project, the Government of Karnataka informed the Sub-Committee in a note as under :

"As regards the cost of the project, it is to be stated that as the capital cost of the project determines the tariff, the Government of Karnataka is very much concerned about it. Hence efforts have been made right from commencement of negotiations on the PPA to keep the capital cost to the minimum. To achieve this, it has been made clear in the PPA, that competitive bids should be invited by the Company for both the EPC and fuel bids. These bids will also be reviewed by KEB (Karnataka Electricity Board) to ensure that the most economic and technically suitable bid will be chosen. In the case of fuel bids, Karnataka Electricity Board will also nominate five firms to whom letters of invitation will be sent to ensure that the most competitive bids are chosen. With these provisions, the capital cost of the project will be kept at a minimum and also the fuel for running the plant will be most economic."

5.20 To a query whether there would be a reduction in the cost of Mangalore Project owing to international competitive bidding for procurement of equipment, the Secretary, Power informed :

"Now that is what they have mentioned. But the Central Electricity Authority so far has not given any techno-economic clearance for this particular project. So, what you really read in the newspapers is about what was previously quoted by them, that is two or three years ago. Till today we do not have the figures. We also do not know what exactly is the final cost of the project."

(iii) Ib Valley Project

5.21 The proposal of M/s. AES Ib Valley Corporation for setting up of Units 3 and 4 of Ib valley TPS has obtained all statutory and non-statutory clearances. According to Ministry of Power the project is expected to achieve financial closure shortly. CEA's techno-economic clearance to the project was accorded on 12.08.1994.

5.22 Regarding cost estimates of Ib Valley Project, the Government of Orissa pointed out in a note furnished to the Sub-Committee that there has been no competitive bidding in case of selection of EPC contractors which could have resulted in a more realistic and optimum cost. According to the Govt. of Orissa, the cost of the Balance of Plant (BOP) furnished by AES at Rs. 356.80 crores appears to be higher by about Rs. 101.80

crores. It has been stated that "the pre-operative expenses of AES are also quite high. The financing cost appears to be very much on the higher side. The AES have included a cost of Rs. 296.4 million for construction and marine insurance under financing cost. Since marine insurance has to be paid by EPC contractors, part of this item should not have been accounted for in financing cost, but should be in-built within the EPC cost." According to the Govt. of Orissa, on the whole there exists scope for price reduction of at least Rs. 250 crores mostly from BOP and other general cost.

(iv) NLC-Zero Unit

5.23 In a note furnished to the Sub-Committee, the Government of Tamil Nadu informed that 'the Central Electricity Authority (CEA) have accorded techno-economic clearance at a cost not exceeding Rs. 1325.11 crores for this project including IDC and financing charges. The cost per MW works out to Rs. 5.3 crores. The project cost of Rs. 5.3 crores per MW at the year 1998 appears to be on the higher side'.

5.24 It has, however been mentioned that, in this context, factors relating to the problem of coal linkages, low calorific value of lignite available in Tamil Nadu, development of infrastructure for the project, provision of a 300 MW boiler for achieving a PLF of 85% etc., 'need to be taken into account, to arrive at the project cost, which is on the higher side'.

(v) Dabhol Power Project

5.25 The Sub-Committee observed from press reports that the Dabhol Power Project has been scrapped by the Government of Maharashtra. Enquired about the factual position, the Ministry of Power informed that Government of Maharashtra, based on the report of the Cabine Sub-Committee set up by them to review the Dabhol Power Project, has taken the decision that agreement for Phase-I should be scrapped and work should be stopped and Phase-II cancelled. The MSEB (Maharashtra State Electricity Board) was stated to be taking further necessary action as per the above decision.

5.26 The representatives of Dabhol Power Company (DPC) appeared before the Sub-Committee on 24.8.95 for a personal hearing. During the course of the personal hearing, when the Sub-Committee pointed out that the cost of Dabhol Power Project appeared to be higher compared to a recent power Project in U.K., the representative of DPC (Ms. Rebecca Mark) stated:

"The whole focus has wrongly been that the Dabhol project costs when compared to the Teesside project and when compared to the

other plants, were higher. Teesside was put into operation in 1993 with a different package.

There is no comparison with the financial plan for Teesside in 1993. The construction time is 23 months, 10 months longer than in India. In the power projects in other countries the financing costs are significantly lower than in India. The infrastructural requirements were provided to us for free which makes a cumulative difference. In the U.K. because there was no population at the site, the operation is very easy. We had skilled labour locally available in U.K. We had no idea what would be required to execute the project at Dabhol. We were certainly conscious of the other costs, associated with the housing, school, hostel, medical facilities, building, water supply etc. Even so, I think that this compares with your costs for the kind of equipment purchased in 1989-90.

If a proper comparison is to be made with the other projects of a similar nature, whether it is going to be in the U.K. or elsewhere, there are so many factors which have to be considered to make the comparison."

5.27 Taking note of the fact that Enron was expected to be the fuel supplier of Dabhol Power Project, the Sub-Committee pointed out that the fuel supplier, equipment supplier and construction contractor would be clubbed together because of equity participation by all the three in the Dabhol Power Company. In response to this observation, the witness said as follows :

"We are not the fuel supplier. We were not the fuel supplier when we entered into the contract. We may become the fuel supplier only if MSEB negotiates with us a contract for the second phase for LNG. And that has yet to be done."

5.28 Pointing out that equipment supplier, consultant and the promoter all have equity participation in DPC, the Sub-Committee enquired who was going to counter-check whom to keep the project cost to the minimum. In response the witness said:

"The interest of the consumer is protected by the MSEB, the Government of Maharashtra, the Ministry of Power, the Ministry of Finance, Government of India and the CEA. Our job in 1991 & 1992 was to decide whether we want to bring in our money at risk here. Enron was the initiator of the project. We asked GE and Bechtel to join as equity providers in addition to being the equipment suppliers and the contractor for the project. In 1992-93, there was no demonstrated ability to raise funds for power projects in India. So,

we asked GE and Bechtel to bear 50 percent of the cost at risk in putting the project together, prior to arranging the financing of the project. These companies put their own balance sheets at stake to help us fund the expense of the project because the Enron Board of Directors and others associated with the project felt India was a risk at that time. Another reason we wanted them here was that if we had a problem such as the one we have to our great dismay encountered in India, we did not want our turnkey contractors and equipment providers running away and causing a bigger problem for us. If you compare the cost of the project in India, no one has provided the same services as they have provided and they have done so at a cost much less than many other providers of service in many other projects in this country."

5.29 When asked with regard to Dabhol Power Project whether the Company has any flexibility in regard to competitive bidding for procurement of machinery and equipment for the project, the representative of Dabhol Power Company (Ms. Rebecca Mark) stated during personal hearing :

"We are not opposed to the principle of competitive bidding. I think there is much more flexibility in the Phase-II of the project. Negotiation was more appropriate in 1992 for Phase-I."

5.30 To a query whether the DPC was ready to go ahead with the Dabhol Power Project without a counter guarantee on payment obligations by Government of India in view of the changed circumstances in respect of the Country's credit rating and foreign reserves, the witness stated :

"As a fact of a matter today, the very cancellation of Enron Project would make it extremely difficult, when you might have six months ago done without a counter guarantee. It may make it even more difficult to give up the counter-guarantee now unless replaced by a counter-guarantee from an institution such as the World Bank which fully insulates investors from the kind of political risk to which we have been exposed. There are two issues which need to be dealt with. One is the financial issue and the second is the political risk issue. These can be sorted out by several mechanisms, by negotiations. I will offer you positive hope on this. But it is very time consuming and difficult."

5.31 The Sub-Committee noted that a statement was made on 31st January, 1995 by a representative of Enron Development Corporation

(Linda F. Powers) before a Congressional Committee in Washington indicating that the company spent an enormous amount of its money—approximately 20 million dollars—on education and project development process alone, not including any projects costs. The Sub-Committee also noted the break-up of this expenditure given by the witness (Ms. Rebecca Mark) during the personal hearing which is as follows :

Development Expenditure	11,082 thousand US \$
Engineering Expenditure	6,291 thousand US \$
Financing Expenditure	1,255 thousand US \$
Legal, Technical and Management consultants	3,640 thousand US \$

5.32 Asked to clarify whether or not the above expenditure was included in the project cost, the witness stated :

"The statement referred to was a \$20 million expenditure noted by one of our employees in a testimony before a Congressional Committee in Washington. The amount referred to in her testimony is an amount that the project sponsors Enron, GE and Bechtel spent here until contracts were signed and the financing was complete. Part of the confusion has arisen because in her statement, Ms. Linda Powers, the spokesperson concerned, describes the expenditure as having been incurred on development and not included "as project costs". In this context it is important to appreciate the terminology used. At the time the statement was made, in January, 1995, the Dabhol project had not been financially closed. This development expenditure of \$20 million was 'risk money' put into the project by the sponsors. Therefore it was referred to as 'our money', because if the project had not closed, this money would not have been reimbursed. The terminology 'project costs' used in the testimony normally refers to the costs of plant and equipment, and for financing and construction. Normally to this are added the development expenses of the sponsors to come up with the total financed costs, the total of all borrowings for the project, which are approved by the lenders and the equity sponsors."

5.33 Asked to specify whether items of expenditure such as engineering expenses, development expenditure etc., as given in the break-up did not constitute a part of the project cost, the witness stated that the representative of the company was not doing a technical description in her testimony before the Congress. Elaborating further the witness said:

"What she was trying to do was to put together the developmental costs and things like that associated with the typical expenditures

that take place before the project is financed. These expenditures, by the way, are not only audited because they are shared among the partners, but they also have to be audited because the banks have to approve of these expenditures before they are added to the plant and equipment to ascertain total costs. When we go to a bank and ask for a loan, a private loan for new plant and equipment, that would include all costs including putting the project together, including things like legal fees. Legal fees, for example, are spent by the company outside the turnkey contract for plant equipment contract. So, they have to be agreed and approved by all the equity partners, and they have to be agreed and approved by the bankers to say "this is a cost that gets included in the project". When we want to recover the costs for the project, then we have to get the expenditures audited in great detail: each item of expenditure, legal costs, financing costs, developmental costs and costs associated with our people like their travel and all these other things."

5.34 When pointedly asked whether the expenditure of 20 million dollars constituted a part of the turnkey project cost, the witness stated :

"It is a project cost. However, it is not part of the turnkey contract for plant or equipment."

5.35 Elaborating on what actually constitutes the development expenditure referred to in the statement of the representative of the company, the witness also stated :

"It is cost of having the people, costs of salary, travel, hotel bills. It is costs incurred to begin, to develop, to organise the project, before construction begins. We have to do all these things in the context of putting a project together. It includes, for example, the cost of paying bankers to assist us in the negotiations. We mean by 'development' all these things together. Our company budgets for putting these projects together. One might also call it 'preliminary expenditure'. It is modest compared to the amount to be invested in total on a project like this one of \$2.8 billion."

5.36 Pointing out that the words used by the representative of the company in her congressional testimony while referring to the expenditure were inappropriate the witness also added :

"We have publicly said that the words used (by the representative) were inappropriate and could be misconstrued. We were apologetic for having used the word 'educated' in any context. The full sentence

that was used in the testimony was that this was a learning process for all the parties involved. If there was any offence taken, for that we are extremely sorry."

5.37 In this connection, the witness also asserted :

"Categorically, there have been no bribes paid of any kind, of any nature. We have not only been rigorous about this, but we have exacting rules for auditing each and every one of our project expenditures."

5.38 Asked to indicate the items of expenditure that are treated as preliminary costs for power projects and the expenditure incurred by Dabhol Power Company under this head, the Ministry of Power stated as under in a written reply :

"The preliminary expenses mainly cover the expenditure incurred for various types of investigations including environment impact assessment studies carried out for the projects. These preliminary expenses form a small percentage of the total cost of works. As regards Dabhol Power Project, the actual expenditure incurred under this head has not been received in the CEA."

5.39 The Sub-Committee desired to know whether CEA considered information regarding preliminary expenditure of Dabhol Power Project as per the standard format and pattern. Further the Sub-Committee desired to know the details of preliminary expenditure of approximately 20 million dollars which has been included in the project cost of Dabhol Power Company. In this regard, the Ministry of Power informed as under in a written reply :

"The cost of preliminary expenses for the thermal power projects are generally furnished as a lumpsum project cost. In the Project Report of Dabhol CCGT Plant Phase-I, the cost of preliminary feasibility, engineering, site evaluation, financing plan, legal management is US\$ 14 million. The cost of preliminary feasibility, engineering and site evaluation which may be treated as preliminary expenses have not been furnished in the Report."

5.40 Taking note of press reports that promoters of some Fast Track Power Projects are revising their capital costs in the wake of adverse criticism in the media, the Sub-Committee enquired whether Dabhol Power Company proposed to review its project to resolve its dispute with the Government of Maharashtra. In response, the witness said:

"Prior to the cancellation notice on the 3rd August, we had made a number of overtures to the Maharashtra Government to consider

any of their suggestion to make adjustments that were appropriate to the project, given the state we were in, that is, we were already building the project. These suggestions were not considered at that time for reasons that we certainly cannot comprehend entirely. We are not, however, saying that we are completely inflexible in listening to any concerns that MSEB may have. What we would like for them to do is to state their concerns. If they are to come forward, or the Government of Maharashtra is to come forward and tell us what they would like to talk about, we are certainly flexible on any issues that they feel are important or new issues or issues of concern raised in the review. They can do that."

5.41 when enquired whether it would be correct to state that DPC was ready for renegotiation of the project, the witness said:

"We are ready to consider any issues that MSEB may have."

5.42 To a further query as to whether DPC believed that there was scope for improvement in the agreement, the witness said,

"If I may say so there is great benefit to the Maharashtra Government and the people of Maharashtra to have discussion with us. Moreover, the value of this project will be even greater after the completion of the second phase of the project."

5.43 The Sub-Committee observed that when renegotiation was agreed to, it implied that there was scope for improvement in the agreement and that the cost per MW and tariff was higher in the original agreement than what it should have been. In response to this observation the witness stated :

"That is correct only so long as you make the assumption that every power project either in the private or public sector will be lower in cost than ours. If we were the highest cost project in this country, then you could probably logically make the assumption that you make. All I am saying that we are not the highest cost project in the country. As we have shown the Committee that we are not the highest cost project in the country, there may be several other projects that desire the attention of the Committee I am sure."

5.44 The Sub-Committee observed from press reports that the Dabhol Power Project has since been renegotiated by the Maharashtra State Government. Asked to furnish the latest information regarding Dabhol Power Project, the Ministry of Power informed on 19th January, 1996 that official communication from the Government of Maharashtra regarding their decisions on Dabhol was still awaited.

PART—B

RECOMMENDATIONS AND CONCLUSIONS OF THE COMMITTEE

1. The Committee find that of the initial batch of eight fast track projects, for which clearances had earlier been accorded, at least three are under review/renegotiation. These include Dabhol, Ib Valley and Mangalore Power Projects. Newspaper Reports state that the tariff of Dabhol Power Project has been brought down, but they Committee have not received any official intimation to this effect. The promoters of Ib Valley and Mangalore projects and also of Bhadravati projects have reportedly offered to cut down cost and reduce tariff. The Committee feel that there is a need to examine whether there is any scope for bringing down the cost and tariff of the remaining fast track power projects. It should also be ensured that the cost and tariff of the Fast Track Power Projects as agreed upon in the Power Purchase Agreement are not allowed to escalate subsequently on account of delay in execution of Projects.

2. The competitive bidding route for selection of projects was made mandatory since 18.2.1995. As per the information furnished by the Ministry of Power, Memorandum of Understanding has been signed for 189 projects including the fast track projects. The MOU route adopted for the fast track projects has some inherent deficiencies as is evident from the episode of Dabhol Power Project. On the other hand, competitive bidding will lead to total transparency in such deals. The criteria for bidding as already recommended by the Committee in their 26th Report should be the ultimate price at which power is to be purchased. The Committee urge that the Government must formulate guidelines for tariff-based bidding system for implementing private projects including those for which MOUs have been signed.

3. The Committee find that the tariff notification issued by Government is based on cost-plus approach and is not relevant in the case of competitive bidding. The notification leaves it entirely to the initiatives and the negotiating skills of the State Governments and their respective SEBs to negotiate competitive tariffs with private producers and to cut down costs. The Finance Secretary has pointed out that the notification needs to be changed for tariff based competitive bidding. The Committee are of the view that since the lowest price of energy can be obtained through international competitive bidding route, there should be no need for laying down norms of operation, reasonable returns, etc. The Committee accordingly suggest that the tariff notification must be reviewed forthwith and fresh guidelines for tariff based bidding system formulated as recommended in the preceding paragraph.

4. Given the cost-plus approach of the present policy, minimising project cost is critical and CEA's appraisal evidently does not suffice. The Committee hold that global bidding for engineering, procurement and construction (EPC) contract would help optimise costs in a transparent manner. The CEA Chairman also admitted during oral evidence that competitive bidding for procurement of equipment can result in reduction of project cost. The Committee note that some State Governments are insisting on bidding for equipment contracts in respect of projects awarded through negotiation. The Committee urge that competitive bidding for award of EPC contracts should be made mandatory to instill greater transparency and optimise the project cost and power tariff.

5. Following suggestions have been made to speed up implementation of private power projects under competitive bidding route :

(i) Except where inter-State water issues are involved, clearance from CWC under Irrigation Act may be dispensed with.

(ii) Fuel linkage and transportation clearance can be replaced by the commercial contracts between Coal/Oil Companies, Railways and IPP with appropriate conditions precedent to enforcement of the contract. This will enable a prospective developer to negotiate fuel supply & transportation agreement even during the process of bidding and negotiations.

(iii) The registration of Company should not be construed as a clearance/pre-requisite of other clearances as it will be otherwise enforced by State Governments under 1A and also by lending institutions.

(iv) The Ministry of Environment & Forests is to give Forest clearance, Environment clearance and clearance of rehabilitation and resettlement of displaced families. The Standing Committee on Energy in their 35th Report have recommended that a National Policy for Rehabilitation of persons displaced by various projects must be formulated and guidelines issued to States for implementation. A suggestion has now been made that in case any deviation is sought from the guidelines, only then the clearance from the Ministry of Environment and Forests should be required. Even Forest and Environment clearance can be merged. Since these suggestions have far reaching implications, the Committee recommend that these may be examined in depth in its entirety and in all its ramifications and the Committee be informed of the outcome.

6. The counter guarantee device was conceived for the eight fast track power projects to allay the misgivings of private promoters about the security of their investments. Since then, there has been a vast change in investors perceptions. The Committee in this connection note that the counter guarantee has so far been signed only in respect of two projects viz. Dabhol and Ib Valley. These projects have since been renegotiated/under review which implies revision of their Power Purchase Agreements (PPA). According to the Finance Secretary, "if the PPA is being revised, that means the counter guarantee is not effective." All the initial eight fast track power projects have been delayed for one reason or the other and can hardly be claimed to be on fast track. In the meantime, many other project proposals have matured without counter guarantee and are on fast track. The private investors seem to be willing to take on the risks of investing in the power sector. The Committee, therefore, emphasise that in the changed scenario, there is no need for the Centre to counter guarantee any of the projects.

7. There is a need to formulate a model Power Purchase Agreement (PPA) to bring about uniformity and to enable quick scrutiny by various agencies. The Finance Secretary has suggested setting up of inter-ministerial team to draw up a model PPA. The Committee would like the Power Ministry to take necessary action in the matter and ensure that a model PPA is formulated at the earliest.

8. An expert who appeared before the Sub-Committee emphasised that planning for power should completely match with the pattern of demand throughout the year. He pointed out that industrial demand for power has been declining. In his view, the domestic demand is rising at a high rate which will jack up peak requirements. The Committee feel that this would call for a stress on a mix of hydro and gas based plants for peak hours. Unlike thermal plants, it is cost effective to back down gas based plants during non-peaking hours. It is however, found that the gas based fast track projects will be operated as base load stations. The Committee desire that the matter needs to be examined taking into account the pattern of demand. The Committee feel that in the event of backing down of generation by thermal stations during off-peak hours, it should be on proportionate basis applicable to all the plants including the private sector plants.

9. All the fast track power projects appear to have envisaged import of equipment to avail of the credit facilities available from foreign manufacturers. Though, the indigenous manufacturer-Bharat Heavy Electricals Ltd.-produce equipments of international standard in technological collaboration with leading international manufacturers, BHEL is not able to compete with them due to lack of credit facilities. The Finance Secretary assured during oral evidence that, "we would

be willing to explore with BHEL for any reasonable financing mechanism that can do well." The Committee suggest that the Government should provide necessary facilities to enable BHEL to borrow funds from abroad as well as from internal sources so that it could offer sales aid financing and secure orders from private power projects.

10. The Committee regret to point out that CEA could not furnish cost break-up of fast track power projects in the manner desired by the Committee. In the absence of the information, the Committee could not undertake detailed cost comparison of the different fast track power projects. This raises the question of CEA's relevance in the changed scenario. The Committee had earlier emphasised the need to restructure CEA consistent with the present needs of the Power Sector. The Committee would like the Government to take early action in the matter.

11. The Committee note that an expenditure of over \$ 22 million has been incurred by Dabhol Power Company towards developmental costs of the project. According to the representative of the company, the developmental costs include development expenditure, engineering expenditure, financing expenditure and expenditure on legal, technical and management consultants. The Ministry of Power, however, have informed that in the project report of Dabhol Plant Phase-I, the cost of preliminary feasibility, engineering, site evaluation, financing plan, legal, management is \$ 14 million. The Committee note that there is a difference of about \$ 8 million in the figures furnished by the DPC and that furnished by the Ministry regarding developmental costs. The Committee desire that the difference in the developmental costs indicated by the DPC and the Ministry needs to be reconciled to remove any misgiving about the expenditure incurred.

NEW DELHI;
26th February, 1995
Phalguna 7, 1917 (Saka)

JASWANT SINGH,
Chairman,
Standing Committee on Energy.