



## Subsume Electricity Duty Under Goods And Service Tax (Gst)

### KEYWORDS

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#### Introduction

Goods and Services Tax which is proposed to be introduced in India in near future. It is being seen as mother of all indirect tax reforms and remedy to all the taxation inefficiencies.

The idea to reform indirect taxation in the country by introduction of a comprehensive Goods and Service taxes (GST) in lieu of a number of Central and State level indirect taxes was recommended by the Kelkar Committee. Dr Vijay Kelkar in his Report "Taskforce on Implementation of the Fiscal Responsibility and Budget Management Act, 2003" gave detailed justification for introducing GST in India. Dr Kelkar saw GST as "a well-designed destination-based VAT on all goods and services" as an elegant method of "eliminating distortions and taxing consumption", and envisaged GST as a "Grand Bargain" between the Union and the States. This perhaps was the beginning of the formulation of GST in India.

Introduction of GST would undoubtedly be a grand reform in the indirect taxation arena in the post-Independence history of India. In India GST will simplify a lot of taxation anomalies leading to better business environment. It is expected to:

- Reduce Transaction cost
- Remove cascading tax effect
- Simplify taxation procedure
- Seamless flow of ITC chain
- Reduce logistics cost
- Unify the market etc.

Empowered Committee of State Finance Ministers (EC) in consultation with Government of India published GST model captioned as "First Discussion Paper on GST" in November, 2009. The details of the model is in public domain. The taxes being subsumed in GST model in India are as under:

#### Taxes being subsumed in GST

Central Taxes	State taxes
Central Excise Duty	VAT / Sales tax
Additional Excise Duties	Entertainment tax (unless it is levied by the local bodies)
The Excise Duty levied under the Medicinal and Toilettries Preparation Act	Luxury tax
Service Tax	Taxes on lottery, betting and gambling
Countervailing Duty (CVD)	State Cesses and Surcharges
Special Additional Duty of Customs - 4% (SAD)	Entry tax not in lieu of Octroi.
Surcharges and Cess	

A careful analysis of the model reveals that many irritant and hindering taxes have been left out of GST such as Purchase Tax, Octroi, Electricity Duty (very important input), Passenger tax etc. These taxes will continue to have cascading effect on the taxation system.

In this paper we discuss one aspect of above mentioned shortcomings i.e electricity being such an important industrial input and whether leaving out Electricity duty from the purview of GST is a good decision. Whether it deserves to be subsumed in GST.

#### 2. Cascading effect of Taxes

In simple words cascading of taxes mean tax on tax i.e if a good has been taxed earlier on its final value another tax would mean taxing the original value plus taxing the tax laden component in it.

At micro level the extent of effect of cascading effect produced by levying multiple taxes at different stages of a product manufacture is shown as under:



The complete chain of the manufacturing of Product C, involves the three mid way products, like A, B, and there are three stages of taxation, namely x%, y%, z%. We assume that no other raw material is required, and rest all is fabrication on the raw material only for the manufacture of product C. Similar to manufacture of computer chip starting from the raw material silicon.

Let us assume that the taxable price of raw material to be Rs. A. Then the rate of taxation is neither x, nor y, nor z, nor x+y+z it is in fact:

$$A \left(1 + \frac{x}{100}\right) \left(1 + \frac{y}{100}\right) \left(1 + \frac{z}{100}\right) = A \left(1 + \frac{r}{100}\right)$$

Where r is the actual rate of taxation

$$r = x + y + z + \frac{xy}{100} + \frac{yz}{100} + \frac{zx}{100} + \frac{xyz}{10000}$$

Hence the rate of taxation is far more than pure addition of three taxes which was intended as mere arithmetic addition. This is what is called as the cascading effect.

**3. Case of Power generation sector: Cascading effect estimation**

The power sector consists of generation sector, transmission companies, and distribution companies. In the manufacturing chain of the power generation say in the thermal power plants which starts from the coal produced predominantly by the Coal India Limited with its 8 mines spread across the mineral rich area of the country. The coal, once it reaches in the thermal power plant, and is used for the electricity generation again contributes to the cascading effect in the total taxation on the power generation.

**2.2.1 Cascading effect of coal impacts entire supply chain of electricity generation**

The central Electricity authority declares the installed base of the Coal based power plants as on March 31, 2015 was 169,118 MW. Taxes paid by Coal companies are huge numbers. It is therefore important to analysis of the impact of GST on the coal and in turn the whole power economy of the country. Coal and lignite accounted for about 60% of India's total installed capacity. India's electricity sector consumes about 72% of the coal produced in the country. According to published Profit loss account total statutory levy/tax paid the by M/s Coal India Limited during the year 2013-14 has paid taxes is Rs. 7572 Cr.<sup>1</sup>

**3.1 The case study of Badarpur power plant, New Delhi**

The Badarpur Thermal Power Station has an installed capacity of 705 MW. The Badarpur thermal power plant gets its supply from 3 coal fields of the CIL, namely BCCL, Jharkhand, Central Coal Fields in Jharkhand, and Eastern coal fields in the west Bengal. Each of the coal fields are outside Delhi and their supply of the coal to the Badarpur power plant is an export and comes under the taxable slab of the 4% for the coal imports as reported by the web information from the Ministry of Coal.

**The supply of these coal fields to various thermal power plants is as under:**

NTPC BADARPUR			
Coal Fields (supply)	Exporting State	Importing State	Dispatch of coal (in tonnes)
BCCL	Jharkhand	Delhi	206.6
Central coal fields	Jharkhand	Delhi	2869
Eastern coal fields	west Bengal	Delhi	755.96

As shown above the Badarpur Thermal Power Station (TPS) imports around 3831.6 thousand tonnes of the coal from various coal fields, each of the imports come under the slab of 4% tax. Considering that the kind of coal used in the thermal power plants are usually the E or F grade coal, which costs around Rs.940 and Rs.681 PMT respectively, average of which is around Rs. 810, (as in 2012) being used in the power generation at the thermal power plants. This when added to the price of Rs. 17 which is the price declared by the ministry of railways for the transport of the coal from one state to the another and is independent of the distance, makes the average price of the coal to be Rs. 830 including transportation. At this price, the approximate price of the coal for the Badarpur TPS comes around Rs. 318 Cr., which taxed @ 4% would be Rs. 12.72 Cr.

This tax has a significance when taken as percentage of total electricity sales of Rs.1044.90 Cr. in respect to Badarpur TPS i.e. 1.2154% of the total sales which is the cascading

effect here.

As per published data of Coal India limited the total coal supplied was, about 272.68 million tonnes of the coal was supplied to the power utilities, out of total 366 million tons produced by the CIL according to the data declared on the website of the Coal India limited. This means a whopping 74.5% of the coal is used up in the power sector. Now by the balance of profit and loss as declared by the Coal India limited in their annual report, says that Rs. 5381.6 Cr. of money was paid by the coal India limited for the coal production during the year 2006-2007 and Rs. 5999.28 Cr. during the year 2007-2008, of which the coal for power sector accounted for the 74.5% of the total tax paid, which is about Rs.4469.46 Cr. during 2007-2008. Now since CIL accounts for only 85% of the coal production in the country, total tax paid on the coal for the power sector can be extrapolated even further, by multiplying by the factor of 100/85 leading the total tax paid on coal to be nothing less than Rs.5258.19 Cr., of which 47.6% was paid for the commercial sector coal, which is Rs. 2500 Cr. In other words these will lead to cascading effect.

**2.4 Cascading amount assessment:**

As per Reserve Bank of India report on the State Finances, total electricity duty collected by States in 2011-12 was Rs. 11,138 Cr., 53.3% of which was produced by the coal based thermal sector as reported by the Central Electricity Authority in its annual report, again 47.04% of which was distributed to the commercial and industrial sector, which if minimum assumed to be equal contributor to the taxes as the non industrial sector, which it is not actually, we work out on the minimum amount of taxes levied through the commercial sector is 47% of this Rs. 11138 Cr., amounting to Rs. 5234 Cr., which due to almost double the duty for the commercial /industrial sector compared to the domestic sector, may reach up to Rs. 8000 to 10000 Cr., and then out of this the contribution of power produced by the coal based plant is 53.3%, which comes to average of about Rs. 5000 Cr.

Hence subsuming electricity duty into GST would save the power sector the cascading figure for the taxation of the coal of Rs. 5000 Cr..

**3.1 Cascading effect: Inter State power transaction**

India by its geographical variations have different States producing surplus or deficit electricity power. As such some states are power dependent and others are power abundant state. We can examine the impact of cascading effect on power sector among states due to inter-State power supply transaction.

**The details of electricity duty collected State wise in 2007-08 is as under:**

States	Duties Collected on Electricity (In Rs Cr)	Total tax collected by the states (In Rs Cr)	Electricity duty as %age of total tax
Andhra Pradesh	175.83	27089.15	0.6490
Assam	17.17	3197.92	0.5361
Bihar	19.69	4250.29	0.46
Chhattisgarh	481.1	5225.23	9.20
Goa		1244.11	0
Gujarat	2090	19194.54	10.88
Haryana	108	10576	1.02
Himachal Pradesh	78.22	1870	4.18
Jammu and Kashmir	152.78	2225.86	6.86

Jharkhand	68.1	3405	2
Karnataka	340.2	22922.05	1.48
Kerala	34.25	11883.88	0.2882
Madhya Pradesh	832	10037.23	8.28
Maharashtra	2318	36462.91	6.35
Manipur	0.3	124.79	0.2404
Meghalaya	0.05	322.36	0.0155
Mizoram		62.67	0
Nagaland	0.01	111.41	0.00897
Orissa	330.19	6121.16	5.39
Punjab	594	8629.58	6.88
Rajasthan	583.68	11168.68	5.22
Sikkim		102.66	0
Tamil Nadu	227.35	25154.2	0.9038
Tripura	0.02	337.86	0.0059
Uttarakhand	70	2396.23	2.92
Uttar Pradesh	240.05	22487.7	1.06
West Bengal	605.31	10792.25	5.60
Delhi		10602	0
Pondicherry		567.04	0
<b>Total</b>	<b>9366.3</b>	<b>258643.46</b>	<b>3.62</b>

Source: The Reserve Bank of India: State Finances: A study of Budgets of 2008-2009

Above table shows that there are two groups of States – some are power deficit and others power surplus. The bold figures in the last column of table indicates states with high percentage in total revenue as its contribution due to electricity duties. These are the states with high dependence on the electricity duty for their total revenue collected by way of taxes. These are Gujarat, Chhattisgarh, Madhya Pradesh, Punjab, Jammu and Kashmir, Maharashtra, West Bengal, Orissa and Rajasthan in the decreasing order of the percentage contribution of electricity in the total tax revenue.

States with more than 5 % of tax collected as electricity duty are Gujarat, Chhattisgarh, Madhya, Pradesh, Punjab, Jammu and Kashmir, Maharashtra, West Bengal, Orissa and Rajasthan. These States will lose more by subsuming electricity under the proposed GST compared to the other states. However most of these States are developed ones and will have GST collection more than others which will compensate the deficit, else and this can be resolved by paying appropriate compensation proportional to their revenue loss in the transition periods.

States with low revenue dependency on electricity are Tripura, Nagaland, Meghalaya, Manipur, Kerala and Tamil Nadu. These are the states which are not be affected due to subsuming of electricity in the GST and hence may not be that worthy of compensation award by the centre even during the transition period.

### 3.2 IGST model for Electricity Duty: Revenue impact on States

As has been mentioned earlier there are states in the various regions of India having deficit or surplus electricity generation, hence they either Import electricity or export electricity from various States. Taking Imports to be +ive and Exports to be -ive, the net trade balance for all the states is calculated and given under.

As a result of more the import of power, wider is the taxation base for the importing state, and so, the states with a high importing trend in power are more beneficiaries with huge contribution to the revenue, in case electricity is sub-

sumed under the GST.

Let the effect of interstate transaction of electricity on different states be compared by using a factor  $z$  such that:

$$z = \text{price of import} * SGST_{\text{import}} + \text{price of export} * SGST_{\text{export}}$$

where  $SGST_{\text{import}}$  = percentage of IGST credited to importing state

and  $SGST_{\text{export}}$  = percentage of IGST credited to exporting state

Even if we assume that the price of import = price of export, (which wont be the case in the scenario of power exchanges, which allow high fluctuations in the prices) then the  $z$  can be approximated as:

$$z \sim \text{import} * SGST_{\text{import}} + \text{export} * SGST_{\text{export}}$$

Where both import and export are the units of electricity imported and exported respectively in millions of units.

GST regime SGST is not expected to be uniform across states, it can vary in small band width. In case  $SGST_{\text{ex-}}_{\text{port}}$  for exporting state  $> SGST_{\text{import}}$  for importing state, then the disadvantage will be to the states with very low imports and high exports. The State will face a revenue loss. For instance if SGST in Gujarat is 10% and SGST in Delhi is 8%, then Gujarat while exporting power to Delhi gain 2% extra per unit than Delhi. On other hand Delhi while importing power is losing 2% on each unit on import compared to its own production taxed at 8%. Hence exporting states if have more SGST will gain.

### 3.3 Observations and conclusion

1. In an ideal and desirable case SGST for both importing and exporting should be equal so that taxation policy may not produce tariff barriers power trade in the country.
2. Proposal for the IGST and GST should be given to electricity regulatory commission in each state commission, to come to an agreement for uniform SGST for import and export.
3. There can be possibility that taxation base is increased by importing the entire consumption and exporting the entire generation? In that case will the IGST model, exposes a different niche of revenue generation for the states? This will need to be examined.

From the above analysis we can conclude that power is an important inputs in the production chain. We also saw that there is huge amount of cascading effect of taxes that percolates not only to generation- transmission – distribution chain but down till the consumption levels. Such a cascading i.e tax on tax is unethical and inefficient & irrational economic decisions. Following actions are recommended:

- Subsume electricity duty levied by the states under the SGST
- Include the power sector in the GST base
- Tax regime of the power sector should be same as any another normal good
- Amend article 278 and 288 of the Indian constitution for above actions

It is therefore concluded that GST offers a golden opportunity the set this anomaly right and quickly subsume electricity duty into the proposed GST.

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