

## **Impact Of Gst On The Indian Power Sector**

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### **I. INTRODUCTION**

The growth of the economy and its global competitiveness hinge on the availability of reliable and quality power at competitive rates to all consumers at all places. The Power Sector in India is as complicated and chaotic as the near infinite, twisted, dilapidated electricity lines that connect the homes of India.

Power is vital for the manufacture of capital goods as well as services. The power industry is run by a network of integral components. At a basic level, the industry operates as: Fuel à Generation à Transmission à Distribution. However, the tax structure for this sector is not yet rationalized. It is time to rationalize the tax structure for this sector.

The Power Industry currently enjoys many tax concessions and tax exemptions because the electricity producer would not be able to claim input tax credit for the production of electricity against the output tax. The current scenario for the power sector is not so bright. This sector is currently enjoying CENVAT exemption or concessional rates at the federal level. As a result, the sector is not fortunate for the input tax credits. Hence, the taxes are included in the power equipment costs. The sector is not benefitting from the tax credits with respect to the VAT imposed on the inputs by the state.

The significant characteristic of electricity as a commodity, is that it can neither be stored nor imported. It has been kept out of the scope and ambit of GST.

This paper attempts to analyse the impact of GST on fossil fuel electricity production as well as renewable sources of electricity generation in India. There has been an attempt to examine the existing tax structure, and draw a parallel to the new GST structure. This paper deliberates on the crucial phases in the power structure that are power generation, transmission and distribution. Each component is vital to not only to the power sector, but to sustaining the Indian economic powerhouse. Each component is intricate in their own right, and face fundamentally specific challenges.

### **II. ELECTRICITY GENERATION**

Electricity duty is levied by State govt against consumption by the final consumers and the users of the captive consumption. Thus the power generator is liable to pay duty on operational electricity. Presently, there is not uniform rate amongst states. Furthermore, differential duty is charged based on the consumer type and consumption amount.

Taxes on consumption or sale of electricity have been proposed to be kept outside GST. In such case, the electricity generated by renewable sources would continue to be outside the GST regime.

Electricity as a good is presently exempt from Excise duty and VAT. Only electricity duty is levied on its consumption by the States. Looking to the present scenario, keeping electricity out of GST Law will increase the cost of generation & distribution of electricity as credit for taxes paid on inputs which are used in these processes will not be allowed. Thus, various taxes that are levied on procurement of goods and services (on both capital procurements as well as Operation & Maintenance charges) get embedded in the cost of the end product. Moreover, the advantage which is presently available to the Power Companies i.e. purchase of goods for the generation and distribution of electricity from other States at a concessional rate of tax (CST) of 2% shall no longer be available under GST regime. Thus, the other sectors will also be majorly impacted.

The Decision tax coal at the lowest rate of 5 percent is a positive move and will bring down cost of fuel considerably impacting the entire value chain

After GST, since the VAT and Excise are subsumed, the tax rates may be reasonable. The cost of inputs or procurement may reduce in the thermal power category since the tax rate for coal is now kept at 5% while imported coal will get levied with the basic customs duty or BCD as per GST news. This coal tax was previously kept at 12%. However, at the same time the cost of capital goods and services cost in all segment of power may increase to 18% from current 15%.

In home electrical segment, including fans, lights water heaters, air coolers etc., organised sector will benefit from GST, says MOSL. About 25% of fan sales come from the unorganised sector, while lighting has

40% sales from the unorganised sector. Lowering of tax rates from 26-29% to 18% would benefit many home appliances companies.

Implementation of GST will positively benefit the electrical and the lighting sectors. These two sectors will greatly benefit from reduction in taxes. The indirect taxes on electrical and lighting industries will be reduced to 18% from the present 29 to 30%. The brokerage is upbeat on Light Electricals sector with the implementation of GST. The tax reductions will be passed on to the clients.

Hence, if electricity is taxable under GST, full credit would be available for the taxes paid on the inputs which will significantly reduce the cost of power projects and consequently the cost of generation and distribution of electricity. Thus, the lower costs will also benefit the downstream industries. Since, electricity is kept outside the GST regime, it will have an adverse impact due to various key factors viz.

- (i) increase in tax costs due to removal of exemptions
- (ii) tax burden due to increase in tax rates from the current applicable tax rates
- (iii) Increase in cost as purchase at concessional rates against statutory forms will be done away.

### III. COAL

In thermal electricity production, the fuel typically used is coal, diesel and other petroleum products. They are input goods. They are used to produce electricity, as a final good. The reduction in coal tax will generate a positive impact on the domestic coal users but a negative impact for the imported coal users.

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One power sector is most beneficial sector after **implementation of GST** as coal cost which consist of more than 90 % of input cost came down drastically, as there is substantial reduction of tax Post GST, can be understand better from following comparison:

**The table below depicts the most beneficial impact on the thermal power sector after implementation of GST as coal cost which consists of more than 90% of input cost, comes down drastically:-**

#### Implimentation Of Gst On Coal

Sl No.	Particular	Pre GST			Post GST		
		QTY	Rate	Value	QTY	Rate	Value
1.	Basic Price	1	1000	1000	1	1000	1000
2.	Breaking Charges Limited to 100 mm		79	79		79	79
3.	Surface Trans. Charges		116	116		116	116
4.	Washery recovery charges		630	630		630	630
5.	Royalty @ 14% ( On basic charges)			140			140
6.	MMDR Royalty –Central Fund @ 2% royalty			3			3
7.	MMDR Royalty –Central Fund @ 30% royalty			42			42
8.	Stowing Excise Duty		10	10			
9.	Total Assessable Value(A)			2020			2010
10.	Central Excises Duty @ 6% on (A)		121	121			
11.	Clean environment Cess		400	400		400	400
12.	Total Value			2541			2410
13.	Vat @ 5%			127			120
14.	Gross Value			2668			2530
	Total Tax (8+10+13)			258			120

From above table there is clear that if basic price of coal is Rs.1000 pmt there is saving of Rs.138 pmt in coal cost due to removal of excise duty in **GST regime**.

**Thus due to reduction of coal cost as above in GST regime the effect on per unit cost of electricity can be compared between Pre GST and Post GST as below:-**

#### Effect Of Reduction In Cost Of Coal Per Unit Variable Cost

Sl No.	Particular	UOM	Pre GST	POST GST
1.	Per Kg cost of coal	Rs.	2.67	2.53
2.	Coal required for Generation of One Unit	KG	0.6	0.6
3.	Per Unit cost of Coal		1.60	1.52
4.	Saving in per unit generation cost			0.08

The above table shows that there is reduction in cost of generation due to tax impact in GST regime & this will help power generating companies reduce their cost within Power Purchase agreement. So there is reduction in cost of generation due to tax impact in GST regime, this will reduce help Power generation companies bringing their cost with in Power Purchase agreement as cost to be charge will decrease and this will help in keeping cost with approved cost.

#### **IV. DEMERITS**

However the electric meter has been put under the 18 percent tax bracket which will increase the cost for new customers. The power sector is essentially a mesh of contracts for engineering, procurement, construction (EPC) to generate electricity, boost energy efficiency and shore up renewable power. Yet, input tax credit would not be available on EPC contracts, with electricity outside the GST regime

As per the latest GST news, under the new tax regime, the power generation companies may experience a rise in costs as all inputs are in GST ambit other than the electricity. Also, under current tax structure transmission and distribution is not levied a service tax but after GST whether this exemption will be retained or not is not clear.

The primary effect of not including electricity in the scope of GST is that the electricity producer is not entitled to claim tax credit against the inputs utilized for the generation of electricity against the output tax typically paid by the generator, by way of electricity duty. This translates into an increased cost of production for the generator

The input taxes remain embedded in the cost of power equipment. Also, there is absence of a levy on Power generation, Distribution and Consumption. This makes the problem more complicated as it is not possible to avail the input tax credit for the CENVAT paid on equipments and stores. Similarly, there is no benefit of input tax credit in respect of state VAT on inputs used in the process of power generation and distribution.

The benefits of the decrease in tax cost and full credit of taxes paid on inter-state sales may not accrue to the thermal power sector, where the taxes rates for procurements would increase. To illustrate the taxes cost in the setting up a power plant may increase from the current approximate rates of 15% in case of inter-state procurement to 18% under the GST regime. Similarly, there could be a possible increase in the tax rate costs for major input services, with costs increasing from the current approximate of 15% to 18% under the GST regime

#### **V. RENEWABLE SOURCES OF POWER GENERATION**

There has been a considerable shift from fossil fuel-based energy generation to clean and renewable sources of power generation, which is evident by the growing share of renewable in the current power generation system

Currently, the renewable energy sector is enjoying tax incentives including tax holiday on earnings for a period of 10 years, concessions on customs duties and excise etc. These incentives will come to an end with the implementation of unified good and services tax. Therefore, implementation of GST increases the cost of renewable energy. The cost of setting up Solar off Grid projects will increase by 16 to 20% after GST.

As per the renewal sector, there will be an increase in cost of generation to the extent of 5-10%, due to the increased tax incidence on many of the components that go into the manufacturing of solar power system and wind generation system.

The cost of Solar PV Grid Installations will see an increase of 12 to 16%. The cost of establishing wind energy projects will increase by 11 to 15%. It badly hits the investors in renewable energy. However, the state and Central Governments will continue the incentives to encourage renewable energy usage

**Various exemptions provided to the renewable power projects and the increase in their costs are depicted in the following table:-**

<b>Renewal Energy</b>	<b>Customs duty exemption</b>	<b>Excise duty exemption</b>	<b>The increase in cost after GST.</b>
Solar	Exemption of BCD on solar panels, cell and modules. ACD and SAD provided to all items of machinery, transmission equipments etc. Used for setting up of solar power plant	Excise duty exemption provided to all items of machinery, transmission equipment auxiliary equipment etc. Used for setting up of solar power plant	16%-20%
Wind	Concessional rate of BCD of 5% and exemption from ACD and SAD provided on import of various components used by a wind power plant like wind operated power plant.	Excise duty exemption provided to specified goods/part used for manufacture on products which may be used in a wind operated power plant	11%-15%
Bio Mass	Concessional rate of BCD of 5% and exemption from ACD provided to all items of machinery etc. For setting up a project of generation of power of generation of compressed bio-gas	Exemption from excise duty provided to all items of machinery, auxiliary equipment etc. For setting up a project for generation of power or generation of compressed bio-gas using non-conventional material	11%-14%

## **VI. INCREASE IN TAX COST AFTER GST DUE TO REMOVAL OF EXEMPTION**

### **Demerit**

Looking at the other side, the impact of GST on the wind energy sector will be slightly negative due to rise in capital cost which will end up causing a higher tax rate of wind turbine generator. The wind energy sector had been availing many concessions and tax exemptions previously. ICRA also points out that there will be a negative impact on Boiler, turbine and generator equipment for thermal power projects as the GST rate will be 18% for them.

### **Transmission**

There is various other provision of GST legislation that may be worrying for the power sector. Including the applicability of GST on stock transfer of Goods. As regard stock transfer of goods or “diversion” in the power industries terminology, GST would apply for inter-state movement of consumable parts. This would further augment the tax costs for the power sector, where a one to one correlation of the input tax credit pertaining to it is not established. Also, as the recipient location of such material diversions would typically be engaged in the provision.

This could make it difficult to determine the “made from” and “receivedat” location for the transmission sector because the country, being one power grid, has various interconnecting transmission lines with no dedicatedlines transmitting electricity from one location to another.

There will be appreciable reduction in the cost of metering of distribution transformers

### **Distribution**

Discoms purchase power at wholesale rates for selling to end consumers thereby operating as market intermediaries. They also charge a mark-up over the wholesale rate before supplying to the consumers. The overall rate is reflected in terms of tariff as regulated by State Electricity Regulatory Commissions. Therefore, keeping power distribution out of the ambit of GST is not much change for the sector directly. However, reduction in costs of coal will benefit distribution companies by bringing down their costs of purchase of power.

One way out could have been to impose a nominal GST on electricity (say 3 percent, as on gold biscuits) so that electricity at least comes into the tax chain, pay their fair share, and the distributors can claim input tax credit.

Discoms (which are trying to bring in efficiencies in the system) stand to lose because they would no longer get input tax credit. This means they will have to pay tax on everything they buy (goods and services) but can't set it off against the GST they bill. Therefore, their own profitability may be hit slightly.

### **Suggestion**

1. The GST Law would attempt to subsume a variety of indirect taxation laws on goods and services that form part of a transaction chain commencing from the import manufacture of production of

2. It is not yet clear whether the Clean Energy Cess (CEC) levied at Rs. 400/Metric Ton (MT) will be subsumed into the GST. If incorporated, the nature of the CEC levy (whether it would be expressed as a fixed rate or as a percentage) requires deliberation by the GST Council.
3. The use of power as an intermediate input increases the cost of power generation and distribution. Therefore, expensive power reduces the competitiveness of Indian Industry in the International arena. The implementation of GST is expected to solve the issues by ensuring seamless flow of input tax credit.

Other suggestion are

- a) The GST should subsume the duties levied by the state on electricity.
- b) The power segment should be an integral part of the GST on which both the state and Central governments will have control.
- c) The tax structure for this sector should be similar to other goods.
4. For the seamless flow of input tax across all the processes / activities in the power sector it is necessary to rationalize the tax treatment of this sector.
5. In the GST system when all the taxes are integrated, it would make possible that burden to be split equitably between manufacturing and services. GST will be levied only at the final destination of consumption based on VAT principle and at various points – from manufacturing to retail outlets. This will help in removing economic distortion and bring about development of a common national market, which ultimately help thermal and solar industry as well as the economy. Moreover , GST will also help to build a transparent and corruption free tax administration

Overall GST, hopefully will bring in greater transparency and further revolutionise the electricity sector, which is very much needed in the county.

The GST is proposed to be levied on the total consumption instead of the production. As a result the GST prevents tax evasion and ensures easy transfer of services and goods across India.

GST has the potential to turn the whole country into a common market and improve ease of doing business. However it is expected to be mostly neutral to power sector.

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