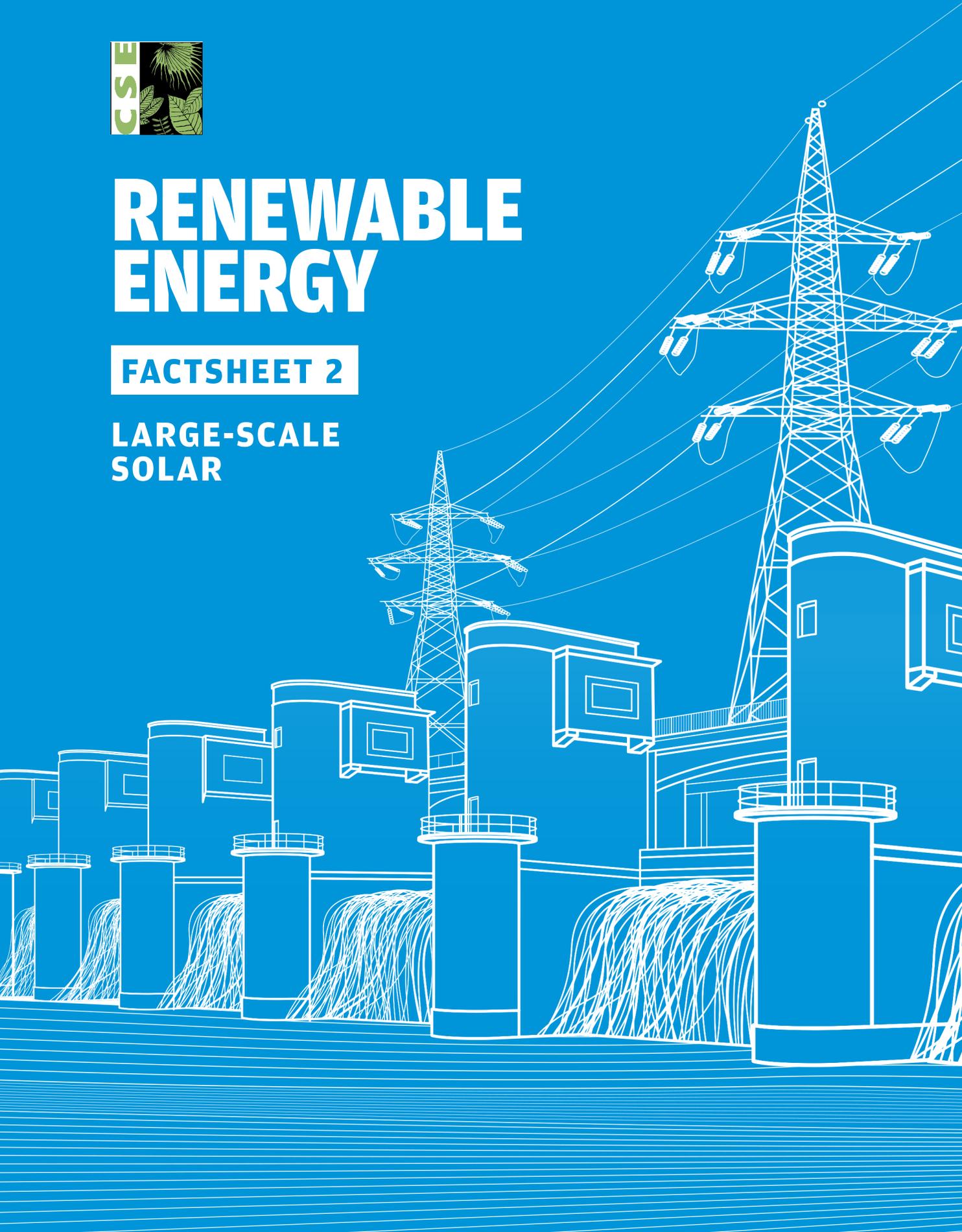




RENEWABLE ENERGY

FACTSHEET 2

LARGE-SCALE SOLAR





LARGE-SCALE SOLAR

The government is confident that it will meet the 100-GW target for large-scale solar by 2022, but what does the ground situation say?

A. THE BIG PICTURE: WHERE DO WE STAND TODAY

A 1 Out of the 175 GW, as much as 60 GW is to come from utility-scale solar power; another 40 GW will come from rooftop installations.

By March 2020, 32 GW of large-scale ground-mounted solar has been installed in the country. According to the government's submission to the Lok Sabha's Standing Committee on Energy, 87.38 GW was at various stages of development by January 2020 (see *Table 1*). The ministry is planning to tender another 15 GW in the next two years.

The government is confident of meeting the 100-GW target by 2022 – which is the combined target for large-scale solar and rooftop and decentralised solar power.

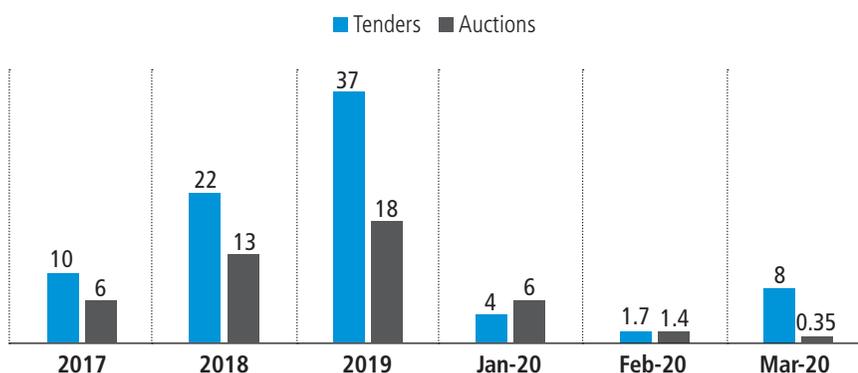
Table 1: Status of grid-connected solar projects as on January 31, 2020

Target	100 GW
Capacity commissioned (including rooftop)	34.036 GW
Letter of Intent (LoI) issued but not commissioned	23.879 GW
Tender issued but LoI not issued	29.467 GW

Source: Standing Committee on Energy (2019-20), MNRE, Demand for Grants (2020-21)

A 2 However, this may not work, as what MNRE fails to point out is that in the last two years, tenders for new projects have been unsuccessful and the achievements are slipping (see *Graph 1*). Now, the COVID-19 pandemic has put project implementation in more stress.

Graph 1: Solar power capacity tendered and auctioned (GW)

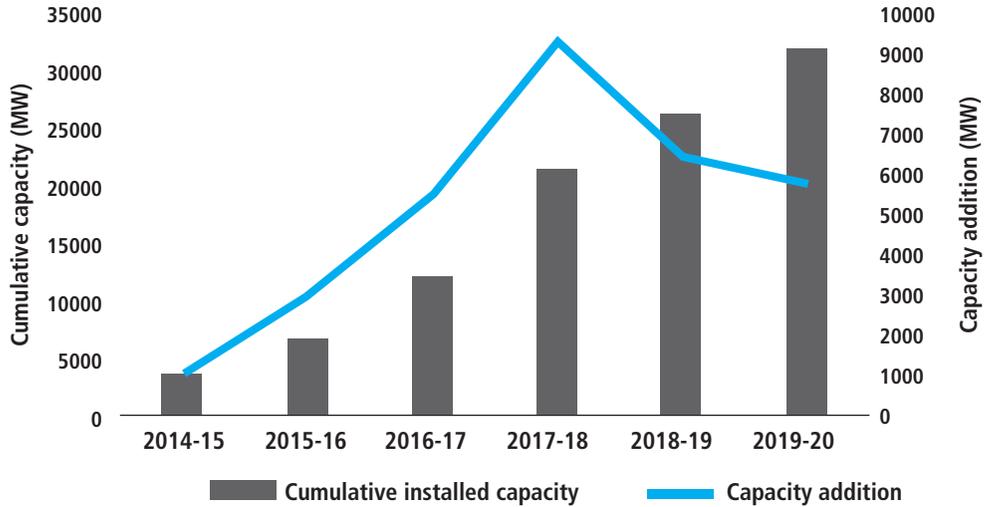


Source: Mercom, JMK Research

A 3 This is different from the past five years: between April 2014 and March 2019, this sector had witnessed remarkable growth – from 2.6 GW installed capacity to 28 GW in five years.

A 4 However, for the last two fiscals (2018-19 and 2019-20), annual capacity addition is on a decreasing trend with 6.5 GW and 5.7 GW addition respectively against the previous year of 2017-18 when 9.4 GW was installed. Only three-fourth capacity has been installed against the MNRE’s target for 2019-20 – this, despite a 23 per cent reduction in the target over that of the previous year (see Graph 2). During January to March 2020, only 0.73 GW of large-scale project capacity has been added.

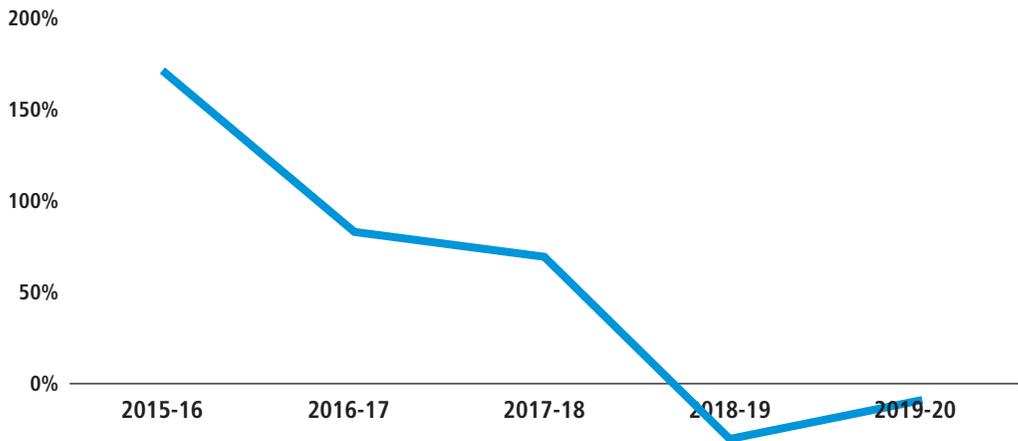
Graph 2: Capacity addition and cumulative installations



Source: MNRE, CEA

A 5 In the light of this sluggish growth, it is uncertain if the country will meet the 60 GW target by 2022 (see Graph 3). Due to the pandemic, India is expected to add only 5 GW of solar capacity in 2020 (including rooftop).

Graph 3: Rate of change in capacity addition (compared to previous year)



Source: CSE analysis based on MNRE and CEA data

B: GAPS IN THE GROWTH

The reasons for the slow growth are structural as well as policy-induced:

B 1 The high cost of power is adding to financial problems of distribution companies.

- Investment risk has increased as distribution companies (discoms) are unable to pay their dues to solar power generators. According to the CEA, the dues towards 342 RE projects amounted to about Rs 9,400 crore by the end of November 2019, affecting 14.56 GW of capacity. The states with the bulk of RE projects – Andhra Pradesh, Tamil Nadu, Telangana and Karnataka – account for 78 per cent of the dues; these four also account for 54 per cent of the installed capacity of large-scale solar). **Even with the government's bail-out package for discoms, such risks are expected to persist.**
- It is also said that solar energy is being curtailed 'illegally' – this energy is in the must-run category and, therefore, has high priority in scheduling of power. But because of the higher costs or grid unavailability, generation companies are asked to stop feeding power.
- The Andhra Pradesh government's effort to re-negotiate the terms of the solar power purchase agreements (PPAs) on the ground that these have a high cost, have also spooked investors. Many other states are now demanding re-negotiated rates; in 2017, Uttar Pradesh reduced tariffs.

B 2 Tenders are failing because they do not capture the costs of power.

- Governments had been imposing ceilings on tariffs – from Rs 2.5 to Rs 2.6 per unit. This is partly because of the unit price discovery for Bhadla Solar Park auction in May 2017 of Rs 2.44 per unit. But this price is often not viable and so, 8 GW of tenders were cancelled in 2018-19 – more than the capacity added in that year. In FY19 and FY20, most SECI auctions drew a tariff of Rs 2.55 to 2.71 per unit; in UP, tariffs ranged between Rs 3.02 to 3.38 per unit.
- Invoking '*force majeure*' in the backdrop of COVID-19, ACME Solar has terminated a contract of 600 MW signed with SECI in December 2018 at the landmark tariff of Rs 2.44 per unit. ACME cited land acquisition delays, the coronavirus outbreak and its impact on suppliers of solar cells and modules in China, and delays in setting up of transmission networks as reasons.
- The MNRE is now moving away from imposition of tariff caps. But if the states continue to demand lowest tariffs and try to renegotiate PPAs, development of the state projects will be seriously hit.

B 3 The introduction of safeguard duty has increased costs.

- In July 2018, the government imposed an import duty of 25 per cent for the year; 20 per cent for the next six months and 15 per cent for the subsequent six months. This was done to promote domestic manufacture of modules. But as production capacity is limited – India currently has 10 GW of module and 3 GW of cell manufacturing capacity – this has not been enough for achieving the targets; since capacity is under-utilised and prices are higher than the imported variants, it has led to increased cost.
- From July 2020, the government is planning to introduce a basic customs duty (BCD) on import of solar modules as well as all raw materials required for module manufacturing. The impact on the industry is yet unclear.

B 4 Then there is increased cost because of GST.

There was initial confusion on the applicable tax rate; solar panels were under 5 per cent, but other equipment were in a higher slab. In December 2018, the government adopted deemed valuation provision under which 70 per cent of the contract value for goods would be taxed at 5 per cent and the remaining 30 per cent for services at 18 per cent. The effective rate is now roughly 9 per cent, which has increased costs of the projects.

What, then, is the way ahead? This is what we need to discuss so that policies can be re-worked for the future.

References

1. Standing Committee on Energy 2019, MNRE, Demand for Grants (2019-20)



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