Tax liability for solar power business in India

India, with its initiates in the field of renewable energy is trying hard to secure the future of its coming generation to fulfill its energy needs. With the support of Government and other private and public sector enterprises/companies, Solar Industry is letting itself grow in a very big manner. Though the targets set by Government for its solar energy generation for future seems to be very ambitious, but we are sure that we'll be able to reach the target.

India is slowly building upon its installed solar power capacity and in the financial year 2014-15 itself it had added almost 950 MW of solar power capacity making it to more than 3000 MW of installed solar capacity in the country till date. Thanks to the National Solar Mission, state solar policies and relatively increased enforcement of the Renewable Purchase Obligation[1].

Worldwide, India has the fifth-largest power generation portfolio. Further, India is the fifth largest producer of wind energy. The country has an installed capacity of 245 GW, as of March 2014. India has a massive potential to generate electricity from solar energy - the country‟s annual photo voltaic installed capacity has grown at a CAGR of 49.5% between 2010 and 2014. The Jawaharlal Nehru National Solar Mission aims to generate 20,000 MW of solar power by 2022.

Depreciation

It is defined as 'the monetary value of an asset decreases over time due to use, wear and tear or obsolescence. This decrease is measured as Depreciation'.The various assets that can be considered for depreciation is classified into tangible and intangible assets.

[1] https://www.linkedin.com/pulse/benefits-investing-solar-power-projects-madhu-choudhary accessed on 10-2-2017

Tangible assets include both fixed assets, such as machinery, buildings and land, and current assets, such as inventory. Nonphysical assets, such as patents, trademarks, copyrights, goodwill and brand recognition, are all examples of intangible assets.

The **Section 32A of IT act, 1961** describes the details of permissible depreciation rates. Under comprehensive Table A – Tangible Assets – Machinery and Plant - **are all applicable for a depreciation of 80%.**Renewable energy devices being:

- Flat plate Solar collectors
- Concentrating and pipe type Solar collectors
- Solar cookers
- Solar water heaters and systems
- Air/gas/fluid heating systems
- Solar crop driers and systems
- Solar refrigeration, cold storages and air-conditioning systems (h) Solar steels and desalination systems

Solar power generating systems

- Solar pumps based on Solar-thermal and Solar-photovoltaic conversion
- Solar-photovoltaic modules and panels for water pumping and other applications
- Windmills and any specially designed devices which run on wind-mills installed on or before March 31, 2012
- Any special devices including electric generators and pumps running on wind energy installed on or before March 31, 2012
- Biogas plant and biogas engines
- Electrically operated vehicles including battery powered or fuel-cell powered vehicles
- Agricultural and municipal waste conversion devices producing energy - Equipment for utilizing ocean waste and thermal

Accelerated Depreciation

Depreciation is 20 % on plant and machinery for any business and in the case of Solar power generation, in order to incentivize the entrepreneurs to enter into the Solar power generation market, the Government of India has allowed claiming 80% depreciation in year one of the commissioning of the Solar power generation plant.

For example:

Assuming that the total current project cost is Rs7crores.

If a Solar power generation plant costs Rs7crores, the company setting up that plant can claimn 80 % depreciation in the first year itself**. Depreciation of 80 % is allowed on plant and machinery of the Solar power plant.**

Deducting Rs20 lakhs (approximately) from the project cost for land costs, which are eligible for only 10 % depreciation, we get Rs6.80crores.

80 % of this is Rs5.44crores. This can be depreciated in a new Solar power generating plant in year one itself. This is why they call it Accelerated Depreciation (depreciating 80% in one year instead of 20%).

33.99% of Rs5.44cr is about Rs1.85 cr.

So, in a Solar power generation plant of Rs7crores, Rs1.85cr is the tax saving that the company gets using Accelerated Depreciation.

AD benefit in year one is Rs1.85 cr.

So, the actual project cost of solar power plant for an AD client is Rs5.15cr

In fact the Accelerated Depreciation or AD client will be able to depreciate 20% of the written down value of the project, next year. Thus the saving in taxes will be nearly Rs2.1crores. **Thus making the investment as low as Rs4.69 cr.**

LAW

- Under **Section 32(1)** Solar Energy Tangible Assets qualifies for a depreciation of 80%. Under Appendix 1, Rule5, Part-A, Tangible Assets III.8.XIII.(i) Solar Power Generating Systems is mentioned and applicable for an Accelerated Depreciation of 80%.
- Income tax Act, 1961 allows solar power generating companies a tax waiver on 100% of profits for 10 Assessment years (from initial assessment year) under section 80-IA (sub section 4) during first 15 years of its operational life. The same is valid for the plants commissioned till 31st March, 2017.

APPLICATION

The rate of depreciation allowed under the income tax for solar power generation units is 80 % and it is an accelerated rate of depreciation. So the party has to file the regular tax returns only. There is no special form prescribed for claiming the depreciation benefit.

IMPLICATIONS OF GST ON DELIVERED COST OF RENEWABLE ENERGY

Source of Renewable Energy	% range of increase in Levelised Tariff/ cost of setting up and operations (as applicable)
Solar PV – GRID	**12% - 16%**

Solar – off GRID	**16%-20%**
Wind energy projects	**11% - 15%**
Wind solar hybrid projects	**11%-17%**
Bio Mass projects	**11% - 14%**
Bio Mass gasifier projects	**11%-14%**
Small Hydro projects	**1% - 11%**

Computation of impact on indirect tax costs in respect of capital cost under GST regime – Methodology

Solar Off-grid Projects

.No.	Cost Category	Share in Capital Cost (%)	Source of Procurement (Import)	Source of Procurement (Within state)
	Solar Panel (Goods)	30%	80%	20%
	Battery (Goods)	36%	30%	70%
	Power conditioning unit (Good)	19%	35%	65%
	Structure (Goods)	4%	-	100%
	Cable (Goods)	2%	-	100%
	Monitoring systems (Goods)	1%	35%	65%
	Installation cost (Services)	7%	-	100%
	TOTAL	**100%**		

Computation of total indirect tax applicable under current regime for each component. Under current regime, indirect taxes paid on procurements are non-creditable and hence, form part of costs.

Accordingly, it has been assumed that the above taxes (computed) have been included in the respective capital costs. Considering the same, the computed taxes have been reduced from the value of capital costs to arrive at a tax exclusive value of capital cost

Note:

- Various Indirect tax benefits/ concessions provided to goods to be used in renewable energy projects are also available to parts/ accessories etc which may be procured by manufacturer/ supplier to be supplied to project owner. Hence, it would not be the case that manufacturer/ supplier would be paying taxes on all their procurements and no exemptions/ concessions would also be available to them. In such case, the contention that GST impact would be only on the value addition of the manufacturer/ supplier may not be technically correct as pruning of exemptions would impact the input cost of such manufacturer/ supplier as well.
- For various renewable energy projects (such as solar projects), a portion of capital goods may be imported from outside India. For such imported supplies, no input taxes on their parts would be payable in India. Accordingly, introduction of GST would not have an impact of cost of manufacture of such imported supplies.

Solar energy – Impact

To boost the solar energy industry, various exemptions have been provided by both Central as well as State Government for setting up, operation as well as maintenance of solar energy sector.

BCD - Specific exemptions for solar plants

Notification	Entry	Chapter heading	Description of goods	Concessional rate
No. 01/2011-Customs, dated 6 January 2011	NA	Any Chapter	All items of machinery, including prime movers, instruments, apparatus and appliances, control gear and transmission equipment, and auxiliary equipment and components, required for initial setting up of a solar power generation or solar energy production project or facility	BCD - 5% ACD – Nil
No. 24	3	854	Covers tariff heading	BCD -

/2005-Customs,dated 1 March 2005		1	8541 40 11 i.e. solar cells whether or not assembled in modules or panels	Nil

SAD - Specific exemptions for solar plants

Notification	Entry	Chapter heading	Description of goods	Concessional rate
No. 21/2012-Customs, dated 17 March 2012	14	Any Chapter	All items of machinery, including prime movers, instruments, apparatus and appliances, control gear and transmission equipment, and auxiliary equipment and components, required for initial setting up of a solar power generation or solar energy production project or facility	Nil

Excise duty - Specific exemptions for solar plants

Notification	Entry	Chapter heading	Description of goods	Concessional rate
Notification no. 15/2010-CE dated 27 February 2010	NA	Any Chapter	All items of machinery, including prime movers, instruments, apparatus and appliances, control gear and transmission equipment, and auxiliary equipment and components, required for initial setting up of a solar power generation or solar energy production project or facility	Nil

VAT/ CST - Specific exemptions for solar plants

State	Reference	Description	Concessional rate
Mahara	Schedule A Entry 56	-Solar power generating	**Nil**

shtra	(Read with Notification No. VAT- 1509/CR-81-B(1)/Taxation 1.- Dated 29th June 2009)	systems -Solar photovoltaic modules and panels, for water pumping and other applications	
Karnataka	Notification No. No. FD 71 CSL 2015 Dated: 1st August, 2015	Solar PV Panels	**Nil**
Jammu & Kashmir	Schedule C (Entry 40A)	Solar energy equipment including solar cookers, Solar Heaters, Solar Dyers, Solar Lantern and Solar Street Lighting	**Nil**
Uttar Pradesh	Schedule 1 (Entry 13)	Solar Energy devices, Solar Energy equipment and parts thereof	**Nil**
Chhattisgarh	Notification No. F-10/15/2012/CT/V (20) Dated 31st March, 2012	Solar energy equipment and components [Exemption is available for the period from 01-04-2012 to 31-03- 2016]	**Nil**
Rajasthan	Schedule I (Entry 107 & 135)	A) Solar energy equipment B) Plant and Machinery including parts thereof, used in generation of Electricity, from- (a) Solar Energy…	**Nil**

Customs duty exemptions/ concessions on import of goods required to be used in specified renewable energy sector.

Concessional rate of BCD of 5% is provided to import of all goods used for Project Imports

Solar - Exemption from BCD on solar panels, cells and modules. Also, exemption from ACD and SAD provided to all items of machinery, transmission equipment, auxiliary equipment etc used for setting up of solar power plant. Further, import of various other solar components has been exempt or provided concessional rate.

Excise duty exemptions/ concessional rates on production of renewable energy as well as procurement of goods to be used in production of renewable energy.

Solar – Excise duty exemption provided to all items of machinery, transmission equipment, auxiliary equipment etc used for setting up of solar power plant.

GST regime

GST is based on the foundation of providing a one tax regime, seamless credit chain (through cross utilization of credits inter se goods and services) and reduction of exemptions. However, electricity is expected to continue to be an exempted product under GST regime. Considering the same, for renewable energy projects, the GST paid on inputs, capital goods and services would continue to be a cost. Therefore, if exemptions/ concessional rates are pruned under the GST regime, there would be a substantial increase in the cost of procurements.

Since electricity duty would be outside GST, the GST paid on such procurements would continue to be a cost and would have an adverse impact on the cost of renewable energy. Similarly, taxes charged on bio-fuel would become a cost to OMCs (as they would be outside GST).

Further, it is imperative to note that the adverse impact of tax cost would vary from project to project (as well as from one source of renewable energy to another) based on the procurement pattern (import vs. domestic purchase) as well as extent of exemptions available currently (For eg – Solar has more exemptions currently than Small Hydro plants. Hence, impact on Solar would be more adverse that on Small Hydro plants).

For the purpose of computation, it has been assumed that all exemptions available currently would be removed and the BCD rate would continue to remain as in current regime (whether concessional or otherwise).

INCREASE IN TAX RATES

Current regime

Currently, different tax rates are applicable depending on the nature of procurement. For example, generic Excise duty rate is 12.5%, Service tax is 14.5% and VAT is 5%-14%. All such rates could be reduced/ exempted basis the actual nature of goods and purpose.

GST regime

GST aims to provide a single rate for goods and services. The Select Committee has recommended that the standard GST rate should not exceed 20%. For the purpose of computation, it has been assumed a CGST rate of 10%, SGST rate of 10% and IGST rate of 20% (for inter-State transactions). Further, an additional tax 1% may be levied for 2 years on inter-State sales/ purchases.

A GST rate of 20% would also be substantially higher than the rates applicable currently on procurement of goods and services in the renewable energy sector. For example:

- Concessional rates (both excise duty as well as VAT) are available on procurement of goods within India. GST rate of 20% would be substantially higher than the taxes which are paid on domestic procurement of goods currently

- Service tax is paid at 14.5% currently while GST would be applicable at 20%. This clearly shows a significant increase in tax costs which would be paid on procurement of services such as installation, transportation etc.
- Preparation and Maintenance – Both VAT and service tax is applicable currently on operation and maintenance activities. However, concessional rate and valuation provisions are provided for under VAT as well as Service tax laws. Accordingly, the effective tax generally is lower than the proposed GST rate of 20%

Hence, an increase in tax rate would have an adverse impact on the taxes which would be paid on procurements as the same would increase the tax cost burden for the renewable energy sector.