

NEW MEGA POWER POLICY, BOON FOR POWER SECTOR DEVELOPMENT

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INDIAN POWER SECTOR

Electricity is central to achieving economic, social and environmental objectives of sustainable human development. In the present digital age electricity has emerged as the most crucial and critical input for sustaining the process of economic as well as social development. Development of different sectors of economy is not possible without matching development of the electricity sector. Though the Indian power sector has achieved substantial growth during the post-independence era, the sector has been ailing from serious functional problems during the past few decades.

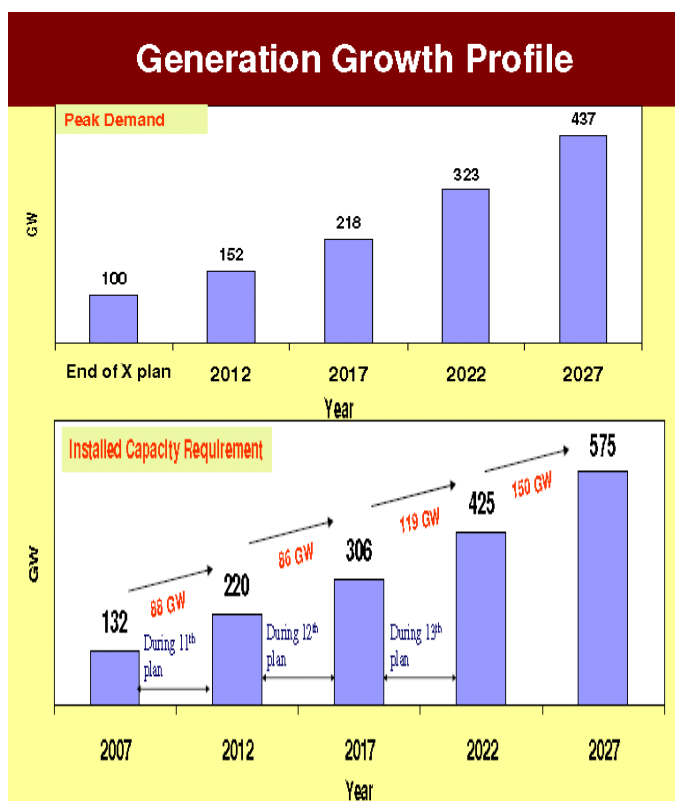


Chart-1

India, today, has an installed capacity of 1, 50,000 MW. Despite the recent slowdown, the country experienced a peak deficit of 12 per cent during FY 09. Power is one area of infrastructure where India lags far behind even in comparison to other developing countries. India's per capita consumption of power stands at 503 kwh. As compared to this, the per capita consumption in China and US is 2,060 kwh and 13515 kwh respectively. In order to achieve annual GDP growth rate of 8 -10 per cent, the generation capacity must grow at a minimum of 8 to 9 per cent every year.

According to the Expert Committee on Integrated Energy Policy, we would have to install nearly 5, 75,000 MW of power capacity by 2026-27 if we are to sustain an annual GDP growth rate of 8 per cent. This translates into a capacity addition of over 30,000 MW every year for the next 18 years.

As against this, what we set out to achieve in the 11th plan period was a capacity addition of 16,000 MW per annum or half of the projected target. And what we have actually achieved on the ground is 50 per cent of even this modest target. Half-way into the current plan period, we have installed just 18,000 MW as against the target capacity addition of 78,700 MW.

POWER SECTOR REFORMS IN INDIA

The Government has over the past few years, carried out extensive policy reforms aimed at accelerating the growth of the sector and encouraging greater private participation. The first reform phase began in 1991 with the introduction of Independent Power Producers (IPP) paradigm. Government initiated reform process due to the following reasons:

(i) The ever-widening gap between the demand and availability of electricity, due to requirement of economic growth.
(ii) The poor technical and financial performance of the State Electricity Boards is not commensurate with the growth requirement.

(iii) Inability of the Central and State Governments to finance and mobilize resources for generation capacity expansion projects, making third party investment in power sector imperative.

The initial step in this direction has been the amendment of legislation governing the electricity sector in 1991. The Indian Electricity Act, 1910 and the Electricity (Supply) Act, 1948 were amended to attract private investment in power generation. It allowed the private sector to "set up thermal projects, hydroelectric projects, and wind/solar energy projects of any size and foreign ownership up to 100% was also allowed

In 1995, these measures were further strengthened by a Mega Power Policy, whereby plants above 1000MW capacity would receive additional incentives in the form of a 10-year tax holiday anytime during the first fifteen years, exemption of customs duty for imports, reduced hassles for clearances, etc. This also provided for the setting up of Power Trading Corporation (PTC) to act as an intermediary between the private developers of mega projects and the SEBs. Though independent power producers (IPPs) evinced interest for adding generation capacity for about 95,000MW, only 6500MW was added during the eighth and ninth five-year plans (1992-2002).

Recognizing the need for the Reform process covering the entire facets of the electricity sector comprising generation, transmission and distribution to the consumers, a comprehensive Electricity act was enacted on 10 June, 2003. It

replaces the three existing legislations governing the power sector, namely Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. The Electricity Act, 2003 mandates that Regulatory Commissions shall regulate tariff and issue of licenses and that State Electricity Boards (SEBs) will no longer exist in the existing form and will be restructured into separate generation, transmission and distribution entities.

Based on the framework envisaged by the Electricity Act 2003, the Government came up with a series of specific measures after 2003 including the National Electricity policy 2005, the National Tariff Policy 2006, the Ultra Mega Power Policy, the Accelerated Power Development and Reforms Program (APDRP) and the new Mega Power Policy 2009.

NEW MEGA POWER POLICY

The Mega Power Policy was introduced in November 1995 for providing impetus to development of large size power projects in the country. For a thermal power project to be awarded the status of a mega power project it has to have a generation capacity of at least 1,000MW, In the case of hydropower projects, the threshold capacity is 500MW. In Jammu and Kashmir and the North-East, the threshold capacities are 700MW for thermal projects and 350MW for hydropower. These guidelines were modified in 1998 and 2002 and in April 2006 to encourage power development.

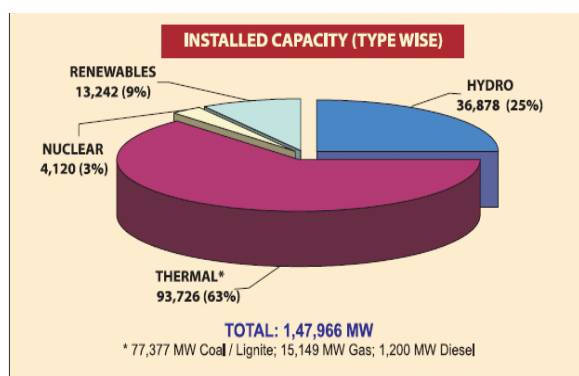


Chart-2

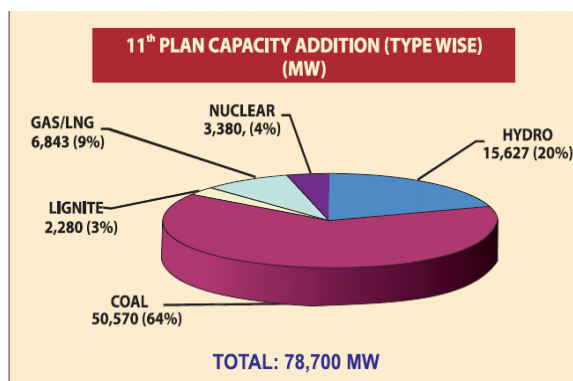


Chart-3

Mega power policy allows a tax holiday for 10 years and waiver from paying customs duty on equipment imports to mega projects. On 1st October 2009 the policy has been revised as New Mega power policy to make investments more attractive and make it easier for the government to achieve a proposed target of creating power generation capacity of 78,757MW at a cost of Rs10.31 trillion by 2012.

KEY CHANGES IN NEW MEGA POWER POLICY

In order to rationalize the Mega Power Policy and bring it in consonance with the National Electricity Policy 2005 and Tariff Policy 2006, the government relaxed following stringent conditions for availing fiscal benefits to mega power plants.

- The existing condition of privatization of distribution by power purchasing states to be replaced by the condition that power purchasing states shall undertake to carry out distribution reforms as laid down by the Ministry of Power.
- The condition of inter-state sale of power for getting mega power status to be removed.
- The present dispensation of 15 percent price preference available to the domestic bidders in case of cost plus projects of PSUs to continue. However, the price preference will not apply to tariff based competitively bid projects of PSUs.
- The benefits of Mega Power Policy will also be extended to supercritical projects to be awarded through ICB with the mandatory condition of setting up indigenous manufacturing facility provided they meet the eligibility criteria. The requirement of undertaking international competitive bidding (ICB) by the developers for procurement of equipment for mega power projects would not be mandatory, if the requisite quantum of power has been tied up through tariff based competitive bidding or the project has been awarded through tariff based competitive bidding.

- A basic custom duty of 2.5 percent only would be applicable on brown field expansion of existing mega projects. All other benefits under Mega Power Policy available to Greenfield projects would also be available to expansion unit(s) (brown field projects) even if the total capacity of expansion unit(s) is less than the threshold qualifying capacity, provided the size of the unit(s) is not less than that provided in the earlier phase of the project granted mega power project certificate. All other conditions for grant of the mega power status shall remain the same.
- Mega Power Projects would be required to tie up power supply to the distribution companies/ utilities through long term PPA(s) and may also sell power outside long term PPA(s) in accordance with the National Electricity Policy 2005 and Tariff Policy 2006, as amended from time to time, of Government of India.

IMPACT ANALYSIS OF NEW MEGA POWER POLICY

- **Privatization conditions**

The condition that power purchasing states shall undertake to carry out distribution reforms is a positive change as the same will expedite distribution reforms as well as ease the condition of seeking a mega power project status. Notably, hitherto, the condition stipulated privatizing distribution within a fixed period of time in cities where population is more than one million. The requirement of privatizing power distribution was a bottleneck for mega power plants as only a few cities in specific States have privatized distribution while other areas still remain controlled by the States. The latest amendment relaxes this condition to prescribe that power purchasing States shall undertake to carry out distribution reforms — clearly a more practical condition.

Impact on power sector: **positive**

- **Inter-State sale of power**

Striking out the mandatory condition of inter-State sale of power to qualify as a mega power project is an encouraging modification. Earlier only inter-state thermal and hydel power plants (i.e. power plant selling electricity on a long-term basis to two or more states) having minimum specified installed capacity was eligible for seeking a mega power project status. Given the significant demand for power across all states, mandatory selling power inter-state for the tax incentives was an obsolete requirement, also for obtaining a mega power project status, the entire power generated had to be tied up through PPA and electricity sold on merchant basis disqualified the entity from seeking the same. Increasingly, in the recent past, one has noticed that the demand of power has grown and States such as Gujarat are capable of buying the entire 1000 MW capacity from generators. Under these changing dynamics of demand supply, it was clearly otiose to insist on signing of power purchasing agreements (PPAs) with more than one States. Easing of these conditions will bring in many more power projects under the ambit of mega power project.

Impact on power sector: **positive**

- **Price preference**

The removal of dispensation of 15 percent price preference to domestic PSU bidders for tariff based competitive bidding projects of PSUs is a welcome modification. Prior to the amendment, a dispensation of 15 per cent price preference was available to domestic bidders in the case of all cost-plus projects of public sector units (PSUs). This is a welcome modification. Price preference, even for tariff based competitively bid projects, defeats the 'competitive' aspect of PSUs and is against the spirit and principle of tariff based competitive bidding.

Impact on power sector: **positive**

- **Supercritical technology**

The benefits of Mega Power Policy to be extended to projects based on supercritical technology is an extremely positive development. Supercritical technology uses less coal per unit of power produced and is environment-friendly. However, it is not clear from the Cabinet note whether the current threshold capacity of 1000 MW for tax concessions will be eliminated/reduced for these projects. India is heavily dependent on coal-fired generation. If the threshold condition is removed for these projects, it would provide a thrust for shifting on to clean coal technologies that minimize carbon foot prints.

Using policy and tax concessions as a tool for promoting supercritical technology is a step in the right direction as it will not only help mitigate the impact on climate change but it will also support several domestic and foreign companies who plan to set up greenfield supercritical boiler and turbine manufacturing facilities in the country.

Impact on power sector: **positive**

- **ICB condition**

The easing of ICB condition for developers procuring equipments for mega power project is a positive step. Once sale of electricity is tied up under tariff based competitive bidding (it ensures the purpose of the tax concession ie availability of low priced electricity to the consumers), following ICB at the equipment procurement stage for excise exemption is futile and time consuming.

It is pertinent to note that for a mega power project the condition of procurement of goods against ICB is mandatory to avail the excise duty exemption (even though the project may have been granted vide a tariff based competitive bidding). This anomaly was duly rectified for Ultra Mega Power Projects (where if the project is awarded through a tariff based competitive bidding then the condition of procurement of goods under ICB is not required) but continues for mega power projects. Vide this amendment, the anomaly for mega power projects also stands removed.

Also currently the deemed export benefits under the Foreign Trade Policy (“FTP”) are contingent upon compliance of ICB. Pursuant to this amendment, even the deemed export benefits under the FTP should not remain contingent upon ICB if the sale of electricity is tied up under tariff based competitive bidding Manufacturers supplying to Mega Power Projects are exempt from excise duty. Even though these supplies are exempt, the manufacturers are entitled to input credits provided the supply is against ICB. This condition of ICB (for availing input credits) would also need to be aligned with the amended Mega Power Policy ie if the Power Project Owner has tied up the sale of electricity under tariff based competitive bidding, then input credit should be available to the manufacturers even though the supply is not against ICB

Impact on power sector: **positive**

- **Custom duty concession to brown field projects**

The latest amendment to the Mega Power Policy to extend almost all the benefits to brown field expansions by existing mega power projects

(The only exception being that instead of the full customs duty exemption available to mega power projects, a concessional rate of basic customs duty of 2.5% would apply to these expansions). This will significantly reduce the tax costs on capacity expansions by existing mega power projects and may culminate in a significant boost to power generation capacity addition in the country.

Under the ongoing 11th Five year plan period 2007-12, India’s power capacity augmentation target is 78000 MW and the likely target for the 12th five year plan period 2012-17, is about 80000 MW. The revised custom duty rate would benefit all projects that are part of the two plans.

Impact on power sector: **positive**

- **Power purchase agreement (PPA) condition**

The mandatory requirement to enter into long term PPAs to qualify for mega power projects acted as a disincentive for several players. The amendment in the Mega Power Policy to sell power outside long-term PPAs in accordance with the National Electricity Policy 2005 and Tariff Policy 2006 would enable sale of power on a merchant basis and thereby provide a long awaited flexibility for power project developers and may attract new investments as well - an welcome move by the Government.

Impact on power sector: **positive**

NTPC PROSPECTIVE

The new Mega Power Policy would extend excise waiver and import duty exemption to plants planning expansion, benefiting state-run major NTPC. As per new policy brown filed capacity would be given tax sops only there is no change in the original configuration of a power project. So if a 1000 MW plant has been set up by using 2 units of 500MW each, the expansion project should use 500 MW sets to get tax waiver. The new power policy would directly impact about **9000 MW (out of close to 18000 MW left for commissioning)** of additional generation capacity planned by NTPC for the eleventh plan period. The project would include expansion capacity of Vindhyachal, Rihand, Simhadari, Korba, Dadri etc. **Other than this the new mega power policy would also benefit NTPC planned capacity addition of combined cycle power plant at Kawas (1300 MW), Gandhar (1300 MW), RGCCP(1950 MW) under 11th & 12th five year plan.**

NTPC's present capacity – 30644 MW	
NTPC's Capacity Addition Plans	
Target for 11 th plan (2007-12)	22430 MW
Commissioned	3240 MW
Under Construction	17930 MW
Under Bidding	8962 MW
FR Ready/ Approved	12930 MW
FR Under Preparation	10640 MW
Projects Identified	24120 MW

Table-1

CHANGING GAS SCENERIO

Today gas sector in India is going through a transition phase. Ever increasing demand for gas requires securing supplies within as well as outside the country. There are several challenges ahead in creating a strong and efficient gas sector in India. These include exploring gas in the country, importing LNG and piped gas, pricing, regulatory environment, creating efficient, reliable and competitive transportation and distribution infrastructure

India is fast emerging as a focal point of future development of Asian natural gas markets. The Indian economy is among the fastest growing economies in the world with a GDP growth rate pegged at around 9% and is projected to continue at a rate of 8-10% in the coming years India's discovery of an estimated seven trillion cubic foot gas reserves is seen as a major step towards attaining energy security.

As far as Natural gas sector is concern natural gas will be of strategic importance to our country and, hence, the need for a reforms in natural gas policy. What oil was for the 20th century, natural gas will be for the 21st century? 'Go green' initiatives and increased concerns for global warming will further encourage the gas consumption across the world.

Gas has cost competitiveness and environmental advantages over other alternative fossil. Moreover, improved availability and transportation, combined with growing demand from Asia, are resulting in the evolution of long-term gas contracts.

The gas consumption in India has come long way from 35 MMSCMD in 1990 to 130 MMSCMD in 2008-09.

The current chasm between demand and supply is expected to continue for a foreseeable shortage in gas supply is, mainly due to rising period despite increase in supplies. The current demand from the fertilizer, power and refinery sectors. As per

Resources (E & P by)	Enabling (Gas & LNG transportation)	Distribution(Market & Users)
Cairn	Evolving Gas grids	Marketing
ONGC	Transmission player- GAIL, GSPC, RGTL	GSPC, Indraprastha Gas, Adani Power
RIL	(reliance grp.)	Possible future Player, RIL
GSPC	LNG Terminal Petronet LNG Dahej	User
	Shell India -Hazira	Power, Fertilizer, Petrochemical
	Dabhol Terminal	Cement etc.

Table-2

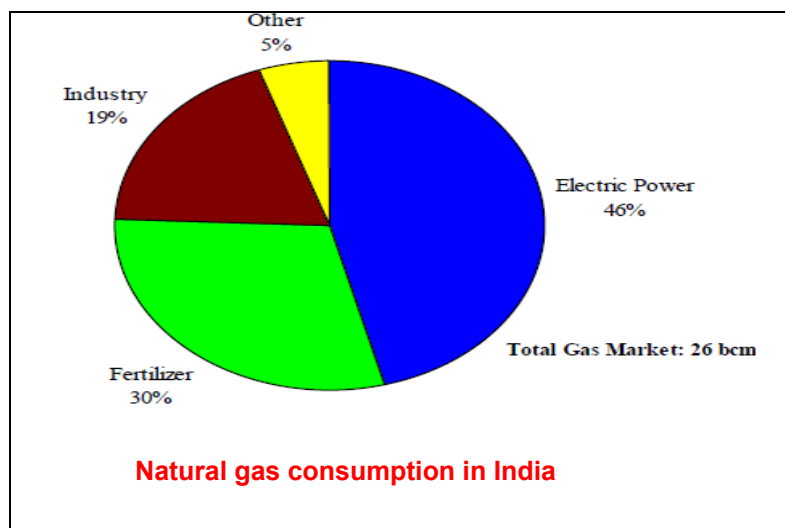


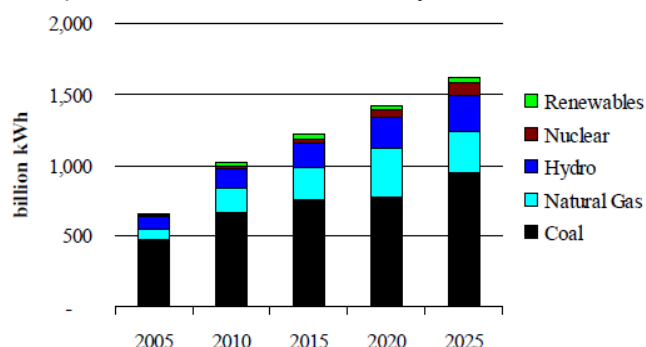
Chart -4

EGoM to four key gas-based channels with the break up being: 18 to power, 14 to fertilizer, 5 to City Gas Distribution (CGD) and 3 to LPG. The fertilizer sector is expected to save Rs. 3450 crore in terms of fertilizer subsidy with this allocation. The share of natural gas does increase from 11% to 18% of the electricity market – much of this fuelled by the new gas supplies projected to come online by 2010 from Reliance and other private suppliers. Natural gas assumes a large role in generating peaking power, as the model expects that thIndian load curve will shift from base load-dominated power of today to a load curve with greater daily variability

“Hydrocarbon Vision 2025” natural gas demand is estimated to be around 391 MMSCMD by 2025, rising from 149 MMSCMD in 2009-10. India had 1075 BCM (billion cubic meters) of recoverable natural gas reserve. As per the Planning Commission demand for gas in India is set to increase from 179 MMSCMD to 280 MMSCMD over the next decade. Supply, however, is unlikely to keep pace with demand and the share of imports, which is currently 5%, is likely to rise.

The entire energy scenario of India will be revamped as the price approved for sale of gas from KG-D6 to regulated/specified end-use sectors by the Empowered Group of Ministers (EGoM) is \$4.2/MMBTU, this shall save approx. \$17 billion of foreign exchange that accounts for 30% of India's net oil imports. Thereby competitiveness of India's industrial sector will improve significantly. Further, 40 MMSCMD gas has been allocated by the

18 to power, 14 to fertilizer, 5 to City Gas Distribution



THE ROAD AHEAD

The environment and climate change consequences of energy technology are becoming most critical issues before the mankind in 21st century. Energy - climate change policies are being examined world wide for promoting sustainable development. Protocols/ international mechanisms are being introduced. Coal Based Energy Technology is rapidly moving from Low emissions towards Very low- Ultra low – Zero emission. In India enormous thrust to renewable has been given to achieve zero emission energy production. In India it is proposed to adopt a Low Carbon growth strategy for Development of Power Sector during 11th Plan and beyond. It includes efficiency improvement of existing stations, R&M of old Thermal Power Projects, and retirement of less efficient plants/old and small size generating units. Other measures to be adopted include reducing pollution by steps such as reduction in T&D losses, Coal quality improvement. In case of Conventional Energy Sources, highest priority to be accorded for setting up of Hydro and Nuclear Power plants. Gas based plants to be accorded higher priority as compared to Coal /Lignite plants to the extent feasible depending on availability of adequate Gas at reasonable price. It is essential to go in for efficient and clean Coal technologies for Coal based power generation. Impetus on increase in adoption of super critical technology-.

Too far from the target of building 78,700 mw capacity in the 11th Five-Year Plan that ends in 2011-12, Prime Minister Manmohan Singh on 1st October 2009 finally approved Mega Power Policy with significant changes in the old policy introduced in 1995. This decision of the Union cabinet reflects pragmatic thinking necessary to provide the much needed policy thrust for the growth of the power sector in India. The New mega power policy will accelerate the progress of brown field projects and improve the equipment supply chain. The move would also encourage setting up of mega power plants to take advantage of economics of scale and improve their viability. It will simplify the procedure for grant of mega certificate and encourage capacity addition. It will also encourage technology transfer and indigenous manufacturing in the field of super critical power equipment. In all New Mega Power Policy is a very positive step towards power sector development along with energy security for India.

Reference:

- *Ministry of power notification on mega power policy 1995.*
- *Notification of the Government of India in the Ministry of Finance(Department of Revenue) No.21/2002*
- *News papers article on new mega power policy.*