

08-June-2017

To

Shri Piyush Goyal
Minister of State, MoP, MNRE
Shram Shakti Bhavan
New Delhi 110001

Dear Sir,

Subject: Request to consider energy storage and batteries under 5% GST slab

We, India Energy Storage Alliance (IESA) welcome the efforts of the Government and the Ministry of Finance in introducing a single Goods and Services' Tax (GST) throughout the country by 1-July 2017. India Energy Storage Alliance (IESA) has been leading the efforts towards adoption of energy storage and Electric Vehicles (EV) in India since 2012.

The GST council in its meeting on 18-May 2017 released the GST rate schedule for Goods. The rates fixed for batteries are at 28% for new primary cells and primary batteries and 18% for spent primary cells and batteries. Electrically operated vehicles are proposed to attract a rate of 12%. We believe the rates currently proposed for these components if applicable also to secondary batteries (i.e. rechargeable batteries / energy storage) could hinder the adoption of energy storage in grid applications such as energy access / Renewable Energy (RE) integration as well as large-scale adoption of Electric Vehicles (EV) in the country.

The Ministry of New and Renewable Energy (MNRE) has set an ambitious target of 175GW of RE by 2022. We believe, the proposed tax structure would slowdown the progress of '175GW of RE by 2022' and '100% EV fleet by 2030'. Our members including global battery manufacturing companies have expressed concern that the proposed tax slabs for batteries would increase the total cost of batteries by over 10% again current scenario. In developed countries such as US, energy storage systems coupled with renewables are extended same benefits as renewable projects such as Investment Tax Credits. So the proposed GST rates could significantly put India at a disadvantage in global attractiveness.

We propose the following structure and request the ministry to present our case to the GST council.

Chapter	GST rate schedule	Suggested rate	Remarks
85-Primary Cells and primary batteries	28%	5%	Could be classified under devices for RE projects and spare parts at 5%.
85-Waste and scrap of spent primary cells and batteries	18%	5%	
87- Electrically operated vehicles, including two and three wheeled electric motor vehicles.	12%	5%	Currently states are providing tax exemptions for EV.
Entry 34 Services Any transfer of right in goods or of undivided share in goods without the transfer of title thereof (supply of services) to attract the same GST rate and compensation cess as applicable on supply of similar goods which involves any transfer of title in goods (supply of goods).	Same rate of GST and compensation cess as on supply of similar goods.	5%	As per proposal for batteries

Batteries for energy storage:

India currently has a national target of achieving 175GW of Renewable Energy (RE) by 2022. RE (wind and solar) being intermittent will need to be supplemented by firm power sources. Currently, energy storage technologies such as batteries are turning out to be an economical option in comparison to coal and gas power plants globally to provide this flexibility to the grid. Over 1000MWh of Lithium-ion batteries have already been deployed across telecom towers in India for diesel minimisation. The proposed tax structure could slow the momentum of this progress from an economic viability point of view.

In India, a few large-scale RE projects with energy storage are recently commissioned/under-evaluation.

Energy Storage Project	Technology	Size	Status
PGCIL (POWERGRID Corporation of India)	Lithium Ion	500 kW (250 KWh)	Commissioned and Operational
PGCIL (POWERGRID Corporation of India)	Adv. Lead Acid	500 kW (250 KWh)	Commissioned and Operational
PGCIL (POWERGRID Corporation of India)	NaNiCl ₂ / Alkaline / Flow	250 kW, (1000 kWh)	Installation Stage
CEL (Central Electronics Limited)	Li-Ion	1 MW (500 kWh)	Project awarded
SECI (Himachal Pradesh)	All battery technologies	500 KW	Tender closed
SECI (Andhra Pradesh) - 2 Projects	All battery technologies	5 MW (2.5 MWh)	Tender closed
SECI (Karnataka) - 4 Projects	All battery technologies	5 MW (2.5 MWh)	Tender closed
Tata Power Delhi Distribution - AES- Mitsubishi Corp	Li-Ion	10 MW	Announced in January 2017 at Energy storage India
BHEL (Bharat Heavy Electricals Limited) EOI	Li-Ion		Expression of Interest (EOI) completed
NTPC (National Thermal Power Corporation Limited)	All battery technologies	3.2 MW (3.2 MWh)	Tender released, Last date to apply 7th July 2017
NTPC (National Thermal Power Corporation Limited)	All battery technologies	6 MW (24 MWh)	Tender released, Last date to apply 3rd July 2017
NLC (Neyveli Lignite Corporation Ltd.) EOI	All battery technologies	7 MW (28 MWh)	Tender released and last date to apply 27th June 2017
BHEL (Bharat Heavy Electricals Limited) Tender	Flow Battery (VRB)	200 kWh (50 kW)	Tender released, Last date to apply 20th June 2017
BHEL (Bharat Heavy Electricals Limited) Tender	Adv. Lead Acid	300 kWh (100 kW)	Tender released, Last date to apply 20th June 2017

Effect on manufacturing investments for advanced energy storage

India Energy Storage Alliance anticipates that with the right policy support, India could become one of the largest markets for advanced energy storage technologies with 100 GWh + potential for deployment by 2022. Due to this potential, we are already seeing major investments taking place from IESA member companies such as Delta, Exicom, ACME for setting up manufacturing plants for assembling over 1 GWh of Li-Ion batteries in India this year. Also existing Indian companies such as Exide are investing in setting up manufacturing for advanced lead acid technologies. Next year, we also anticipate that at least 2 global technology leaders could set up Giga factories to manufacture Li-Ion cells in India.

Key to attracting these manufacturing investments is adoption of these technologies in India. The costs of these batteries is reducing globally with almost 50-80 % cost reduction in past 5-10 years for various technologies. At the same time, the costs are still higher than conventional batteries and thus a higher tax under the current scenario would increase the overall Capex of the RE projects involving energy storage. Considering the proposed batteries are to be deployed with RE project, we request the ministry

to recommend GST council to fix the slab at 5% as under the RE devices and spares category of 5%. This would greatly benefit the battery manufacturers and project developers and enable large-scale development of energy storage projects in the immediate future. We believe, solar modules which earlier was under the 18% category is now revised to be included under the 5% bracket for RE projects and hope a similar benefit is provided to batteries and PCS (inverters) used for RE projects.

Apart from this, we also request you to review delays in demonstration projects that were announced by MNRE and Solar Energy Corporation of India (SECI) over past 2 years. Over past 2 years, over 40 Indian and International companies have submitted proposals to MNRE and SECI for setting up MW scale energy storage demonstration projects in response to the Expression of Interest issued by MNRE in 2015 and 3 bids issued by SECI in 2016. Unfortunately, none of these efforts has resulted in actual projects, as concerned authorities have not announced any results. This is creating a serious concern amongst global developers as there are multiple opportunities for deploying grid scale storage in US, Canada, Australia and Europe, where these companies see timely response from the authorities.

Batteries for Electric Vehicles:

The Government and the Department of Heavy Industries (DHI), Ministry of Heavy Industries and Public Enterprises is currently working towards a vision of driving India towards a 100% Electric Vehicle (EV) nation by 2030. EVs are expensive compared to an equivalent gasoline powered vehicle. Batteries are a major cost component of Electric Vehicle (EV) accounting for nearly half of the total cost of the vehicles. The cost of batteries for EV application is expected to decline as the market expands. However, under the current scenario EV adoption in India is very low. In order to incentivise adoption of EV, the Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles (FAME) is under implementation. In addition to the central subsidy assistance through FAME a few state governments are providing tax incentives to enable EV adoption. Under the proposed slab of 28% for batteries, the cost of EV would increase significantly from their current prices. Also, EVs are proposed to be taxed at 12% while a few state governments are already providing tax incentives. A recent report '**India leaps ahead: Transformative Mobility Solutions for All (May 2017)**' published by NITI Aayog recommends enhanced fiscal incentives that is consistent across state boundaries. GST being uniform across the nation will be an ideal policy change to ease the tax burdens. We believe the proposed tax slab of 28% for batteries would dampen the consumer interest in EV as the costs are expected to increase.

We humbly request the ministry to consider our request and recommend the GST council in revising the rates and expediting the development of energy storage projects and large-scale adoption of EV in India.

Looking forward to your support.

Yours Sincerely,



Dr. Rahul Walawalkar

Executive Director, IESA &

President & MD, Customized Energy Solutions (India)

(CC: Secretary- MoP; Secretary- MNRE)

About India Energy Storage Alliance:

The India Energy Storage Alliance (IESA) was launched in 2012 by Customized Energy Solutions to promote energy storage & micro grid technologies and their applications in India. IESA’s vision to make India a global leader in energy storage & microgrid technology adoption and hub for manufacturing of these emerging technologies by 2020. IESA’s mission is to make energy sector in India more competitive and efficient by creating awareness among various stakeholders in the industry and by promoting information exchange with the end users. IESA also provides insights to technology developers, original equipment manufacturers, policymakers, renewable players and system integrators on the policy landscape and business opportunities in India through frequent interaction with all key stakeholders. As estimated by IESA, the Indian energy storage market is expected to grow to 100+ GWh by 2022. Please find more information on IESA at <http://www.indiaesa.info/>

IESA Members:

