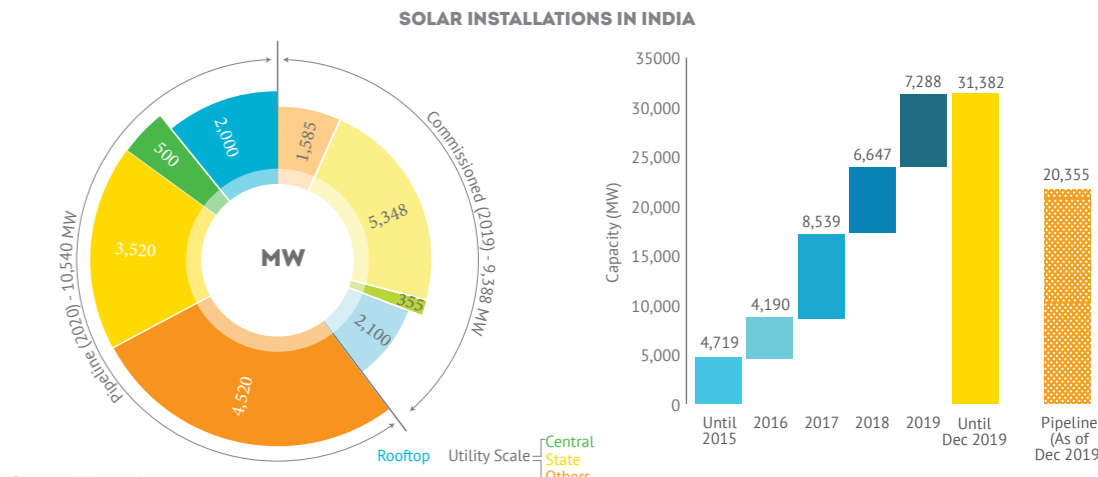
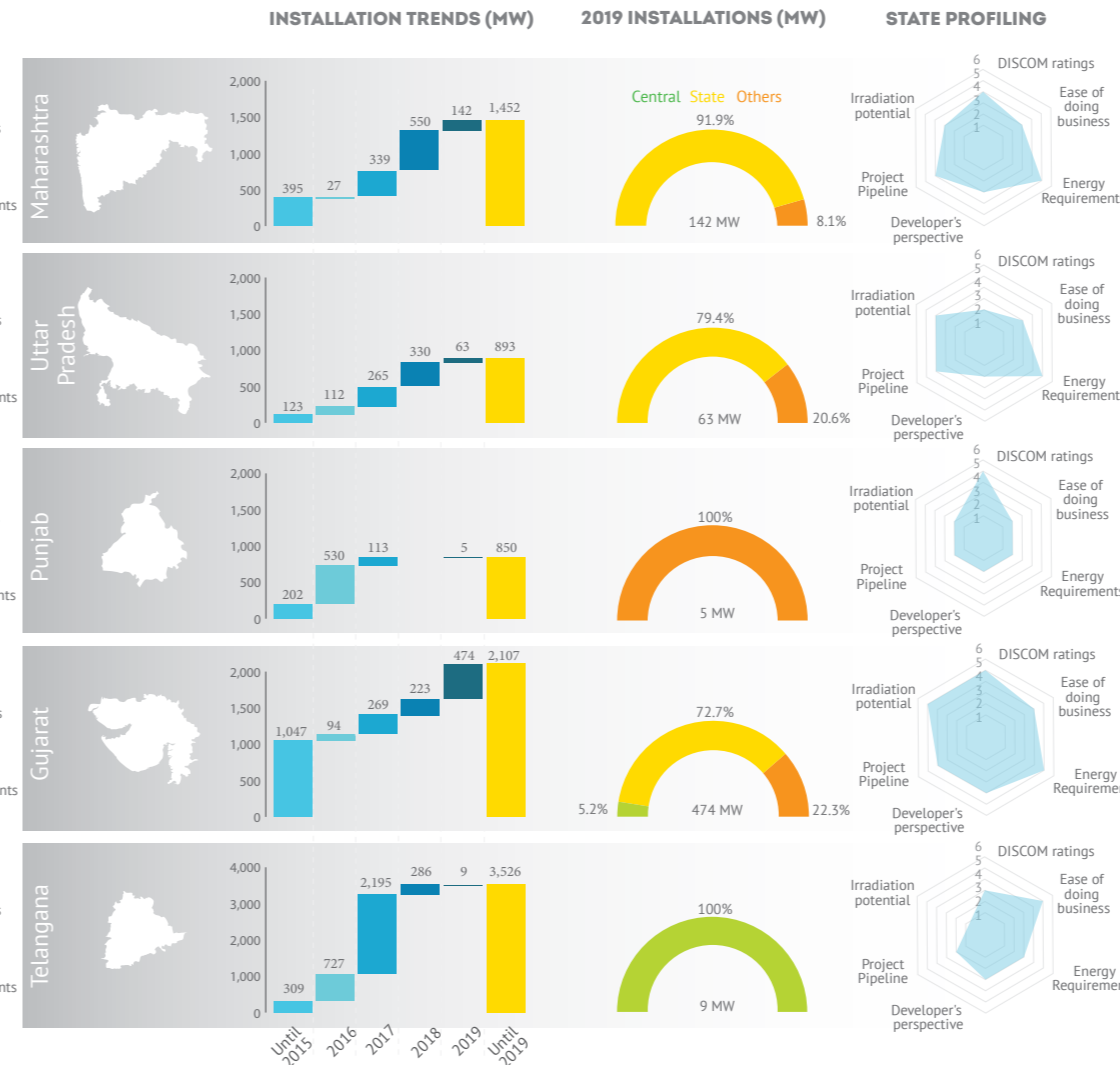
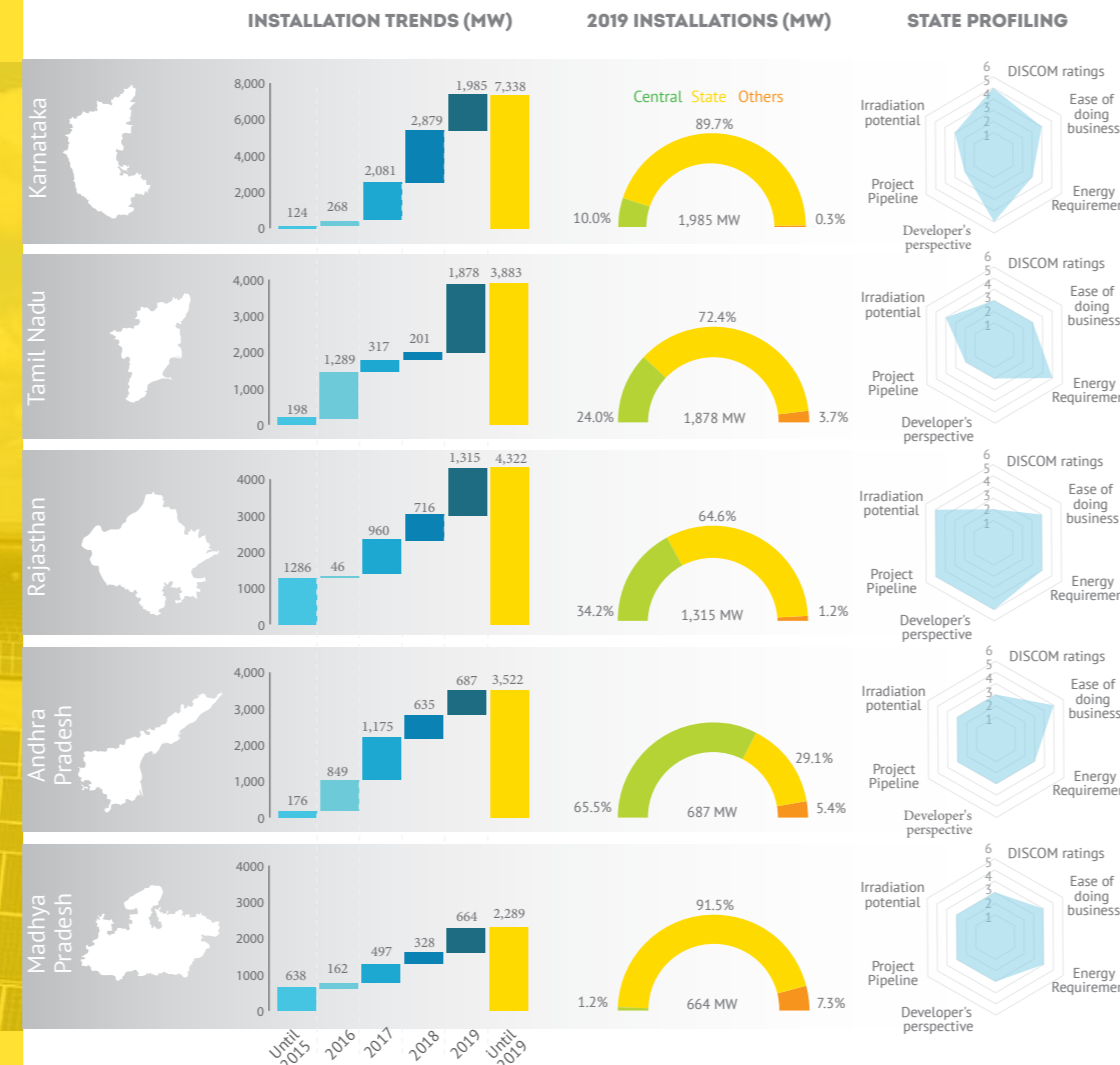


ANNUAL INDIA SOLAR REPORT CARD 2019 (JAN-DEC)



Source: JMK Research
 Note: - State wise installation trends are for utility scale solar projects above 1 MW only in India. State wise split for rooftop solar projects not available
 - Projects are split between Central and State basis the tendering authority that has allotted the projects. 'Others' include all third party/ open access projects in India.
 - Project pipeline includes projects allotted to developers under various central and state tenders but not yet commissioned.
 - Rooftop solar includes all installations on open ground spaces, roof, parking lot or any other area within the premises.
 - All installation capacity numbers mentioned in this report are AC capacity numbers unless otherwise mentioned.

STATE PROFILING: METHODOLOGY

DISCOM Ratings- Ratings are given to all state DISCOMs basis their operational and financial performance by Ministry of Power's (MoP) for the review period 2017-18, released in October 2019.

Solar Irradiation potential: States are ranked basis amount of solar radiation received as per the Solar Radiation Map of India by NREL.

Ease of Doing business Index is based on the implementation of the Business Reform Action Plan (BRAP) recommended by the Department of Industrial Policy and Promotion (DIPP) to all States and UTs.

Project Pipeline: Score is given basis state wise pipeline of solar projects allotted to various developers in India as of Dec 31, 2019.

Energy Requirement in Million units (MUs) per year for all states as per LGRR report by Central Electricity Authority (CEA).

Developer's Perspective: States are also ranked basis project developer's viewpoint on most conducive states to set up solar projects in India.

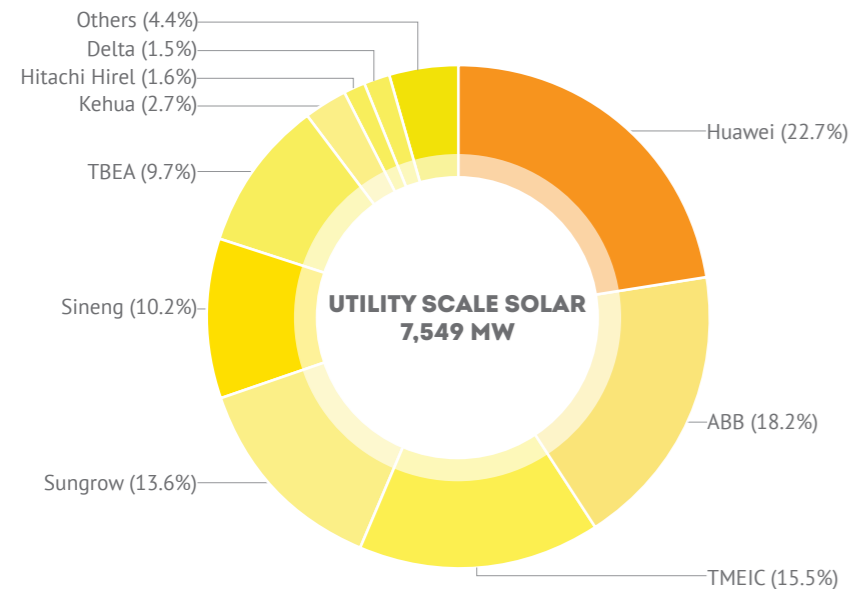
Score of 1 to 5 given for top 10 states: 1 being lowest and 5 being highest on each parameter

Disclaimer: The presentation of the materials contained in this report is of a general nature and is not intended to address the requirements of any particular individual segment or entity. JMK Research & Analytics aims to provide correct information, but does not guarantee the accuracy or completeness of such information nor does it accept responsibility for the consequence of its use.

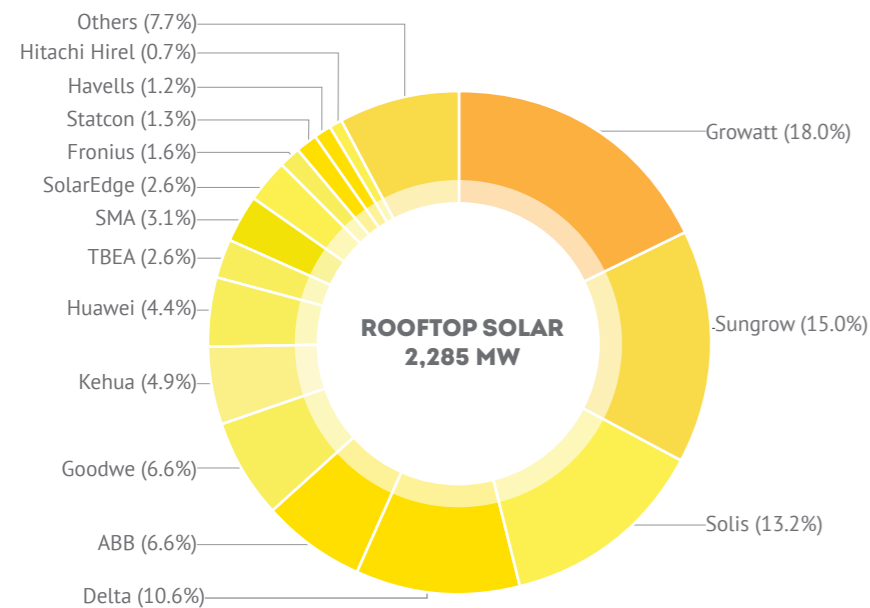


JMK Research & Analytics
 27/2C, Palam Vihar, Gurugram, Haryana, India - 122017
 Tel: +91 - 742 830 6655, E: contact@jmkresearch.com
 www.jmkresearch.com

INVERTERS

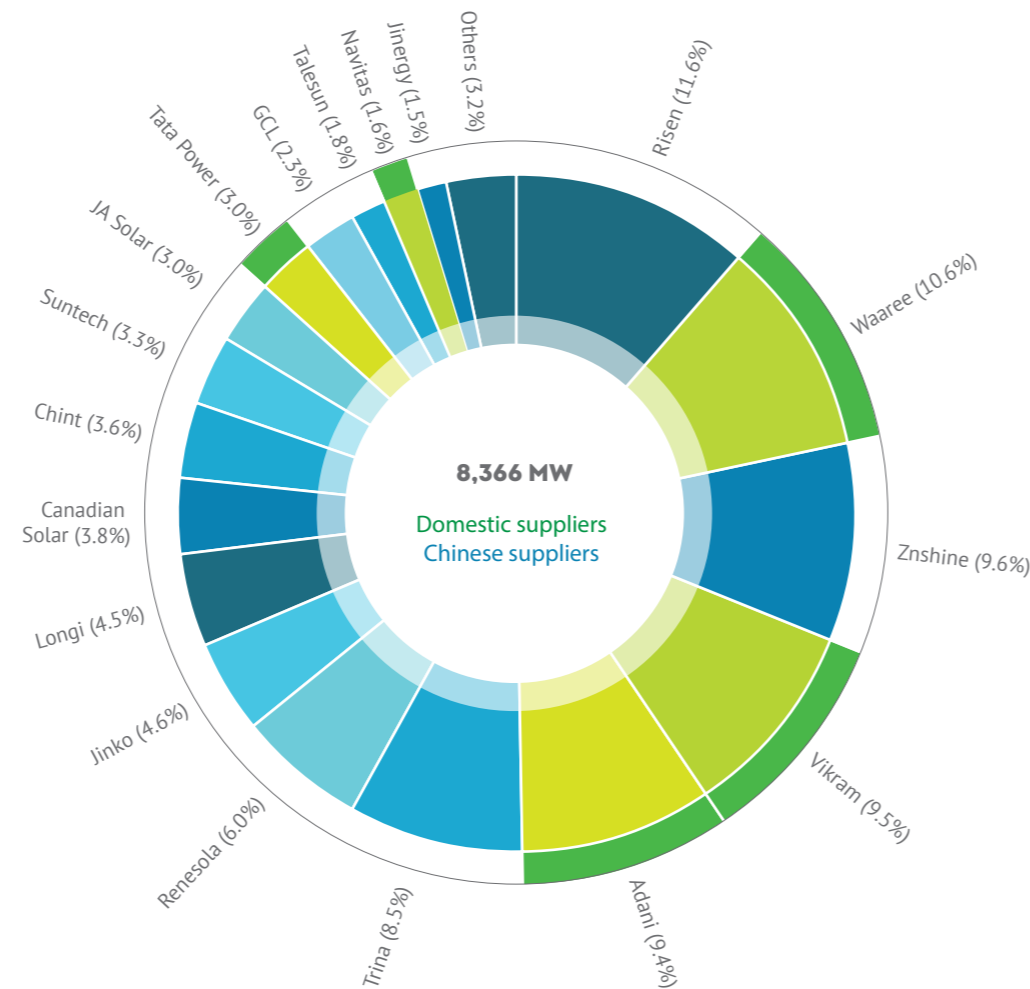


Note: Inverter suppliers are ranked basis their shipment in utility scale solar market in India from Jan-Dec 2019 period. Huawei is the only string inverter supplier in this analysis. SMA, GE, Schneider have not shared their data.



Note: Inverter suppliers are ranked basis their shipment in rooftop solar market in India from Jan-Dec 2019 period. Goodwe, TBEA, SMA have not confirmed their data. Kstar, Sofarsolar have not shared their data.

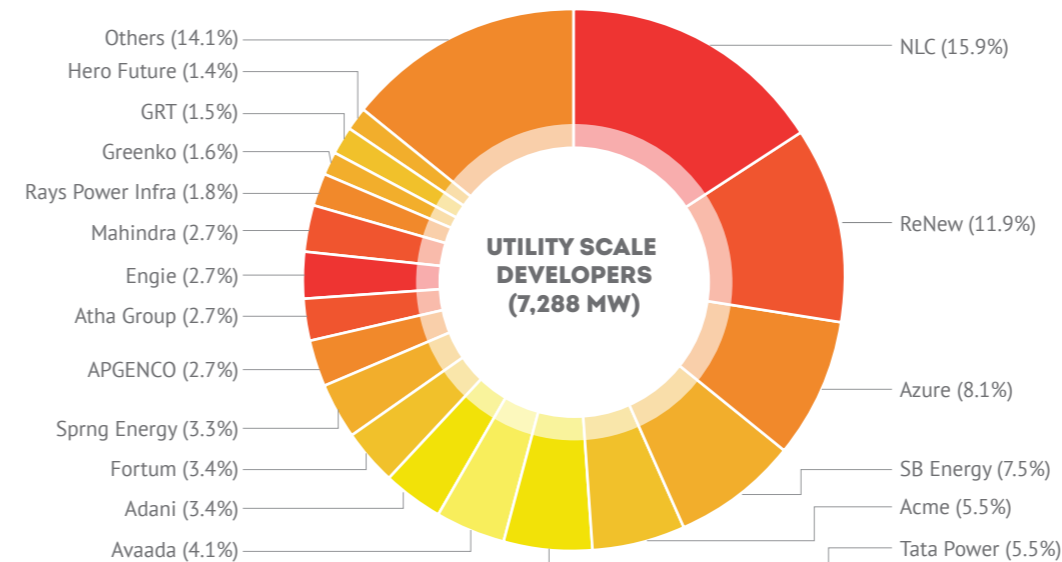
MODULES



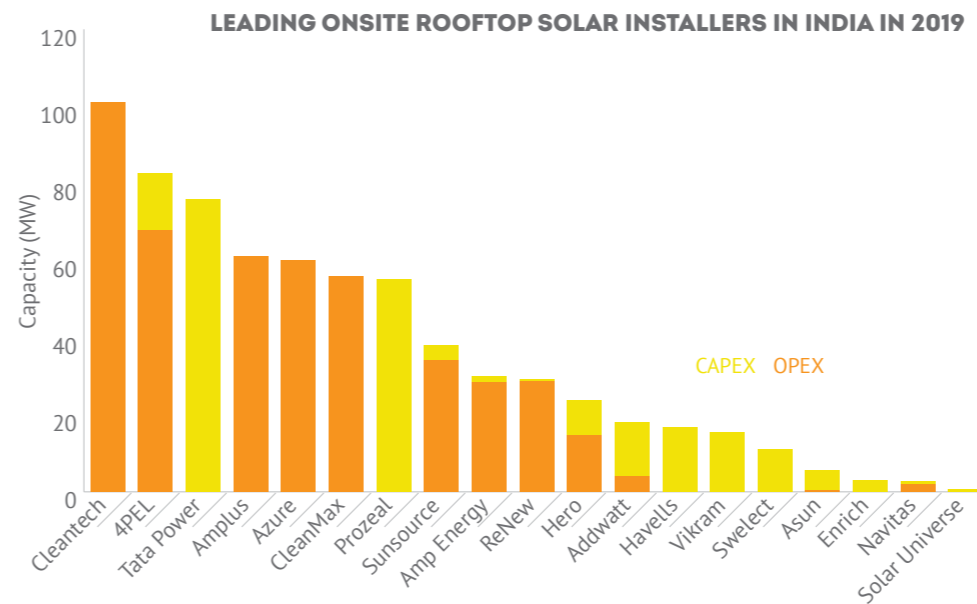
Note: Suppliers are ranked basis their shipment/ supplies in India market (both utility scale and rooftop solar) from Jan-Dec 2019 period. Suntech, JA Solar, GCL, Jinergy have not confirmed their data. PV Powertech, Renewsys, Goldi Solar, AlpeX, EMMVEE have not shared their data.

REPORTS CALENDAR 2020	APRIL	MAY	JUNE	JULY
	Monthly RE Update Q1 2020 RE Update	Monthly RE Update	Monthly RE Update Annual Report Card FY2019	Monthly RE Update
AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Monthly RE Update Q2 2020 RE Update	Monthly RE Update Annual Report Card	Monthly RE Update Q3 2020 RE Update	Monthly RE Update Annual series: Solar+Storage in India	Monthly RE Update

DEVELOPERS

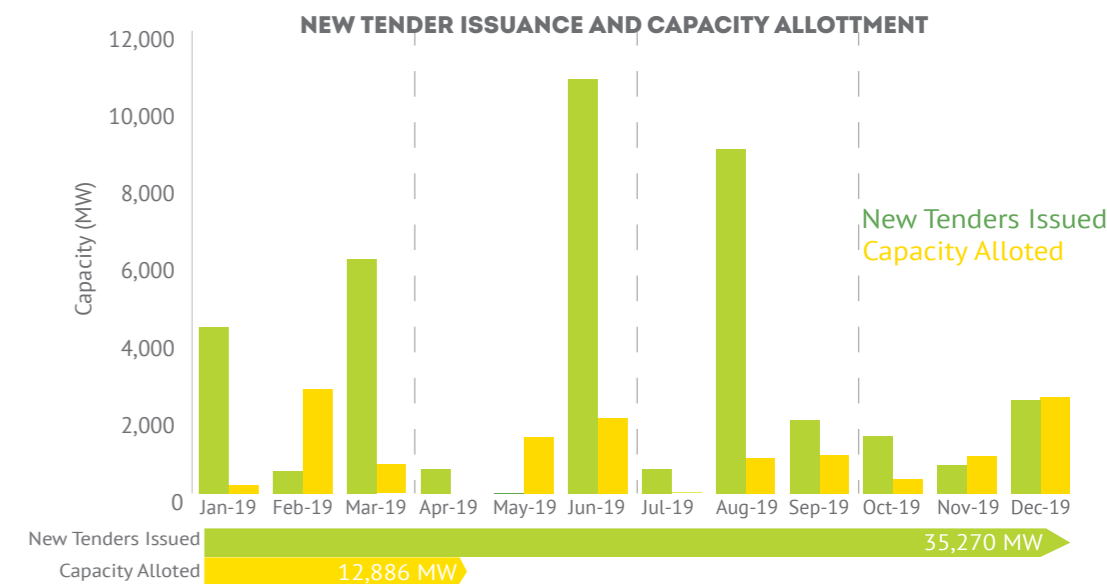
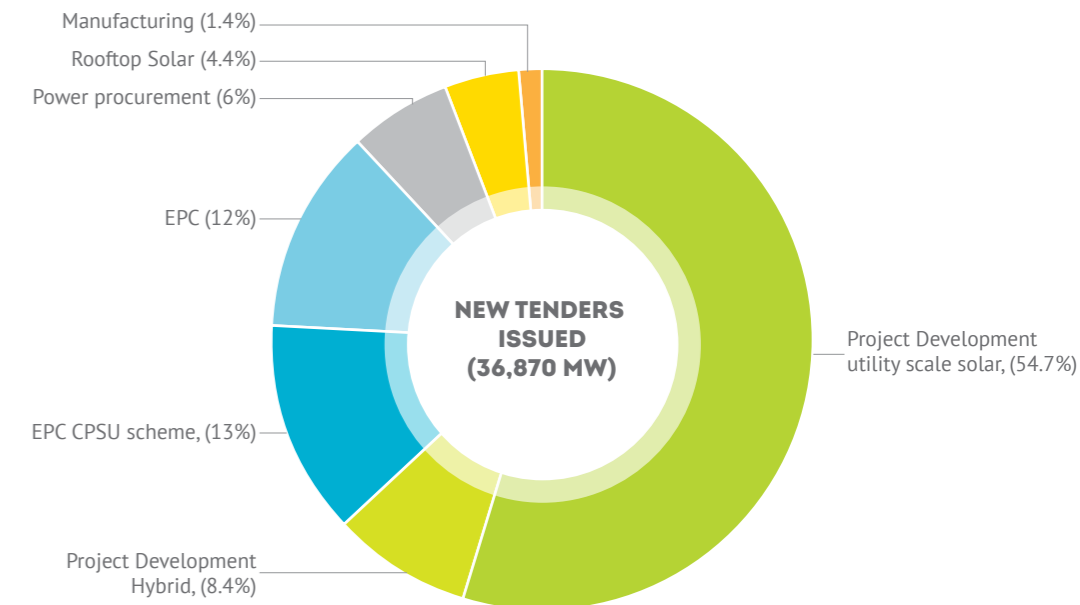


Note: Project Developers are ranked basis their commissioned AC capacity from Jan-Dec 2019 period.



Note: Players which have shared their data are shown in this analysis. Other key players including Jackson, S&W, Mahindra have not shared their rooftop projects data. Rooftop solar includes all installations on open ground spaces, roof, parking lot or any other area within the premises. Under the OPEX model, a third-party project developer finances and installs the solar system on consumer premises and sells power output under a long-term PPA agreement. Under CAPEX model, project is owned by the end consumer.

TENDERS



Source: JMK Research
Note: This analysis excludes wind tenders and rooftop solar tenders.