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PHYSICAL AND FINANCIAL PERFORMANCE OF POWER GENERATING PSUs - A HORIZONTAL STUDY

MINISTRY OF POWER
MINISTRY OF NEW AND RENEWABLE ENERGY
DEPARTMENT OF ATOMIC ENERGY

COMMITTEE ON PUBLIC UNDERTAKINGS
(2012-2013)

SEVENTEENTH REPORT

(FIFTEENTH LOK SABHA)

LOK SABHA SECRETARIAT

NEW DELHI

CPU. No. 950

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(Action taken by the Government on the Observations/Recommendations contained in the Thirty-fourth Report of the Committee on Public Undertakings (Fourteenth Lok Sabha) on Physical and Financial Performance of Power Generating PSUs – A Horizontal Study)

Presented to Lok Sabha on 21.03.2013

Laid on the Table of Rajya Sabha on 21.03.2013

LOK SABHA SECRETARIAT

NEW DELHI

March 2013 / Phalguna 1934 (S)

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INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorized by the Committee to submit the Report on their behalf, present this Seventeenth Report on action taken by Government on the Observations / Recommendations contained in the Thirty-fourth Report of the Committee on Public Undertakings (Fourteenth Lok Sabha) on 'Physical and Financial Performance of Power Generating PSUs - A Horizontal Study'.

2. The Thirty-fourth Report was presented to Lok Sabha / laid on the Table of Rajya Sabha on 22 December 2008. Replies of the Government to the Observations / Recommendations contained in the Report were received from the Government in stages during the period 2009-2011. Subsequently, updated ATRs were furnished by the Ministry of Power, Ministry of New and Renewable Energy and Department of Atomic Energy on 18 and 29 November and 18 December 2012 respectively. The draft Report was considered and adopted by the Committee at their Sitting held on 19 March 2013.

3. An analysis of the action taken by Government on the Observations / Recommendations contained in the Thirty-fourth Report is given in Annexure.

New Delhi
20 March 2013
29 Phalguna 1934(S)

JAGDAMBIKA PAL
Chairman,
Committee on Public Undertakings.

CHAPTER I

REPORT

This Report of the Committee deals with the action taken by the Government on the recommendations contained in the Thirty-fourth Report (Fourteenth Lok Sabha) of the Committee on Public Undertakings (2008-09) on "Physical and Financial Performance of Power Generating PSUs – A Horizontal Study" which was presented to Lok Sabha and laid on the Table of Rajya Sabha on 22nd December, 2008. The report contained 27 observations/ recommendations. Action Taken Replies in respect of the recommendations were received in stages from the concerned Ministries/Departments viz Power, New and Renewable Energy and Department of Atomic Energy during the period 2009-2011. Subsequently, updated ATRs were furnished by the Ministry of Power, Ministry of New and Renewable Energy and Department of Atomic Energy on 18 and 29 November and 18 December 2012 respectively.

2. Updated Action Taken notes received from Government in respect of all the recommendations contained in the Report have been categorized as follows:

(i) Observations/Recommendations which have been accepted by the Government (Chapter II)
Sl. Nos**.** 3, 4, 5, 8, 9, 11,12,13, 16,17,18, 20,21,24, 25 and 26.
(Total 16)

(ii) Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies (Chapter III)
Sl. No. 22. (Total 1)

(iii) Observations/Recommendations in respect of which replies of the Government have not been accepted by the Committee (Chapter IV)
Sl. Nos.1, 2, 6, 10, 14,15,19,23 and 27. (Total 9)

(iv) Observations/Recommendations to which final replies of the Government are still awaited (Chapter V)
Sl. No. 7 (Total 1)

3. The Committee desire that final reply on the Observation / Recommendation to which interim reply has been furnished and also response to their comments in Chapter I of the Report should be furnished to them expeditiously.

4. The Committee will now deal with the action taken by the Government on some of the recommendations in the succeeding paragraphs.

Recommendation No. 1

A. Increasing Power target and healthy mix of different energy sources

5. The Committee desired the Government to increase the power targets to reach the world energy average of 2596 units per capita by 2017 and recommended

that the Government should review the contribution of various energy sources for the 11th and 12th plan periods and desired that the share of nuclear and renewable energy should be substantially increased so as to have a healthy mix of different energy sources in the overall power scenario thereby reducing the dependence on fossil fuels, and to enable the country to attain the world average in per capita availability of electricity.

6. The Committee had desired the Government to increase the power targets to reach the world energy average of 2596 units per capita by the year 2017 and recommended that Government should substantially increase the share of nuclear and renewable energy in the overall installed power generation capacity so as to have a healthy mix from different energy sources in the overall power scenario to enable the country to attain the world energy average in per capita availability of electricity. The Government have in response, given the plans and proposals of NTPC. The Ministry do not appear to have taken up the matter with the Planning Commission which is concerned with the matter nor have responded to the specific recommendation of the Committee. The Committee would like the Ministry of Power to take necessary action in this regard and apprise the Committee of the outcome.

Recommendation No. 2

B. Enhancing autonomy to PSUs

7. The Committee had inter-alia recommended that the Government should encourage the private sector to set up power projects and also take adequate measures to strengthen the power CPSUs by way of giving them more financial and administrative autonomy which will enable the country to make rapid progress in achieving the objectives enunciated in the National Electricity Policy (NEP). The Committee had also felt that any underestimation of the potential role of CPSU Power majors will harm the progress in this regard.

8. The Ministry of Power in their Action Taken Reply have explained about financial and administrative autonomy extended to only three PSUs viz., NTPC Limited, THDC Limited and North Eastern Electric Power Corporation. Nothing has, however, been mentioned in this regard about other PSUs under the Ministry of Power viz. NHPC, Power Grid, etc. Department of Atomic Energy have also not given any response to the Committee's recommendation on the question of enhancing autonomy to the PSUs under its control. The reply is also silent with regard to steps taken to encourage private sector to set up power projects. The Committee reiterate their earlier recommendation and

would urge the Ministries concerned to give their response within a month from the date of presentation of this report.

RECOMMENDATION No. 6

C. Priority to power sector in allocation of gas

9. The Committee had recommended that insofar as allocation of gas is concerned, power sector should be made at par with fertilizer sector and higher allocation be made to it by the Government. Taking cognizance of the ongoing legal battle between Reliance Industries Limited and NTPC regarding gas supply wherein commercial interest had taken precedence over national interest, the Committee desired that Government should take early appropriate legal and legislative measures to ensure proper safeguards and to thwart such recurrences in future and protect nation's interest.

10. Regarding existing gas based stations, the Ministry of Power in their Action Taken Reply have, inter-alia, stated as follows:

- NTPC has six existing gas based stations viz Anta, Auraiya, Dadri, Faridabad, Kawas and Gandhar with capacity totalling 3,605 MW. The estimated gas requirement of these stations at 90% PLF is 17.35 MMSCMD.

- NTPC has various long term gas/ RLNG agreements with GAIL & RIL/ Niko and the average supplies have been around 11.0-12.0 MMSCMD in the past two years. NTPC bridges the demand supply gap through fallback/ spot RLNG contacts on Reasonable Endeavour 'RE' basis.

- With the above tie ups, NTPC is in a position to meet almost full requirement of gas for its existing gas based stations. However, against the gas requirement of 17.35 MMSCMD @ 90% PLF, the actual average supply of domestic gas to NTPC Stations during 2012-13 (till Oct'12) is only 9.7 MMSCMD. NTPC had to tie up RLNG from the market to meet its balance gas requirement.

- Since the RLNG prices are high, full generation schedule is not available from beneficiaries on RLNG. Due to this, actual PLF of NTPC gas stations is lower as compared to Declared Capacity (DC).

Regarding future gas based projects (12^{th} plan projects), NTPC had requested Govt. for allocation of 43.375 MMSCMD of domestic gas for the future gas based expansion projects totaling 8,550 MW. The Ministry of Power vide its notification dated 14.03.2012 has stated that "***no additional domestic gas is likely to be available till 2015-16. Hence, developers are advised not to plan projects based on domestic gas till 2015-16".***

On the question of legal issue regarding Gas supply by RIL, it has been stated that based on International Competitive Bidding for procurement of gas/ RLNG, NTPC had placed a Letter of Intent on RIL for supply of gas for 17 years which was duly acknowledged by RIL thus resulting into a binding Contract. However, RIL didn't

sign the Gas Sale Purchase Agreement (GSPA). Accordingly, NTPC filed a suit in Bombay High Court against RIL for specific performance of the contract. At present, the matter is sub-judice. Meanwhile, NTPC has reportedly requested GOI to allocate domestic gas for Kawas and Gandhar expansion projects and has informed that NTPC shall abide by the decision of EGOM regarding the quantity and price.

11. Taking note of the fact that highest priority is accorded to fertilizer sector in allocation of gas by the Government and that power sector is given second preference, the Committee had inter-alia recommended that power sector should be treated at par with fertilizer sector in so far as allocation of gas is concerned. It is observed from the Government's reply that the Ministry of Power has conveyed that no additional domestic gas is likely to be available till 2015-16 for future gas based projects of NTPC. The rationale for this decision is unclear. Considering the crucial importance of power availability for industrial growth, the Committee reiterate their earlier recommendation and urge the Ministry of Power to vigorously pursue with the Ministry of Petroleum the matter of allocation of gas to power sector on priority basis.

Recommendation No. 7

D. Level playing field with Private Sector

12. Having noted that the present procurement system is subjected to the guidelines of CVC which has been a great limiting factor in participating in the competitive bidding process for UMPPs by NTPC as the CVC guidelines do not allow the commercial secrecy of the bidding offers submitted to NTPC by the vendors, the Committee had desired that in the absence of proper feedback of NTPC on the stand point of level playing field vis-à-vis other private companies participating in the UMPP bidding process, early steps need to be taken to remove the bottlenecks faced by NTPC in the competitive bidding process.

13. In their Action Taken Reply, the Ministry of Power have, inter-alia, stated that during the competitive bidding for Ultra Mega Power Projects at Sasan, Mundra, Tilaiya and Krishnapattnam, NTPC participated in the Competitive Bidding for Sasan UMPP and Tilaiya UMPP only. However, NTPC was not successful bidder in the competitive bidding process. NTPC did not participate in the competitive bidding for imported coal based Mundra and Krishnapattnam projects.

It has been stated further that during 320th meeting of the Board of Directors of NTPC held on 16.9.2008, a Group of Directors was constituted to examine and identify actions to be taken for increasing the competitiveness of NTPC in the competitive bidding for the power projects. The Group of Directors deliberated the issues pertaining to preparation of cost estimates; reviewing existing engineering policies and optimizing design/testing parameters and specific approaches have been recommended by the Group of Directors for participating in the tariff based competitive bidding of the projects.

Further to the finalization of the Competitive Bidding Process for the Tilaiya UMPP, NTPC has submitted the response to the Request for Qualification (RFQ) bidding documents for the Orissa UMPP (to be set up at Bhedabahal) on 01.08.2011. The RFQ evaluation results are awaited. NTPC has also purchased the Request for Qualification (RFQ) bidding documents for the Chhattisgarh UMPP (to be set up at Surguja). NTPC would be submitting competitive bid for these projects as and when the bids for these projects are required to be submitted.

14. Having observed that the CVC guidelines governing procurement system has been a great limiting factor for NTPC in participating in the competitive bidding process for UMPPs, the Committee pointed out the absence of feedback from NTPC on the question of level playing field vis-à-vis other private companies participating in the UMPP bidding process and had desired that early steps should be taken to remove the bottlenecks faced by NTPC in the competitive bidding process. There is nothing in the Government's reply about the elements which require level playing field vis-à-vis private companies in UMPP bidding process. The Committee would like to be apprised of the same. The Committee note from the Government's reply that NTPC was not successful bidder in the competitive bidding process for Ultra Mega Power projects at Sasan UMPP and Tilaiya UMPP. The Committee feel that it is high time that as recommended by the Committee, concrete steps are taken by the Government to remove the bottlenecks faced by NTPC in the competitive bidding process.

<u>Recommendation No. 10</u>

E. Mechanism to resolve issues regarding land, water sharing and boundary disputes.

15. The Committee had *inter-alia* recommended that Government should devise a suitable mechanism like setting up a council or forum with the concerned States for resolving of issues such as land, water sharing and boundary disputes arising in construction / implementation of hydro projects.

16. With a view to effectively addressing the problems arising out of land acquisition, water sharing and boundary disputes with States during construction of power projects, the Committee had recommended that the Government should devise a suitable mechanism like setting up of a council consisting of the concerned States to resolve the issues. The Committee regret to note that the Ministry's reply is conspicuously silent on this aspect.

The Committee reiterate their earlier recommendation and urge the Ministry of Power to take necessary action in this regard.

Recommendation No. 14

F. Empowering DAE to acquire land

17. Having observed that factors such as environmental concerns and resistance from local population are adversely affecting the exploration of natural uranium resources available in the country, the Committee had, inter-alia, recommended that necessary changes may be made in the law empowering the Department of Atomic Energy (DAE) to acquire the land in public interest for mining of uranium. Regrettably, action taken reply of the Department of Atomic Energy is silent on this aspect. The Committee, therefore, reiterate their earlier recommendation that Government should address these issues in right earnest and make appropriate changes in the law so as to empower DAE to acquire land in the public interest.

Recommendation No. 15

G. Transfer of Nuclear Technology for key equipments and spares

18. The Committee cautioned NPCIL and DAE that while entering into commercial agreement with global players, they should seek to ensure uninterrupted fuel supply. They had also recommended that DAE should insert clauses for transfer of technology for key equipments and spares to augment technological indigenization in the reactors.

19. In their action taken reply, the DAE have, *inter-alia,* stated that clause of uninterrupted fuel supply and protection of country's interests in the long term are a part of the techno-commercial agreements being negotiated by NPCIL with foreign partners and these have already been incorporated in the proposal in respect of Kudankulam 3 & 4, which is under consideration of the Government. The techno-commercial discussions with M/s Areva of France, GE Hitachi Nuclear Energy and Westinghouse Electric Company of the USA in this regard are in progress.

The DAE has further stated that projects based on foreign cooperation are proposed to be set up on technical cooperation basis. Six units at each site are planned to be set up in phases of twin units with progressively in creasing indigenous content. To begin with, the design and major equipments are planned to be sourced from the vendor country and construction, erection of equipment and commissioning carried out in India. However, a large number of equipments are planned to be sourced from within the country towards the last phase.

20. The Committee had recommended that DAE should insert clauses for transfer of technology for key equipments and spares to augment

technological indigenization in the reactors. The Ministry in their action taken reply have inter-alia stated that clauses of uninterrupted fuel supply and protection of country's interest in the long term have already been included in the techno- commercial agreements being negotiated by NPCIL with foreign partners. The Committee are constrained to point out that there is no mention in the reply of the Government about insertion of clauses for transfer of technology for key equipments and spares. The Committee hope that this point has been taken note of for appropriate action.

Recommendation No. 19

H. EVACUATION OF POWER PRODUCED BY RENEWABLE ENERGY PRODUCERS

21. While noting that grid connectivity for power producers using Renewable energy sources is a problem area and there is a problem of evacuation of power of small energy projects, the Committee had recommended that power should be purchased and evacuated by the concerned agencies from the renewable energy producers without any delay. They have also recommended that the Ministry of Power should sensitize the states by convening meeting and by issuing necessary advisories in this regard.

22. In the action taken reply, the Ministry of Power have inter-alia stated that renewable energy sources require connectivity with the grid together with transmission capacity in the grid for meeting their evacuation needs. Except for the major wind generation, all the other grid-interactive renewable power gets absorbed in the local distribution network and thus require connectivity with local distribution/ sub-transmission grid level together with arrangement to sell their power either to the distribution utility in which they are embedded or to third party by availing open access in distribution system.

For the major wind generations, the transmission system is required basically for absorption of power within the State where the wind project is located for which, system connectivity and systems strengthening of the grid are implemented by the respective State Transmission Utilities. For meeting the inter-state transmission needs that may arise due to exportable surplus in the State under the conditions of maximum wind generation output, the required regional/ Inter-State transmission enhancements are implemented by the Central Transmission Utility. The transmission planning for the inter-State system as well as intra-State system is being done in an integrated manner coordinated by the CEA.

23. Emphasizing the need for providing the grid connectivity for evacuation of power producers using renewable energy across the States, the Committee had recommended that the Ministry of Power should sensitize the states by convening meetings and issuing necessary advisories in this regard. There is

nothing in the Government's reply to show whether any action has been taken in this regard. The Committee would urge the Government to pursue the matter with the concerned States and apprise the Committee of the outcome within three month after presentation of this Report.

Recommendation No. 23

I. Incentives for manufacturing of cables and setting up of a distribution company.

24. Taking note that the country possesses technology for manufacturing of cables required upto 220 kV only and cables for transmission of higher voltages cables are being imported, the Committee had recommended that the Ministry of Power should encourage the industry by offering suitable incentives to manufacture such cables in the country. The Committee had also recommended that Government should strengthen the legal framework so that offenders are properly brought to book and desired that the Government should take effective steps for reduction of undermetering and also overdrawal of power by industries. The Committee had further recommended that since the Central PSUs have expertise in generation and transmission the Government should consider setting up of a distribution company under the aegis of a CPSU and entrust it to assist States in improvement of distribution system. The Committee are disappointed to note that Government have not responded to these recommendations. The Committee urge the Ministry to take necessary action on these recommendations and apprise the Committee of the position.

Recommendation No. 27

J. COST OF POWER

25. The Committee had recommended that the Ministry of Power may constitute a Committee of Experts to make a cost-benefit analysis of granting fiscal incentives/ concessions for power sector. They had also desired that the Department of Atomic Energy and Ministry of New and Renewable Energy should look at ways of reducing the cost of power by improving efficiencies and by introduction of new technologies, economy of size and possible reduction in taxes and duties.

26. The Ministry of Power in their action taken reply have stated as under:-

"The Ministry of Power constituted a Committee of Experts under the Chairmanship of CMD, PFC to make a cost benefit analysis of granting fiscal incentives/ concessions for power sector vide Order No. 27/1/2009-R&R dated July 8, 2009. The Committee submitted its report on June 2, 2010 and recommended for fiscal incentives, concessions, exemptions in direct and indirect taxes and other significant policy issues.

The Sub- Committee of Group of Ministers constituted under the chairmanship of Deputy Chairman, Planning Commission to look into the financial issues of Power sector, had submitted its final report on 06.10.2010 to Hon'ble Minister of Power. The GoM on power sector issues considered the various recommendations of the Sub-Committee and adopted the report for further follow up action in its meeting held on 29.10.2010. Some of the important recommendations of the Committee of Experts also find mention in the recommendations of the Sub-Committee of GoM and the same are under consideration either through note to Cabinet Committee on Infrastructure circulated on 10.03.2011 which has not been cleared by Ministry of Finance. Tax related issues are taken up with the Ministry of Finance during Budget Session."

27. The Committee are glad to note that a Committee of Experts constituted on the recommendation of the Committee has submitted its report proposing fiscal incentives, concessions and exemptions in direct and indirect taxes and other significant policy issues. The Committee would urge expeditious action in the matter by the Ministry of Finance.

28. The Department of Atomic Energy and Ministry of New and Renewable Energy have not responded to the Committee's suggestion to reduce cost of nuclear power and renewable energy by improving efficiency and by introduction of new technologies, economies of scale and reduction in taxes and duties. The Committee would await their response in this regard within a month after presentation of this report.

CHAPTER II

RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY THE GOVERNEMENT

Recommendation No. 3

STRENGTHENING OF NTPC

Out of the country's installed capacity of 146752 MW, power from thermal sources accounts for 92892 MW. NTPC has an installed capacity of 27904 MW, which is about 20% of the country's installed capacity and contributes close to 28% of the total generation of electricity. The Committee note that NTPC was set up in 1975 to promote and develop thermal power. Over the period, NTPC has grown consistently and has emerged as the premier power undertaking in the country. The Committee further note that NTPC has embarked upon an ambitious diversification plan to enlarge its power portfolio to hydro, nuclear and renewable energy also. The company has developed interest in the 'Power Value Chain' business. In this connection, the Committee would like to caution that while entering the other areas, the company should not lose sight of its core competency of thermal power generation where they have achieved leadership position with great aplomb.

NTPC have been mainly operating in a traditional cost plus return regime. With the new electricity policy in place, NTPC has to move towards competitive bidding based on tariff cost for future power projects. In this regard, the Committee would like to emphasis the need for NTPC to adapt itself to the changing competitive environment sooner rather than later.

The Committee also point out the fact that with the entry of private sector in the thermal power generation in a big way, the company is likely to face stiff competition to retain its leadership position. Under such a scenario, it became imperative on the part of NTPC to review its performance and improve efficiency in all spheres of its activities, so that they can continue to maintain the premier position in the power sector. In addition to this, the Committee would like to emphasis the need on the part of Ministry of Power to review the performance of NTPC periodically and strengthen it in all possible ways so that NTPC can continue to lead the power sector.

Reply of Ministry of Power

NTPC is the largest power generator in the country with current installed capacity of 39,674 MW, comprising 34,810 MW from its own stations and 4,864 MW under Joint Ventures. As has been rightly noted by the committee, NTPC has obtained the distinction of being the largest thermal power generating company in the country. NTPC has presence across all the major states in the country and is supplying power to almost all the states and UTs.

NTPC's installed capacity of 32,650 MW (as on 31.03.2012) constituted 16% of total installed capacity in the country and with this capacity NTPC's generation during 2011-12 was 25% of the all India generation. The group NTPC generated 240 BU in 2011-12.

i) Diversification of NTPC (Para 1)

NTPC prepared its Corporate Plan for the period 2010-32 and adopted a Vision '***To be the world's largest and best power producer, powering India's growth'*** As per this corporate plan NTPC envisaged to have a total generating capacity of 128000 MW by the year 2032 with well diversified fuel mix comprising Coal, Gas, Hydro, Nuclear and Renewable Energy based capacity. Hydro, Nuclear and Renewable Energy are the benign sources for power generation and are carbon free.

The diversification initiatives of NTPC are primarily meant to strengthen its leadership position in its core business area of setting up and operating power projects. NTPC is also clear that these initiatives should also create value for the company and its stakeholders. Additionally the new business initiatives would also provide NTPC to offer new growth opportunities to its employees while leveraging their skills / talent to capitalize on new opportunities.

NTPC envisages to pursue a mix of strategic options to ensure fuel security and is developing coal mines to partially meet the coal requirement for its new projects.

Power trading has been recognized as the district activity by Electricity Act 2003. Therefore NTPC has entered power trading through its subsidiary to ensure optimal utilization of its power plants. Its subsidiary, namely NTPC Vidyut Vyapar Nigam Limited, is the second largest power trader in the country with 17% market share in 2011-12.

In addition, NTPC has formed joint venture companies for various businesses along the energy value chain which include power equipment manufacturing, energy efficiency, services, high power testing of electrical equipment, coal mines acquisition and development etc.

As such, thermal power generation continues to be the predominant segment of NTPC's business. Nevertheless, fuel mix diversification and business diversification in to related areas along the energy value chain will enable NTPC to further consolidate its leadership position while exploiting the new business opportunities.

ii) Competitive bidding based on Tariff (Para 2)

NTPC has submitted the response to the Request for Qualification (RFQ) bidding documents for the Orissa UMPP (to be set up at Bhedabahal) on 01.08.2011. The RFQ evaluation results are awaited. NTPC has also purchased the Request for Qualification (RFQ) bidding documents for the Chhattisgarh UMPP (to be set up at Surguja). NTPC would be submitting competitive bid for these projects as and when the bids for these projects are required to be submitted.

iii) Performance Monitoring of NTPC (Para 3)

NTPC Projects are monitored by multiple agencies as given below for their timely completion:

I) Monitoring by NTPC's internal mechanism

a) NTPC has an elaborate and efficacious Project Management System, known as IPMCS (Integrated Project Management & Control Systems). IPMCS integrates all control centers, namely, Engineering Management, Contracts Management and Construction Management. The system takes care of all stages of project implementation from concepts to commissioning. The system has proactive planning and meticulous monitoring mechanism. A regular review of projects is held every month by project review team constituted for this purpose. The exceptions out of this review are flagged for the corrective measures and direction by the top management.

Further based on the experience from the implementation of its projects, NTPC has taken up several new initiatives for faster development of projects:

- Setting up of a project monitoring centre with audio video monitoring facilities through which Video Conferencing with Regional Head Quarters, Projects and concerned depts. at Corporate Centre such as PP&M, Contracts, Engineering etc. are held for discussion and resolution of critical issues and review of project progress
- Adopting on-line web based project monitoring system. This website contains information about the various milestones/activities of the projects; access has been given to Central Electricity Authority (CEA), Ministry of Power (MoP), Ministry of Statistics and Program Implementation (MoSPI). Web based real time project monitoring has been implemented for all the projects under construction.
- Rolling out of ERP system which covers all ongoing projects of NTPC.
- Intervention of top management at critical stages for speedy dispute resolution and regular reviews by top management to monitor progress and resolve critical issues. Apex level meeting by CMD (NTPC) with the CMD of main plant agency (BHEL) is conducted periodically. Periodic Package-wise reviews are also held by top management such as CMD and Directors of NTPC with CMD of major suppliers like RITES, KBL, INDURE, etc. for monitoring & expediting progress. Regular site visit of top management of NTPC (CMD & Directors) for holding review meetings with NTPC project officials, Suppliers, Erection agencies for on the spot decisions on critical hold-up for expediting project progress.
- Regular interaction with local administration, state and central government

II) Monitoring by MOP / other Government agencies

(a) Monitoring by Government Agencies through monthly reports/review: Monthly reports of every project are being submitted to Central Electricity Authority (CEA) and Ministry of Statistics & Programme Implementation (MOSPI) in addition to the detailed report from CMD, NTPC to Secretary (Power), Ministry of Power (MOP).

Based on the above report, Chairperson, CEA reviews the projects.

(b) MOP's Quarterly Progress Review (QPR): NTPC's Project review is a part of MOP's QPR taken by Secretary (Power). The performance highlights, critical issues/ area of concern are reviewed in detail and action plans are finalized to meet the target.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

Recommendation No. 4

CAPACITY ADDITION BY NTPC

The Committee is happy to note that the capacity utilization (plant load factor) of NTPC in coal plants is 84% and gas based plant is 71% which is quite satisfactory. The Committee further note that NTPC has major expansion plan and targets to build capacity of over 75000 MW by 2017 from the present installed capacity of 26350 MW. In the 10th Plan, NTPC added about 7155 MW capacity. For 11th Plan, a capacity addition of about 22350 MW has been envisaged out of which 500 MW has been commissioned and 13360 MW capacity has been scheduled for commissioning in the period from 2008-2012. However, new projects of capacity 8490 MW are at preliminary stages for want of clearances from various agencies.

Keeping in view the long gestation period of a thermal power plant, the Committee are apprehensive that NTPC achieving their 11th Plan target of capacity addition. The Committee desire that NTPC should expend all available resources at their command to complete these planned projects on schedule.

The Committee opine that if NTPC fails to achieve the targets of capacity addition, which is about 28% of the total 11th Plan target, the demand - supply position may deteriorate further and the Government may find it difficult to achieve the vision of power for all by 2012. Hence, the Committee recommend that Ministry should review all the Projects related to Capacity addition during the 11th Plan and coordinate with other departments in respect of new projects to remove the bottlenecks so that these projects could be completed within the plan period.

Reply of Ministry of Power

Total Installed capacity of NTPC including joint ventures is 39,674 MW as on 23rd November, 2012. As per Govt. of India target for 12th Plan, NTPC is to add 14,038 MW, out of which 2,660 MW has already been commissioned and construction works are in progress for 16,309 MW capacity. NTPC is targeting capacity addition of 4160 MW during 2012-13.

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- Adopting on-line web based project monitoring system. This website contains information about the various milestones/activities of the projects; access has been given to Central Electricity Authority (CEA), Ministry of Power (MoP), Ministry of Statistics and Program Implementation (MoSPI). Web based real time project monitoring has been implemented for all the projects under construction.
- Rolling out of ERP system which covers all ongoing projects of NTPC.
- Intervention of top management at critical stages for speedy dispute resolution and regular reviews by top management to monitor progress and resolve critical issues. Apex level meeting by CMD (NTPC) with the CMD of main plant agency (BHEL) is conducted periodically. Periodic Package-wise reviews are also held by top management such as CMD and Directors of NTPC with CMD of major suppliers like RITES, KBL, INDURE, etc. for monitoring & expediting progress. Regular site visit of top management of NTPC (CMD & Directors) for holding review meetings with NTPC project officials, Suppliers, Erection agencies for on the spot decisions on critical hold-up for expediting project progress.
- Regular interaction with local administration, state and central government

II) Monitoring by MOP / other Government agencies

a) Monitoring by Government Agencies through monthly reports/review: Monthly reports of every project are being submitted to Central Electricity Authority (CEA) and Ministry of Statistics & Programme Implementation (MOSPI) in addition to the detailed report from CMD, NTPC to Secretary (Power), Ministry of Power (MOP).

Based on the above report, Chairperson, CEA reviews the projects.

b) MOP's Quarterly Progress Review (QPR): NTPC's Project review is a part of MOP's QPR taken by Secretary (Power). The performance highlights, critical issues/ area of concern are reviewed in detail and action plans are finalized to meet the target.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

Recommendation No. 5

COAL AVAILABILITY

The Committee note that availability of coal on a continuous basis is the key to effective capacity utilisation of Thermal Power plants. Out of 27904 MW which is the country's installed capacity, about 22895 MW (73%) is generated from coal based stations. The Committee have been informed that coal supply to NTPC power stations will be based on long term linkages by Ministry of coal. However, the Committee are deeply concerned about the availability of coal at NTPC power stations. The coal requirement has been projected at 125.73 MT for 2007-08 and there is a gap of the order of 4.73 MT, which is being met through imports. The coal requirement is expected to rise to 212 MT in 2011-12 and it is expected that this shall be met through supplies from Coal India Limited (CIL). There is however a mismatch in development of linked mines by CIL and construction of NTPC units. The Committee are of the view that NTPC should insist on including penalty clauses in the agreements with CIL for supply of coal and bind Government to synchronize the development of coal mines.

The Committee also note that though NTPC have been allotted coal blocks for captive mining, which is likely to provide some relief to its problems. However, in the foreseeable future, to meet the demand and to build up sufficient coal stock, NTPC is increasingly expected to rely on both domestic and international sources for its coal requirements. Therefore, the Committee recommend that the Government should allot preferentially more coal and coal blocks to NTPC to meet its requirement and also encourage NTPC either alone or in consortium with other PSUs like CIL, SAIL, etc. to buy coal mines and/or tie-ups with suppliers in foreign countries.

The Committee also note that NTPC have suggested for Regulatory Price mechanism for coal. The Committee desire that the Government should seriously look into this suggestion and help implement it for long term supply of coal to NTPC at fixed rates, so that power can also be supplied to the consumers at reasonable rates.

Reply of Ministry of Power

i) Fuel Supply Agreement between NTPC and with CIL (Para 1)

NTPC had signed Coal Supply Agreement (CSA) for stations commissioned prior to 31.03.2009. CIL has uploaded modified model CSA for units commissioned after 31st Mar 2009 and to be commissioned on or before 31st Mar 2015, on its website on 26th Sept 2012. Many clauses in the CSA are one sided. NTPC had sent detailed comments and discussions are in progress to resolve various issues so that CSAs can be signed at the earliest.

ii) Coal mining blocks allocated to NTPC (Para 2)

Government of India had allocated six coal blocks, namely Pakri Barwadih, Chatti Bariatu, Kerandari, Dulanga, Talaipalli and Chatti Bariatu (South), to NTPC. These coal blocks are being developed with a targeted coal production of 3.00 MTPA by 2014, which shall be raised to 37.00 MTPA by 2017. Subsequently, these coal blocks are expected to achieve their full production potential of 53.00 MTPA by 2021-22 (subject to immediate re-allocation of the coal blocks de-allocated earlier), which will cater to around 10840 MW of NTPC's coal based generation capacity. NTPC is also exploring faster ramping up of coal production from its mines.

Apart from this, Brahmini Coal block including Chichro-Patsimal is being developed by 'CIL-NTPC Urja Pvt. Ltd.', a JV Company incorporated on 27.04.10 with M/s CIL (CIL being the lead partner).

In addition to the above, the Ministry of Coal, on 23.09.2011, conveyed in-principle approval for allotment of coal blocks in lieu of linkages to cater to coal requirement of 8460 MW of generating capacity of NTPC. Identification of mines and formal hand over to NTPC is awaited. In this regard, NTPC has identified new coal blocks of 42.5 MTPA capacities from the list of MOC and applied to MOP on 10.09.12 for consideration and for forwarding to MOC, for implementation of 8460 MW power projects for which in-principle approval was conveyed by MOC on 23.09.11.

Ministry of Coal (MOC) on 14.06.2011 de-allocated Chatti-Bariatu, Chatti Bariatu (South), Kerandari, Brahmini & Chichro-Patsimal coal blocks. NTPC requested MOC to review the decision of de-allocation and restoring it in favour of NTPC/JV Company. MOC has conveyed in-principle approval for withdrawal of de-allocation of Chatti-Bariatu, Chatti Bariatu (S) and Kerandari coal blocks on 27.01.2012. Formal communication of withdrawal is awaited from MOC.

ii b) Acquisition of stake in coal mines abroad (Para 2)

Earlier NTPC was pursing coal mine acquisition in Australia, Indonesia, South Africa and Mozambique but at present NTPC is not pursuing any coal mine acquisition abroad.

ii c) Joint Venture for coal mining projects in India and Abroad (Para 2)

- NTPC has formed a JV Company named as 'NTPC-SCCL Coal Ventures Ltd.' with Singareni Collieries Company Ltd. (SCCL) for acquisition and development of coal mines in India & abroad.

- Joint *Venture with CIL:* M/s CIL NTPC Urja Pvt. Ltd., a JV Company with M/s CIL incorporated on 27.04.10 with the aim of jointly undertaking the development, operation & maintenance of coal blocks at Brahmini Coal Block including Chichro Patsimal in Jharkhand and integrated coal based power plants.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

Recommendation No. 8

SUPPLY OF EQUIPMENTS TO POWER PROJECTS

The Committee note that the country has an ambitious programme to increase the power generation capacity in the future. This will entail the need for equipment suppliers. The Committee are constrained to note that except BHEL, there are no major PSUs in the manufacturing and supply of critical equipments for power projects. Some of the projects of NTPC are getting delayed due to non-supply of equipments by BHEL forcing NTPC to re-schedule the completion dates of these projects. Though BHEL has been expanding their capacity, the demand for equipments are not being met on time. This forces NTPC to delay the commissioning of their projects thereby causing unpleasantness in the relationship with BHEL. The Committee are of the view that NTPC & BHEL both being PSU's themselves, should work in tandem with the spirit of mutual cooperation and understanding and the Government should sort out any problems that may arise between these PSU's.

The Committee have been informed that the Ministry is making efforts to attract international manufacturers so as to encourage more players for supply of critical equipment and their response has been encouraging. According to the Ministry, it would induce competition and bring about competitive pressure for performance.

While endorsing their viewpoint, the Committee feel that there should be more emphasis on building indigenous capability in manufacture of critical equipments. Since there is a huge opportunity for manufacturing of equipments the Committee are of the opinion that Government should encourage other PSUs to enter into the manufacturing of equipments for power projects either in joint venture with international players or on other suitable mode of partnerships with emphasis on Supercritical Technology.

Reply of Ministry of Power

In order to achieve the objective of rapid capacity addition in the country, transfer of supercritical technology and development of indigenous manufacturing capacity, it was decided to go for the bulk tendering of super-critical units with emphasis on development of indigenous manufacturing facility as per a phased

manufacturing program so that domestic manufacturing capacity of super-critical equipments is established in the country with new manufacturer(s) in addition to BHEL.

In the 13th Plan nearly 100% is expected to come through supercritical units. Accordingly, in Bulk Tender-I, Government approved proposals on 27.08.2009 for the induction of supercritical technology through bulk ordering of 11 units of 660 MW (totaling 7,260 MW) by the NTPC Ltd for itself and on behalf of its joint venture (JV) companies and on behalf of the Damodar Valley Corporation (DVC). Further in Bulk Tender-II, Government approved proposals for Bulk ordering of 9 units of 800 MW (7200 MW) by NTPC on 31-12-2010.

Orders have already been placed for 3960 MW capacity (Solapur, Meja and Mouda-II) under the 660 MW bulk tendering. Under the 800 MW bulk tendering, orders have been placed for 2400 MW capacity (Kudgi) and investment approval has been accorded for Lara (1600 MW). Balance awards for one project of (660 MW) and three projects of (800 MW) are in process.

The bulk-tendering program has encouraged new manufactures like L&T – MHI, Bharat Forge – Alstom, JSW – Toshiba, Gammon – Ansaldo Caldaie, Thermax – Babcock & Wilcox and BGR – Hitachi, etc. to set up power equipment manufacturing facilities in India.

Apart from this NTPC has taken following initiatives towards equipment required for power projects:

- Joint Venture (JV) with BHEL: A 50:50 Joint Venture Company has been incorporated on 28th April 2008 under the name of NTPC BHEL Power Projects Pvt. Ltd. to take up EPC contracts and manufacturing of equipments required for power projects and infrastructure projects in India & abroad. The JV Company has taken up contracts for Balance of Plant (BOP) at Palatana Combined Cycle Power Plant in Tripura, Namrup Combined Cycle Power plant in Assam and one another Combined Cycle Power plant in Monarchak at Tripura for NEEPCO. The company has entered into a technical collaboration agreement for the Coal Handling Plant. Similarly, it is also in the process of tying up for technology transfer for the Ash Handling Plant. The company has already shifted its corporate office to Mannavaram, near Tirupati in A.P. and is in the process of setting up manufacturing plant there. Civil works are in advance stage.

- JV with Bharat Forge Ltd.: A Joint Venture Company with equity participation, 51% by Bharat Forge and 49% by NTPC has been incorporated under the name of BF-NTPC Energy Systems Ltd. on 19th June 2008 to initially take up manufacture of casting, forging, fitting & high pressure piping, balance of plant equipment required for power projects & and other industries. The JV Company is in process of tying up with Technology providers for Pumps & valves, castings, piping solutions. The company has acquired land at Solapur for setting up the manufacturing plant.

- Acquisition of stake in Transformers Electricals Kerala Ltd.(TELK): A share holders & business collaboration agreement was signed amongst NTPC, Govt. of Kerala and TELK on 23.06.2007 to acquire 44.6% equity shares of TELK held by

Govt. of Kerala. The acquisition of shares by NTPC was completed on 19.06.2009.The company has achieved production of 5762 MVA capacity during year 2011-12.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

Recommendation No. 9

NEED FOR A MECHANISM TO GRANT APPROVALS AND MONITORING OF POWER PROJECTS

The Committee note with concern that for implementation of CPSU's Power Projects, the time taken for the requisite clearances are causing avoidable delay adversely effecting their scheduled financial closure and completion of projects. The Committee are of the view that to achieve the targets for power production in various plan periods, the Government should grant approvals in a time bound manner to reduce the total time taken from conception to operationalization of the projects. In this regard, the Committee would like to point out that under the UMPP Policy, the responsibility of coordinating with agencies for ensuring coal linkage/environmental/forest clearances and water linkage, etc. lies with the Government. The Committee desire the same treatment to be offered to NTPC and other PSUs as this will not only ensure level playing field to them but also would enable them to focus on the Project implementation instead of spending time on obtaining clearances. To achieve this, the Committee recommend that appropriate mechanism be put in place by the Government to expedite approvals for the power projects and to review delay at regular intervals.

Reply of the Government

The Government is aware of the long process and time involved in getting requisite clearances for setting up of power projects. While the Ministry of Power (MOP) is not directly involved in getting environmental and other statutory clearances and approvals required by the Public Sector Power Projects, it has been supportive of expeditious clearance/approvals including fuel linkages by the concerned statutory authorities for such projects. The Central Public Sector Undertakings (CPSUs) have suitable internal mechanism in each for formulating proposals, submission to and following up with the concerned authorities for obtaining the requisite clearances viz. coal linkage, environmental and forest clearance and water linkage etc. The MOP reviews the status of the projects from time to time and takes up the matter, wherever necessary, with concerned agencies/ State Governments to expedite the necessary approvals/inputs. Matters of importance are also discussed in the meetings with Chief Ministers/Chief Secretary of States, Secretaries of Central Ministries etc. for early disposal of pending issues with them.

In the case of UMPP of capacity of 4000 MW each, Shell Companies i.e. Special Purpose Vehicles(SPV) set up under the Power Finance Corporation have been taking steps for seeking specified clearances/approvals. Various inputs for the UMPP are tied up by the SPV with assistance where required of Ministry of Power and Central Electricity Authority.

The whole concept of UMPP is based on Tariff based international competitive bidding for selecting a project developer for implementing the UMPP. The SPVs set up for the projects seek and obtain the specified clearances during the bid process itself. On identification of the project developer at the end of the bid process, the SPVs are transferred to the selected project developers.

NTPC and other CPSUs on the other hand are individual developers who plan and implement power projects of different capacities. The projects being implemented by them are also not subject to tariff based bidding mode. The mechanism adopted for operation of UMPP initiative of the Ministry of Power can not therefore be made applicable to NTPC and other generating CPSUs.

The major steps taken in this regard for simplification of procedures for obtaining timely clearances for the projects are as follows:

- The requirement of according Techno-economic Clearance by Central Electricity Authority (CEA) has been dispensed with for thermal generation. However, any generating company intending to set up a hydro generating station shall prepare and submit to the Authority for its concurrence, a scheme estimated to involve a capital expenditure exceeding such sum, as may be fixed by the Central Government from time to time.

- CEA already has a mechanism for Concurrence of hydro electric schemes. CEA acts as single window and coordinates with different formations of Central Water Commission, Geological Survey of India, Ministry of Water Resources, Central Soil & Material Research Station, State Governments & its Departments, Project Developers etc. for appraisal of various aspects of hydro electric schemes.

- CEA takes action to accord Concurrence to hydro electric scheme submitted to it in the time period of ninety working days in line with the stipulation in the CEA's guidelines.

- Planning Commission has delegated full powers to State Governments for approval of power projects without any ceiling. Clearance from Planning Commission is to be restricted only to those hydro-electric projects where inter-State issues are involved.

- The Environment Impact Assessment Notification, 2006 has prescribed a time limit of 105 days for appraisal of projects by the Ministry of Environment and Forests from environmental angle and communicating the decision thereon.

- Secretary level coordination meetings are held to sort out issues relating to coal linkages to the projects.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

RECOMMENDATION NO. 11

PERFORMANCE OF NHPC

The Committee note that NHPC was incorporated in the year 1975 for the development of hydro power projects in the country. The installed capacity of the Company stands at 3145 MW. The Committee further note that NHPC has one of the largest capacity in the hydro power sector and once its plans for capacity addition in XI Plan are achieved, NHPC would have almost 20% of the hydro capacity of the country.

NHPC has plans to add 5233 MW of power during the XI Five Year Plan with a total plan outlay of Rs. 28000 crores. Out of this Rs. 10812 crore is proposed as equity and this is to be arranged from internal resources to the tune of Rs. 4870 crore and balance Rs. 5942 crore is to be infused as capital. NHPC has been permitted to raise capital by disinvesting the equity in the capital markets. But the current turmoil both in the international and national market does not warrant opting for any venture to mobilize capital from the capital market. In such a situation, the Committee desire that the Ministry should regularly review the performance of NHPC with special regard to their financial requirements and provide them all support necessary to achieve their plan targets.

Reply of Ministry of Power

The installed capacity of NHPC as on 20.11.2012 is 5526 MW from 15 power stations which includes 1520 MW from two projects in JV with Govt. of MP. During 11th Five Year plan (April' 2007- March' 2012), NHPC has added capacity of 1150 MW through 3 Projects, further 2 units of 11 MW each of Chutak (44 MW) HEP in J&K were also synchronized during 11th Five Year Plan but not included in the capacity addition as these units were synchronized at partial load due to non availability of desired load. However, as of now, from three units out of total four units (11 MW each) completed w.r.t. Chutak HE Project, two units of (22 MW) have been commissioned in Nov'12 **.**During 12th Five year plan, NHPC is likely to add hydro capacity of 1702 MW.

Total Plan outlay of Rs 28000 crore was proposed for 11th Plan, the same was revised to Rs 21600 crore during mid term. The actual fund utilization of 11th Plan was Rs 17,269 crore with GBS of Rs 1398 crores and IEBR of Rs 15,871 crores.

NHPC is likely to invest about Rs. 20,000 crore during 12th Five year plan period for its capacity addition programmes.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

Recommendation No. 12

The Committee note that the technology required for hydro power projects vary from project to project due to the fact that many parameters like geological history, weather, water flow, environmental challenges, etc, would all be different. The Committee have been informed by NHPC that it faces technological constraints in the areas like hydrological services, non-availability of hydro-metrological data,

availability of state of the art equipments etc. The Committee have been further informed that Central Electricity Authority has prepared a National Power Plan wherein new areas for technology improvement and up-gradation in the power sector have been prepared for the period 1997-2012.

As the National Power Plan for technology improvement and up-gradation will end by 2012, the Committee recommend that CEA / MOP should immediately look at this aspect afresh and prepare a new plan for technology up-gradation dovetailing the latest targets of capacity addition and geographical locations of future power projects.

The Committee also recommend that NHPC should scout and enter into alliances with national / international agencies who can provide technological support in case of specific requirements in a project, so that they can avail such services as and when required.

Reply of the Government

Development of Hydro-electric Projects are site specific, complex in nature and each project has unique features due to varying characteristics of different River basins, changing topographical and geological conditions and distinct climatic and seismic conditions. NHPC has been using modern design tools and State of Art technology in design and construction of Hydro-electric projects. The multi disciplined Design division is well equipped with modern design tools and a well trained team of designers, hydrologists, hydro-mechanical experts and skilled professionals for trouble shooting and tackling issues in power stations during operation stage. Project planning, design & engineering of various components, construction equipment planning etc. are being done according to relevant IS provisions, prevailing national/ international guidelines and practices given in USBR, US Army Corps of Engineers, ICOLD Bulletins and ACI manuals etc. The planning and design of all components associated with hydro-power development is carried out using latest soft-wares for structural design and rock mechanics related to large underground caverns and tunnels/shafts. The designs are firmed up after detailed finite element analysis by mathematical numerical modeling using latest softwares like Stadd-Pro, SAP, FLAC 2D & FLAC 3D, Phase-2, Slope-W & Seep-W etc. Hydrology Unit of NHPC carries out Hydrological studies for all the projects of NHPC during various stages of projects. The Hydro-meteorological data is procured from different agencies such as CWC, IMD, state governments, and international agencies (RGoB), NRSC, Survey of India etc, for concerned projects. New Hydro-meteorological stations such as Gauge-Discharge-Sediment sites, rain gauges (ORG,SRRG), Automatic weather station (AWS), Meteorological stations, Automatic Water Level recorder, sunshine recorder, evaporimeter, etc are established for the projects and all such data is regularly monitored, maintained & compiled. Hydrological and hydraulic modeling softwares developed by US Army Corps of Engineers such as HEC-1, HEC-HMS, HEC-2, HEC-RAS, HEC-5, HEC-6, HEC-RESSIM are used for analysis of design flood, back water study, water surface profile, rating curve, reservoir operation, reservoir & channel routing, reservoir sedimentation, flood moderation etc. Hydraulic modeling software Mike-11 developed by Danish Hydraulic Institute, Denmark, is used for reservoir & channel routing, back water study, water surface profile, rating curve, reservoir sedimentation studies. GIS based softwares such as Arc-GIS, ILWIS, ERDAS are used for deriving topographical information of the basin, catchment plan preparation,

hypsometric curve development as well as obtaining basic data for Glacial Lake Outburst Flood (GLOF) studies using satellite imageries and Digital Elevation Models (DEM). GLOF study is carried out independently as well as by taking consultations from other agencies such as National Institute of Hydrology (NIH), NRSC, CWC etc. Advanced Flood-Forecasting is carried out in collaboration with IMD and CWC. Transient study for water conductor system is carried out using WHAMO software (Water hammer and Mass Oscillation – Hydraulic transient software developed by US Army Corps of Engineers). The preparation of Detailed Project Report (DPR) by NHPC for an individual hydro-power project comprises a detailed / comprehensive study in coordination and involvement of various specialized divisions and groups for greater efficiency of use of water and head to determine its engineering and economic feasibility. This report (DPR) is discussed and deliberated in detail in CWC and CEA for getting techno-economic clearance before commencement of the project implementation.

NHPC had collaboration with Canadian firms like SNC and Acres in association with Canadian International development agency (CIDA) for implementation of Chamera H E project St-I in Himachal Pradesh during 1984-1990. The implementation of the project used the services of national/international engineers and skilled professionals and use of latest equipment. Further, NHPC in association with Swedish International Development Agency (SIDA) appointed an international Panel of Experts during 1990-1995 for Uri Hydro electric projects in J&K. The International Panel of Experts (POE) included experts on Civil engineering, hydraulics, Geotechnics, geology and equipment selection who provided technological support and reviewed the adequacy of the various components to carry out their intended functions in a safe and efficient manner. The panel served for approximately five years throughout the period of design and implementation of the project. During 1999-2004, services of International Panel of Experts (POE) for Dhauliganga Hydro-electric Project in Uttarakhand were taken in the field of CFRD & Dam foundation, Hydraulics and sedimentation, construction management, rock mechanics and Electrical and Mechanical equipment. On case to case basis, NHPC has been taking supports of National/International renowned Experts to resolve Geo-technical, structural and other Engineering issues for its projects. Mr. Malcolm Dunstan of M/S MDA (UK) has been engaged for the planning, design and construction aspects of RCC dam for Teesta Low Dam Project (Stage-IV) being built by NHPC in West Bengal. Also, NHPC availed the services of experts for TBM of PHEP-II- M/s Electrowalt Engineering, Switzerland (now Porey Engg) and M/S Jager Bau,GMBH, Austria. NHPC is first in the country to construct concrete forced rockfill dam (CFRD) with 70m deep cut off wall in river bed for Dhauliganga project. The deep cut-off was constructed by M/S Bauer Ltd. Another concrete cut-off wall is being implemented in Subansiri Lower H E project by the specialized agency-M/S Solentache Bachy (SBF). Also first time, deep jet grouting was implemented in the country for Teesta-V project in Sikkim by NHPC deploying the specialized agency-M/S Solentache Bachy(SBF).NHPC also completed one of longest inclined pressure shaft (1546m) in the country for PHEP-II using double shield TBM for the first time. A latest concrete placement system like Rotec System for concrete dams has been used for Omkareshwar H E Project and presently is being used for Subansiri Lower H E Project. For 3000 MW Dibang Multipurpose project, international dam and foundation experts- Mr. Ruedi Straubhar of M/s. Poyry Energy ltd., and Mr. Mala Wielland were engaged for seismic analysis of 288m high concrete gravity dam and

for geotechnical evaluation and treatment of foundation for concrete dam during 2007 & 2008.

NHPC, in endeavor to overcome the geological problems has already introduced advance state-of-the-art methodologies such as Tunnel Seismic Prediction (TSP) to foresee the geological uncertainties ahead of face. Besides, to make an overall realistic assessment of geological features which are important for project execution, latest remote sensing techniques & geophysical applications viz Ground Probing Radar (GPR), Multi-channel Analysis of Surface Waves (MASW) & Local Earthquake Tomography (LET) have been/are being adopted as per site requirement. Latest investigation practices like micro earthquake studies, neotectonic / paleoseismic studies, MT survey etc. have also been carried out in some of recently investigated projects of NHPC viz. Tamanthi and Shwezaye, Myanmar. NHPC has an in house investigation team comprising of surveyors, geologists, geophysicists, drilling professionals, Construction Material Survey experts etc. and capable of carrying out geological investigation of any scale and magnitude. Reputed International Agencies like SNC Acres Canada, Coynei Bellier France, SWECO Sweden, Electrowat Switzerland, Electrowalt Ekono Jaakko Poyri Group. Switzerland etc. were consulted for obtaining expert advice while negotiating critical/problematic reaches. NHPC has also utilized the vast experience of renowned agencies, institutes, Departments of Govt. of India e.g. GSI, CSM, CIMFR, NIRM, NRSC, IIT Roorkee / IIT Delhi, CWPRS, IIG, etc. for carrying out specialized site specific investigations. NHPC is constantly upgrading its skills by adopting best and latest practices in design and construction of hydro-electric projects and has been continuously participating in various national and international conferences and seminars."

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

Recommendation No. 13

DAE TO PURSUE INDIGENOUS DEVELOPMENT OF TECHNOLOGY

The Committee note that India is pursuing a three stage nuclear power programme and nuclear power in the total power generation is about 4120 MW which is about 3% compared to nearly 15% in the global energy mix. As per plan in the first stage, the country would install a capacity of 10000 MWe of PHWR reactors based on natural uranium resources in the country. In the second stage, the country would construct a series of Fast Breeder reactors. The fuel for these reactor would come out of the plutonium that will be separated from the spent fuel of the PHWR reactors by reprocessing. In the breeder reactors, Thorium 232, which our country has been well endowed with, will be utilized for conversion to Uranium 233 which will be available for use as fuel in the third stage of the nuclear programme. The Committee have been informed by DAE that development of nuclear energy is an important component in the long term energy security of the nation.

The Committee have been apprised that the DAE has successfully mastered the first phase of the programme and has embarked upon the second phase of the programme, namely, the construction of Fast Breeder Reactors. Nuclear Power Corporation of India Limited (NPCIL) have mastered the Pressurised Heavy Water Reactor (PHWR) technology and at present operate a series of reactors. The Committee has taken note of the fact that BHAVINI, a CPSU under DAE, have been formed to undertake construction of Fast Breeder Reactors (FBR) based on breeder technology and has started the construction of the first prototype FBR. The Committee while commending the visionary approach of DAE, would like to caution that it may have to face a lot of challenges in terms of technology and systems in its second stage programme. The Committee, therefore, desire that DAE should explore all possible avenues to bring the second stage to fruition in a shorter period than envisaged.

The Committee also note that DAE have been pursuing a new programme called Advanced Heavy Water Reactor (AHWR). In the interest of commercialisation and achieving self-reliance, AHWR programme needs to be pursued with due seriousness. The Committee would like to impress upon DAE not to abandon or slowdown any of the ongoing indigenous programmes for development of technology due to the recent international agreements in the field of nuclear energy. The Department should make every endeavour to expand its technological base for an early roll out of the second and third phases of the programme.

Reply of the Government:

NPCIL is mandated with implementation of the first stage of the three-stage nuclear power programme and additionalities, Light Water Reactors (LWR) based on international co-operation. It has mastered the Pressurised Heavy Water Reactor (PHWR) technology and has successfully developed indigenous 700 MW PHWRs. The construction of four PHWRs- two 700 MW PHWRs each at Kakrapar in Gujarat and Rawatbhata in Rajasthan respectively commenced in the XI Plan. The construction of these reactors is in full swing and the two projects KAPP 3 & 4 (2X700 MW) and RAPP 7 & 8 (2X700 MW) have achieved a physical progress of 29.9% and 18.7%, respectively, as of October 2012. These are expected to be progressively completed by the year 2017. Two LWRs, Kudankulam 1&2 are at advanced stage of commissioning.

In addition, the XII Plan proposals envisage start of work on eight 700 MW PHWRs comprising of two reactors each at Gorakhpur in Haryana, Chutka in Madhya Pradesh, Mahi-Banswara in Rajasthan and the existing site at Kaiga in Karnataka. The XII Plan proposals also envisage start of work on eight Light Water Reactors comprising of two each at Kudankulam in Tamilnadu, Jaitapur in Maharashtra, Kovvada in Andhra Pradesh and Chhaya Mithi Virdi in Gujarat.

In respect of Kudankulam 3&4 (2X1000 MW), to be set up at existing site at Kudankulam in Tamilnadu, land is available, site infrastructure is in place and the Environmental and Coastal Regulatory Zone clearances have been obtained. The project proposal is presently under consideration of the Government for accord of administrative approval and financial sanction.

In respect of Jaitapur nuclear power project 1&2 (2X1650 MW) in Maharashtra, land title has been transferred to NPCIL, environmental and CRZ clearances have been obtained. Technology independent site infrastructure development activities are in progress currently. The techno- commercial discussions with Areva, France to arrive at a project proposal are in progress.

At the other sites, pre-project activities including land acquisition (with the exception of Kaiga site, an existing site, where land is available), obtaining environmental and other statutory clearances and site investigations and preparation of detailed project report are at various stages.

In case of the Haryana project, the land acquisition process is at an advanced stage. The process of environmental clearance has also reached an advanced stage with EIA, Public hearing and a meeting of the Expert Appraisal Committee of the MoEF already concluded in November, 2012.

Thus, as NPCIL implements a large Light Water Reactor programme based on foreign cooperation, the implementation of the first stage of the three-stage programme based on indigenous resources continues to be a priority.

[Department of Atomic Energy O.M. No. 6/4(2)/2008-Power/13181 dated 18-12-2012]

Recommendation. 16

REGULATORY REGIME FOR NUCLEAR ENERGY

The Committee note that with the recent clearances from the NSG, the country may have the opportunity to access co-operation in the nuclear energy sector with many countries. However, as of now, the Atomic Energy Act 1962 stipulates that power generation by nuclear energy is permitted by Government approved CPSUs only. Consequently only NPCIL and BHAVINI are operating in the nuclear energy sector for power generation. The Committee also note that some other CPSUs are also interested to enter this sector.

This may also entail that the technology for all these reactors may be different and hence their close supervision and monitoring would be required. The regulatory authority should be in readiness to face this additional responsibility. The Committee, therefore, suggests that the DAE should work in tandem with the regulatory authority to handle the additional activities effectively.

As the fuel and other related issues are sensitive and lot of stringent provisions are to be followed, the Committee recommend that the Government should put proper policy guidelines and regulatory regime in place before opening up the nuclear sector for private participation.

Reply of Department of Atomic Energy

Joint Ventures between NPCIL and Public Sector companies in Energy Sector- NTPC, IOCL, and NALCO with NPCIL as the majority share holder have been incorporated with a view to operate nuclear power reactors.

For creating Nuclear Safety Regulatory Authority, a bill has been introduced in Parliament. The Authority will have statutory rights to regulate nuclear safety issues in all nuclear power plants.

[Department of Atomic Energy O.M. No. 6/4(2)/2008-Power/13181 dated 18-12-2012]

Recommendation No. 17

NEED FOR A CPSU FOR HARNESSING RENEWABLE ENERGY SOURCES

The Committee note that adequate power is a key requirement for the country's economic growth. The power sector in the country has been dominated by Central and State Public Sector undertakings as they contribute about 87% of the total power generation. The Committee observe that the Central PSUs play a pivotal role.

The Committee further note that in the thermal power sector, NTPC has the leadership position with more than 25% of power generation with only 20% of installed capacity in the country, which is unlikely to change in the near future.The hydro sector, which alone accounts for about 25% of the power generation in which the role of NHPC is quite significant. As per the information furnished to the Committee regarding their future plans, the Central PSUs are likely to increase their share very significantly. In the nuclear power sector too, only the Central PSU, namely, NPCIL is running all the country's nuclear power plants. However, in the case of renewables, which forms about 8 to 10%; of the power generation, the scenario is totally different. To the dismay of the committee, there are no PSUs in the renewable energy sector. The only PSU in renewable energy sector is IREDA which is primarily a financial institution that finances Renewable Energy projects. The Committee during their interaction with experts from various fields of the energy sector found that a Central PSU in the Renewable Energy Sector is the need of the hour which would set as a catalyst and provide leadership role in exploring renewable energy sources and set up power plants for power generation.

The Committee also endorse the opinion that Central PSU for Renewable Energy can provide greater thrust, and can also ensure better coordination with Sate Governments. The size of the projects undertaken by the PSUs may also impact cost of power positively. Above all, the Government can get important feedback about this promising land important sector. Considering the potential of renewable energy and the immense promise it holds for the future, particularly the exciting prospects in solar energy exploitation, the Committee recommend that the Government should set up a Central PSU to tap the renewable energy sources in the country and play a lead role in the sector.

Reply of Ministry of New and Renewable Energy:-

The position of the Ministry is reiterated. Further, in pursuance of the decision of the Government to implement the Jawaharlal Nehru National Solar Mission, the issue of a suitable and autonomous institutional structure for the implementation of the Mission was examined. It was decided to set up a Government owned public limited company, under the Section 25 of Companies Act 1956, as a company not for profit, under the administrative control of the Ministry of New and Renewable Energy. Solar Energy Corporation of India has been set up and its certificate of Registration was issued by Registrar of Companies on 20th September, 2011. Dr. Anil Kakodkar has taken over as Chairman, Solar Energy Corporation of India. The Corporation is now functional.

[Ministry of New Renewable Energy O.M. No. 8/4/2007-P&C dated 7-12-2012]

Recommendation No. 18

SOLAR MISSION

The Committee note that of late, climate change concerns have caught the attention of leaders and countries around the world. In this context, the renewable sources of energy like wind, solar and biomass have been getting increased attention. India has a natural advantage to harness renewable energy as the country is endowed with sunlight for over 300 days/year and a strong wind regime in many parts of the country.

The Committee have been apprised that the PM's Council on climate change is preparing an action plan on National Solar Mission. The Committee are of the view that our country needs a strong actionable framework to intensify R&D in renewable energy sector to harness clean and green power, which would draw upon international cooperation as well, to enable the creation of more affordable and more convenient solar power systems and to promote innovations that enable the storage of solar power for sustained use. In this regard the Committee recommend that the Government should set up a Central Institute to coordinate R&D activities in renewable energy.

The Committee further note that at present the materials needed for solar cells are being imported. The Government should take steps to facilitate indigenous manufacturing of key materials by facilitating investments through incentives and concessions. The Committee also suggest that strong fiscal incentives for development of related technologies in solar energy should be provided for attracting serious and interested players to invest and participate in this sunrise sector of the future.

Reply of Ministry of New and Renewable Energy:-

The policy frame work of Jawaharlal Nehru National Solar Mission was approved by the Cabinet on 19th November, 2009 and formally launched by the Prime Minister on 11th January, 2010. The objective of the Mission is to establish India as a global leader in solar energy, by creating policy conditions for its diffusion across the country quickly and achieve a scale to drive down costs to levels required to achieve grid parity by 2022. The Mission targets include (i) deployment of 20,000

MW of grid connected solar power by 2022, (ii) 2,000 MW of off-grid solar applications including 20 million solar lights by 2022, (iii) 20 million sq.m. solar thermal collector area, (iv) to create favourable conditions for developing solar manufacturing capability in the country; and (v) support R&D and capacity building activities to achieve grid parity by 2022.

The Mission is implemented in three phases. For the first phase of the Mission, which is till March, 2013, target is to set up 1,100 MW grid connected solar plants including 100 MW of roof top and small solar plants and 200 MW capacity equivalent off-grid solar applications and 7 million sq. m. solar thermal collector area.

The following are the major initiatives under the Mission:

- 1152 MW capacity grid connected solar power projects have been selected.

- 11 projects of 50.50 MW capacity (48 MW PV+ 2.5 MW ST) under migration scheme, 26 projects of 130 MW capacity under Batch-I and 68 projects totaling 87.80 MW of small capacity power projects (RPSSGP Programme) have been commissioned. In all, a total capacity of over 1045 MW Grid connected Solar Power Projects have been commissioned in the country as on 31.10.2012.

- A total capacity of 138.00 MW off-grid Solar Power Projects have been sanctioned.

- About 59.80 lakh sq. meter of collector area of solar thermal systems have been installed against a target of 70 lakh sq. meter of collector area to be completed by March, 2013.

Ministry is providing 30% subsidy and/or loan at 5% interest rate to consumers for purchase of solar systems through select implementing organizations in Government and also through solar system integrators. The regional rural banks have been engaged in the programme to sanction loans for solar systems mainly for individuals.

Research and Development

A comprehensive policy for research & development has been put in place. The following R&D projects are under implementation:

1. A megawatt scale National Solar Thermal Power Test and Simulation facility is being set up at Ministry's Solar Energy Centre by IIT Bombay and a consortium of Industries. The test facility is aimed at to serve the industry and help in designing solar thermal power projects based on technology parameters and climatic conditions of the locations.

2. R&D-cum-demonstration project for development of Central Receiver Technology for solar thermal power generation has been sanctioned to a Group led by an Indian industry and comprising scientists from USA, Spain and Switzerland. The project aims to design and develop solar tower with an output of 1MW thermal energy.

3. Development and demonstration of 1MW capacity solar thermal power R&D project with 16 hour thermal storage for setting up at Mount Abu, with co-funding from German Ministry and Indian industry. The project is first of its kind to provide thermal storage of 16 hours and will be based on fully indigenously developed solar dish technology.

4. Development of nano structures thin film dye sensitized solar cell along with capacitor storage by Amrita Centre for Nano science, Cochin. The project aims at development of novel storage technique for low power applications.

5. Development of 15% efficiency thin film CIGS solar cell modules by an industry. The project would lead to setting up of a pilot plant by the industry.
6. Development of high efficiency solar thermal air conditioning systems in association with M/s. Thermax.

[Ministry of New Renewable Energy O.M. No. 8/4/2007-P&C dated 7-12-2012]

Recommendation No. 20

PERFORMANCE OF IREDA

The Committee note that IREDA was established as a Government of India enterprise in March 1987 under the administrative control of the Ministry of New and Renewable Energy (MNRE) to promote, develop and extend financial assistance to various renewable energy projects. IREDA is a profit making institution and has built up a sizeable portfolio of advances in various sectors in the renewable energy space.

The Committee note with concern that the Non Performing Assets (NPA) of IREDA are 20%, which is considerably high. The Committee, therefore, recommend that IREDA should be very vigilant and strengthen their loan appraisal and evaluation systems. The action taken in this regard may be intimated to the Committee.

The Committee understand that banks and other financial institutions are also now giving loans for renewable energy projects, thereby competing with IREDA. However, the Committee are dismayed to find that being an all Indian financial institution, IREDA has a very small network with only two branches outside Delhi. The Committee believe that renewable energy will be a very important area of business in the near future and therefore IREDA should capitalize on the business opportunities. In this regard, the Committee recommend that IREDA should look at expansion of their network to other important cities and regions where there is adequate potential for renewable energy projects.

One of the mandates of IREDA is promotion of renewable energy. The Committee desire that it should create awareness among the masses about the benefits of renewable energy and allocate more resources for promotion of such activities. The Committee further suggest that IREDA should conduct such promotional programmes on renewable energy in sates where there is a good potential for such projects.

Reply of Ministry of New and Renewable Energy:-

IREDA has taken various steps to recover the non-performing assests (NPAs), during the period 2009-10 to 2011-12, as a result of the said efforts, the NPAs (Gross) were reduced to 5.46% as 31-3-2012 as against 14.32% as on 31-3-2009. The net NPAs also reduced from 4.36% as on 31st March, 2009 to 2.50% as on 31.03.2012. IREDA is taking all efforts for reducing the level of NPAs which are enlisted below:

- The appraisal procedure of individual application has been strengthened by introducing the Credit Risk Ratings Systems. All the projects are evaluated as per the software developed by Credit Analysis and Research Ltd. (CARE) and based on the ratings, the projects are categorized into four Grades I to IV. The rate of interest is fixed commensurate with the risk perception of the projects.

- IREDA has clearly laid down OTS and reschedulement policies. Recovery from old NPA cases is effected through OTS as per the policy approved by the Board of Directors. In addition the projects where the symptoms of defaults emerge are analysed and after examining the reasons for the default, the same are considered for reschedulement of the dues as per the approved Board policy.

Wherever the proposals for regularizing the accounts are not forthcoming from the borrower, IREDA resorts to the legal action such as:

- Criminal complaints u/s 138 of NIA are filed against the borrowers and guarantors for the dishonor of cheques which are normally obtained at the time of disbursement of loan:
- The recovery proceedings before DRT are filed in case the accounts turns out to be the NPA.
- Wherever the security for the loan appears to be sufficient, IREDA resort to initiate action under SARFAESI Act.
- Winding-up proceedings has also been filed in some cases to effect recovery from NPAs loans wherever securities are not sufficient.

IREDA has two branch offices operating in Chennai and Hyderabad to cover Tamilnadu, Kerala, Karnataka and Andhra Pradesh respectively. Further, IREDA two camp offices in Kolkata and Ahmedabad. While the Kolkata camp office is covering states of Orissa, North Eastern Region, Sikkim and West Bengal, the Ahmedabad camp office is catering to mainly Gujarat, Maharashtra and Rajasthan.

IREDA has been making concerted efforts in creating awareness among the masses about the benefits of renewable energy. Publicity campaigns have been conducted through print and electronic media. IREDA has prepared video films on various Renewable Energy Sectors and shown to the participants during awareness campaigns. It has been organizing/ sponsoring various promotional programs like Business Meets/ Seminars/ Conference, etc.

[Ministry of New Renewable Energy O.M. No. 8/4/2007-P&C dated 7-12-2012]

Recommendation No. 21

LOW COST OF FUNDS AND EQUITY SUPPORT TO IREDA

The Committee has been informed by IREDA that the following measures would address their request for low cost funds:

(i) To charge concessional guarantee fee by Government of India.
(ii) To permit to issue tax free bonds and also issue bonds under Section 54E(b) of Income Tax Act, 1961.
(iii) To provide GOI guarantee to raise resources from bilateral/multilateral agencies.

The Committee feel that the above requests are genuine and well deserving and all fall under the ambit of Ministry of Finance. The Committee strongly recommend that Ministry of New and Renewable Energy should impress upon Ministry of Finance to consider all these requests favorably without any delay so that IREDA may be able to raise funds at lower cost, which in turn would reduce the costs for renewable energy sector.

The Committee note that IREDA has sought access to low cost funds so as to reduce the cost of capital to the important renewable energy sector. The high capital costs in this sector in turn increases the cost of power generated. The Committee therefore desire that Ministry of New and Renewable Energy (MNRE) should provide enhanced and adequate equity support to IREDA on annual basis so as to enable IREDA to achieve its targets.

The Committee note IREDA's suggestion that custom and excise duty may be exempt 100% for all equipments of renewable energy power projects. Ministry of Finance may consider this request favourably so as to provide necessary fillip to these activities. Also, the Committee further note that the generation based incentive for wind projects is available upto 49MW only. In the opinion of the Committee, it is a very limited incentive and may dissuade potential investors from investing in new projects. In this regard the Committee recommend that these incentives should be extended by Government to all projects that are scheduled for installation and power generation during the 11th Plan period.

Reply of Ministry of New and Renewable Energy:-

Government has extended guarantee for following Line of Credit at normal guarantee fee of 1.2% p.a.

Sl. No.	Line of Credit	Amount	Year
1.	KfW Line of Credit III	19.97 million	2009-10
2.	KfW Line of Credit IV	200 million	2010-11
3.	AfD Line of Credit	70 million	2010-11

4.	JICA	30 billion	2011-12

Further the Government has extended guarantee for following Line of Credit at concessional fee of 1% p.a. to IREDA

SI.No.	Line of Credit	Amount (in Euro)	Year
1.	KfW Line of Credit II	50 million	2008-09

Proposal was sent for allocation of tax free bond for an amount of Rs. 1000.00 crore during the year 2012-13 out of the overall budget of Rs. 10,000.00 crore for infrastructure sector. Recently Ministry of Finance's published notification allocating of tax free bonds of aggregated amount of Rs. 53000 crore wherein no allocation in favour of IREDA has been made.

With regard to Generation Based Incentives (GBI) in the wind project, MNRE vide notification dated 17th December, 2009 has extended GBI to a maximum capacity of 4000 MW during the remaining period of 11th Five Year Plan. Against this a capacity addition of 2236.93 MW has been made till March, 2012 for which GBI has been extended.

A budgetary provision of Rs. 60 crores has been made by the MNRE towards equity support to IREDA for the financial year 2012-13. The same has been received.

In the 12th Five Year Plan proposal, MNRE has recommended to the Planning Commission for infusion of Rs. 2500 crore equity to IREDA.

[Ministry of New Renewable Energy O.M. No. 8/4/2007-P&C dated 7-12-2012]

Recommendation No. 24

ENERGY CONSERVATION AND EFFICIENCY

The Committee note that the peak power shortage in the country is around 15% and feel that by efficient use of power, this shortage can be managed in a much better way. The Committee note that Energy Conservation Act, 2001 provides for the implementation of energy efficiency measures through Bureau of Energy Efficiency (BEE) and other designated agencies. The BEE has been functioning for the past several years to promote energy conservation and efficiency efforts.

The Committee have been informed that BEE has prepared an action plan for the period 2007-2012 with the aim of achieving 5% savings to result in an avoided capacity addition of 10,000 MW during the period. The Committee note that the Government has started the Standards &Labelling Scheme to provide the consumer an informed choice about energy saving and cost saving potential in household and other equipments. The Committee appreciate such initiatives and recommend that more and more gadgets and household products which consume high energy should be included under such schemes and consumers should also be educated about the benefits through awareness campaigns. The Committee further recommend that BEE

should be expanded and its scope and activities should be widened so as to make it more effective.

The Committee have noted that BEE has made certain proposals for tax/duty exemption for promotion of energy efficiency and the same are being considered by Ministry of Finance for inclusion in the budget proposal (2009-10). The Committee desire that Ministry of Power should closely pursue these proposals with the Ministry of Finance. The Committee recommend that an appropriate fiscal incentive scheme be put in place by the Ministry of Power to reward for use of energy efficient gadgets.

The Committee understand that the Government has initiated a dialogue with the manufacturers of energy related products for improving energy efficiency. The Committee note that most of the manufacturers belong to unorganized sector and hence would like to advise the Government to tread cautiously as this will have an socio-economic impact. The Committee therefore recommend that the Ministry may provide incentives and concessions for the manufacturers and encourage access to energy efficient technologies.

The Committee desire that awareness of energy conservation and energy efficiency should be more vigorously pursued and all sections of the society especially the youth, children, women and industry should be targeted in the awareness campaigns. The Committee desire that the performance of Bureau of Energy Efficiency should be periodically reviewed and any gap is its performance should be plugged. The support of civil society groups like NGO's, PSU's, Government agencies, etc. may be enlisted in the pursuit and demonstration of energy efficiency and conservation measures. The Ministry may look at fund requirement and increase allocation in an appropriate manner for these activities.

Reply of Ministry of Power

(1) BEE has laid minimum energy performance standards, labeling of air-conditioners, frost free refrigerators, tubular florescent lamps (TFLs) and distribution transformers & were made mandatory on 7.01.2010.

The other 10 equipments and appliances which have been included as voluntary programme include direct cool refrigerator, geysers, motors, pumps sets, colour televisions, LPG stoves, washing machines, ceiling fans, Laptop and Cassette Air-Conditioners.

Labeling program for ballet, invested, boiler (upto 10TM) office equipment, voltage stabilizer, set-top box, DG sets and DG pumps sets is under development.

BEE has made request to the Ministry of Power to enhance the sanctioned strength of employees from 18 at present to 47. In this regards, it is stated the BEE's sanctioned strength has been increased from 18 to 21 and 16 additional posts including 2 DDG post has been sanctioned under National Mission of Enhanced Energy Efficiency under Plan Scheme.

(2) Ministry of Power agrees with the recommendations of the Committee for providing incentives and concessions for the manufacturers and encouragement of access to energy efficient technologies for promoting energy efficiency. A detailed self contained proposal for tax/duty exemption for promotion of energy efficiency products was sent to Ministry of Finance during the Annual Budget proposal of 2010-11. It is stated that the same has not been announced during the Interim Budget of 2011-12.

(3) Ministry of power has approved the scheme for providing support to Small and Medium technologies. The scheme provides for Government support for preparation of technology based detailed project reports, giving incentives in the form of financial instruments to fund the DPRs and training/capacity building of small and Medium entrepreneurs.

(4) During the 11th Plan, seven schemes with an allocation of Rs. 346.86 crores have been approved by the Government.

In addition, two more schemes with an allocation of Rs. 321.42 crores have been approved. The Schemes are (i) for enhancing awareness of energy efficiency (Rs. 86.07 crores) (ii) National Mission on Enhanced Energy Efficiency (Rs. 235.35 crores)

(5) The Cabinet has approved the National Mission on Enhanced Energy Efficiency (NMEEE) in June, 2010. The objective of the Mission is to device efficient and cost effective strategies through demand side management, initiatives and market transformation in favour of energy efficient processes, products and services. These initiatives include:

(a) A market based mechanism to enhance cost effectiveness of improvements in energy efficiency in energy-intensive large industries which facilitate energy saving certificates that could be traded. (Perform Achieves and Trade)

(b) Accelerating the shift to energy efficient appliances in designated sectors through innovative measures to make the products more affordable. (Market Transformation for Energy efficiency (MTEE)).

(c) Creation of mechanisms that would held finance demand side management programme in all sectors by capturing future energy savings (Energy Efficiency Financing Platform (EEFP)).

(d) Developing fiscal instrument to promote energy efficiency namely Framework for (Energy Efficient Economic Development (FEEED)).

(6) The number of BEE's Executive Committee/Governing Council meeting held so far.

(a) Executive Committee/Management advisory Committee Meetings	--
(b) Governing Council Meeting	04

(7) BEE has been holding the National Conservation Awards to spread Awareness among the industrial and commercial units and Painting Competition on Energy efficiency and conservation for students. These Awards have proved to be a means to institutionalize the energy efficiency movement in the country by identifying and giving recognition to the energy conservation efforts undertaken by different firms and industries. The scheme has become very popular among industrial units, as is evident from increasing participation level (from 123 in 1999 to 644 in 2011).

In the spirit of spreading Awareness among the school children, Painting Competition is held every year since 2005.A Painting Competition for school children at School, State and National level is taken up, which not only makes the children aware about the need of conserving energy but at the same time educate and involve their parents, friends and siblings in the above cause. This activity is one of the measures, which has helped in creating awareness in the domestic sector. The student participation level has increased from 3.43 Lakh students in 2005 to 20.72 Lakh students in 2011 which is very encouraging.

(8) The energy conservation target planned for the XI Plan is 10,000 MW. The achievements in respect of energy saved relating to the programme/schemes of the BEE during the XI Plan are 10,836 MW. The physical and financial targets of BEE's Schemes are given in the **Annexure**.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

Recommendation No. 25

The Committee believe that Research and Development is key to achieving the long-term goals in any field. R&D in the energy sector will increase our energy independence and allow us to achieve reasonable levels of energy security. The Committee are dismayed to note that barring nuclear energy, there are no institutions for R&D activities in any of the power sectors like thermal, hydel and renewable energy. As pointed out in the Integrated Energy Policy, basic research leading to a fundamental breakthrough may open up possibilities of applications and R&D is a prerequisite to developing new concepts.

The Committee take further note of the fact that the R&D expenditure by the PSUs is in the range of 0.1 to 0.5 percent of the net profit which is inadequate. The Committee are disappointed with the poor allocation of resources for R&D purposes by PSUs. In this regard the Committee recommend that the Government should create an Institute of Excellence where energy related R&D be undertaken. The CPSU's should be asked to contribute financially and can award their R&D projects

to the institution. This will also help to focus and enable the institution to tie-up with International agencies wherever required and create a talent pool in R&D activities for power sector.

Reply of Ministry of Power

The Central Power Research Institute (CPRI) was established by the Government of India in 1960 with the objective of helping the Indian Power Sector. The Institute was re-organized into an autonomous society in the year 1978 under the aegis of the Ministry of Power, Government of India. The Ministry has been supporting the Institute since the third five year Plan. CPRI to-day has the necessary infrastructure to foray into all major thrust areas of R&D in Power Sector namely (i) Generation, (ii) Transmission, (iii) Distribution (iv) Energy and environment and (v) End use etc. CPRI has ambitious plans to expand further through establishments of Regional Testing Laboratories in North and Western parts of India to cater to the demands of Manufacturers, utilities and the Industry from all regions of the country. The proposals under 12th Plan are towards strengthening of Infrastructure to benefit the society.

Central Power Research Institute with broad mandate covering all aspects of Power sector is already functioning under Ministry of Power, Government of India.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

RECOMMENDATION NO. 26

SETTING UP OF INSTITUTES TO CREATE SKILLED MANPOWER FOR THE POWER SECTOR

The Committee note that one of the key resources for any sector is the human resource. At present, this is also the most important challenge for most of the sectors of the economy. The Committee have been informed that due to the boom in IT/ITES, many sectors which are in need of huge skilled manpower have been complaining of attrition or non-availability of manpower. The Committee are of the view that for a specialized sector like power, availability of skilled manpower is going to be a challenge in the foreseeable future. However, as huge growth plans are lined up in this sector, action needs to be taken to attract and retain skilled manpower so that planned growth is not hampered.

In this regard, experts who deposed before the Committee have also underscored the point that manpower in PSUs needs to be given proper exposure in leadership skills and decision making processes so that they may be able to compete and take quick and right decisions, as PSUs compete with large and successful private sector companies.

The Committee also note that the Government have taken some initiatives for addressing the problem of skill deficit for the industrial sector. The Committee are of the view that PSUs in the power sector may consider starting educational institutions catering to different disciplines of power sector at their different plant locations. A consortium approach among the PSUs in this regard to start institutes like engineering colleges, polytechnics, ITI's etc for captive manpower requirements

could be a step in this direction. This would not only result in a very useful CSR initiative for the CPSUs but may also be useful in utilizing the expertise of retired personnel of these PSUs whose expertise in training people can be tapped gainfully.

Reply of the Government

To bridge the skill gap in the manpower required for the power sector, the Ministry of Power and the Central Electricity Authority had launched 'Adopt an ITI' scheme for power sector in July 2007.

Under the scheme, a PSU can either upgrade existing ITI(s) or establish a new ITI in the vicinity of its power station. By way of adoption of an ITI, the concerned PSU would render contribution towards infrastructure improvement, augmenting the trade strength, launching of new trades, improvement in practical training, modernization of equipment, training of trainers, etc.

The Government of India, Ministry of Labour provides a loan of Rs 2.5 crores per ITI with a moratorium period of ten years. In addition to the loan, the industry partner (the PSU) may allocate funds from its own organization.

The CPSUs have favourably responded to the 'Adopt an ITI' scheme in a good way. As per the information available with CEA, 60 ITIs located in various parts of the country have been adopted by incurring expenditure towards training of trainees/trainers, procuring equipment/ machinery, upgrading physical infrastructure, starting new batches in required trades, setting up new ITIs, opening of new trades, etc.

The feedback from the adopting CPSUs has reported improvement in the quality of trainees and trainers (ITI instructors) achieved by organising practical training at the power plants/site visits for the ITI students, arranging training of trainers by the CPSUs at their own establishment or at other institutes like NPTI, etc.

Location-wise list of ITIs adopted/ being adopted by CPSUs

S. No.	**CPSU**	**ITI name**	**District**	**State**	**Existing / new ITI**
1	NTPC	ITI Olpad	Surat	Gujarat	Existing
2	NTPC	ITI Pali	Korba	Chhattisgarh	Existing
3	NTPC	ITI Brehomore	Murshidabad	West Bengal	Existing
4	NTPC	ITI Begusarai	Begusarai	Bihar	Existing
5	NTPC	ITI Tapovan	Chamoli	Uttarakhand	Existing
6	NTPC	ITI Uttarkashi	Uttarkashi	Uttarakhand	Existing
7	NTPC	ITI Mouda	Nagpur	Maharashtra	Existing
8	NTPC	ITI Dhenukanal	Angul	Orissa	Existing
9	NTPC	ITI Anta	Baran	Rajasthan	Existing
10	NTPC	ITI Karimnagar	Karimnagar	Andhra Pradesh	Existing
11	NTPC	ITI Bhadragiri	Vizianagaram	Andhra Pradesh	Existing
12	NTPC	ITI Sundernagar	Mandi	Himachal Pradesh	Existing

13	NTPC	ITI Malviya Nagar	New Delhi	Delhi	Existing
14	NTPC	ITI Chennerkara	Pathanamthitta	Kerala	Existing
15	NTPC	ITI Faridabad	Faridabad	Haryana	Existing
16	NTPC	ITI Uncha Amipur	Gautam Budh Nagar	U.P.	Existing
17	NTPC	ITI Pussore	Raigarh	Chhattisgarh	Existing
18	NTPC	ITI Naini	Allahabad	U.P.	Existing
19	NTPC	Naktu	Sonebhadra	U.P.	New
20	NTPC	Salakati	Kokrajhar	Assam	New
21	NTPC	Chatra	Chatra	Jharkhand	New
22	NTPC	Baloda	Janjgir	Chhattisgarh	New
23	NTPC	Barkagaon	Hazaribagh	Jharkhand	New
24	NTPC	Nabinagar	Aurangabad	Bihar	New
25	NTPC	Solapur	Maharashtra	Maharashtra	New
26	NTPC	Sahalwas	Jhajjar	Haryana	New
27	NHPC	Reasi	Udhampur	J&K	Existing
28	NHPC	Leh	Leh	J&K	Existing
29	NHPC	Uri	Baramulla	J&K	Existing
30	NHPC	Kargil	Kargil	J&K	Existing
31	NHPC	Ramban	Doda	J&K	Existing
32	NHPC	Roing (under CoE Scheme of World Bank)	Lower Dibang Valley	Arunachal Pradesh	Existing
33	NHPC	Tabarijo	Upper Sibansiri	Arunachal Pradesh	Existing
34	NHPC	Pokhra(under CoE Scheme of World Bank)	Pauri Garhwal	Uttarakhand	Existing
35	NHPC	Rudraprayag	Rudraprayag	Uttarakhand	Existing
36	NHPC	Tanakpur	Champawat	Uttarakhand	Existing
37	NHPC	Khatima	Uddam Singh Nagar	Uttarakhand	Existing
38	DVC	Chatna	Bankura	West Bengal	Existing
39	DVC	Durgapur	Burdwan	West Bengal	Existing
40	DVC	Raghunathpur	Purulia	West Bengal	Existing
41	DVC, BHEL	KGITC, Bolpur(as Centre of Excellence)	Birbhum	West Bengal	New
42	DVC	Koderma	Koderma	Jharkhand	New
43	DVC	Hazaribagh	Hazaribagh	Jharkhand	Existing
44	DVC	Chaas	Bokaro	Jharkhand	Existing
45	DVC	ITC, Chandrapura	Bokaro	Jharkhand	New
46	DVC	Dhanbad	Dhanbad	Jharkhand	Existing
47	NEEPCO	Dirang	West Kameng	Arunachal Pradesh	Existing
48	NEEPCO	Haflong	N.C. Hills	Assam	Existing
49	NEEPCO	Yupia	Papumpare	Arunachal Pradesh	Existing
50	NEEPCO	Tinsukia(ITI for women)	Borguri Tinsukia	Assam	Existing

51	NEEPCO	Williamnagar	East Garo Hills	Meghalaya	Existing
52	PGCIL	Bhadrawati	Chandrapur	Maharashtra	Existing
53	PGCIL	Bargi	Jabalpur	M.P.	Existing
54	PGCIL	Buxar	Saran	Bihar	Existing
55	PGCIL	Marhoura	Saran	Bihar	Existing
56	SJVNL	Berthin	Bilaspur	H.P.	Existing
57	SJVNL	Bangana	Una	H.P.	Existing
58	THDC	Gopeshwar	Chamoli	Uttarakhand	Existing
59	THDC	Chamba	Chamba	Uttarakhand	Existing
60	NHDC	Narmada Nagar (under CoE Scheme of World Bank)	Khandwa	M.P.	Existing
61	NLC	Neyveli	Cuddalore	Tamil Nadu	Existing

*Earlier NLC proposed to adopt an ITI at Neyveli in Cuddalore (S.No. 61) district but the same was allocated to some other Industry for upgradation by the State Government.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

CHAPTER III

RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF GOVERNMENT'S REPLIES

Recommendation No. 22

RURAL ELECTRIFICATION PROGRAMME

The Committee note that the Ministry of Power had launched a program called Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). This program basically aims at providing access to electricity to all rural households over a period of four years. Under this scheme, the Government provides 90% capital subsidy for rural electrification infrastructure and funding of electrification of all unelectrified BPL households with 100% capital subsidy. An expert in the field apprised the Committee about the lacunae under the rural electrification programme where for a village to be declared as electrified, the number of households electrified should be atleast 10% of the total number of households in the village, and once a village is declared as electrified, the capital subsidy made available to the projects or beneficiaries is discontinued.

The Committee are of the view that this is a serious lacuna which should be rectified if the Government's intention of village electrification has to succeed. This lacuna needs to be removed by the Government/Ministry and suitable changes made in the definitions so that subsidy for future beneficiaries may also be made available to provide them with electricity power.

Reply of the Government

To give a fillip to rural electrification in the country, the Government in 2005 made the definition of village electrification more stringent and launched Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). This is the first scheme of rural electrification, which aims comprehensive rural electrification in the country.

The RGGVY was sanctioned in March, 2005 for electrifying 1.25 lakh villages, intensively electrify 4.62 lakh electrified villages and to provide free electricity connections to 2.34 crore BPL rural households. The approval was given at that time for capital subsidy of Rs.5000 crore for remaining two years of the X plan period. The scheme was to be reviewed at the end of the X plan before obtaining fresh approval for its continuation in the XI Plan.

Under the scheme, projects were financed with 90% Capital subsidy by the Central Government for provision of Rural Electricity Distribution Backbone (REDB), Creation of Village Electrification Infrastructure (VEI), and Decentralized Distributed Generation (DDG). These would also cater to the requirement of agriculture and other activities including irrigation pump-sets, small and medium industries, khadi and village industries, cold chains, healthcare and education and IT. This will facilitate overall rural development, employment generation and poverty alleviation.

Electrification of un electrified Below Poverty Line (BPL) households will be financed with 100% capital subsidy as per norms of Kutir Jyoti Programme in all rural

habitations. Households above poverty line will be paying for their connections at prescribed connection charges and no subsidy will be available for this purpose

The Government on 3rd January, 2008 approved continuation of RGGVY in the XI Plan with a capital subsidy of Rs.28000 crore during the Eleventh Plan period at that stage against the total requirement of Rs.42000 crore for comprehensive rural electrification in the country.

As on 15.11.2012, 1,06,019 un-electrified villages have been electrified, 2,72,561 electrified villages have been intensively electrified and free electricity connections have been provided to 202.29 lakh BPL households.

As per Detailed Project Report (DPR), clearly contains the coverage of households as well as release of BPL households. The electrification works are being carried out to cover all the scope mentioned in the DPR. However, a village would be declared as electrified if:-

(i) Basic infrastructure such as distribution transformer and distribution lines are provided in the inhabited locality as well as dalit basti/hamlet where it exists. (For electrification through Non-Conventional Energy Sources a distribution transformer may not be necessary).

(ii) Electricity is provided to public places like schools, panchayat offices, health centres, dispensaries, community centres etc. and

(iii) The number of households electrified should be at least 10% of the total number of households in the village.

It is not correct that an electrified village will not be eligible for capital subsidy. Under RGGVY, villages declared electrified as per the old definition are also being taken up for intensive electrification with the same pattern of financing of 90% subsidy and 10% loan. In fact as per old definition, mere access of electricity at the revenue boundary of village itself made it eligible to be declared electrified.

RGGVY specifically launched for providing access to electricity to households in the country. Under the scheme unelectrified villages/hamlets/SC &ST Bastis /households are being electrified and intensive electrification in already electrified villages is being carried out. Therefore, it should not be linked with definition of village electrification. In this background, the existing definition of village electrification need not be changed. Changing definition will lead to increase in number of un-electrified villages and consequential increase in funding requirements. The funds made available so far are inadequate to cover the villages, even as per present definition.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

CHAPTER IV

RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendation No. 1

ENERGY SCENARIO

The Committee note that Government is aiming an annual economic growth of about 7% to 8% in near future to eradicate poverty and improve the human development index in the country. To achieve the growth rate, it is imperative to have adequate and substantial supply of energy for meeting the various development goals. The Committee, however, note that as per World Energy Statistics, the per capita availability of electricity in India is as low as 619 units as compared to World Energy average of 2596 units which presents a dismal picture. The demand supply scenario of electricity is also not satisfactory and there is a general shortage of about 10.6% and a peak shortage of about 15%.

The Committee have been informed that in order to accelerate the development of power sector the Government brought out National Electricity Policy (NEP) 2005 which envisages to meet the full demand for power and eliminate all shortages by 2012. The Policy further aims at increasing the per capita availability of electricity to over 1000 units upto the same period. The Committee are of the view that though the targets are fully achievable but as compared to world average they are very low. They would like the Government to increase the targets to reach the World Energy average of 2596 by 2017.

The Committee further note that the energy mix in the present installed capacity of 146753 MW of the country, comprises 24% from hydro, 63% from thermal, less than 3% from nuclear and about 9% from renewable energy sources.

For 11th Plan a capacity addition of 78700 MW has been planned and a further capacity addition of 94500 MW has been planned during the 12th Plan with 70000 MW (74%) from thermal, 20,000 MW (21%) from hydro and 4500MW (5%) from nuclear energy. The Committee wish to point out that at present the installed capacity of renewable energy is at 13242 MW, which is quite significant but no capacity addition target for renewable energy has been indicated in the 12th Plan targets. Similarly looking at the contribution of nuclear energy in global fuel share which is nearly 15%, the Committee are confident that the country have scope to increase capacity addition to the nuclear sector too particularly through vigorous pursuit of the country's own three-stage nuclear power programme.

Considering the emerging challenge due to climate change concerns and carbon emissions, the Committee desire that the energy mix should move towards a balance of various energy sources so as to reduce dependence on fossil fuels. In the light of recent development in the nuclear energy sector following the civil nuclear cooperation agreements with various countries and the immense potential in the renewable energy sources of the country, the Committee feel that there is

considerable scope for revising the targets for capacity addition especially from these sources.

In view of the above, the Committee are of the considered view that the Government should review the contribution of various energy sources for the 11th and 12th plan periods and recommend to substantially increase the share of nuclear and renewable energy so as to have an healthy mix of different energy sources in the overall power scenario thereby reducing the dependence on fossil fuels, and to enable the country to attain the world average in per capita availability of electricity and removal of power shortages.

REPLY OF THE GOVERNMENT

Under Long Term Planning, NTPC prepares Corporate Plans which are co-terminus with the national five year plans. NTPC has prepared its Corporate Plan 2010-32 which lays the broad roadmap for NTPC's growth for the period 2010-32.

NTPC plans to have an installed capacity of 128000 MW by the year 2032 with a well diversified fuel mix comprising 56% coal, 16% gas, 11% nuclear energy, 9% renewable energy and 8% hydro power based capacity.

The latest status of NTPC's initiatives in the area of nuclear power and renewable energy are as under:

i) Nuclear Power

A joint venture company namely Anushakti Vidhyut Nigam Limited has been incorporated with 49% equity holding by NTPC and 51% equity holding by Nuclear Power Corporation Limited (NPCIL) for setting up nuclear power projects in the country. The JV Company is planning to execute 2 x 700 MW PHWR units at district Fathehabad, in Haryana.

ii) Renewable Energy

NTPC plans to broad-base generation mix by evaluating conventional and non-conventional sources of energy to ensure long term competitiveness and mitigate fuel risk. In this endeavor NTPC has taken various initiatives to implement the Renewable energy projects. The brief status of these initiatives is given below:

1. Capacity under execution – 18 MW
   (Including A&N Solar PV project of 5 MW and Dadri Solar PV project of 5 MW)
2. Capacity under bidding – 100 MW
3. Capacity for which DPR is being finalized – 480 MW
4. Consequent to JVA with ADB and Kyuden International Corp., a JV company named Pan Asian Renewable Co. Ltd has been set up.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 6, of Chapter I of the Report]

Recommendation No. 2

ROLE OF CPSUS IN ENERGY SECURITY OF THE COUNTRY

The Committee note that the Government in recent years have taken a lot of policy initiatives in the power sector like Electricity Act 2003, National Electricity Policy, UMPP, APDRP, National Tariff Policy etc. aimed at liberalizing power sector and to encourage more investments from private sector. In this regard, the Committee would like to point out that it is the Central and State PSUs that have so far shouldered the major responsibility contributing to 87% of total generation of power in the country. The Committee find that the central PSUs like NTPC and NPCIL have leadership position in thermal and nuclear sectors respectively as also NHPC, another Central PSU which has a significant share in the hydro electric power plants, but are dismayed to find that there is no Central PSUs in the renewable energy sector in the country.

During the 11th Plan target for capacity addition of 78700 MW, the Central and State PSUs are projected to add new capacity to the tune of 39865 MW and 27952 MW comprising about 51% and 30% of the total planned target. It is, therefore, evident that the capacity addition in the power sector is fully dependent on the ability of the CPSUs to complete their projects. The Committee while appreciating the central role of PSUs in power generation are disappointed by the lack of cognizance of this fact in the National Electricity Policy (NEP). A brief look at the NEP gives a very disheartening picture as no proposal has been spelt out regarding the specific role of CPSUs to meet the challenges of power generation.

The Committee, therefore, recommend that the Government while encouraging the private sector to set up power projects should also come out with adequate measures to strengthen the power CPSUs by way of giving them more financial and administrative autonomy which will enable the country to make rapid progress in achieving the objectives enunciated in the National Electricity Policy (NEP). Any underestimation of the potential role of CPSU Power majors will harm the progress in this regard.

The Ministry of Power while furnishing their Action Taken Reply on the above recommendation stated as under:-

Reply of the Government

I. NATIONAL THERMAL POWER CORPORATION LIMITED

1. **Reduce multiplicity of reviews:**

   It was felt that each of the reviews were significant and the request of NTPC to reduce the multiplicity of reviews was not acceptable. **Action is completed.**

2. **Objectivity in relating Appraisal Report of Board level executives to the organization performance:**

Keeping in view the suggestion of NTPC during informal discussion to drop this suggestion, it was decided that this suggestion could be treated as deleted and no further action on this suggestion was required. **Action is completed.**

3. **Enhancement in the Delegation of Powers for entering into Joint Ventures/ Subsidiaries:**

Maharatna status has been granted to NTPC by DPE in May, 2010. Maharatna CPSEs are empowered to make equity investment to establish financial joint ventures and wholly owned subsidiaries and undertake mergers & acquisitions, in India or abroad, subject to a ceiling of 15% of the net worth limited to Rs.5,000 crore in one project against Rs.1,000 crore for Navratna CPSE. The overall ceiling on such investments in all projects put together will not exceed 30% of the net worth. It was decided to maintain the present dispensation following award of Maharatna status to NTPC. Further, they have to follow the guidelines on formation of joint venture issued by Department of Expenditure. **Action is completed.**

4. **Creation of below Board level posts:**

NTPC as Maharatna CPSE has powers to create below Board level posts up to E-9 level, as per DPE's O.M. No.22(1)/2009-GM dated 04-02-2010. **Action is completed.**

I. TEHRI HYDRO DEVELOPMENT CORPORATION LIMITED

Enhance financial autonomy to incur capital expenditure on the pr-construction activities on new projects:

Miniratna Category status has been granted to THDC in October, 2009. Such Miniratna PSUs are empowered to incur capital expenditure on new projects without Government approval upto Rs.500 crore or equal to their net worth, whichever is lower, as per DPE's O.M. No.18(24)/2003-GM-SL.65 dated 05-08-2005 and 18(16)/2005-GM-GL-84 dated 28-05-2007. **Action is completed.**

II. NORTH EASTERN ELECTRIC POWER CORPORATION LIMITED

Enhance financial and administrative power/ autonomy as allowed to Miniratna PSEs:

Miniratna status to NEEPCO has been concurred in by DPE subject to one of the conditions that present Board of NEEPCO would be restructured by appointment of two more non-official Directors so that the number of non-official Directors on Board of NEEPCO would be minimum one third of the actual Board strength.

Proposal for compliance of the above condition is under process. Order for grant of Miniratna status to NEEPCO will be issued after completion of the

process of filling up of two vacancies of non-official part time Directors on the Board of NEEPCO. **Action is being taken by NEEPCO and Hydel Division of Ministry of Power.**

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 8, of Chapter I of the Report]

Recommendation No. 6

GAS AVAILABILITY

The Committee have been informed that NTPC is having one naphtha based and six gas based power stations with total installed capacity of 3955 MW. The estimated gas requirement at 90% PLF for these stations is at 17.35 MMSCMD. NTPC has long term agreements with GAIL for supply of 12.93 MMSCMD gas to the six power stations and with BPCL for naphtha supply to run the plants. However, the Committee have been informed that during the year 2007-08, only 9.08 MMSCMD was supplied by GAIL and to meet the balance requirement, NTPC was forced to procure/arrange Spot Regassified Liquefied Natural Gas from oil PSUs. Even with these arrangements NTPC could operate its power plants at a PLF of around 61%.

The Committee are dismayed that the NTPC could not operate their plants at higher Plant Load Factor(PLF) which has caused loss of power generation due to under utilisation of capacity and also deprive them of the opportunity to expand the capacity of gas based plants. The Committee note that NTPC has not planned any gas-based plant on domestic gas in the near future due to its non-availability.

The Committee have also been informed that in allocation of gas by the Government, the highest priority is accorded to Fertilizer sector, and Power sector is given the second preference and Ministry have sought that in view of large shortage of power in the country, higher allocation be made to NTPC in larger public interest. The Committee concur with the views of Ministry regarding importance of power in economic development and recommend that insofar as in allocation of gas is concerned, power sector should be made at par with fertilizer sector and higher allocation be made to it by the Government.

The Committee also note that from the ongoing legal battle regarding the gas supply by Reliance Industries Limited to NTPC that commercial interest is taking precedence over national interest. In the opinion of the Committee, the Government should take early appropriate legal and legislative measures to ensure proper safeguards and to thwart such recurrences in future and protect nation's interest.

REPLY OF THE GOVERNMENT

Existing Gas based stations

- NTPC has six existing gas based stations viz Anta, Auraiya, Dadri, Faridabad, Kawas and Gandhar with capacity totalling 3,605 MW. The estimated gas requirement of these stations at 90% PLF is 17.35 MMSCMD.

- NTPC has various long term gas/ RLNG agreements with GAIL & RIL/ Niko and the average supplies have been around 11.0-12.0 MMSCMD in the past two years. NTPC bridges the demand supply gap through fallback/ spot RLNG contacts on Reasonable Endeavour 'RE' basis. The gas/ RLNG tie ups and supply status during last two years is as under:

(Figures in MMSCMD)

Sl. No.	**Gas/ RLNG**	**Contracted Quantity**	**Average Supplies**	
	Long term		2011-12	2012-13(up to Oct'12)
1	APM/PMT*	14.48	8.60	8.27
2	Non APM*	0.82	0.24	0.45
3	GAIL Long Term RLNG	2.00	1.48	1.48
4	KG D6**	2.30	1.90	0.96
	Short term			
5	Spot RLNG	RE basis	0.87	0.85
	Total		**13.09**	**12.01**

* *Actual supplies based on availability from upstream supplier i.e. ONGC*

** *Against EGOM allocated 4.46 MMSCMD KG D6 gas, 2.30 MMSCMD has been contracted. Tie up of balance 2.16 MMSCMD is under discussion*

- With the above tie ups, NTPC is in a position to meet almost full requirement of gas for its existing gas based stations. However, against the gas requirement of 17.35 MMSCMD @ 90% PLF, the actual average supply of domestic gas to NTPC Stations during 2012-13 (till Oct'12) is only 9.7 MMSCMD. NTPC had to tie up RLNG from the market to meet its balance gas requirement.

- The DC & PLF data for NTPC's gas based stations (including Kayamkulam)for the last three years & current year is as under :

Year	2009-10	2010-11	2011-12	2012-13 (Till Oct'12)
DC (%)	90.64	92.60	93.81	91.86
PLF (%)	78.38	71.77	65.22	61.46

- Since the RLNG prices are high, full generation schedule is not available from beneficiaries on RLNG. Due to this, actual PLF of NTPC gas stations is lower as compared to Declared Capacity (DC).

Future Gas Based projects (12th plan projects):

NTPC had requested Govt. for allocation of 43.375 MMSCMD of domestic gas for the future gas based expansion projects totaling 8,550 MW:

MoP vide its notification dated 14.03.2012 has stated that "***no additional domestic gas is likely to be available till 2015-16. Hence, developers are advised not to plan projects based on domestic gas till 2015-16".***

Legal issue regarding Gas supply by RIL:

Based on International Competitive Bidding for procurement of gas/ RLNG, NTPC had placed a Letter of Intent on RIL for supply of gas for 17 years which was duly acknowledged by RIL thus resulting into a binding Contract. However, RIL didn't sign the Gas Sale Purchase Agreement (GSPA). Accordingly, NTPC filed a suit in Bombay High Court against RIL for specific performance of the contract. At present, the matter is sub-judice.

Meanwhile, NTPC has requested GOI to allocate domestic gas for Kawas and Gandhar expansion projects and has informed that NTPC shall abide by the decision of EGOM regarding the quantity and price.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 11, of Chapter I of the Report]

Recommendation No. 10

CHALLENGES IN HYDRO POWER DEVELOPMENT

The Committee note that of the total power generated in the country, about 25% is from hydro power compared to the global hydro share of 14%. Out of the 36,000 MW of hydro capacity, about 4145 MW is operated by NHPC through 11 power stations. The Company has plans to add 5233 MW during XI Five Year Plan, which will augment its share to 20% of the country's total hydro electric power.

The Committee note that NHPC are executing many projects in NE Region. The Committee have undertaken visit to a project and have understood the difficulties being faced by CPSU's in terms of infrastructural challenges, logistic and locational difficulties, environmental concern, and construction and geological challenges. The Committee appreciate the achievements of NHPC which have completed some projects and despite serious difficulties have undertaken more ambitious projects in the region for the future.

The Committee also note that these PSU's also face law and order related problems, local problems, and challenges in implementation. There are also issues like payment of royalties, land/water sharing, boundary disputes between States, etc., which pose challenges to implementing agencies. The Committee desire that to resolve land/water sharing/boundary disputes arising in hydro projects, the Ministry should devise a suitable mechanism like a council or forum with the concerned States to come together for resolving of such issues. Whenever required, NHPC should explore options like Special Purpose Vehicles (SPVs), Joint Venture (JV), Public Private Partnership(PPP) etc., with States which have potential of hydropower development. The Committee are of the view that this will ensure greater

participation of State Governments in smooth implementation of hydro power projects and help address the local issues.

The Committee also recommend that Ministry of Power should interact with State governments and authorities concerned for provision of safety and security to projects and personnel working in the projects. Considering the difficult circumstances of the projects, the Committee recommend that the NHPC/Ministry of Power should provide adequate incentives to personnel working in such projects.

REPLY OF THE GOVERNMENT

The total hydro capacity added by NHPC from its 15 power stations (including two in JV of 1520 MW) is 5526 MW which is about 14% of the total hydro installed capacity of the country. Out of 5322 MW targeted in 11th Plan, three projects totaling 1150 MW (Teesta-V 510 MW, Omkareshwar, 520 MW, Sewa-II, 120 MW) have been commissioned. Besides this, two units of 11 MW each of Chutak project were completed in 11th Plan but not included in the capacity addition as these units were synchronized at partial load due to non availability of desired load. However, as of now, from three units out of total four units (11 MW each) completed w.r.t. Chutak HE Project, two units of (22 MW) have been commissioned in Nov'12

NHPC has already formed JV with Govt. of Madhya Pradesh i.e. Narmada Hydroelectric Development Corporation Ltd. in August 2000 for implementation of two hydro projects, Indira Sagar 1000 MW and Omkareshwar 520 MW. Both these projects have since been commissioned by NHPC.

Apart from that NHPC has also signed MOU with Govt. of Manipur on 14.09.2007 for execution of Loktak Downstream Project 66 MW in JV with the State Govt. The JVC (LDHCL) has been registered on 23.10.09, with a share holding of NHPC & Govt. of Manipur in the ratio of 74:26. The JV Board has started functioning. The project is presently under clearance stage.

An MOU has also been signed on 10.10.2008 amongst JKSPDC, NHPC Ltd. and PTC to develop Pakal Dul and other hydroelectric projects in the Chenab River Basin of J&K with aggregate installed capacity of 2100 MW though a Joint Venture Company. The JVC, M/s 'Chenab Valley Power Projects (Private) Limited' with a share holding of NHPC, JKSPDC & PTC in the ratio of 49:49:02, has been incorporated on 13.06.2011. All statutory clearances including MOEF clearances are available for Pakal Dul Project and have been transferred to JVC. Updated DPR of Kiru HEP and Kwar HEP for installed capacities of 660 MW & 560 MW respectively have been submitted to CEA by M/s CVPPPL

Further, Ministry of Power vide letter dated 06.06.09 has informed that Tipaimukh- 1500 MW project in Manipur shall be executed through JV among NHPC SJVNL and Govt. of Manipur. To this effect, MOU and Promoters Agreement amongst NHPC, SJVNL and Govt. of Manipur has been signed on 28.04.10 and 22.10.11 respectively. The incorporation of JVC is under progress.

GoI has also conveyed its approval for change in object clause 1a) of the

Memorandum of Association of NHPC which inter-alia allows NHPC to plan, promote and organize an integrated and efficient development of power in all its aspects through conventional and non-conventional sources in India and abroad. With this approval, NHPC will have endeavor to take up Thermal Projects in the country on its own. Presently, NHPC is exploring the possibilities for coal linkage for establishing Thermal Power Plants of 1320 MW in Bihar.

As on date, NHPC is having 15 operating power stations and 09 projects under construction. Two units out of total 4 units (11 MW each) of Chutak HE project in J&K have also been commissioned in Nov'12. To guard the operating Power Stations, NHPC has deployed 1998 CISF Personnel, 366 ex-servicemen (DGR Guards), 156 IRBn Personnel and 500 CRPF Personnel. The cost of deployment is borne by NHPC except that of Loktak Powr Station. For 09 nos under construction projects, 330 CISF, 226 ex-servicemen (DGR Guards), 354 State Police Personnel are deployed. The cost of deployment of Security personnel is borne by NHPC.

Employees posted in difficult locations in NHPC has been provided adequate incentives by granting of higher rate of compensatory allowance, special benefits like emergency passage, special leave, every year LTC in addition to normal LTC, higher insurance coverage, winter clothing in cold regions etc.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 16 of Chapter I of the Report]

Recommendation No. 14

PERFORMANCE OF NPCIL

The Committee note that NPCIL was formed in September, 1987 as a public sector enterprise under the Department of Atomic Energy with the objective of operating atomic power stations for generation of electricity in the country. The installed capacity of NPCIL is 4120 MWe. However, the Committee note that the power generated by the NPCIL is around 2000 MWe only at a plant load factor of about 50%. The main reasons for this low capacity utilization is non-availability of requisite fuel for these reactors.

The Committee note that the Indian Nuclear Power Programme based on the available uranium in the country has been estimated at an installed capacity of 10,000 MW of power production for a period of 40 years in the first phase of the three phase nuclear programme. However, due to various factors like environmental concerns and social resistance from local population, all the natural uranium resources available in the country have not yet been fully explored. The Committee recommend that the Government should address these issues in the right perspective and make necessary changes in law thereby empowering DAE to acquire the land in public interest for mining of Uranium.

The Committee note that NPCIL utilized Rs. 3692 crore out of Rs. 4700 crore in 2005-06 and Rs. 3215 crore out of Rs. 3400 crore in 2006-07 and Rs. 1775 crore out of Rs. 2698 crore in 2007-08 respectively. The Committee are concerned over the declining trend of fund allocation as well as its utilization by NPCIL over last three years. The Committee note that the Nuclear Supplier Group (NSG) Clearances may ease the availability of fuel. The Committee, therefore, desire that NPCIL should make capital expenditure plans and firm up their capacity addition in a time bound program. Also, the Committee desire that DAE should immediately step up budgetary support to NPCIL to enable them to scale up their new projects, which could not be taken up for want of fuel in the past, in the wake of the civil nuclear co-operation the country has obtained in recent months.

Reply of the Government

NPCIL's operational performance has improved significantly after 2008-09, the year in which international cooperation in this sector opened up for India. Following the fruition of international civil nuclear cooperation, fuel supply contracts with foreign countries have been entered into, and imported fuel in adequate quantities have been made available for reactors under IAEA Safeguards. There has also been an improvement in supply of indigenous uranium.

Presently, the NPCIL capacity of 4680 MW from 19 out of the 20 reactors in the country (One reactor RAPS-1, 100 MW, owned by Government is under extended shutdown since October 2004 for techno-economic assessment) is being operated at around 4000 MW as against about 2000 MW four years ago.

The details of NPCIL generation and capacity utilization during the last four years and the current year upto October 2012 are as follows:

	2008-09	2009-10	2010-11	2011-12	2012-13 till October 12
Generation (Million units)	14927	18831	26473	32455	19161
Capacity Factor (%)	20	61	71	79	80

Presently, nine NPCIL reactors with a capacity of 1840 MW are under IAEA Safeguards and use imported fuel. These are being operated at rated power. In the year 2011-12, these reactors recorded a capacity utilization of 97%.

The remaining 10 NPCIL reactors with a capacity of 2840 MW are fuelled by indigenous fuel, which is not available in the required quantity. These are thus being operated at power levels matching the indigenous fuel availability. There has been an improvement in indigenous fuel supply, leading to improvement in their capacity utilization. In the current year (upto October), the capacity Factors of these reactors ranged from 61% to 88%.

In respect of budget utilization, the details of outlay and utilization in respect of years 2009-10, 2010-11 and 2011-12 and the current year upto October are as follows:

Item	2009-10	2010-11	2011-12	2012-13 upto October
BE	1917	2925	3996	5460
RE	1796	2981	4844	-
Utilisation	2014	1865	2775	2030

The budgetary allocation and expenditure has been in line with the progress of projects and start of new projects. The utilization has been lower than the BE in 2010-11 and 2011-12 largely on account of lower expenditure in planned XI Plan new starts, due to delays in land acquisition at new sites and finalization of project proposals for LWRs apart from delay in completion of Kudankulam 1 &2 due to protests by local people.

[Department of Atomic Energy O.M. No. 6/4(2)/2008-Power/13181 dated 18-12-2012]

[Please also see comments of the Committee at Para 17, of Chapter I of the Report]

Recommendation No. 15

UNINTERRUPTED FUEL SUPPLY AND FLEXIBILITY FOR USAGE OF FUEL

The Committee note that with the clearance from NSG in place, the country is poised to get co-operation in the field of nuclear power and supply of fuel from many countries around the globe. The NPCIL being the major and significant player in the sector, would be able to source reactors and other technological requirements.

In this regard, the Committee while appreciating the need for better technological access and latest equipments for the reactors, would like to caution NPCIL and DAE that while entering into commercial agreements with global players, they should seek to ensure uninterrupted fuel supply.

The Committee desire that the Government should encourage NPCIL to acquire Uranium mines or Companies having Uranium assets abroad so that it can run the reactors without any interruption and at full capacity. The Committee also recommend that DAE should insert clauses for transfer of technology for key equipments and spares to augment technological indigenisation in the reactors.

Reply of Department of Atomic Energy :-

Uninterrupted fuel supply and clauses to ensure protection of our interests in the long term are a part of the techno-commercial agreements being negotiated by NPCIL with foreign partners. Such terms have already been incorporated in the proposal in respect of Kudankulam 3 & 4, which is under consideration of the Government. The techno-commercial discussions with M/s Areva of France, GE Hitachi Nuclear Energy and Westinghouse Electric Company of the USA in this regard are in progress.

In connection with securing long term supplies of Uranium, all options including acquiring assets abroad, as recommended by Committee, are being explored. It is planned to incorporate a Joint Venture of NPCIL and Uranium Corporation of India Limited (UCIL) specifically for acquisition of uranium assets abroad.

The projects based on foreign cooperation are proposed to be set up on technical cooperation basis. Six units at each site are planned to be set up in phases of twin units with progressively in creasing indigenous content. To begin with, the design and major equipments are planned to be sourced from the vendor country and construction, erection of equipment and commissioning carried out in India. However, a large number of equipments are planned to be sourced from within the country towards the last phase.

[Department of Atomic Energy O.M. No. 6/4(2)/2008-Power/13181 dated 18-12-2012]

[Please also see comments of the Committee at Para 20, of Chapter I of the Report]

Recommendation No. 19

EVACUATION OF POWER PRODUCED BY RENEWABLE ENERGY PRODUCERS

The Committee have been informed that the grid connectivity for power producers using Renewable energy sources is a problem area. The Ministry of New and Renewable Energy has admitted that there is a problem of evacuation of power of small energy projects. The Committee feel that this might discourage small producers because without grid connectivity, the power produced cannot be evacuated. The Committee understand that providing grid connectivity lie with the Electricity Boards/Corporation of the respective State Governments and Central Government has hardly any role. However, under the Electricity Act, the power produced by renewable energy sources can also be made available to grid connectivity.

The Committee are of the opinion that as power is a scarce commodity, it should be purchased and evacuated by the concerned agencies from the power producers without any delay. The Committee recommend that the Ministry of Power instead of abdicating its role on the issue should sensitise the states by convening meeting and by issuing necessary advisories in this regard.

Reply of Ministry of Power

Renewable energy sources require connectivity with the grid together with transmission capacity in the grid for meeting their evacuation needs. Except for the major wind generation, all the other grid-interactive renewable power gets absorbed in the local distribution network and thus require connectivity with local distribution/ sub-transmission grid level together with arrangement to sell their power either to the distribution utility in which they are embedded or to third party by availing open access in distribution system.

For the major wind generations, the transmission system is required basically for absorption of power within the State where the wind project is located for which, system connectivity and systems strengthening of the grid are implemented by the respective State Transmission Utilities. For meeting the inter-state transmission needs that may arise due to exportable surplus in the State under the conditions of maximum wind generation output, the required regional/ Inter-State transmission enhancements are implemented by the Central Transmission Utility. The transmission planning for the inter-State system as well as intra-State system is being done in an integrated manner coordinated by the CEA.

Further, it may be mentioned that necessary changes in the Indian Electricity Grid Code for facilitating the harnessing of renewable sources of energy have been carried out.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 23 of Chapter I of the Report]

Recommendation No. 23

TRANSMISSION AND DISTRIBUTION

The Committee note that power produced in a power plant is transmitted and distributed to the end users by an extensive network system created for the purpose. Power Grid Corporation of India Ltd., a Central PSU, is the notified Central Transmission Utility of the country wheels about 45% of the total power generated and remaining are managed by the State utilities.

The Committee further note that to mitigate long distance transmission losses, use of higher voltage levels for transmission are planned in the 11^{th} and 12^{th} Plan period. The Committee would like to emphasize the need for expansion of transmission and distribution system in commensuration with the capacity addition targets in the plan periods by using latest technologies. To meet long term power transfer requirement, Power Grid Corporation of India Ltd., is developing $\pm$ 800 kV, 6000 MW HVDC as well as 1200kV AC system. The Committee further note that the country possesses technology for manufacturing of cables required upto 220 kV only and cables for transmission of higher voltages cables are imported. The Committee recommend that the Ministry of Power should encourage the industry by offering suitable incentives to manufacture such cables in the country.

The Committee have been informed that the transmission and distribution loss (T&D) for the year 2006-07 was 28.26% of the total energy available for sale which is considerably on the higher side whereas the T&D loss in many countries ranges from 6% to 17% which indicates that there is a lot of scope for improvement. Further, it may be noted that the Aggregate, Technical and Commercial (AT&C) loss of the State utilities at the national level for 2006-07 was 33.07% of the total energy available for sale which includes technical loss, theft, pilferages and commercial losses due to poor metering and billing and non-realization of dues. The Committee recommend that Government should strengthen the legal framework so that offenders are properly brought to book and desire that the Government should take

effective steps for reduction of undermetering and also overdrawal of power by industries.

Another important step taken by the Government is that it launched Accelerated Power Development Reforms Programme (APDRP) with the objective of reducing AT&C losses, improving quality of supply of power and improving consumer satisfaction. The Committee have also noted that the target was to reduce AT&C losses to 15% in five years and the achievements have been mixed. The Committee have noted that the Government has approved a Restructured APDRP Plan with an outlay of Rs. 51,577 crore in the 11th Plan with focus on demonstrable performance on loss reduction. The Committee recommend that information technology solutions may be applied in this sector so as to reduce losses in distribution. The Committee recommend that the Ministry should keep a strict vigil over the progress of the plan and may entrust the supervision of the scheme to agencies like Central Electricity Authority.

The Committee are of the view that since the Central PSUs have expertise in generation and transmission, therefore, the Government should consider setting up of a distribution company under the aegis of a CPSU and entrust it to assist States in improvement of distribution system.

Reply of the Ministry of Power

The Restructured Accelerated Power Development and Reforms Programme (R-APDRP) is being implemented in two parts with the objective of reducing AT&C losses to 15% in the project areas. Part – A includes the projects for establishment of baseline data and IT applications for energy account/auditing & IT based consumer service centers. It has also included adoption of IT applications for meter reading, billing & collection, energy accounting & auditing, MIS, redressal of consumer grievances, establishment of IT enabled consumer service centers. etc. Part-A will be fully funded by Govt. of India. Rs.10,000crore have been earmarked for this purpose. Part "B " is meant for strengthening of distribution infrastructure and subject to reduction of AT&C loss levels to 15% in the project areas. Upto 50% capital subsidy will be made available under this part. Rs.40,000crore have been earmarked for Part-B (including loan component), out of which Rs.20,000 crore can be disbursed for capital subsidy.

The Power Finance Corporation (PFC) has been nominated as the 'Nodal Agency' for the operationalisation and implementation of the APDRP programme, under the overall guidance of the Ministry of Power (MoP). PFC is acting as a single window service under APDRP and coordinating with the main stakeholders involved such as MoP, APDRP Steering Committee, Central Electricity Authority (CEA), Financial Institutions, utilities and various Consultants. PFC has been expected to take the initiative for speedy and timely completion of projects and thus assist the Utilities in achieving loss reduction targets and other parameters of the scheme.

Third party evaluation

Ministry of Power will appoint Third Party Independent Evaluating Agencies (TPIEAs) through the Nodal Agency for following verification:

(a) **Base (starting) figure of AT&C loss of the project area**: The state power utility/ distribution Company shall ring fence each identified project area at the beginning of the programme. Three billing cycle data of energy inflow and outflow and corresponding revenue collected for the project area shall be furnished to the Independent Agency for verifying the base (starting) figure of AT&C loss of the project area. Part B projects will be taken up after verification of initial AT&C loss by Ministry of Power (MoP) through nodal agency.

(b) The establishment of Base line Data System (i.e. completion of Part-A projects).

(c) Yearly AT&C loss figures of project areas and State Power Utilities / Distribution Companies.

Present status of R-APDRP

- Under Part-A of the Re-Structured APDRP 1402 projects worth of Rs.5,196.50 Crore, covering all 1402 eligible towns as per the approved schemefor establishment of IT enable base line system have been approved.

- Under Part-A 63, SCADA Projects worth Rs.1,442.29 Crore, covering 63 towns out of eligible 67 towns have been sanctioned.

- Under Part–B, 1132 projects worth Rs.25,684.91 Crore for strengthening and upgrading of the sub- transmission distribution system have been sanctioned so far.

- The Ministry of Power has released an amount of Rs 6,502.10 Crore under the Restructured -APDRP programme, out which Rs 6,304.97 Crore is the loan against Part-A and Part-B projects for disbursement to state utilities and Rs197.13 Crore is grant against enabling component for implementation of R-APDRP.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 24 of Chapter I of the Report]

Recommendation No. 27

COST OF POWER

The Committee note that power is one of the key services used by all sections of the society. The cost of power is an important concern for consumers of electricity. The Committee note that the power tariff charged by the distribution companies is determined by the State Electricity Regulatory Commissions (SERC's) and includes power purchase cost, Aggregate Technical and Commercial (AT&C) losses etc. The Committee have been informed that some of the steps required to reduce the cost of

power are reduction in T&D losses, commercial losses and fuel price. The Committee are however of the view that in addition to reducing input costs, measures such as lower cost of capital and completion of projects within schedule could go a longway in reducing the cost of production of power.

The Committee desire that the Ministry of Power should press upon Ministry of Finance for concessions for power projects like lower interest rate on capital, lower tax rates and duty concessions for equipments used, etc. All these measures would reduce the cost of production of power. Transportation costs of coal can also be scrutinized for possible reduction, which will reduce the cost of coal. All these measures might lower the realization of revenue for Government, but it may well benefit a huge number of consumers and also increase the demand, playing a beneficial role in the economic development of the country. Hence, the Committee recommend that the Ministry of Power may constitute a Committee of Experts to make a cost-benefit analysis of granting fiscal incentives/concessions for power sector. As regards cost of nuclear power and renewable energy, the Committee desire that the Department of Atomic Energy and Ministry of New and Renewable Energy should look at ways of reducing the cost of power by improving efficiencies and by introduction of new technologies, economy of size and possible reduction in taxes and duties.

Reply of Ministry of Power

The Ministry of Power constituted a Committee of Experts under the Chairmanship of CMD, PFC to make a cost benefit analysis of granting fiscal incentives/ concessions for power sector vide Order No. 27/1/2009-R&R dated July 8, 2009. The Committee submitted its report on June 2, 2010 and recommended for fiscal incentives, concessions, exemptions in direct and indirect taxes and other significant policy issues.

The Sub- Committee of Group of Ministers constituted under the chairmanship of Deputy Chairman, Planning Commission to look into the financial issues of Power sector, had submitted its final report on 06.10.2010 to Hon'ble Minister of Power. The GoM on power sector issues considered the various recommendations of the Sub-Committee and adopted the report for further follow up action in its meeting held on 29.10.2010. Some of the important recommendations of the Committee of Experts also find mention in the recommendations of the Sub-Committee of GoM and the same are under consideration either through note to Cabinet Committee on Infrastructure circulated on 10.03.2011 which has not been cleared by Ministry of Finance. Tax related issues are taken up with the Ministry of Finance during Budget Session.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 27 and 28 of Chapter I of the Report]

CHAPTER V

RECOMMENDATIONS IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

Recommendation No. 7

UMPP AND NTPC

The Committee note that the Government has taken an important initiative to scale up the power generation capacity by launching the Ultra Mega Power Projects (UMPPs) which are of 4000 MW and above in size and are open for competitive bidding based on tariff cost per unit of power.

The Committee also note that NTPC being the country's premier public utility Company, also bid for the various UMPPs, but was not a successful bidder in any of the projects. The Committee were informed by NTPC that the present procurement system is subjected to the guidelines of CVC which has been a great limiting factor in participating at the competitive bidding process for UMPPs as the CVC guidelines do not allow the commercial secrecy of the bidding offers submitted to NTPC by the vendors.

The Committee note that the difficulties have been referred to CVC and CVC has responded to the issues there under. The Committee further note that CVC has now suggested NTPC for obtaining competitive pricing from empanelled vendors through limited tenders and tenders so received have been allowed to be opened confidentially by a high level Committee of NTPC officials. The Ministry have further informed the Committee that the suggestions of CVC would be considered by the Group of Directors constituted by NTPC for increasing competitiveness. The Committee feel that in the absence of proper feedback of NTPC on the stand point of level playing field vis-à-vis other private companies participating in the UMPP bidding process, the Committee would expect that early steps need to be taken to remove the bottlenecks faced by NTPC in the competitive bidding process.

Reply of Ministry of Power :-

1. During the competitive bidding for Ultra Mega Power Projects at Sasan, Mundra, Tilaiya and Krishnapattnam, NTPC participated in the Competitive Bidding for Sasan UMPP and Tilaiya UMPP only. However, NTPC was not successful bidder in the competitive bidding process. NTPC did not participate in the competitive bidding for imported coal based Mundra and Krishnapattnam projects.

2. During 320th meeting of the Board of Directors of NTPC held on 16.9.2008, a Group of Directors was constituted to examine and identify actions to be taken for increasing the competitiveness of NTPC in the competitive bidding for the power projects. The Group of Directors deliberated the issues pertaining to preparation of cost estimates; reviewing existing engineering policies and optimizing design/testing parameters. The following specific approaches have been recommended by the Group of Directors for participating in the tariff based competitive bidding of the projects:

i. Breaking the procurement packages/ Contracts for the power station to more number of supplier packages keeping in view value addition levels of contractors, likely savings and project schedule. The Package splitting should be on the basis of Equipment/ system which are not manufactured/ engineered by main supplier. Breaking down the procurement packages / contracts for the power station to more number of smaller packages with due care that the interface engineering cost are lower than the benefits obtained by adopting the above philosophy.
ii. Rationalizing the redundancies & margins in the equipment and reducing the number of buildings and control points in the power station.
iii. Support of NTPC balance sheet shall be utilized to obtain debt at most optimum conditions.
iv. The activities related to coal mines development and its operation should preferably be done departmentally.
v. Deployment of substantial part of the equity upfront to reduce the financing cost.
vi. Appropriate Terminal value of the project after its contractual life shall be considered in the financial model for arriving at the tariff quotes for competitive bidding process.
vii. Deferred capital expenditure after the commercial operation for the common station services package like Ash Dyke and other non critical/standby facilities.

Further to the finalization of the Competitive Bidding Process for the Tilaiya UMPP, NTPC has submitted the response to the Request for Qualification (RFQ) bidding documents for the Orissa UMPP (to be set up at Bhedabahal) on 01.08.2011. The RFQ evaluation results are awaited. NTPC has also purchased the Request for Qualification (RFQ) bidding documents for the Chhattisgarh UMPP (to be set up at Surguja). NTPC would be submitting competitive bid for these projects as and when the bids for these projects are required to be submitted.

[Ministry of Power O.M. No. H-11021/1/2009-Parl. dated 17.12.2012].

[Please also see comments of the Committee at Para 14 of Chapter I of the Report]

New Delhi
20 March 2013
29 Phalguna 1934(S)

JAGDAMBIKA PAL
Chairman,
Committee on Public Undertakings.

APPENDIX

COMMITTEE ON PUBLIC UNDERTAKINGS
(2012-13)

MINUTES OF THE TWENTY FIRST SITTING OF THE COMMITTEE

The Committee sat on Tuesday, the 19 March, 2013 from 1500 hrs to 1530 hrs in Committee Room 'E', Basement, Parliament House Annexe, New Delhi.

PRESENT

Shri Jagdambika Pal - Chairman

MEMBERS

Lok Sabha

2. Shri Hansraj Gangaram Ahir
3. Shri Bansa Gopal Chowdhury
4. Dr. Mahesh Joshi
5. Shri Shailendra Kumar
6. Dr. (Smt.) Botcha Jhansi Lakshmi
7. Shri Vilas Muttemwar
8. Shri Ponnam Prabhakar
9. Shri Nama Nageswara Rao
10. Dr. Prabha Kishore Taviad

Rajya Sabha

11. Shri Anil Desai

SECRETARIAT

1.	Shri A. Louis Martin	Joint Secretary
2.	Shri M.K. Madhusudhan	Additional Director

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2. At the outset, the Chairman welcomed the Members to the Sitting of the Committee. The Committee then took up Memoranda Nos. 3 to 7 containing following draft Reports:

(i). Action taken by the Government on the Observations / Recommendations contained in the Thirty-fourth Report (Fourteenth Lok Sabha) on Physical and Financial Performance of Power Generating PSUs – A Horizontal Study.

(ii). XXXX XXXX XXXX.

(iii). XXXX XXXX XXXX.

(iv). XXXX XXXX XXXX.

(v). XXXX XXXX XXXX.

3. The Committee approved the Memoranda and adopted the draft Reports without any modification and authorized the Chairman to present these Reports after getting them factually verified from the concerned Ministries / Departments.

The Committee then adjourned.

XXXX Matter not related to this Report.

ANNEXURE I

Annexure to the reply of Recommendation No. 24

BUREAU OF ENERGY EFFICIENCY					
Review of performance during 2007-08					
S.No.	Scheme	BE	Amount released to BEE	Physical Target	Achievement
1	Bachat Lamp Yojana	6.75	3.25	Preparation of Programme of Activities (POA) for registration under the CDM Executive Board	POA prepared and validator appointed
2.	SDA's	7.55	17.55	Prepare Energy Conservation Action Plans	Prepared for 28 States.
3.	SMEs	3.80	0.00	Under preparation	NIL
4.	Institutional Strengthening of BEE	37.15	0.00		Scheme withdrawn in 2008-09
5.	Energy Conservation Building Code & Existing Building	1.40	1.40	Capacity Building of professionals and architects Facilitating Energy Efficiency in Govt. buildings	Training programmes were conducted. Development material for introducing a course on ECBC in Architecture & Engineering colleges
6.	Standards & Labeling	12.75	22.75	Introducing voluntary standards for TFLs/AC & Refrigerators, conducting and awareness campaign and appointing RITES for check testing	-Labeling programme for TFLs, ACs and Refrigerators introduced
					-Awareness campaign conducted
					-RITES appointed for check testing
	Total	69.40	44.95		
In 2007-08 physical targets achieved and resulted in saving of electricity of 3731.5 MU and an avoided capacity generation of 623.1 MW.					
Review of Performance during 2008-09					
1.	Bachat Lamp Yojana	14.40	7.57	Obtaining approval of CMD Executive Board for pilot projects in AP and Haryana. Distribution of CFLs.	-Approval obtained -6.3. lakh CFLs distributed
2.	SDA's	23.71	23.71	• Finalize proposals of states	-23SDA's submitted their proposal based on the Action Plans.
				• Identification of demo projects	-Demonstration projects identified
3.	Energy Conservation Building Code & Existing Building	2.80	2.80	Facilitate Energy Efficiency in buildings and promotion of ESCOs.	-56 Architects empanelled
					-35 ESCO shortlisted and accredited by ICRS & CRISIL. Investment grade audits initiated in 35 central Govt. buildings and in 400 buildings in the states through SDAs.
					-BEE signed an MOU with PTC to implement these projects under the Energy Efficiency Financing Platform.

4.	Agricultural and Municipal DSM	12.01	3.00	Obtaining EFC approval for the scheme and initiating preparatory work	EFC approval obtained towards te end of the year
					Ag DSM
					-6 states selected for implementing pilot projects. First pilot projects launched in Solapur.
					Mu DSM
					-Situation analysis of 171 urban local bodies in 23 states was conducted
5.	Small and Medium Enterprises (SME)	14.22	3.00	To obtain EFC approval	Approval of EFC obtained towards the end of the year
				To initiate investment grade audits for 10 units in each of the 25 clusters	25 SME clusters short-listed and energy audits initiated.
6.	Standards & Labeling	11.22	21.22	Voluntary labeling scheme to be expanded to included other appliances and equipments	Ceiling fans, Agriculture pump sets, LPG Stoves, Motors, Colour TV and Electrical geyser introduced on a voluntary basis
7	Institutional Strengthening of BEE	3.29	0.00		Scheme withdrawn
8.	Contribution to State Energy Conservation Fund	4.24	0.00		Scheme under preparation
9.	Energy Conservation Awareness Scheme of MoP	10.00	28.69	Energy conservation Awards for industries and commercial establishment, Painting Competition and media publicity	368 industrial units which participated had an annual savings of Rs. 1858 crores with an avoided capacity of 325 MW. 7 lakhs students participated in painting competition.
	Total	**100.00**	**89.99**		
In 2008-09 physical targets achieved and resulted in saving of electricity of 6528.15 MU and an avoided capacity generation of 1504.97 MW. Thus the total avoided capacity for the last two financial years is 2127 MW. The fuel saving are nearly 1%					
Review of performance during 2009-10					
1.	Standards & Labeling	3.74	3.74	Regulations for making Standards & Labeling Programme mandatory for Refrigerators, Air conditioners, Tube light and Distribution Transformers	Notification has been issued and these appliances will be made mandatory with effect from 7.1.20
2.	Energy Conservation Building Code & Existing Building	4.20	5.70	Star labels for 50 Government office building to be issued	Applicants for 75 buildings received so far of which 62 were considered and after scrutiny 50 have been awarded
				Energy Conservation Building Code (ECBC) User Guide to be launched	Launched by Secretary Power on 22.07.09
3.	Bachat Lamp Yojana	13.15	1.50	Programme of activities (POA) under CDM to be approved by the National Coordination Committee in MoEF	Approved by National Coordination Committee in MoEF

4.	SDA's Strengthening Programme	8.15	8.15	Report on assessment of energy savings potential in states to be completed	Report has been completed by the National Productivity Council
5.	SMEs	16.10	5.50	Award of energy audit studies in 18 SME cluster	Energy audit studies awarded in 25 SME clusters
6.	Agriculture & Municipal DSM	13.41	10.00	Initiation of energy audit in 4 states	Energy audit awarded in 4 states
7.	Contribution to SECF	23.25	23.25	Circulation of EFC Memo	To be circulated shortly
8.	Energy Conservation Awareness, Awards & Painting Competition Scheme	18.00	18.00	Media campaign	Media Campaign Competed successfully Award and Painting Competition held successfully
				National Energy Awards and Painting Competition to be held	
9.	National Mission Enhanced Energy Efficiency	38.00	0.00	Approvals to be obtained and activities under mission to commence	PM's Council on Climate Change accorded in principal approval. EFC memo circulated Energy Efficiency Services Ltd. To be setup shortly.
	Total	**138.00**	**75.84**		

Avoided capacity generation achieved in 2009-10 is 2868.01 MW

Review of performance during 2010-11

S.No.	Scheme	BE	Amount released	Physical Target	Achievement upto 31.1.2011
1.	Standards & Labeling Programme	9.00	9.00	Finalizing of rating plan for vehicles, CFL, HVAC systems, UPS/Inverters, Office Automation products and other large refrigeration systems, Check testing of equipments	Washing Machine introduced on a voluntary basis and Computer laptop in final stage for introduction 1. Under training program for retailers, more than 850 salesmen got trained. Awareness programs are regularly being conducted. Check testing in under progress for Room air conditioner, geyser, refrigerator, motor, pumps.
2.	Energy Conservation Building Codes (ECBC)	2.80	2.80	-Enhancing the pool of ECBC expert Architects-EOI, simplified compliance procedures for state & local bodies	-A Pool of 45 ECBC expert architects has been empanelled.
				Capacity building of state & local government personnel	Workshops undertaken to sensitize various Govt. Departments.
				Promotion of ESCOs	Till date 89 ESCOs have been empanelled
3.	Bachat Lamp Yojana	6.00	6.00	Coverage of entire country in a phased manner based on DISCOM areas POA to be submitted for DNA approval to CDM Executive Board after validation & stakeholder consultation Estimated 6.5 crores CFLs to be distributed	The CDM Executive Board has registered the BLY PoA on 29th April 2010. 20 CPAs of Kerala and 07 CPAs of Karnataka have been forwarded to the DOE for CPA validation 16 states have initiated the implementation of BLY scheme.

					200 lacs CFLs have already been distributed in various States of India.
4.	SDA Strengthening Prgramme	12.00	12.00	To enhance institutional capacity of the SDAs Demonstration projects to be implemented Energy Conservation Action Teams (ECATs) are being encouraged in the states	-Activities of the SDAa are being monitored -545 buildings identified by 26 SDAs. DPRs of 360 buildings have been prepared -Financial support has been provided for implementation of 45 demonstration projects to 25 SDAs -LED Village Campaign competed in 13 States
5.	Designated Consumers and SMEs Programme	6.49	5.25	Energy Efficiency & technology gap assessment in 25 SMEs clusters	179 nos DPRs on energy efficiency technologies prepared for 25 SME clusters
				Preparation of cluster specific manual on Energy conservation measures in 25 SME clusters	60 nos detailed energy audit in 16 SMEs clusters
				160 nos detailed energy audit in 16 SMEs clusters	
6.	Agriculture DSM & Mu DSM	8.37	3.66	-Business model linked to subsidy reduction being evolved -Self of bankable DPRs to be prepared- 139 ULBs for Mu DSM. In Ag DSM, 5 pilot projects (1each in the States of Maharashtra, Gujarat, Rajasthan, Punjab & Haryana) will be implemented through Discoms to stimulate the market. Awareness & outreach to local & municipal bodies	**<u>Ag DSM</u>** Business model prepared for 6 pilots in 5 states. 6 DPRs prepared, 2 DPRs under preparation, 10 Awareness Programmes conducted for farmers. **<u>Mu DSM</u>** Review of 92 DPRs completed and DPR submission process is underway, Work Order issued to 31 ULBS Awareness workshops conducted in 7 municipalities.
7.	Contribution to SECF	22.26	22.26	-The scheme will provide contribution to SECF after it is notified by states and will be pari-passu with the contribution made by the states	Rs. 32.00 crores released to 16 SDAs from FY 2009-10 till 31st December 2010
8.	Energy Conservation Awareness, Award & Painting Competition Scheme	18.94	18.94	National Awards to Industry establishment for achieving energy savings	Awards and Painting Competition completed 592 unit participated in 2010 award. 15.6 lakh students participated in painting competition Phase-I&II awareness campaign through DAVP completed.
				Organization of painting competition for school children all over the country Awareness campaign through print visual and electronic	
9	National Mission for Enhanced Energy Efficiency	125.00	108.30	Specific energy consumption norms for 8 sectors Setting up of trading platform for PAT	Baseline data collected for last 5 years (2005-06 to 2009-10) of 8 industrial sectors. Data compilation and verification has been completed by NPC for

				Operationalization of Perform, Achieve and Trade (PAT) scheme being one of the 4 new initiatives of the NMEEE	establishing the baseline specific energy consumption Draft report on Guarantee Fund (PRGF) and Venture Capital Fund (VCF) has been obtained and are under review. Draft reports of the study on "Institutional Mechanism for Issuance of e-Scerts and trading mechanism" from PXIL has been received and being reviewed. Baseline data collected for last 5 years (2005-2006 to 2009-10) of 563 designated consumers identified in 8 industrial sectors.
	Total	**210.86**	**188.21**		
Avoided capacity generation achieved in 2010-11 upto 31st Mar 2011 is 2882 MW					
Review performance during 2011-12					
S.No.	**Scheme**	**BE**	**Amount released**	**Physical Targets**	**Achievements**
1.	SME	3.09	3.09	-150 DPRs will be prepared in 29 clusters. -Availability of financing by capacity building of banking personnel in matters like project appraisal of performance contracting -Proposed 5 Demo in SME Clusters -25 Workshops for Financial Institutions Local Service Providers and Industrial Associations.	-370 DPR prepared in 25 Clusters and peer reviewed by ISTSL (Indian SME Technology Services ltd. -To be taken up in XIIth Plan -To be taken up in XIIth Plan -Completed Workshops for LSP/Technology Providers in 25 SME clusters
2.	Energy Conservation Building Code (ECBC) Scheme	1.29	1.29	Capacity building and enhancing the pool of ECBC expert Architects	A Pool of 52 ECBC expert architects/ consultants has been empanelled who have assisted various government projects in meeting ECBC compliance
				Training material for various stakeholders	Standard Training module has been developed covering components of ECBC
				Simplified compliance procedures for state & local bodies to assist them to implement provisions of ECBC code	Web enabled conformance tools have been developed and model building bye-laws incorporating provisions of ECBC have been developed
				Capacity buildings of state & local government personnel through training and building simulations	Capacity building workshops/ conferences have been organized in various states covering different climatic zones.

				Strengthening of testing infrastructure in buildings	Building Energy Performance Lab has been set up in CEPT university, Ahmedabad. Labeling programme for Windows has been developed
				Promotion of energy audit through ESCOs and Implementation of EE measures on Performance contracting mode	Mandatory energy auditing in states (Madhya Pradesh, Kerala, and Gujarat have been initiated. Energy audits have been conducted for Parliament House Complex, Sirifort Auditorium and Institute for Defense Studies and Analysis (IDSA). Standard templates have been developed for RfP, DPRs, Performance Contracts and M&V etc.
				Rating of ESCO to improve investor confidence	A panel of 114 ESCOs has been empanelled
3.	SDA Strengthening Programme	8.88	8.82	Establishment/ Maintenance of Internet platform of SDAs. Publicity awareness in States. Maintenance of list of designated consumers and list of Energy. Managers and Energy Auditors. Organizing workshops/ training programmes. Implementation of Energy Efficient Demonstration Projects. Preparation of DPRs under IGEA of the Govt. Building. Implementation of LED. Demonstration project under LED village campaign. Domestic/International training programme for the SDA personnel. Preparation of State wise sector specific action plans.	Financial support provided to the 23 SDAs for activities under Annual Action Plan Financial support provided to 6 SDAs for Preparation of State-wise Sector Specific Annual Energy Savings Plan 26 SDAs have developed their internet platform to interact with various stake holders. Publicity & awareness campaigns on EE have been organized by SDAs.20 SDAs have celebrated Energy Conservation Day on 14th Dec, 2011. Half yearly regional meeting with other SDAs for exchange of information about lessons learned on state level implementation of EC Act have been organized by the SDAs New demo projects on EE street lights have been taken up in Chhattisgarh, Orissa, Delhi, Nagaland, Goa Mizoram, Arunachal Pradesh, Andhra Pradesh and Punjab. New demo projects on revamping drinking water system taken up in Odisha. 15 ongoing demo projects

					have been completed till December, 2011-12. 12 ongoing LED village campaign have been completed during 2011-12 The International training programme for the SDAs was organized in Germany during July-August 2011 .The second International training programme ECIN11 at Tokyo, Japan for the SDA personnel is scheduled during 7th-16th February, 2012 National Workshop on Best Practices of SDAs held at New Delhi on 21st – 22nd March 2012. 24 SDAs participated in the workshop.
4.	Contribution to SECF	20.49	20.49	The scheme will provide contribution to SECF after it is notified by states and will be pari-passu with the contribution made by the states.	Financial support provided to the State Govt./UT Administration of Bihar, Puduchery, Jharkhand and U.P. as 1st installment after they created their SECF and finalized the rules & regulation to operationalize the same.
					Financial support provided to the State Govt. of Haryana, Himachal Pradesh, Karnataka, Kerala, Odhisa and Punjab as 2nd installment after the respective State Govt. have provided the matching contribution.
					An amount of Rs.49.00 lakhs was disbursed to the SECF of Andhra Pradesh as 2nd installment towards balance amount of the previous financial year.
5.	Municipal Demand Side Management (MuDSM) Programme			Shelf of bankable DPRs to be prepared for 139 ULBs for MuDSM	Shelf of bankable DPRs prepared for 134 ULBs for MuDSM, others could not be taken up due to various force majeure causes.
				Awareness & outreach to local & municipal bodies	Interactive meetings involving ULB officials conducted in 38 ULBs.
				Manual for MuDSM being developed with standards contract documents to enable easier implementation	Tenders documents prepared for 4 ULBs to facilitate them in the bidding process.
6.	Agriculture Demand Side Management	2	0.59	Workshops for utility employees and various stakeholders	More than 26 open house sessions for farmers had been conducted for creating awareness among farmers

					for Ag DSM project
					Stakteholders consultation held in state in MP,AP and Karnataka
					Capacity building of utility employees in 5 selected DISCOMs of 3 states:Workshop and discussion sessions were conducted for DISCOM officials of Pachim Gujarat utility (Guj),Madhya Gujarat utility (Guj),Uttar Haryana (Haryana),PSPCL (Punjab) & JVVNL Rajasthan.
				Preparation of 5 DPRs in 5 new DISOMS. Creation of pool of designated energy auditors for M&V purpose	DPRs for 5 DISCOMS in the State of Karnataka, A.P & M.P has been prepared.
					Completed
7.	NMEEE	110.35	29.57	Baseline Energy Audit of DCs in 9 sectors(about 70% of total)	Baseline energy Audit of 543 industries from 8 sectors have been completed (about 88% of total) Note: This total no. of industries are DC's as well as Non-DCs.
				Creation of M&V system	Formulation of M& V system is under discussion with the technical committees of each sectors
				Operationalization of PRGF and VCF	Ministry of Finance has approved the rules on PRGF and VCFEE and sent to Ministry of Power for issuance.
				Conducting consultation and awareness workshop	23 nos. of PAT notification workshops are planned all over the country to disseminate the information about the target setting methodology and the PAT rules. (21 nos. of Workshops have been conducted during June- August, 2012.)
				Creation of an web-based energy monitoring system	The PAT-Net portal (online facility for submission of information by DCs, Energy Managers, Accredited Energy Auditors, and SDAs) is under preparation.
				Creation of pool of designated energy auditors for M&V purpose	Accreditation of energy auditor is under progress after the selection of such auditors empanelment of accredited energy auditors / firms will be taken up.

				Review of EA reports and incorporating in target setting approach	Energy Audit reports are being reviewed by the Energy Professionals. Total 463 nos. of report have been submitted to EESL for review.
				Upgradation of professional staffing in BEE for NMEEE	Additional officials and staff have been appointed for NMEEE
				Monitoring and tracking of energy usage pattern of DCs	DC's are submitting Form-1 (energy consumption and production related details) to BEE for every financial year and it is being reviewed by BEE.
				Operationalization of PAT scheme	**Additional Achievement:** Rules and Targets under the PAT scheme are approved by Minister of Power and the scheme is launched on 30th March, 2012. Now notification is available on the website.
8.	Standards & Labeling Programme	39.05	28.31	Continuation of awareness campaign	Awareness campaign has been done at various parts of the country through print and electronic media.
				Check testing-Independent Agency	Check-testing for all equipment covered under S&L program have been done through independent agencies i.e. RITES and EESL.
				Finalization of rating plan for boilers, office automation, ballasts, inverters and inverter batteries	Star rating plan for boilers, office automation, ballasts and inverters finalized. The rating plan for inverters batteries are being reviewed by the technical committee.
9	Bachat Lamp Yojana	6.85	0.00	• Coverage of entire country in a phased manner based on DISCOM areas • POA to be submitted for DNA approval to CDM Executive Board after validation & stakeholder consultation • Estimated 6.5 crores CFLs to be distributed	▪ The BLY scheme is registered as SSC-PoA in the UNFCCC. ▪ 50 CPAs have been included in the PoA. ▪ 37 CPAs have been implemented successfully and 28 million CFLs are distributed. ▪ CFLs have also been distributed in Haryana, ChhattisgarhMaharashta and Himachal Pradesh under Stand Alone Projects. ▪ An avoided generation capacity of 324.3 MW has been achieved by

					the BLY scheme- I till December 2011.
10.	Energy Conservation Awareness Scheme of MOP	20.45	20.42	Energy Conservation Awards for Industries and Commercial establishment for saving energy Organization of painting competition for school children all over the country Awareness Campaign through print, visual and electronic media	644 industrial units which participated had an annual savings of Rs. 2390 Crores with an avoided capacity of 504 MW. Approx. 20.72 Lakh students participated in painting competition

Avoided Capacity generation achieved upto December 2011 is 2959 MW (Verified)

Physical Targets for 2012-13

S.No.	Scheme	BE	Amount released upto Oct. 12	Physical Targets
1.	Standards & Labeling Programe	20	NIL	Continuation of awareness campaign
				Check testing-Independent Agency
				Launch of voluntary programme on ballasts, office automation and inverters.
				Market assessment study for color TV, Water Heater and direct cool refrigerator for mandatory labeling
				Monitoring of laboratory capacity building programme
2.	SDA Strengthening prgramme	25.70	21.55	Providing financial support to SDAs for the following: Implementation of energy efficiency measures to showcase the potential of energy efficiency through demonstration projects -Carrying out LED village campaign -Workshops/training programs involving energy professionals -Analysis and survey of the impact of energy conservation activities -Publicity/awareness on energy efficiency in the states -Maintenance and updatation of internet platform
3.	Contribution to SECF	10.00	-	-The scheme will provide contribution to SECF after it is notified by states and will be pari-passu with the contribution made by the states.
4.	Municipal Demand Side Management (MuDSM) Programme	1.59	-	-Hiring of a retainer consultant manage the programme -Assessment & conversion of DPRs and upgradation of MuDSM portal
5.	Designated Consumers and SMEs Programme	6.5	0.00	Sector Specific Approach for Energy Efficiency and Technology Up-gradation through Replication of DPRs
				Technical Assistant and Capacity Building
				SMEs Product Labeling Promotion Scheme
				Project management
6.	Energy Conservation Building Code (ECBC) Scheme	2.00	1.00	Adoption & Facilitation of ECBC Implementation in states through National / state Capacity building conferences/ meetings
				Administration & Enforcement of scheme through capacity building through training of design professional

				Facilitation of Demonstration projects for ECBC implementation & retrofitting
				Energy efficiency in existing buildings through retrofitting & Star rating programme
				Awareness campaign
7.	Bachat Lamp Yojana	1.5	Nil	▪ Maintain the institutional structure of Coordinating and Managing Entity (CME) ▪ Provide technical assistance for monitoring and verification of individual projects ▪ Continuous engagements with the State Electricity Distribution Companies ▪ Workshops on Awareness of BLY ▪ Inclusion of new projects under the registered PoA. (Depend upon the market scenario) ▪ Continuous engagements with the State Electricity Distribution Companies ▪ Formulating guidelines and processes for bulk procurement of LED bulbs and other areas of the scheme
8.	Energy Conservation Awareness Scheme of MOP	10	10	- Energy Conservation Awards for Industries and Commercial establishment for saving energy -Organization of painting competition for school children all over the country - Awareness Campaign through print, visual and electronic media
9.	NMEEE	180	61	Notification to all DCs about PAT scheme
				Conducting PAT notification workshops
				Identification of new DCs in existing sectors
				Study about deepening and widening of PAT scheme
				Empanelment of Accredited Energy Auditors for verification and check-verification
				Development of trading rules and setting of trading platform
				Workshop with Financial Institutions to promote financing in energy efficiency projects
				Operationalization of Partial Risk Guarantee Fund (PRGF) and Venture Capital Fund (VCF) for Energy Efficiency
				Institutionalization of Super –Efficient Equipment Program (SEEP)
10	Agricultural DSM	2		Carrying out Impact Assessment Study for Ag-DSM program in 11th plan.
				Continuation of Solapur project project activities & total project pumpsets installation will be completed by January 2013.
				Stakeholder consultation session for formulating Ag-DSM scheme.
				One workshop for capacity building of manufacturers
Targeted Avoided capacity generation for the year 2012-13 is 950 MW at baseline of 2010-11				

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ANNEXURE II

(Vide para 3 of the Introduction)

Analysis of the action taken by Government on the Observations / Recommendations contained in the Thirty-fourth Report (Fourteenth Lok Sabha) of the Committee on Public Undertakings (2008-09) on "Physical and Financial Performance of Power Generating PSUs – A Horizontal Study".

I.	Total number of recommendations	27
II	Recommendations that have been accepted by the Government [vide recommendations at Sl. Nos**.** 3, 4, 5, 8,9, 11,12,13, 16, 17, 18, 20, 21, 24, 25 and 26] Percentage of total	16 59.3%
III	Recommendations which the Committee do not desire to pursue in view of Government's replies [vide recommendation at Sl. No. 22] Percentage of total	1 3.7%
IV	Recommendations in respect of which replies of the Government have not been accepted by the Committee [vide recommendations at Sl. Nos.1, 2, 6, 10, 14,15,19,23 and 27] Percentage of total**.**	9 33.3%
V	Recommendations in respect of which final reply of Government is still awaited. Percentage of total	01 3.7%