hybrid buses at a cost of ₹300 crore and 500 charging stations/infrastructure at a cost of about ₹43 crore, were sanctioned. Under Phase II of FAME, about 15878 e-vehicles were supported by way of demand incentive at a cost of ₹50 crore till date. In addition, 5595 e-buses involving incentive of ₹2800 crore and 2636 e-vehicles charging stations with incentive amounting to ₹500 crore were also sanctioned. Besides, Energy Efficiency Service Limited (EESL), a joint venture company of PSUs under Ministry of Power and NTPC, a PSU under Ministry of Power, have set up 68 and 72 number e-vehicle charging stations respectively. EESL has also completed the process of procuring 10,000 e-cars and deployed 1514 e-cars in Government organizations, besides setting up 488 captive chargers for these vehicles.

(b) and (c) EESL has signed a Memorandum of Understanding (MoU) with Bharat Heavy Electricals Limited (BHEL) to set up a network of public charging infrastructure for electric mobility at various highways across the country.

As per this MoU, EESL will make the entire upfront investment on services, along with the operation and maintenance of the public charging infrastructure, while BHEL will offer complete Engineering, Procurement and Commissioning (EPC) solutions from concept to commissioning. The MoU covers collaboration for identifying, planning, development and installation of charging stations at suitable locations.

Completion of hydro power projects in North Eastern States

2703. SHRI SANJAY RAUT: Will the Minister of POWER be pleased to state:

(a) whether it is a fact that nearly 103 private hydro power projects failed to takeoff in Arunachal Pradesh totaling about 35 gigawatts (GW) and are still to take off despite Government's Act East Policy focus;

(b) if so, the details thereof and the reasons for the delay;

(c) the current status of Subansiri hydroelectric project and reasons for the delay;

(d) the details of steps taken by Government since 2014 for completion of the various hydro projects in North-East; and

(e) whether Government has planned any action plan for early completion of hydro projects in North-East, if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI RAJ KUMAR SINGH): (a) and (b) State Government of Arunachal Pradesh had allotted 103 hydropower

projects of above 25 MW capacity to various developers of which 92 hydropower projects were allotted to the private sector. Of the 103 projects, 2 projects of 515 MW allotted to NEEPCO, a CPSU, have been commissioned. 2 out of 4 units of 600 MW Kameng Hydro Electric Project of NEEPCO have also been commissioned and the remaining 2 units are due for commissioning in early part of next financial year. Subansiri Lower Project (2000 MW) allotted to NHPC is under construction and is scheduled for commissioning in 2023-24.

Of the 92 private sector projects, construction of Gongri HE project (144 MW) has started but, presently, it is stalled due to financial issues of the developer and the allotment has subsequently been terminated by Govt. of Arunachal Pradesh. DPRs have been concurred for 14 projects of 13,518 MW by CEA and for 7 projects of 397 MW by the State Government. 11 projects of 1181 MW have been dropped after Basin studies etc. The State Government is reviewing the progress of all the projects and allotment of the projects, where no progress has been made by the developers, is being terminated. As on date, allotment of 16 projects of total capacity of over 4000 MW has been terminated. Hydropower projects have long gestation period as processes like land acquisition, resettlement & rehabilitation, environmental and forest clearances etc. take several years.

(c) The current status of Subansiri Lower hydroelectric project (8x250=2000 MW), and the reasons for delay is given in Statement (*See* below).

(d) and (e) A number of steps have been taken by Government since 2014 for completion of the various hydro projects in the North-East, which include revival of many stalled projects *viz.*, Teesta - III (1200 MW), Subansiri Lower (2000 MW), Teesta - VI (500 MW) and Rangit - IV (120 MW). Further, Pre-investment approval has been accorded for India's largest hydropower project *i.e.* Dibang Multipurpose project (2880 MW) of NHPC in Arunachal Pradesh. In order to promote hydropower sector in view of the various challenges faced by it, the Union Cabinet, in March 2019, approved various measures, *viz.*, (i) Declaring Large Hydropower Projects (> 25 MW projects) as Renewable Energy Source, (ii) Hydropower Purchase Obligation (HPO) as a separate entity within Non-solar Renewable Purchase Obligation (RPO) for new projects commissioned and for the untied capacity of earlier projects, (iii) Tariff Rationalisation measures, (iv) Budgetary Support for Enabling Infrastructure, *i.e.*, roads/ bridges and (v) Budgetary Support for Flood Moderation. These measures would promote hydropower sector in the entire country including the North East.

Ministry of Power have issued guidelines in Nov. 2019 to reduce incidents of time and cost overrun which *inter alia* includes introduction of e-diary, enhanced delegation

of powers at project level, time-bound decision making and making top management accountable for delays etc. Also regular meetings are taken by Central Electricity Authority (CEA) and Ministry of Power to review the progress of the projects, identify the constraints areas and facilitate resolution of issues affecting the progress of the hydropower projects.

Statement

Status of Subansiri Lower HEP (8x250=2000 MW) being executed bv NHPC Ltd. in Arunachal Pradesh, as on 29.02.2020

- Dam (116m high and 217m long):- Dam concreting 53.42% & Intake concreting 96% completed.
- Head Race Tunnel (9.5m diameter):- 98% heading excavation, 73.65% benching excavation & 56.80% concrete overt lining completed.
- Surge Tunnel (28x 19 x 62m deep oval shaped x 8 nos.):- Heading excavation 86.40% & benching excavation 12% completed.
- Pressure Shaft (8m dia.):- Vertical PS slashing 199m (51.82%) out of 384m.
- Power House (285m x 61m x 64m size):- Excavation almost completed & concreting 35% completed
- Electro Mechanical Works:-
    - Unit-1: Elbow Erection (1 to 6) and Turbine Stay Ring and Spiral Case erection completed.
    - Unit-2: Elbow Erection (2 to 6) and Turbine Stay Ring and Spiral Case erection completed.
- Hydro Mechanical Works:
    - Erection of Diversion Tunnel Gates: 51.80% completed. Erection of Intake Gates: 8% completed.
    - Out of total 1594m, 293m pressure shaft steel liner erected.
- Project is now scheduled to be commissioned by September, 2023.

Reasons for delay in execution of Subansiri Lower HEP

- Delay in transfer of the forest land.

- Disruption of works by locals at Arunachal Pradesh side.
- Slope failure in the Power House in Jan., 2008.
- Damage to the bridge on Ranganadi river.
- Change in design of surge shafts to surge tunnels.
- Construction activities were stalled due to agitation by activists in Assam December, 2011.
- Hon'ble NGT stayed recommencement of work *vide* order dated 11.12.2015.

However, Hon'ble NGT, *vide* its order dated 31.07.2019, has dismissed the applications and the construction work has resumed w.e.f 15.10.2019 and is in progress.

Penal action against power plants for not obliging to environmental provisions

2704. SHRI BHASKAR RAO NEKKANTI: Will the Minister of POWER be pleased to state:

(a) the number of power plants that have been penalised by environmental compensation and shut downs for not complying with the timeline for reducing pollution under MoEF&CC notification [S.O.3305(E)] dated 7th December, 2015;

(b) the details of actions taken against the power plants showing non-compliance to the timeline provided under MoEF&CC notification (S.0.3305(E)} dated 7th December, 2015 to install Flue Gas Desulfurisation (FGD) till now, power plant-wise; and

(c) whether penal actions have not been taken on such non-complying power plants as mentioned above, if so, the reason therefor?

THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI RAJ KUMAR SINGH): (a) to (c) Ministry of Environment, Forest and Climate Change (MoEF&CC) notified new environmental norms for Particulate Matter, Sulphur Oxides (SOx), Nitrogen Oxides (NOx), Water consumption and Mercury, for Thermal Power Plants (TPPs) on 7th December, 2015. In order to ensure uninterrupted power supply position in the country, a phased implementation plan (to be implemented by 2022) for installation of Flue Gas De-Sulphurization (FGD) in plants for a capacity of 1,61,402 MW and upgradation of Electrostatic Precipitator in plants for a capacity of 64,525 MW was prepared by Central Electricity Authority (CEA) in consultation with the stakeholders and this plan was submitted to MoEF&CC on 13.10.2017.