

## Ministry of Power

### Tariff Policy

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi has approved the proposal of the Ministry of Power for amendments in the Tariff Policy. For the first time a holistic view of the power sector has been taken and comprehensive amendments have been made in the Tariff policy 2006. The amendments are also aimed at achieving the objectives of Ujwal DISCOM Assurance Yojana (UDAY) with the focus on 4 Es: Electricity for all, Efficiency to ensure affordable tariffs, Environment for a sustainable future, Ease of doing business to attract investments and ensure financial viability.

Highlights of Amendments are:

Electricity:

- 24X7 supply will be ensured to all consumers and State Governments and regulators will devise a power supply trajectory to achieve this.
- Power to be provided to remote unconnected villages through micro grids with provision for purchase of power into the grid as and when the grid reaches there.
- Affordable power for people near coal mines by enabling procurement of power from coal washery reject based plants.

Efficiency:

- Reduce power cost to consumers through expansion of existing power plants.
- Benefit from sale of un-requisitioned power to be shared allowing for reduction in overall power cost.
- Transmission projects to be developed through competitive bidding process to ensure faster completion at lower cost.
- Faster installation of Smart meters to enable “Time of Day” metering, reduce theft and allow net-metering.
- Lower power cost by creating transmission capacity for accessing power from across India.

Environment:

- Renewable Power Obligation (RPO): In order to promote renewable energy and energy security, 8% of electricity consumption excluding hydro power, shall be from solar energy by March 2022.
- Renewable Generation Obligation (RGO): New coal/lignite based thermal plants after specified date to also establish/procure/purchase renewable capacity

- Affordable renewable power through bundling of renewable power with power from plants whose PPAs have expired or completed their useful life.
- No inter-State transmission charges and losses to be levied for solar and wind power.
- Swachh Bharat Mission to get a big boost with procurement of 100% power produced from Waste-to-Energy plants.
- To release clean drinking water for cities and reduce pollution of rivers like Ganga, thermal plants within 50 km of sewage treatment facilities to use treated sewage water.
- Promotion of Hydro projects through long term PPAs and exemption from competitive bidding till August 2022.
- Ancillary services to support grid operation for expansion of renewable energy.

#### Ease of Doing Business:

- Generate employment in coal rich Eastern states like Odisha, West Bengal, Jharkhand, Chhattisgarh etc. by encouraging investments. States allowed to setup plants, with up to 35% of power procured by DSICOMs on regulated tariff.
- Remove market uncertainty by allowing pass through for impact of any change in domestic duties, levies, cess and taxes in competitive bid projects.
- Clarity on tariff setting authority for multi-State sales. Central Regulator to determine tariff for composite schemes where more than 10% power sold outside State.

These amendments will benefit power consumers in multiple ways. While reducing the cost of power through efficiency, they will spur renewable power for a cleaner environment and protect India's energy security. They would also aid the objectives of Swachh Bharat Mission as well as Namami Gange Mission through conversion of waste to energy, usage of sewage water for generation and in turn ensure that clean water is available for drinking and irrigation.

These amendments will ensure availability of electricity to consumers at reasonable and competitive rates, improve ease of doing business to ensure financial viability of the sector and attract investments, promote transparency, consistency and predictability in regulatory approaches across jurisdictions. It will further facilitate competition, efficiency in operations and improvement in quality of supply of electricity. These holistic amendments to Power Tariff Policy which complement schemes like UDAY will ensure the realization of Hon'ble Prime Minister Shri Narendra Modi's vision of 24X7 affordable power for all.

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#### **Swachh Bharat Abhiyaan**

The Power Ministry in association with Ministries of Coal and New & Renewable Energy were committed to construct a total of 1 Lac Toilets in Government Schools within one

year under Swachh Bharat Abhiyaan. CPSUs namely NTPC, REC, PGCIL, PFC, NHPC, SJVNL, THDC, NEEPCO, CIL, NLC and IREDA participated in the Swachh Bharat Abhiyaan. The three ministries collectively completed construction of more than 1.28 lakh numbers of toilets in schools across the country in short span of one year, surpassing the commitment of 1 lakh nos. given by Shri Piyush Goyal Union Minister of State (IC) for Coal, Power and New & Renewable Energy. The program was monitored at the highest level in the Ministry on a daily basis. Uploading of information was done by using latest technology on a specially designed web portal.

Company wise Number of toilets constructed in schools under the Swachh Bharat Abhiyan by PSUs of Ministry of Power are as follows:

S.No.	PSU	Total toilets completed	States covered
1	NTPC	29,441	
2	REC	12,379	Uttar Pradesh, MP, Bihar, Telengana, Punjab, Rajasthan
3	PGCIL	9,983	UP, Bihar, MP, Chattisgarh, AP, Orissa, Assam
4	PFC	9,383	AP, Rajasthan
5	NHPC	7,547	Assam, West Bengal, J&K
6	SJVN	2,387	Himachal Pradesh, Bihar, Uttrakhand and Arunachal Pradesh
7	THDCIL	1,168	Uttarakhand, UP
8	NEEPCO	664	-

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### Energy Efficiency

A three year action plan has been chalked out with a set of concrete measure to enhance the energy savings from current level of 6% to 10% by 2018. Prime Minister launched the 100 cities National Programme on 5th January, 2015 to convert all conventional street lights with LED street lights and Domestic Efficient Lighting Programme (DELP) to provide LED bulbs to domestic households.

Under the Street Lighting National Programme (SLNP), 303 Urban Local Bodies (ULBs) have been enrolled. Replacement of conventional street lights with energy efficient LED street lights have been completed in 20 ULBs in States of Rajasthan, Uttar Pradesh, Andhra Pradesh and Tripura. More than 4 Lac conventional street lights have been replaced with LED lights. In addition, work is in progress in 83 more urban local bodies.

Under Domestic Efficient Lighting Programme (DELP), 186 cities/towns have been enrolled. As on 18th December 2015, EESL has successfully distributed more than 3.90 crore LED bulbs across India. At present, LED distribution is under progress in 74 cities/towns in eighteen States .

The details of States covered under Domestic Efficient Lighting Programme (DELP) along with number of LED bulbs distributed to the Consumers till 18/12/2015 State-wise are as follows:-

<b>Sl. No</b>	<b>State</b>	<b>Number of bulbs distributed so far (as on 18/12/2015)</b>
1	Himachal Pradesh	34,42,605
2	Rajasthan	53,17,524
3	Andhra Pradesh	1,29,72,777
4	Telangana	20,000
5	Uttar Pradesh	53,34,717
6	Delhi	43,84,641
7	Puducherry	6,09,251
8	Chhattisgarh	1,58,285
9	Assam	37,000
10	Maharashtra	62,05,990
11	Madhya Pradesh	78,506
12	Jharkhand	1,80,779
13	Odisha	49,462
14	Punjab	28,196
15	Karnataka	31,049
16	Kerala	6,269
17	Tamil Nadu	21,018

18	Uttarakhand	1,38,832
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In order to provide information on real time to general public, policy makes and stakeholders , National DELP Dashboard, was launched recently by Shri Piyush Goyal , Union Minister of State (IC) for Power, Coal, and New & Renewable Energy . It is an integrated, real-time, and web-based dashboard which dynamically refreshes at an interval of 15-sec to display in real-time, number of LEDs distributed at national level. As on 18 December 2015 12.49 pm, 3,90,21,906 LED bulbs have been distributed across the country.

The link to National DELP Dashboard is as follows:  
<http://delp.cruxbytes.com/forms/national-delp-dashboard.aspx>

The Government targets to replace 77 crore bulbs in the country by LED bulbs by March, 2019. As a result of such replacement, savings will be as follows:

- Energy saved per year – 100 billion Units (Approx.)
- Avoided Peak Demand – 20000 MW (Approx.)
- Cost saving per year - Rs.40,000 crore (Approx.)
- CO2 Reduction per year – 80 million Tones CO2 (Approx.)

In an effort to spread awareness about energy efficiency , ‘Star Rating’ mobile app was launched on 14 December,2015 which is linked to the Standards and Labeling database . It provides the user a platform to compare personalized energy saving devices across the same class and get a real-time feedback from consumers and other stakeholders so they can make an informed purchase decision.

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### **Scheme for Gas Based Power Plants**

Government of India has sanctioned a scheme for importing spot RLNG for the stranded gas and partly stranded gas based plants selected through a reverse e-bidding process. The scheme provides for financial support from PSDF (Power System Development Fund). The outlay for the support from PSDF has been fixed at Rs. 7500 crores (Rs. 3500 crores and Rs. 4,000 crores for the year 2015-16 and 2016-17 respectively).

Auctions for the 1st phase (1st June to 30th September, 2015) of PSDF Support to gas based power plants was held in the months of May, 2015. A combined total of 10,270 MW plants were able to secure gas allocation. The entire process was completed in less than a month and gas supply by GAIL started on 1st June 2015.

Auctions for 2nd Phase (1st October, 2015 to 31st March, 2016) were held in the month of September, 2015 and will help in revival of gas based generation plants with installed

capacity of 11,717.72 MW. Total incremental electricity expected to be generated under phase II is 12472.6 million units.

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### **Rural Electrification**

Prime Minister in his address to the nation on 15th August, 2015, made the announcement that remaining 18,500 un-electrified villages would be electrified within next 1000 days. Government of India has decided to electrify all unelectrified villages of the country by 01st May, 2018. The strategy for electrification of un-electrified villages in a mission mode consists of squeezed implementation schedule of 12 months with 12 Stage milestones for village electrification monitoring with defined timelines. The budgetary allocation under the Deen Dayal Upadhyaya Gram Jyoti Yojana is Rs. 4500 Crore for the financial year 2015-16. Several Power Distribution Companies (DISCOMs) of various states, including Rajasthan have large outstanding debts. 'Gram Vidyut Abhiyanta' (GVA) at District / Block level- 309 GVAs have been appointed in 177 Districts of 12 States.

All remaining un-electrified villages to be electrified through grid connection have been sanctioned. Against the target of connecting 3500 un-connected villages during 2015-16, during April-October, 2240 villages have already been connected.

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### **National Smart Grid Mission**

Government has approved the National Smart Grid Mission (NSGM) -an institutional mechanism for planning, monitoring and implementation of policies and programs related to Smart Grid activities. This was stated by Sh. Piyush Goyal, Minister of state for Power, Coal & New and Renewable Energy (IC) in a written reply to a question in the Lok Sabha today. The total outlay for NSGM activities for 12th Plan is Rs 980 crore with a budgetary support of Rs 338 crore.

NSGM has three tier structure:

- At the apex level, NSGM has a Governing Council headed by the Minister of Power. Members of the Governing Council are Secretary level officers of concerned Ministries and departments. Role of Governing Council is to approve all policies and programme for smart grid implementation.
- At the second level, the NSGM has an Empowered Committee headed by Secretary (Power). Members of the Empowered Committee are Joint Secretary level officers of concerned Ministries and departments. Role of Empowered Committee is to provide policy input to Governing Council and approve, monitor, review specific smart grid projects, guidelines / procedures etc.
- In a supportive role, NSGM has a Technical Committee headed by Chairperson (CEA). Members of the Technical Committee are Director level officers of concerned Ministries & departments, representatives from industries and academia. Role of

Technical Committee is to support the Empowered Committee on technical aspect, standards development, technology selection guidelines etc.

- For day-to-day operations, NSGM has a NSGM Project Management Unit (NPMU) headed by the Director NPMU. Director NPMU is a Member of the Governing Council and Empowered Committee, and Member Secretary of Technical Committee. NPMU is the implementing agency for operationalizing the Smart Grid activities in the country under the guidance of Governing Council and Empowered Committee.
- Grant up-to 30% of the project cost is available from NSGM budget. For selected components such as training & capacity building, consumer engagement etc, 100% grant is available.

Corresponding to the NSGM, State Level Mission chaired by the Power Secretary of the State has also been proposed. Support for training & capacity building to State Level Project Monitoring Units (SLPMUs) for smart grid activities is provided by NSGM.

The Minister further stated that The major activities envisaged under NSGM are development of smart grid, development of micro grids, consumer engagements and training & capacity building etc. NSGM entails implementation of a smart electrical grid based on state-of-the art technology in the fields of automation, communication and IT systems that can monitor and control power flows from points of generation to points of consumption, the Minister added.

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### **Environmentally Sound Management of mercury in Fluorescent Lamps**

The Ministry of Environment, Forests and Climate Change had constituted a Task Force to evolve a policy on “Environmentally Sound Management of mercury in Fluorescent Lamps”. A Technical Committee, constituted by this Task Force, had prepared “Guidelines for Environmentally Sound Mercury Management in Fluorescent Lamps Sector”. These guidelines prescribe the best practices at various levels such as at manufacturers’ level and include aspects relating to mercury consumption, process technology, raw mercury distillation, on-site storage, treatment, recycling, disposal of mercury bearing wastes and mercury spill management, the Minister added.

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### **Improve the Efficiency of Coal Based Power Plants**

India has abundant domestic reserves of coal. In order to secure energy requirement of the country, coal based generation will remain important for power generation of India. This was stated by Sh. Piyush Goyal, Minister of state for Power, Coal & New and Renewable Energy (IC) in a written reply to a question in the Lok Sabha today. The Centre for Science and Technology in its report “Green Rating of Coal-Based Thermal Power Plants” has given suggestions for improving the efficiency of thermal power plants in India.

The Minister further stated that Government of India has already taken following initiatives to improve the efficiency of coal based power plants and to reduce the carbon footprint of the power sector:

- (i) Out of about 87,000 MW thermal capacity under construction, about 48,000 MW is based on supercritical technology, which uses less coal.
- (ii) Supercritical technology has been made mandatory for Ultra Mega Power Projects (UMPPs) being implemented.
- (iii) In 13th Plan, all coal fired capacity addition shall be through supercritical units.
- (iv) An Advanced Ultra Super Critical Technology R&D Project has been approved by Government at a cost of Rs.1500 Crore involving BHEL, NTPC and Indira Gandhi Centre for Atomic Research (IGCAR) to achieve higher efficiency, reduce carbon-dioxide emissions and coal consumption for coal based power plants.
- (v) Renovation, Modernization and Life Extension of old thermal power generating units and retirement of old and inefficient thermal generation units, in phased manner, is being undertaken. A total capacity of 3,000 MW has been retired till date.
- (vi) Government of India have issued policy on automatic transfer of linkage in case of scrapping of old units and replacing them with new supercritical plants.
- (vii) Doubling coal cess from Rs.100 per tonne to Rs.200 per tonne for funding projects under National Clean Energy Fund as announced in the Budget Speech of 2015-16.
- (viii) Increasing the share of renewable energy in the overall power generation in the country.
- (ix) Perform Achieve Trade (PAT) Scheme under National Mission on Enhanced Energy Efficiency is under implementation by Bureau of Energy Efficiency (BEE). In this Scheme, individual target for improving energy efficiency has been assigned to 144 number of thermal stations.

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#### **Electricity (Amendment) Bill, 2014**

The Government has already introduced Electricity (Amendment) Bill, 2014 in the Lok Sabha on 19th December, 2014 after obtaining the approval of the Cabinet. The amendments proposed, broadly cover areas like Grid Security, Open Access, promotion of renewable energy, separation of Carriage & Content in distribution sector, rationalization of tariff determination process and performance oversight of Regulatory Commissions etc. This was stated by Sh. Piyush Goyal, Minister of state for Power, Coal & New and Renewable Energy (IC) in a written reply to a question in the Rajya Sabha today.

The Minister further stated that Hydro Power segment has certain constraints such as long gestation period of hydro power projects, geological surprises, rehabilitation and



resettlement issues etc. The Government has adopted multi-pronged strategy for augmenting the hydel capacity addition, which includes investor friendly new hydro policy 2008; Liberal National Rehabilitation and Resettlement Policy; incentive for early completion of projects etc. Regular review and monitoring are also carried out by the Ministry of Power, Central Electricity Authority and Power Project Monitoring Panel, the Minister added.

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