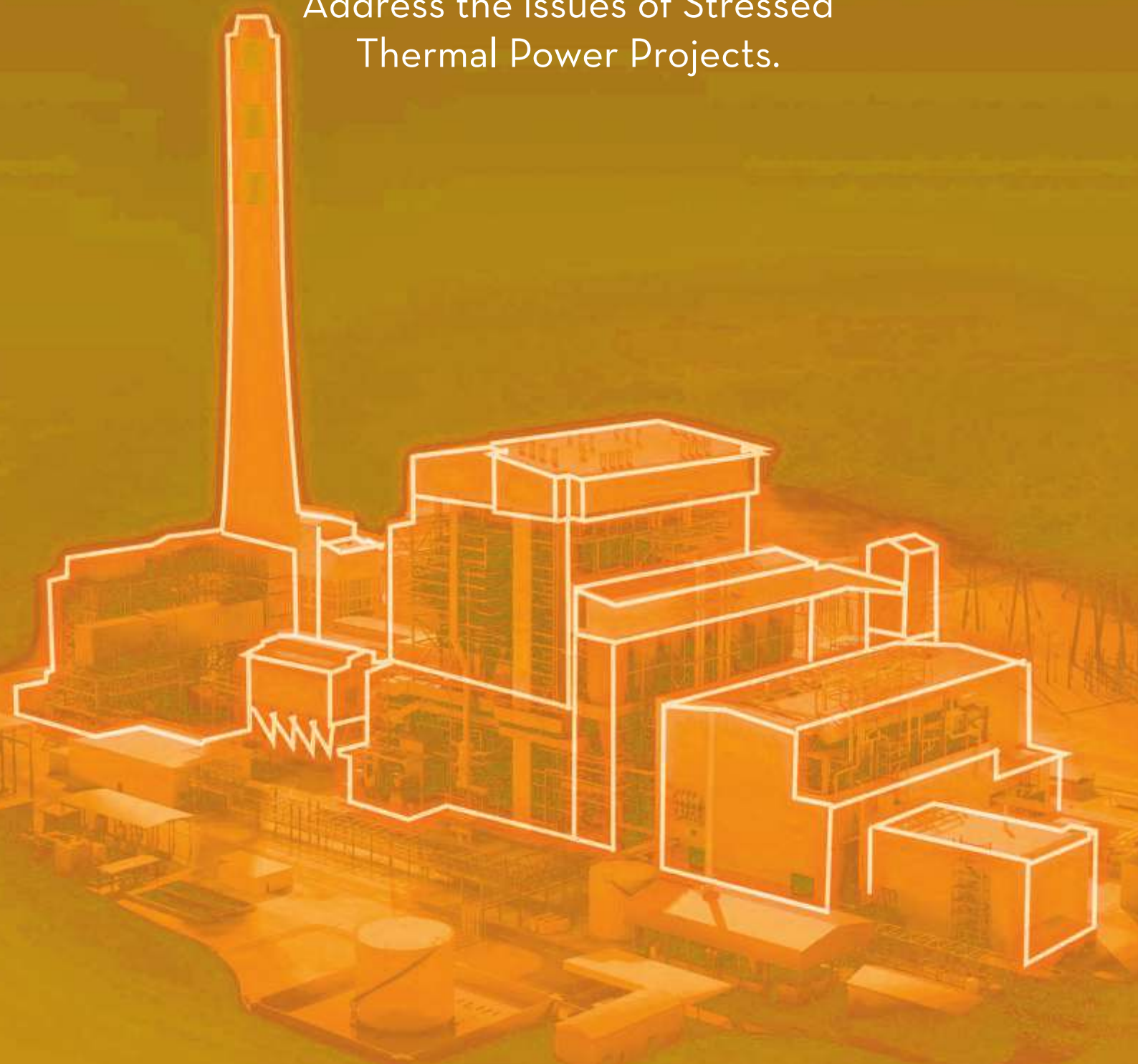




Report of the
High Level Empowered Committee
to
Address the issues of Stressed
Thermal Power Projects.



November 2018



P K Sinha
Cabinet Secretary

Cabinet Secretariat,
Rashtrapati Bhawan,
New Delhi



FOREWORD

The Government of India had constituted a High Level Empowered Committee (HLEC) on 29th July 2018 to consider issues related to Stressed Thermal Power Projects. The HLEC held meetings on 31st August, 14th September, 28th September and 06th November 2018.

The report of HLEC, prepared after detailed deliberations, is an attempt to alleviate the prevailing stress in the thermal power sector. Stress in power sector may not only lead to depletion of the value of investments already made but may also prevent further flow of funds into the sector. The HLEC has endeavoured, through its recommendations, to improve financial viability and operational efficiency of the stressed assets.

The HLEC believes that with the implementation of the recommendations outlined in the Report, issues affecting many of the Stressed Thermal Power Projects are likely to get resolved and the investments made can be put to productive use.

Date: 12th November 2018



(P K Sinha)



**High Level Empowered Committee (HLEC)
On
Stressed Thermal Power Projects**

The Government of India had constituted a High Level Empowered Committee (HLEC) on 29th July 2018 to address issues related to Stressed Thermal Power Projects with specified Terms of Reference. The HLEC, after due deliberations, submits its report herewith on 12th November 2018.

**Sd./-
P.K. Sinha
(Chairman)**

**Sd/-
Ajay Kumar Bhalla
(Member – Convener)**

**Sd/-
Rajiv Kumar
(Member)**

**Sd/-
Subhash Chandra Garg
(Member)**

**Sd/-
Dr. Inderjit Singh
(Member)**

**Sd/-
Dr. M.M. Kutty
(Member)**

**Sd/-
Girish Pillai
(Member)**

**Sd/-
Dr. P.V. Ramesh
(Member)**

**Sd/-
Rajnish Kumar
(Member)**

**Sd/-
Rajeev Sharma
(Member)**

**Sd/-
Sunil Mehta
(Member)**

**Sd/-
Sandeep Bakshi
(Member)**





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Executive Summary

Power sector has seen tremendous growth in terms of capacity addition during the last few years. The growth in capacity addition outpaced the growth in demand. This mismatch in demand and supply has primarily led to stress in the power sector. Several factors such as, capacity addition without tied-up Power Purchase Agreement (PPA) with Distribution Companies (DISCOMs), coal supply issues, inability of DISCOMs to pay to generators, regulatory issues, inability of promoters to infuse equity, tardy implementation etc. resulted in inability of these coal based power plants to service their debts.

Department of Financial Services provided a list of 34 coal based Thermal Power Projects, mostly private, totalling 40,130 MW which were considered 'Stressed' by Ministry of Power on March 22, 2017. In pursuance of the orders dated 31st May 2018 of the Hon'ble Allahabad High Court, the Secretary Financial Services, Ministry of Finance, submitted a report on 17th July 2018, on stress in the Power Sector.

Subsequently, the Government of India constituted a High Level Empowered Committee (HLEC) on July 29, 2018 chaired by the Cabinet Secretary to address the issues of stressed thermal power projects. Reserve Bank of India (RBI) was invited to nominate a senior representative to the Committee but it declined to join the deliberations.

The government had earlier taken many steps to resolve the issue of stress in the Power Sector. These include providing fuel linkages under SHAKTI, pilot scheme for procurement of 2500 MW power, rationalization of coal escalation index, directions to CERC for time bound disposal of change in the law petitions, launching of an App PRAAPTI to bring more transparency in the way payment is done by DISCOMs to the generators, reforms in the distribution system, such as, UDAY, SAUBHAGYA etc. Further, to reduce the cost of generation, the government has introduced third party sampling of coal, rationalization of coal linkages etc.

Based on the discussions during the meetings, the HLEC has made recommendations on the following:

- Allocation and supply of coal for short term PPAs,
- Coal supply in case of termination of PPAs due to default in payment by DISCOMs,
- Procurement of bulk power by a nodal agency against pre-declared linkage,
- PSUs to work as aggregator of power,
- Increase in quantity of coal for special forward e-auction for power sector,
- Linkage provisioning at notified prices without bidding,
- Annual Contract Quantity (ACQ) for coal to be determined based on efficiency,
- Retirement of old & inefficient plants,
- Monitoring of payments by regulator,
- Payment Security Mechanism to IPPs,
- Issuing advisory to DISCOMs, CIL, PGCIL, MoEF for not cancelling PPA, FSA and transmission connectivity, environment clearance /forest clearance respectively, even if the project is referred to National Company Law Tribunal (NCLT) etc.

The Committee has clearly spelt out that the net revenues generated by the suggested measures shall be used entirely for servicing debt in the first place.

CHAPTER 1

BACKGROUND

The Electricity Act which came into force in 2003, brought in changes in the power sector which were revolutionary in many ways.

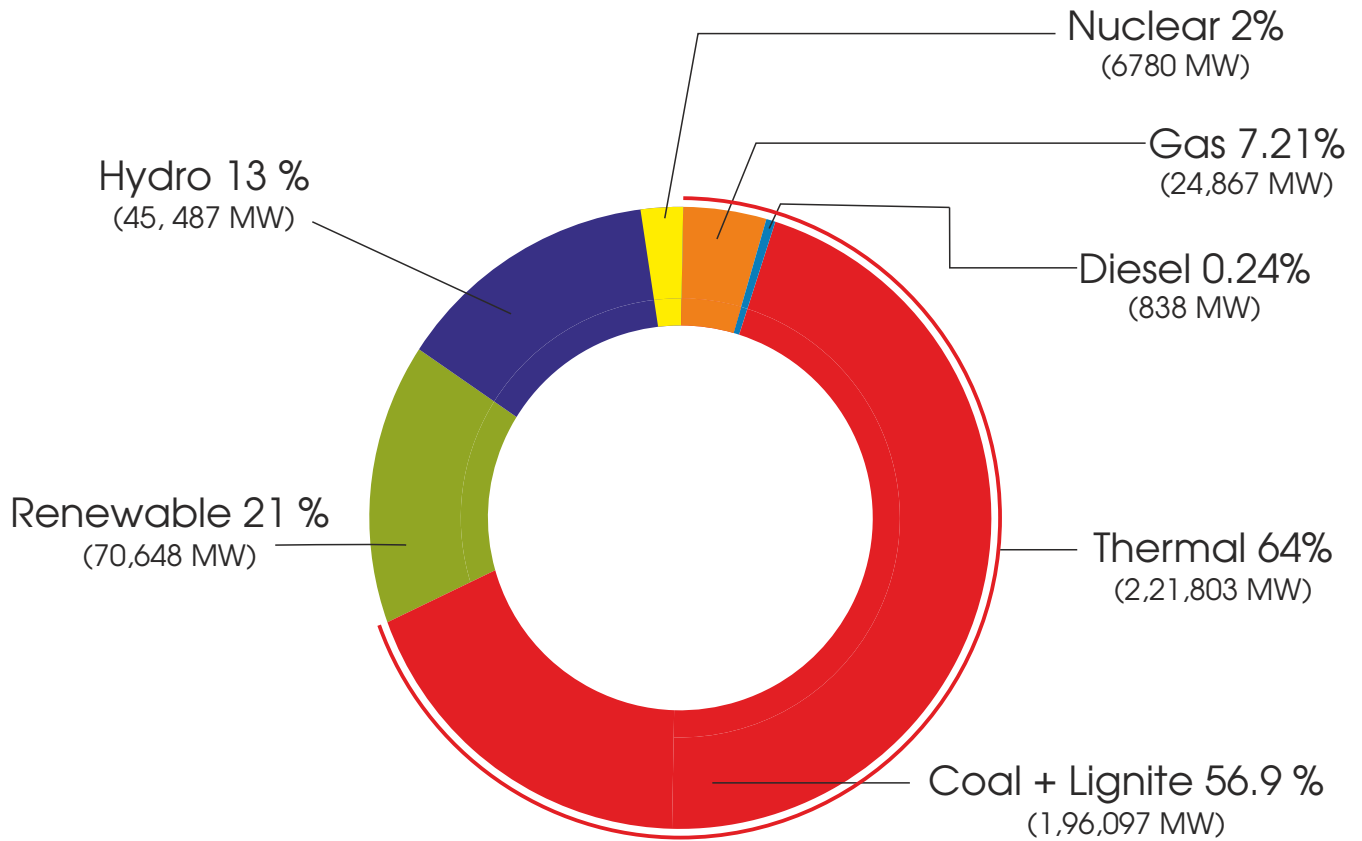
- a) Removed the need for license for generation projects
- b) Encouraged competition through international competitive bidding
- c) Identified transmission as a separate activity
- d) Encouraged more participation from public and private sector.

These developments encouraged investment in the power sector. As a result, all India Installed Capacity as on July 31, 2018 stood at 3,45,547 MW; of which 1,57,135 MW i.e. 45.48 per cent was installed in the private sector.

Coal is the single largest source of energy for electricity production since 2,21,803 MW is installed in thermal (including Coal + Lignite). Further, 45,457 MW is from hydro, 6,780 MW is from nuclear and 70,648 MW is from renewable energy.



Power Generation Capacity as on 30.09.2018 - 344,718 MW



Sources	Thermal	Renewable	Hydro	Nuclear	Total
Share (MW)	2,21,803	70,648	45,487	6,780	344,718

Figure 1: Percentage segregation of all India installed power generation capacity

India's power sector has seen tremendous growth in terms of capacity addition during the last few years. According to the recent report published (June 2018) by the Central Electricity Authority of India, the overall peak demand and energy demand across India has respectively reduced from 8.98 per cent & 8.71 per cent in 2012-13 to 2.0 per cent & 0.7 per cent in 2017-18.

Source 1: Central Electricity Authority



Energy Demand & Supply Deficit

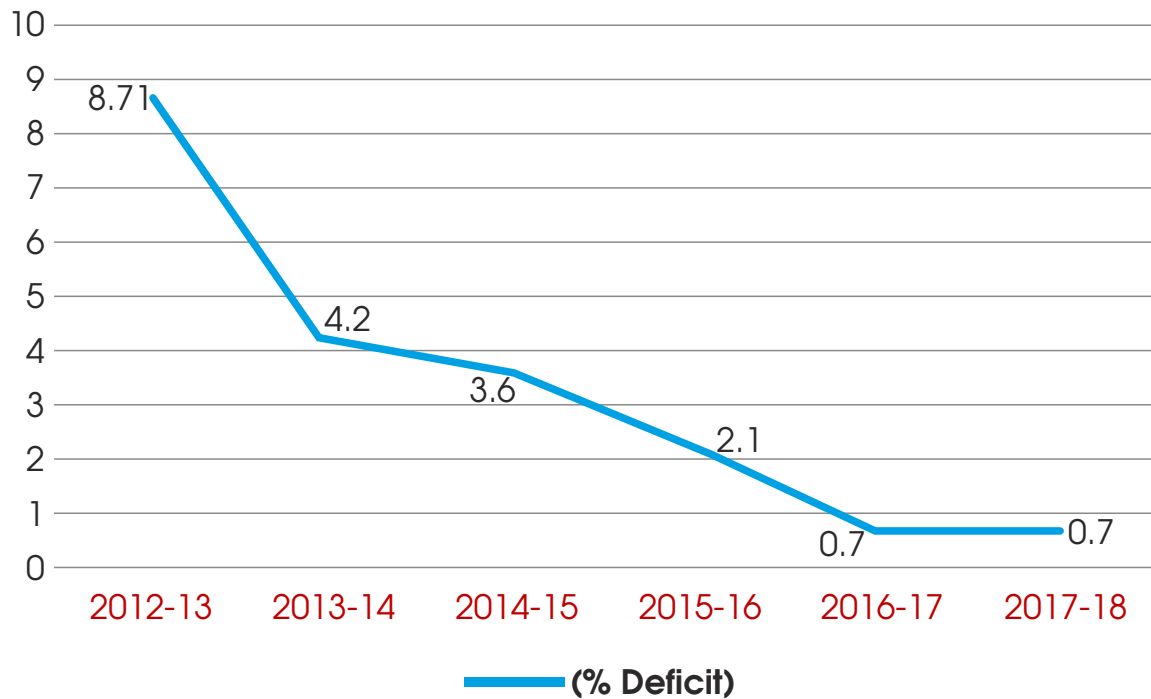


Figure 2: All India Power supply-demand position (2012-13 to 2017-18)²

Moreover, during the twelfth five year plan period (2012-17), cumulative capacity addition of 99,209 MW was achieved against a target of 88,537 MW. This increase in capacity has outpaced the growth in demand, resulting in a declining trend of all India Plant Load Factor (PLF). The overall PLF of thermal units have fallen from 78.8 per cent in 2006-07 to 59.88 per cent in 2017-18. This indicates under-utilization of thermal capacity.

Over the last ten years, the major share of capacity addition has come from private sector, which grew from 13 per cent in March 2007 to 44 per cent in March 2017. The contribution of the private sector was 77,891 MW, whereas the public sector contributed 73,402 MW. This aggressive capacity addition has led to a widening gap in the overall demand and supply situation.

However, an upsurge in demand has been observed, which is growing at more than 6 per cent per year. This is further expected to rise because of various government interventions like Saubhagya, Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Power for All, etc. Also, given the fact that the per capita power consumption for 2016-17 was 1122 units against the world's per capita consumption of 3110 units, the demand for power is expected to grow in the years to come.

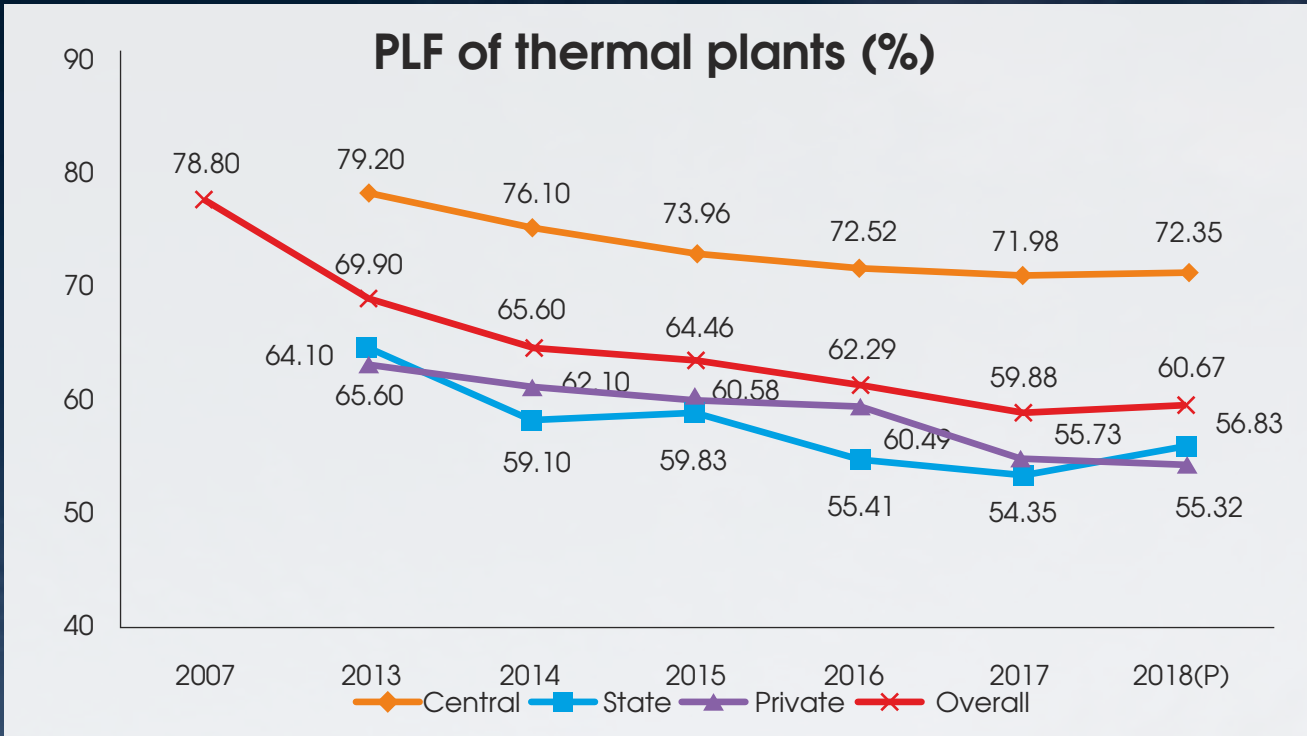


Figure 3 : Trend of PLF of Thermal plants in India (2007 to 2018)³

Source 3: Central Electricity Authority

Source 2: Growth Of Electricity Sector In India From 1947-2018
Ministry of Power, Central Electricity Authority (June 2018)



CHAPTER 2

OVERVIEW OF THE STRESSED ASSETS

High capacity addition without tied-up Power Purchase Agreement (PPA) with distribution company (DISCOM), coal supply issues, inability of DISCOMs to pay to generators, regulatory challenges, inability of promoters to infuse equity, tardy implementation have all been responsible for stress in some coal based power plants to serve their debt.

Department of financial services (DFS) has provided a list of 34 projects, which have been identified as stressed projects. The following table captures an overview of these projects –

Table 1 : Overview of stressed assets

Total No. of projects (Nos.)	34
Total stressed capacity	40,130 MW
Commissioned capacity	24,405 MW
Under construction capacity	15,725 MW
PPAs tied up	18,516 MW
PPAs not tied	21,614 MW
Linkages available	29,190 MW
Linkage required	10,940 MW
Resolved project's (08 nos.) capacity	8,820 MW

Stressed Assets

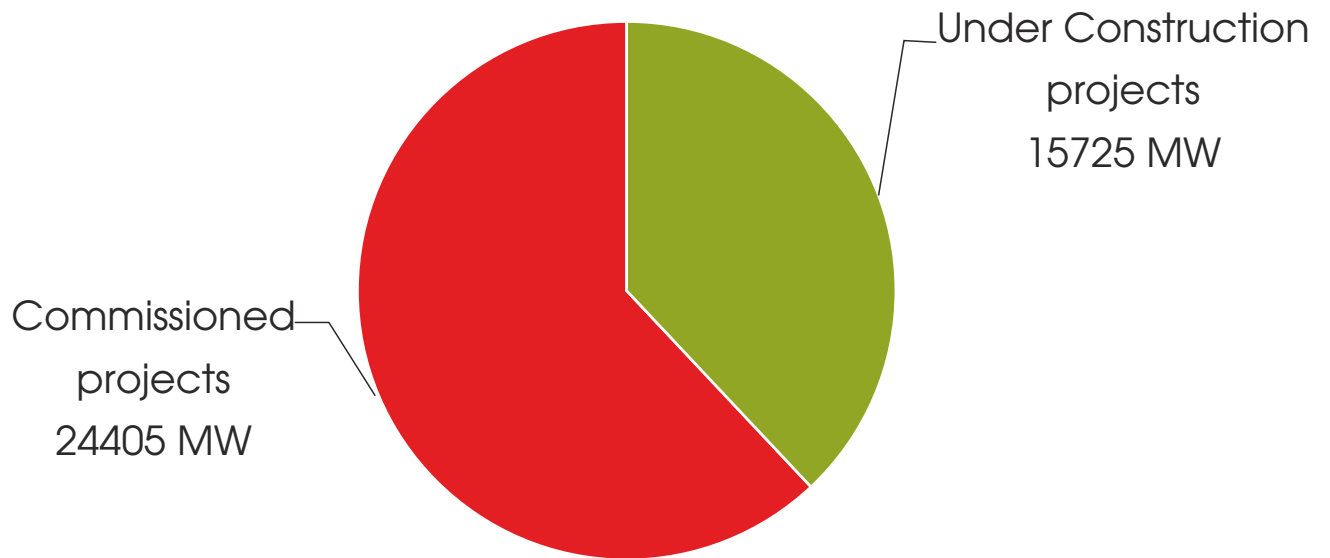
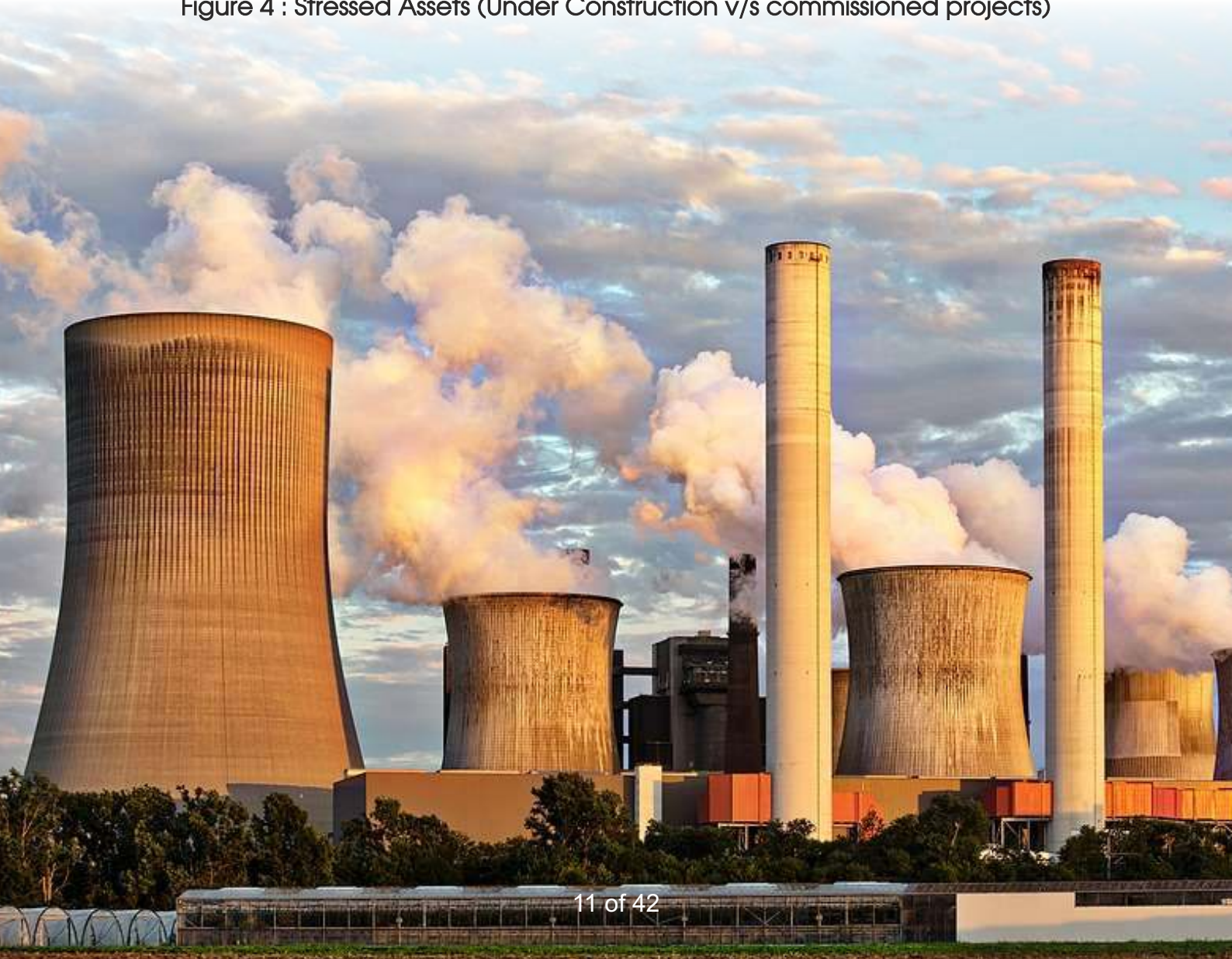


Figure 4 : Stressed Assets (Under Construction v/s commissioned projects)



KEY REASONS FOR



STRESS IN POWER SECTOR

6
Issues related
to Banks/FIs

7
Aggressive tariffs quoted
by bidders in competitive
bidding process

8
Regulatory and
contractual disputes

9
Legal issues related to
auctioned coal mines

10
Other Operational
Issues

01

Issues related to coal supply

After the cancellation of 204 coal mines by the Hon'ble Supreme Court in 2014, many of the power projects became stranded without arrangements of adequate fuel supply. In addition, many projects were setup without firm coal linkages from Coal India Limited (CIL) leading to high cost of generation.

02

Slow growth in power demand

Lower than anticipated growth in power demand coupled with a scenario of surplus supply has resulted in under-utilization of thermal power capacity. In addition to this, large quantum of untied PPAs, termination / non-operationalization of PPAs, low off-take/ difficulties in selling costlier power are also causing stress in thermal power projects.

03

Delayed payments by DISCOM's

Delay⁴ in realization of receivables from DISCOMs impairs the ability of project developers to service debt in a timely manner and leads to exhaustion of working capital. In some cases, the DISCOM's have pressed for renegotiating terms of PPA. This, coupled with non-payment of penalties / Late Payment Surcharges (LPS) is causing financial stress for such projects.

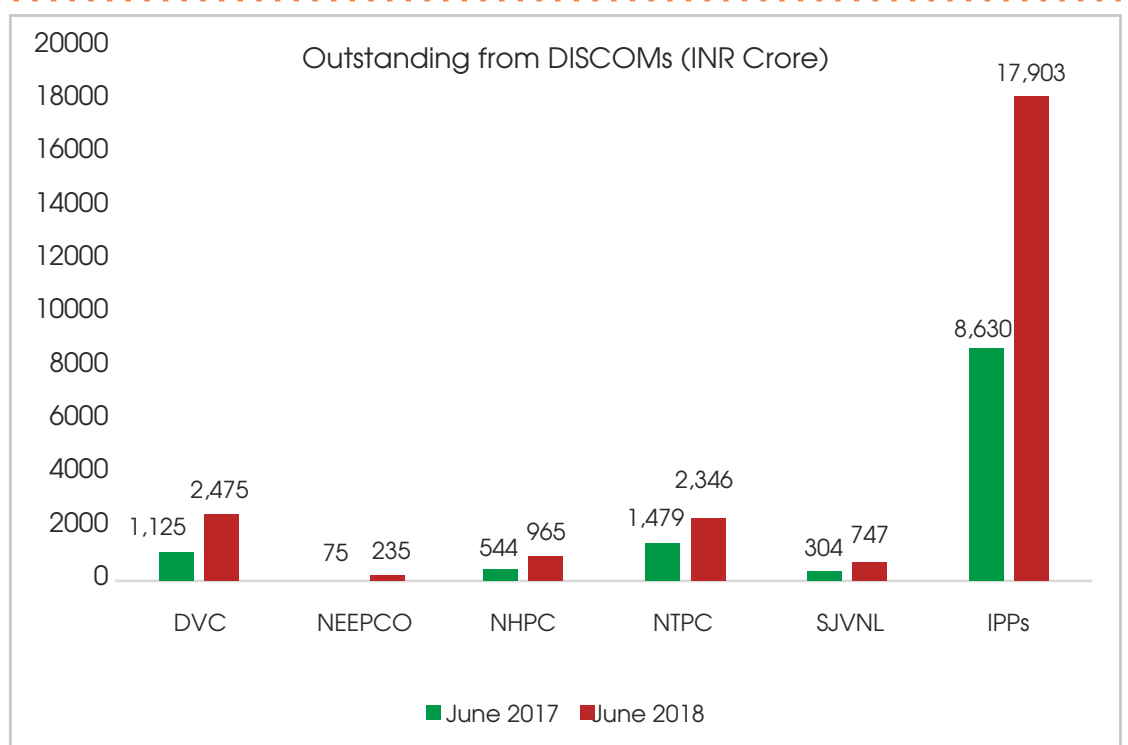


Figure 5: Yearly outstanding (INR crore) from DISCOMs (2017 – 2018)

04

Inability of the promoter to infuse equity and service debt

Many projects got delayed for a variety of reasons leading to project cost overruns. The promoters were often unable to infuse additional equity in the project. At times, promoters embarked on the project without sufficient financial capacity.

05

Slow implementation of project by the developers

In many projects, there have been delays in project implementation and resultant cost overruns.

06

Banks/ Financial Institutions (FI's) related Issues

- i. Delay in disbursement / non-agreement amongst FIs/ non-compliance with decisions taken in Joint Lenders Forum (JLF) regarding sanction of additional term loan for various reasons such as provisioning requirements by RBI have led to stalling of projects
- ii. Delays in approval of working capital by lenders has adversely impacted project viability which generally happens due to exhaustion of sectoral exposure limit of individual banks. Even if the working capital is sanctioned, the limit is set based on a cover period of 2-3 months which is insufficient considering the delays involved in payment by DISCOMs. If the project is stressed, as a matter of policy, the banks do not sanction working capital loan even though the amount of working capital may be insignificant compared with advances already made.

07

Aggressive tariffs quoted by bidders in competitive bidding process

Many private sector project developers have quoted very aggressive tariffs, which were not sustainable in the long run causing equity erosion and inability to service their debt obligations



08

Regulatory and contractual disputes

In certain cases, due to the delay in approval of tariff petitions and approval of additional tariff under 'Change in Law' provision in PPA, projects are unable to recover cost of generation which adversely impacted financial viability.

09

Legal issues related to auctioned coal mines

Many bidders have re-bid for coal mines very aggressively. Post bidding, some successful coal mine allottees raised certain issues relating to bidding conditions, in courts of law, which has led to legal complications. Such projects are now entangled in legal issues causing stress in the linked power projects.

10

Other operational issues

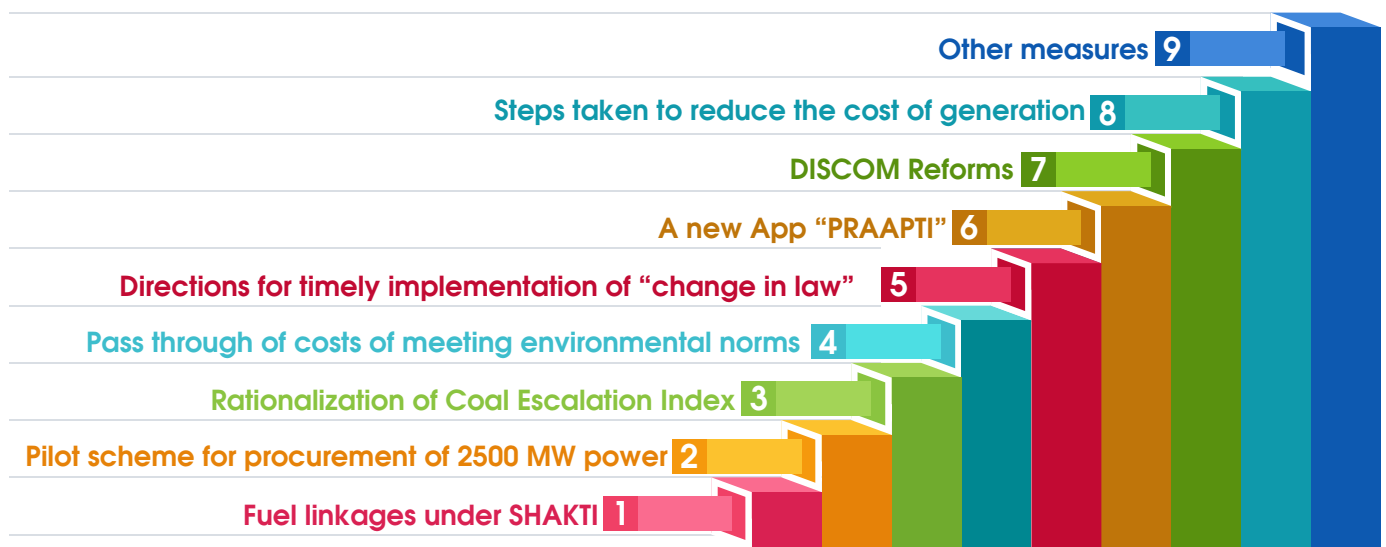
In certain cases, issues like delay in land acquisition, inadequate transmission system, statutory clearances etc. have led to cost and time over-run in the projects which have affected the project viability.



CHAPTER 3

STEPS TAKEN BY GOVERNMENT

The Government has taken many steps to resolve the stress in Power Sector:



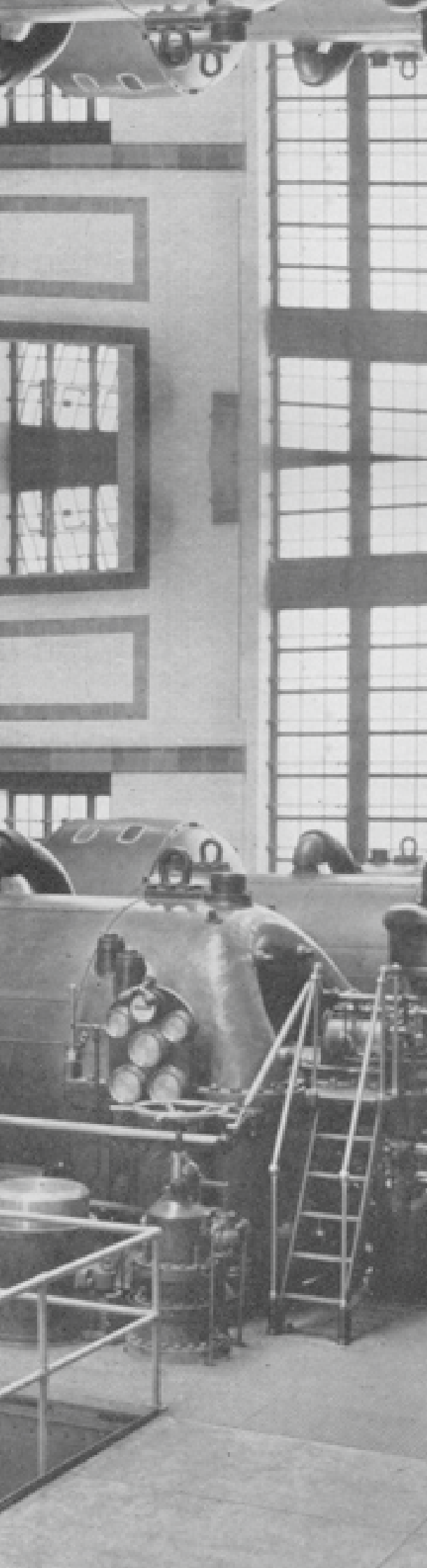
I: Fuel linkages under SHAKTI

The government has approved a new coal linkage allocation policy on May 2017, named SHAKTI (Scheme for harnessing & allocating koyla transparently in India). Under the scheme, auction of coal linkages for Independent Power Producers (IPPs) with PPAs based on domestic coal has been conducted on September 12, 2017. IPPs having PPA but no coal linkages have participated in the auction and linkages have been granted to 11549 MW capacity (10 projects) including five stressed projects of total 8490 MW capacity, and these projects have been resolved. Under B(i) provision of SHAKTI scheme, linkages have been granted to States/ Central Gencos for 870 MW for 10 projects. Further, Coal India Limited (CIL) may grant future coal linkages on auction basis for power producers/IPPs without PPAs that are either commissioned or to be commissioned. All such power producers/IPPs may participate in this auction and bid for premium above the notified price of the coal company PPA under clause B (iii) of SHAKTI scheme.

II: Pilot scheme for procurement of 2500 MW power

In order to address the problem of lack of Power Purchase Agreements (PPAs) in the country, The Ministry of Power has notified a scheme for procurement of 2500 MW on competitive basis for a period of 3 years from the generators with commissioned projects having untied capacity. Under the scheme, PFC Consulting Ltd. invited bids for 2500 MW of power wherein PTC India Limited acted as an aggregator of demand for purchase of power from the power projects and sell that power to states utilities. Bids have been received from 7 (seven) projects for aggregate power of 1900 MW. Demands from DISCOMs/States for 2100 MW have been received by Power Finance Corporation (PFC). Letter of Award (LOA) has been issued for 550 MW so far. This will potentially improve the financial viability of the power projects and help developers in serving the debt obligations.





III: Rationalization of Coal Escalation Index

Some generators were facing under-recoveries due to anomalies in the coal escalation index published by Department of Industrial Policy and Promotion (DIPP). Now, CERC vide notification dated June 1st, 2018 has amended the guidelines for determination of tariff by bidding process of power procurement by distribution licensee to remove those anomalies and adopt a new series of Wholesale Price Index (WPI) in non-coking coal (G7-G14). On the basis of the new Notification of CERC, w.e.f. April 1, 2017, the generators will be eligible for revised tariff calculated on the basis of new series of WPI for non-coking coal (G7 – G14). This will largely take care of the issues of under recovery of the generator's dues.

IV: Additional cost implication to meet the new environment norms

The Ministry of Power has issued direction to Central Electricity Regulatory Commission (CERC) under section 107 of The Electricity Act, 2003 on May 30, 2018 stating that the additional cost implications due to installation or up-gradation of various emission control systems and its operational cost to meet new environment norms, after award of a bid or signing of a PPA, as the case may be, shall be considered for being made pass through in tariff.

V: Allowing pass-through of any change in domestic duties, levies, cess, and taxes imposed by the government

Tariff policy 2016 provided that any change in domestic duties, levies, cess & taxes imposed by Central/ State/ UTs etc. after award of bids, leading to corresponding changes in cost, may be treated as a change in law and allowed as pass through subject to PPA provisions and approval of appropriate Commission. Further, Ministry of Power vide letter dated August 27, 2018 issued directions

to CERC for time bound determination of per unit impact of such change in law in 30 days of filing of petition. MoP directives also provide that the impact of such change in law shall be effective from the date of change in law, and that CERC order in one case shall be applicable ipso facto in all similar cases.

VI: DISCOM Payment Monitoring App PRAAPTI

A new App PRAAPTI (Payment Ratification and Analysis in Power Procurement for Bringing Transparency in Invoicing of generators) has been launched by the Ministry of Power to bring more transparency in the payment system by DISCOMs. The generators are being actively encouraged to feed in their invoicing and payments data in the portal. The portal should also help DISCOMs and GENCOS to reconcile their outstanding payments and would eventually be expanded to include transmission licensees and generators of RE as well.

VII: DISCOM Reforms

The efforts of Ministry of Power for initiating reforms in the distribution system, viz., UDAY have also started bearing fruit. AT&C losses have come down from 20.7 per cent in FY 2016 to 20.2 per cent in FY 2017. The same is likely to come down even further to less than 20 per cent in FY 2018. Similarly, the difference between ACS and ARR has come down from INR 0.59/kWh in FY16 to INR 0.41/kWh in FY 17. It is likely to come down further to below 0.25/kWh in FY 2018.

The improvement of financial health will ease out the situation of payment to the generators and increase the purchasing power of the DISCOM to buy more power.

VIII: Steps taken to reduce the cost of generation

Reduction in the generation cost is likely to improve the ability of DISCOMs to purchase more power and thus create more demand for power generators. The government has taken various steps to reduce the cost of generation, which are as under:-

- a) The introduction of third party sampling by Central Institute of Mining and Fuel Research (CIMFR)

The Government has started third party sampling of coal at both loading and unloading end of coal supply from CIL to Generators. There has been considerable improvement in the quality of coal supplied by the Coal India Limited. Due to improvement in coal quality and improvement in the efficiency of plants, there has been a reduction of 6-8 per cent on an average in specific coal consumption by coal based thermal power plants.

- b) Coal linkage rationalization

The coal linkages have been rationalized to optimize the cost of transportation of coal and thus reducing the cost of generation. NTPC alone has saved INR862 crore in the year 2017-18 approximately.

Flexible utilization of domestic coal has also resulted in substantial savings of generation cost. Annual saving attributed to NTPC plants alone is INR 135 Cr.

Re-grading of mines by coal controller has resulted in savings of 686 Cr to NTPC alone for the year 2017-18.

These savings in generation cost have been passed on to the DISCOMS.

IX: Other measures

The Ministry of Power vide DO letter dated July 9, 2018 has requested Chief Secretaries of all the States to direct DISCOMS of their respective states to clear the dues of the power producers (including IPPs) as per the time schedule provided in the PPAs.

The above measures undertaken by the Government of India are likely to ease the stress on generation projects.



CHAPTER 4

FORMATION OF HIGH LEVEL EMPOWERED Committee (HLEC)

The Government of India constituted a high level empowered Committee on July 29, 2018 to address the issues of Stressed Thermal Power Projects, with composition of the Committee as under:

Table 2: Members of HLEC

i.	Cabinet Secretary	Chairman
ii.	Chairman Railway Board	Member
iii.	Secretary, Department of Economic Affairs	Member
iv.	Secretary, Department of Financial Services	Member
v.	Secretary, Ministry of Power	Member (Convener)
vi.	Secretary, Ministry of Coal	Member
vii.	Secretary, Ministry of Petroleum & Natural Gas	Member (Co-opted)
viii.	CMD, State Bank of India	Member
ix.	CMD, Power Finance Corporation	Member
x.	CMD, Rural Electrification Corporation	Member
xi.	CMD, Punjab National Bank	Member
xii.	CMD, ICICI Bank	Member

I: Terms of reference of the Committee

- (i) To assess the nature of stressed assets with a view to resolving the crisis and maximizing the efficiency of investment.
- (ii) Changes required in fuel linkage/ allocation policy/ other modes to facilitate supply of fuel to the stressed power plants.
- (iii) To facilitate sale of power by these stressed power plants.
- (iv) Suggest changes required in regulatory framework/administrative measures to facilitate faster disposal of tariff petitions/disputes and ensure interim payments during the pendency of the disputes before APTEL and other courts.
- (v) Ensure timely payments by the DISCOMs, suggest payment security mechanism for IPPs
- (vi) Changes required in the provisioning norms/Insolvency and Bankruptcy Code (IBC) to facilitate restructuring of the stressed assets including the changes required in Asset Restructuring Company (ARC) Regulations.
- (vii) Any other measures proposed for revival of stressed assets so as to avoid such investments becoming NPA

II: Status of deliberations held

The Committee conducted its meetings on 31st August, 14th September, 28th September and 6th November 2018 which were chaired by the Cabinet Secretary. Based on the discussions during the meetings, the Committee made recommendations which have been detailed in the next chapter.



CHAPTER 5

RECOMMENDATIONS

1. Recommendations for Coal allocation/supply

1.1 Coal Linkage for short term PPA

At present, many coal based power plants have Fuel Supply Agreements (FSA)/Letter of Assurance (LoA) but do not have medium term/long term PPAs. In the absence of long/medium term PPAs, these plants are not able to operate because linkage coal cannot be used against short term PPAs. In recent past, few States have invited bids for procurement of power under long/medium term PPAs as they want to refrain from the fixed cost which they will have to incur in case of medium/long term PPAs. The Committee further discussed that the power exchange price is currently reigning at a very high level and has touched around INR 18/kWh or more (Source – IEX).

The Committee after deliberations came to the conclusion that if power is sold through short term PPAs or in Day Ahead Market (DAM) through a transparent bidding process, this would benefit the consumers by helping in enhancement of supply and reduction of prices. Therefore, there should not be any restriction on sale of power through DEEP portal for short term or in Day Ahead Market (DAM) through power exchange. But, for this to be effective, operational details of DEEP portal mechanism need to be spelt out.

Further, Ministry of Coal flagged the issue of handling cases where the plants do not have any PPA and want to avail linkage without specific /

Linkage coal may be allowed to be used against short term PPAs and power be sold through Discovery of Efficient Energy Price (DEEP) portal following a transparent bidding process.



firm end use commitment.

The Committee recommends that Ministry of Coal and Ministry of Power may work together to resolve this issue so as to enable availability of short term linkage coal for some minimum period (say 3 months). Net revenues generated in this manner shall be entirely used for servicing debt in the first place.

1. Recommendations for Coal allocation/supply...

1.2 Coal Supply in case of termination of PPAs due to Payment default by DISCOMs:

One of the major reasons for stress is the delay in payments by the DISCOMs to the generators. This adversely affects their liquidity and ability to service the debt and to operate the plant as they are not able to make payment for the procurement of coal and meet other operating expenses. Though, there is a provision for termination of PPAs in the event of default of payment by DISCOMs, the generators are unable to exercise the option because, in absence of a valid PPA, they will lose the coal linkage and Long Term Open Access (LTOA) for transmission.. Consequently, it will not be possible for them to operate the plant unless they are able to find another buyer on an immediate basis for the sale of power through long/medium term PPA because linkage coal is allowed only to be used for power supplied under long/medium term PPAs.

Under the current arrangement, they cannot use linkage coal to supply the power to DISCOMs/other buyers through short term PPAs/exchange. Therefore, the Committee recommends that such plants may be allowed to use linkage coal for supply of power through short term PPAs using DEEP portal or power exchange for a maximum period of 2 years or until they find another buyer of power under long/medium term PPA, whichever is earlier. This will help the plants to continue operations and service the debt. This will also help in inculcating a sense of discipline amongst the DISCOMs regarding timely payment to generators for procurement of power. Net revenues generated in this manner shall be entirely used for servicing debt in the first place.

A generator should be able to terminate PPA in case of default in payment from the DISCOM with the facility to use linkage coal for short term PPAs for a period of maximum of 2 years or until they find another buyer of power under long/medium term PPA, whichever is earlier.



1. Recommendations for Coal allocation/supply...

1.3 Procurement of bulk power by a nodal agency against pre-declared linkages:

Substantial capacity is also stressed/ stranded because there are limited number of long/medium term PPAs available. In recent years, there have been very few bids by the DISCOMs for procurement of power in long /medium term. Under the new policy for allocation of coal linkage (SHAKTI), there is a provision for aggregation of demand by a nodal agency for more than one State. Ministry of Power has designated Power Finance Corporation (PFC) as a nodal agency for this purpose. PFC has written to all States to indicate their requirement of power. However, there has not been much response from them.

In this regard, a minor modification may be made to SHAKTI policy to enable the nodal agency to invite bids for procurement of bulk power for medium term for 3-5 years. These bids may be invited by nodal agency in appropriate tranches against pre-declared linkage by CIL. The nodal agency may offer the procured power to the DISCOMs for signing PPAs. Bids may be invited against pre-declared linkage at pre-decided locations indicated by the Ministry of Coal. The advantages of this are:

- (i) Coal supply to generator is assured and
- (ii) Payment of the generator is secured because payment will be routed through nodal agency which will bear the risk of delay/default in payment by the DISCOMs.

Therefore, the tariff discovered under such scheme is likely to be competitive and the DISCOMs may find such tariff attractive and

A nodal agency may be designated which may invite bids for procurement of bulk power for medium term for 3 to 5 years in appropriate tranches, against pre declared linkage by Coal India Limited (CIL).



affordable. It may encourage the DISCOMs to procure power through this route and ensure PPAs for the generators including those with stressed assets. The Committee recommends that Ministry of Power (MoP) may work out the details in this regard. Net revenues generated in this manner shall be entirely used for servicing debt in the first place.

1. Recommendations for Coal allocation/supply...

1.4 PSU to act as an aggregator of power.

NTPC has tied up PPAs with several DISCOMs across India. These PPAs include power capacity that is yet to be commissioned. The Committee recommends that NTPC can act as an aggregator of power to procure power through transparent competitive bidding process from such stressed power plants and offer the same to DISCOMs, till such time as their own plants/units are commissioned.

In order to meet the fuel supply for such plants, the Committee recommends to use bridge linkage if coal linkage is not available for such plants. Also, NTPC may be able to meet partial fuel supply from its own basket of linkages / coal blocks.

This will not only enable DISCOMs to meet their power demand but will also support the stressed generators to commence operation. Such an approach can be a win-win situation for DISCOMs and the stressed power plants.

Therefore, the Committee recommends that the Ministry of Power may consider the proposal and bring out a scheme on these lines. Net revenues generated in this manner shall be entirely used for servicing debt in the first place.

NTPC can act as an aggregator of power, i.e., procure power through transparent competitive bidding process from such stressed power plants and offer that power to the DISCOMs against PPAs of NTPC till such time as NTPC's own concerned plants/units are commissioned.



1. Recommendations for Coal allocation/supply...

1.5 Increase in quantity of coal for special forward e-auction for power sector:

Ministry Of Coal may earmark for power, at least 60 per cent of the e-auction coal, and this should be in addition to the regular coal requirement of the power sector.



In the recent months, the quantity of coal earmarked for special forward e-auction for the power sector has reduced considerably as compared to the earlier years. On the other hand, greater quantity of coal has been earmarked for spot auction. Due to less availability of coal in special forward e-auction for power sector, the premium for this bidding has gone up substantially. As a result, the cost of generation has also increased causing financial stress to the generators. The Committee therefore recommends that Ministry Of Coal may earmark for power, at least 60 percent of the total coal meant for e-auction (including spot auction and special forward e-auction). This gap can be bridged by reducing concurrently from the spot e-auction quantity. The increase in supply of coal for forward e-auction will be in addition to regular requirement of linkage coal for the power sector and the requirements of other sectors.

1. Recommendations for Coal allocation/supply...

1.6 Linkage to be provided at notified prices without bidding

Under the present policy for allocation of coal linkage, linkages are granted through the process of bidding as para B (iii) of SHAKTI policy. The generator is required to procure the PPAs within a period of 2 years from the date of grant of linkage. Under the tariff policy notified by Ministry of Power, power can be procured only through the process of competitive bidding. Therefore, the generator has to first bid for linkage and then bid for procurement of PPA. This exercise exposes the generator to a lot of uncertainty and risk.

In addition, the economic and market conditions at the time of bidding for linkage and that at the time of bidding for PPA may be quite different. Therefore, the Committee recommends that for incremental coal production, the generator should be required to bid only once, for the procurement of PPA and the linkage may be granted at the notified price without any further bidding. This will reduce the uncertainty and fuel supply risk of the generator and also ensure comfort to the lender to finance a project.

Accordingly, the Committee recommends that Ministry of Coal and Ministry of Power may work out a proposal for consideration of the competent authority for modification of the current policy. The Ministry of Coal may declare the annual incremental coal projections at the beginning of every financial year.

The generator should be required to bid only once, for the procurement of PPA and linkage should be granted at notified price without any further bidding, to the extent of incremental coal production.



1. Recommendations for Coal allocation/supply...

1.7 Non-accrual of short supplies of coal

If there is a shortfall in the supply of coal and it is attributable to the Ministry of Coal or Railways; such shortfall need not lapse and be carried over to the subsequent months up to a maximum of three months.



A proposal was made by the Ministry of Power that coal companies and railways should strive to supply the targeted quantity of coal to the generators and, in case the supply during a month falls short of the target, that shortfall may be allowed to be carried forward to subsequent months. Ministry of Coal was of the view that it should not be held responsible for short supply of coal if lower requisition has been made by the generator. The Committee recommends that if there is a shortfall in the supply of coal for reasons attributable to the Ministry of Coal or Railways, such shortfall may not lapse and be carried over to the subsequent months, up to a maximum of three months.

Ministry of Power may, in consultation with M/o Coal and M/o Railways work out a mechanism in this regard.

1. Recommendations for Coal allocation/supply...

1.8 ACQ to be determined based on efficiency:

Upper ceiling for the ACQ/MW may be prescribed by the CEA on the basis of efficiency parameters and irrespective of the capacity and actual consumption of that plant, the coal may be supplied on that basis.



The Annual Contracted Quantity (ACQ) for supply of coal under a Fuel Supply Agreement (FSA) i.e.; the actual requirement of coal is predicated on the heat rate approved by the regulator. Many smaller / old plants have a very high station heat rate and accordingly have higher 'specific coal consumption. Accordingly, they have been allowed higher ACQ of coal per MW of capacity as compared to the more efficient plants of higher capacity. This leads to inefficient utilization of coal and also higher carbon emissions. The same coal can be utilised in more efficient units to generate more power. Therefore, in order to encourage the operation of efficient plants and to ensure more efficient utilisation of scarce coal resource, the Committee recommends that the upper ceiling for the ACQ/MW may be prescribed by the CEA, based on efficiency parameters and irrespective of the capacity and actual consumption of that plant and that the coal may be supplied on that basis.

2. Recommendations to facilitate sale of power of the stressed power plants

Retirement of old and inefficient Plants

In the last 6 years, approximately 1, 10,000 MW capacity has been added including 100,000 MW from coal based plants. However, the demand has not increased at the same pace. As a result, the available capacity is more than the demand and peak power shortage has reduced from 8.71 per cent in 2012-13 to 0.7 per cent in 2017-18. As a result, large capacity is lying underutilized. At the same time, there are many old plants in operation with high heat rate which are non-compliant with environmental norms. The specific coal consumption of such plants is also higher than the new and more efficient plants. In order to ensure efficient utilization of scarce coal resources and curb pollution, old and high heat rate plants not complying with new environment norms may be considered for retirement in a phased manner keeping in mind that there is no demand/supply mismatch. Ministry of Power stated that old and inefficient plants of 7149 MW of capacity have already been retired and approximately another 10,000 MW of capacity have been identified for retirement in next 2 - 3 years. The Committee recommends that timelines be laid down for retirement of old and inefficient capacity.

Old and high heat rate plants not complying with new environment norms may be considered for retirement in a phased and timebound manner at the same time avoiding any demand/supply mismatch



3. Recommendations on Regulatory & DISCOM payment issues

3.1 Mandatory payment of Late Payment Surcharge (LPS)

Late Payment Surcharge be mandatorily paid in the event of delay in payment by the DISCOM.



It has been observed that due to delay in payment by the DISCOMs, the viability of the generators get hurt severely. As one of the roles of the regulator is to ensure sustainable operation of the power sector, the Committee recommends that Ministry of Power may advise the Regulators to monitor payments by DISCOMs and frame appropriate regulations. It has also been pointed out that frequently the DISCOMs insist that generators should forgo the LPS on the delayed payments, despite its mention in the signed PPA. This again adversely affects the viability of generators and their ability to meet its obligation to service the debt and other operating expenses. Therefore, the Committee recommends that Ministry of Power may engage with the Regulators to ensure that LPS is mandatorily paid in the event of delay in payment by the DISCOMs.

3. Recommendations on Regulatory & DISCOM payment issues...

3.2 Payment Security mechanism for IPPs

DISCOMs are unable to make timely payments to the generators because of their poor financial health. At the same time, most of the generators lack liquidity to withstand the shortfall in cash-flow due to such delays. A suggestion was made by the Ministry of Power that Public Financial Institutions (PFI), such as REC & PFC, may discount the receivables from DISCOMs and make up front payment to the generators. The financial institutions will realize their dues from the DISCOMs in due course of time and charge interest for the period of delay in payment by the DISCOM. This is a common practice in the business world and most of the banks provide this facility. This will help the generators realize their dues in time. However, PFIs expressed that, due to poor financial health of some of the DISCOMs, there was a risk that they may not be able to recover the dues from the DISCOMs and, therefore, requested that the Public Financial Institutions providing the bill discounting facility may also be covered by the Tripartite agreement (TPA). In case of default by the DISCOM, the RBI may recover the dues from the account of States and make payment to the PFIs. The Committee recommends that Ministry of Power may formulate the proposal for TPA coverage to PFC/REC for discounting bills of IPPs for consideration of the Competent Authority. Banks like SBI can also examine such discounting arrangements through existing FRAC mechanism (Fractional Reserve Banking/Lending Finance) for consideration of the Competent Authority.

PFIs providing the Bill Discounting facility may also be covered by TPA i.e. in case of default by the DISCOM, the RBI may recover the dues from the account of States and make payment to the PFIs.



4. Other Recommendations

4.1 Cancellation of PPA/FSA/LTOA post NCLT scenario:

PPAs, FSA and LTOA for transmission of power, EC/FC clearances, and all other approvals including water, be kept alive and not cancelled by the respective agencies even if the project is referred to NCLT or is acquired by any other entity. All of these may be linked to the plant and not the Promoter.



The Committee recommends that DISCOMS, CIL, PGCIL, Ministry of Environment and Forests, and appropriate Governments may be advised not to cancel PPA, FSA, transmission connectivity, EC/FC, and all other approvals including water, even if the project is referred to NCLT or is acquired by another entity subject to the provisions of the contracted PPA and /or applicable rules. It also recommends that all clearances may be linked to the plant and not to the promoter.

4. Other Recommendations...

4.2 Cancellation of PPA for non-compliance of COD :

In case there is a delay in the commissioning of a project, the DISCOMs may be advised not to cancel the PPAs signed with the Generator and the same be kept on hold for a certain period of time.



The Committee recommends that if there is any delay in the commissioning of a project for reasons not attributable to the generator, the DISCOMs may be advised not to cancel those PPAs. The PPA may be kept on hold for a certain period, so as to enable removal of impediments in the execution of the project. In the meantime, power can be procured through the mechanism suggested in earlier recommendations.

4. Other Recommendations...

4.3 Low utilization of Gas plant capacity due to paucity of natural gas:

The total installed capacity of gas based power plants in the country is 24,987 MW (67 plants). The quantity of gas required to run these plants is 116.59 MMSCMD. However, the total supply of domestic gas during the year 2017-18 was 22.80 MMSCMD, which resulted in the decline of average PLF to approximately mere 22%. Capacity of 14305 MW gas based power plants is left stranded because of non-availability of domestic gas.

The production of gas on KG 6 Basin has declined from 55.35 MMSCMD in 2010-11 to 5.50 MMSCMD in 2017-18. The cost of generation from imported RLNG is very high i.e. INR 8 -10 per unit of electricity and DISCOMs are not scheduling power generated from gas based power plants from RLNG.

The Committee recommends that Ministry of Power and Ministry of Petroleum and Natural Gas may jointly frame a scheme for revival of gas based power plant on the lines of earlier e-bid RLNG scheme (supported by PSDF).

In order to revive gas based power plants, Ministry of Power and Ministry of Petroleum & Natural Gas may jointly devise a scheme in line with the earlier e-bid RLNG Scheme (supported by PSDF).





List of Acronyms

ACQ	Annual Contracted Quantity	IPP	Independent Power Producers
APTEL	Appellate Tribunal for Electricity	JLF	Joint Lenders Forum
ARC	Asset Restructuring Company	LOA	Letter of Award
CERC	Central Electricity Regulatory Commission	LPS	Late Payment Surcharge
CIL	Coal India Limited	LTOA	Long Term Open Access
CIMFR	Central Institute of Mining and Fuel Research	MoD	Merit order Dispatch
DAM	Day Ahead Market	MoP	Ministry of Power
DDUGJY	Deen Dayal Upadhyaya Gram Jyoti Yojana	MW	Mega Watt
DEEP	Discovery of Efficient Energy Price	NCLT	National Company Law Tribunal
DFS	Department of Financial Services	PFC	Power Finance Corporation
DIPP	Department of Industrial Policy and Promotion	PLF	Power Load Factor
DISCOM	Distribution Company	PFI	Public Financial Institutions
EC	Environmental Clearance	PPA	Power Purchase Agreement
FC	Forest Clearance	PRAAPTI	Payment Ratification And Analysis in Power procurement for bringing Transparency in Invoicing of generators
FI	Financial Institutions	RLNG	Regasified Liquefied Natural Gas
FRAC	Fractional Reserve Banking/Lending	SBD	Standard Bidding Documents
FSA	Fuel Supply Agreement	SHAKTI	Scheme for Harnessing and Allocating Koyala Transparently in India
HLEC	High Level Empowered Committee	TPA	Tri Partite Agreement
IBC	Insolvency & Bankruptcy Code	WPI	Wholesale Price Index
IPDS	Integrated Power Development Scheme		





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