KIRTANE & PANDIT

GST Implications on Companies Generating Electricity

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Preface

India's power sector has witnessed substantial growth in the past decade and the same continues to speed up. Total power generation has doubled to 1,624 billion Units (BU) in FY 2022-23 from 808 BU levels in FY 2009-10, reporting a YoY growth of nearly 7.7%. Also, due to speedy industrialisation, demand for electricity is gradually increasing. Although, the YoY power deficit has come down from around 10% levels in FY 2009-10 to less than 1% in FY 2022-23, growth in future demand is what the country needs to foresee.
India has tremendous potential to generate solar energy, wind energy etc. on a large scale. Solar photovoltaic power can provide huge scalability in India. To help us reach the optimum utilisation of various green energy resources, the Government of India has initiated multiple incentives encouraging the private sector to install energy production stations and produce green and clean energy. The government, via State Electricity Board(s), enters into Power Purchase Agreement (PPA) with the energy producers.

Through this article, we have tried to address the GST implications that the companies generating electricity require to understand, so as to comply with the GST law in line with the regional regulatory bodies.

Referring to **Commissioner of Sales Tax vs Madhya Pradesh Electricity Board [1970] 25 STC 188,** the Hon'ble Supreme Court of India held that electricity is "goods" and sale of electricity shall be considered as "supply of goods". It can be transmitted, transferred, delivered, stored, and possessed in the same way as any other movable property.

Supply of electricity is a "nil-rated" supply under GST Regime. Thus, sale of electricity, being exempt supply of goods, brings into question the treatment of ITC related to the installation of power generation plants and repairs & maintenance expenses, thereto.
In light of the prevailing business arrangements followed, we put forth an analysis of the applicable treatment for ITC availed on such expenses. We also provide a glimpse into accounting methodologies followed.

Electricity being a movable property, the supply of electricity is classified as supply of goods under GST, with HSN 27160000 under the heading "Electrical Energy", having Nil Rate of GST. Further, transmission and distribution of electricity by an electricity transmission or distribution utility is exempt vide Entry No. 25 of Notification No. 12/2017 - Central Tax (Rate) dated 28th June, 2017.

As defined u/s 2(75) of Electricity Act, 2003, 'Utility' means the electric lines or plant belonging to an electricity generation company or licensee under the provisions of the Act.

With increasing emphasis on renewable energy and various incentive schemes, a surge in the electrical energy generating companies (hereinafter referred to as "the Companies") can be easily noticed. Such companies produce electricity either for captive consumption, or they may choose to transfer units to State Electricity Boards, or to any user (open access mechanism) at a predetermined rate. In this section, we have explained various arrangements between the Companies and the State Electricity Board(s) based on metering methodology and financial settlement practices.

1. Net Metering

• Companies produce electricity for captive consumption and excess electricity produced is transmitted to the grid, via transmission lines owned by the State Electricity Boards.

• Such excess units of electricity transmitted to the grid, are virtually stored as electricity credit units. These units can be netted off against the gross units of electricity purchased from the grid.

a. The State Electricity Board issues a Bill of Supply for the excess units purchased by the company than the units transmitted to the grid, at the predetermined rate at which State Electricity Board sells the power.

b. Alternatively, if the net number of units of electricity transmitted to the grid turns out to be positive at the end of the year, then the excess transmitted units are settled by issuing a Bill of Supply on the State Electricity Board only for such excess units transmitted, at the pre-determined purchase rate.

• However, the net metering arrangement is allowed only if consumers satisfy certain conditions which differ from state to state.

Example (We assume that electricity rate is ₹ 2/unit)

Particulars	Units/Amount
No of Units produced by Company	30 Units
No of units consumed captively by Company	10 Units
No of Units transmitted by Company	20 Units
No of Units Purchased from SEBs	120 Units
∴ No of units Billed by State Electricity Boards (120-20)	100 Units
Bill Amount	₹200

Note: For simplification, charges such as electricity duty, Time of Day (ToD) Tariff, Fuel Adjustment Charges, etc. have been spared from the calculations.

According to Sec 31(3)(c) of CGST Act, 2017, a registered person supplying exempted goods or services or both, shall issue, instead of a tax invoice, a bill of supply containing such particulars and in such manner as may be prescribed

For instance, in Maharashtra, Telangana, and Gujarat, 'Net Metering' is allowed for persons with generating stations of capacity up-to 1 MW whereas in Uttar Pradesh it is 2MW.

2. Gross Metering

• In this arrangement, the entire electricity produced is transmitted to the grid, hence the electricity generating utility has to issue a Bill of Supply to the State Electricity Board for the entire amount of electricity transferred to the grid.

• Electricity generating company does not captively consume electricity produced.

Example (We assume that electricity rate is ₹ 2/unit)

Particulars	Units/Amount
No of Units produced by Company	30 Units
No of units consumed captively by Company	0 Units
No of Units transmitted by Company	30 Units
Amount Billed by Company	60 Units

3. Wheeling & Banking

• Once electricity is produced in the power generating station, it is essential to transmit/wheel the same to the consumption place.

• This is done through the transmission lines owned by the State Electricity Board. For such a usage, 'Wheeling Charges' are levied by it for each unit wheeled.

• Banking of power is a system where the Companies transmit the electricity to the grid, by mere delivery. They, thus, retain the title in the transmitted electricity. Companies may draw back the power from the grid within a certain time frame.

• This system works akin to a customer savings bank account.

All the above arrangements are possible when the Power Purchase Agreement (PPA) is made between a State Electricity Board and a power generating utility.

As defined u/s 2(76) of The Electricity Act, 2003, 'wheeling' means using distribution systems and other associated facilities of a transmission or distribution licensee belonging to another person for the conveyance of electricity.
As defined u/s 2(2) of The Sale of Goods Act, 1930, 'delivery' means a voluntary transfer of possession from one person to another.

4. Open Access

a. As defined u/s 2(47) of Electricity Act, 2003, 'Open Access' means a non-discriminating provision for the use of transmission lines or distribution systems by any licensee/consumer/generating station.

b. In such cases, as there is no purchase or transmission of electricity between two parties, the concept of net metering does not trigger.

c. Open access enables large consumers to buy power directly from electricity generating companies at a rate decided between the parties to the contract.

d. Such arrangements try to democratise the power sector in the sense that, electricity consumers as well as producers are free to buy/sell electricity from/to anyone.

Open Access arrangement is a unique arrangement among the others, where contracts can be entered into with any entity, not necessarily being a State Electricity Board. Hence, the name "Open Access".

Power Purchase Agreements can also be executed among entities without any interference of State Electricity Boards. However, we are restricting the article to the arrangements between Electricity Generating Companies and State Electricity Board.

The above referred terminologies have been explained with an intention to give a broader perspective of the practical arrangements followed. These terminologies differ according to states in which the electricity generation companies operate. Electricity being part of concurrent list (Entry 38 of List III) it is regulated by both state and central regulating bodies leading to minor deviations from above mentioned mechanisms.

Accounting Point of View

As the readers have got insights about various contractual arrangements, we now take cognizance of the accounting methodologies/treatments followed by electricity generating companies for the same:

1. Expenses accounted on net basis

Electricity expenses can be accounted as per the Bill of Supply issued by State Electricity Boards i.e., by netting the cost of electricity purchased from State Electricity Boards and that transmitted to it. This is suitable where net metering arrangement exists.
Continuing with the above example in case of net metering, we thus, book expenses of ₹ 200/-.

2. Income and Expenses accounted separately

On the other hand, expenses can be recorded for the entire cost of electricity purchased from electricity boards and, the credit of units received would be reported as income generated from the supply of electricity. At year-end, the accrued income will be shown as 'Unbilled Revenue' in Profit & Loss account and as 'Trade Receivables' in the Balance Sheet. This accounting treatment can be followed for all of the aforesaid arrangements.

Here, referring to the case of gross metering in our above example, revenue of ₹ 60/- is recorded.

We have discussed deep insights into the practical arrangements between power generating utilities and the State Electricity Board, as well as the accounting methodologies. We now venture into the GST implications for the same.

1. Provisions in GST Act

As per Section 17(2) of Central Goods and Services Tax Act,2017 –

17(2) Where the goods or services or both are used by the registered person partly for effecting taxable supplies including zero-rated supplies under this Act or under the Integrated Goods and Services Tax Act and partly for effecting exempt supplies under the said Acts, the amount of credit shall be restricted to so much of the input tax as is attributable to the said taxable supplies including zero-rated supplies.

17(3) The value of exempt supply under sub-section (2) shall be such as may be prescribed, and shall include supplies on which the recipient is liable to pay tax on reverse charge basis, transactions in securities, sale of land and, subject to clause (b) of paragraph 5 of Schedule II, sale of building.

[Explanation: For the purposes of this sub-section, the expression "value of exempt supply" shall not include the value of activities or transactions specified in Schedule III, except those specified in paragraph 5 of the said Schedule;]

Hence, as per Section 17(2) of CGST Act, 2017, if a person is engaged in provision of both exempt as well as taxable supplies, then the input tax credit is restricted to that which is attributable to taxable supplies only. Hence, ITC pertaining to exempt supplies, whether partly or wholly, shall be denied.

2. GST Treatment

Supply of electricity is an exempt supply of goods which can trigger section 17(2). Hence, we need to analyse whether ITC with respect to electricity supply needs to be reversed. Based on various contractual arrangements, following GST implications are possible:

Net Metering	1. Net metering arrangement can be viewed as a barter or exchange of electricity between SEBs and companies. 2. As per Section (7), Supply includes barter or exchange of goods. Hence, the electricity transmitted to grid will be treated as upply of electricity. Supply of electricity being exempt supply, will attract ITC reversal on related goods and services under Section 17(2).
Gross Metering	1. Entire electricity generated by the companies is transmitted to the grid under gross metering amounting to sale of electricity to SEBs. 2. Supply of electricity being exempt supply, will attract ITC reversal on related goods and services under Section 17(2). 3. Here there is no captive consumption of electricity by the comapnies hence entire ITC on goods and services related to generation of electricity may be reversed under Section 17(2).

•**Note:** ITC on goods and services related to generation of electricity which is captively consumed may not be reversed.

Value of Supply If Rule 42/43 Applicable

In cases where Section 17(2) is triggered, ITC pertaining to exempt supply needs to be reversed under Rule 42 / Rule 43.

As per Rule 42 / 43, input tax credit in respect of inputs or input services (Rule 42) or in respect of capital goods (Rule 43) which are partly used for exempt supply and partly for a taxable supply, needs to be reversed on a proportionate basis.

As per Section 17(2), ITC specifically related to exempt supply needs to be reversed wholly.

For this, identification of value of exempt supply, common expenses and expenses specifically related to exempt supply is important.

Mock calculations of ITC reversal as per Rule 42 & 43 for a taxpayer registered under GST, carrying out electricity generation:

Continuing with the above trailing example, we have the following calculations:

Sr. No.	Particulars	Net Metering	Gross Metering
1	Taxable Turnover	9,960	9,960
2	Exempt Turnovera	40	60
3	**Total Turnover (Taxable + Exempt)**	10,000	10,020
4 [(3/1)*100]	Percentage of Exempt Turnover off Total Turnover	0.4%	0.6%
5	ITC on expenses related to exempt supply		
5a	Common ITC[b]	10	10
5b	Revenue ITC[c]	5	5
5c	Capital ITC[d]	15	15
6	Calculations		
6a	Reversal under Section 17(2) (Reversal of ITC wholly related to exempt supply)	0	5 + 15 = 20
6b	Reversal as per Rule 42 (Inputs/Input Services)	(10+5)*0.4% = 0.06	(10*0.6%) = 0.06
6c	Reversal as per Rule 43 (Capital Goods)	(15/60)*0.4% = 0.001	0
7	**Total Reversal as per Sec 17(2) read with Rule 42 & 43**	0.061	20.06

Note: In case of net metering, we consider that a part of the electricity produced by electricity generating company is consumed in a captive manner and rest of the electricity is transmitted to the grid.
(Refer Example given under Net & Gross Metering)

Conclusion

We have tried to analyse various contractual arrangements of electricity generating companies that drive the implications of indirect taxation taking into account the relevant rules and regulations governing the power sector. In the previous section, we have laid down a couple of scenarios considering this driving factor and arrived at applicable GST treatments.

Some Key Takeaways-

- Net metering mechanism is allowed only if the State Electricity Boards allow the same for a particular capacity of generation plant. Normally, SEBs set a maximum limit, above which the only the gross metering methodology can be followed.
- Captive consumption is possible only in case of net metering. While in Gross Metering entire electricity production is transmitted to the grid.
- Irrespective of the metering methodologies adopted, companies need to reverse ITC on inputs proportionate to the electricity produced and supplied.

The taxpayers should evaluate the GST implications basis the different business scenarios as mentioned in this article.

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