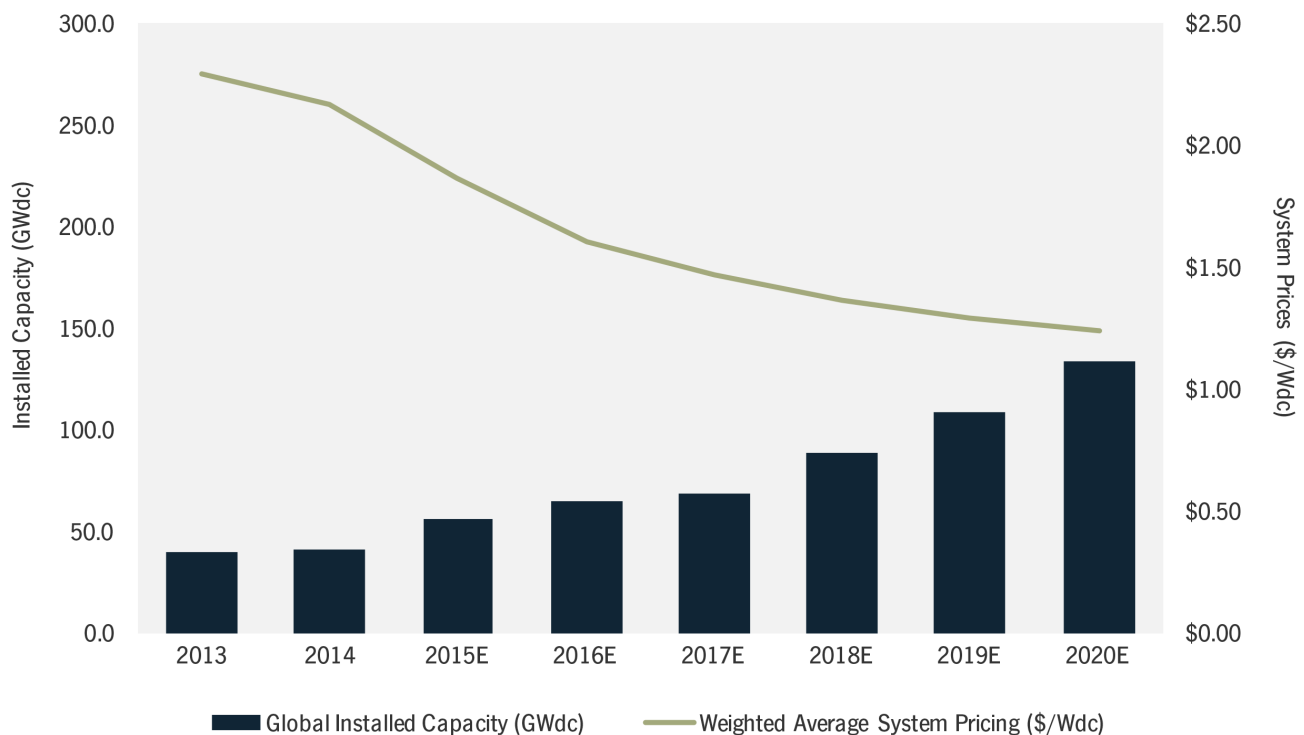


## PV Balance of Systems 2015: Technology Trends and Markets in the U.S. and Abroad

MJ Shiao | Director, Solar Research

PV balance of systems (BOS), encompassing all non-module costs including hardware costs and soft costs consisting of operations and services, represents a market value exceeding \$70 billion in 2015 and will exceed \$100 billion by 2020 despite rapidly falling costs. In the period between 2007-2014, PV module costs have diminished more quickly than PV BOS costs. Whereas blended average module pricing has dropped 79% between 2007 and 2014, BOS costs have been slower to respond, averaging between a 39% - 64% drop depending on market sector and geography. Even within the same geography, supply chain complexity and disparity results in high variability in project BOS costs. Best practices are seldom shared and the industry has conflicting views on the best path forward when it comes to reducing component and installation costs.

### Global Installed Capacity and Average System Prices, 2013-2020E



Source: GTM Research

This slide-based report highlights key trends and opportunities for reducing PV system costs necessary for driving strong project economics and the expansion of solar in the U.S. and globally. It walks through structural and electrical BOS, PV power electronics, installation labor, design and engineering, customer acquisition and logistics and other cost components. It also provides U.S. system cost breakdowns and a look at the evolution of PV BOS, as well as in-depth global market forecasts.

### Regions covered in the report include:

U.S. | China | Germany | India | Japan | Latin America | Middle-East Africa | UK

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## Sample of topics covered in this report include:

- The effect of module efficiency on system pricing
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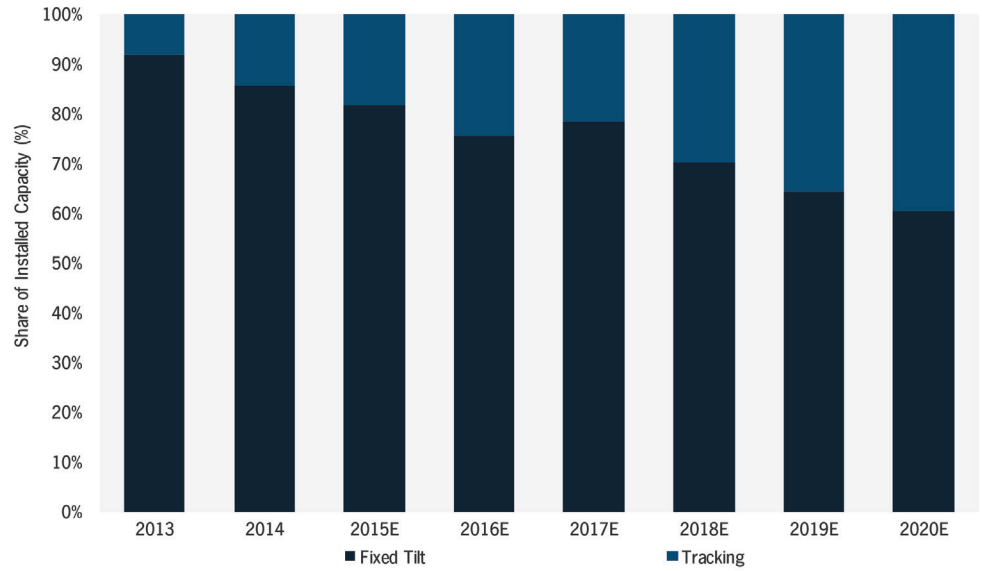
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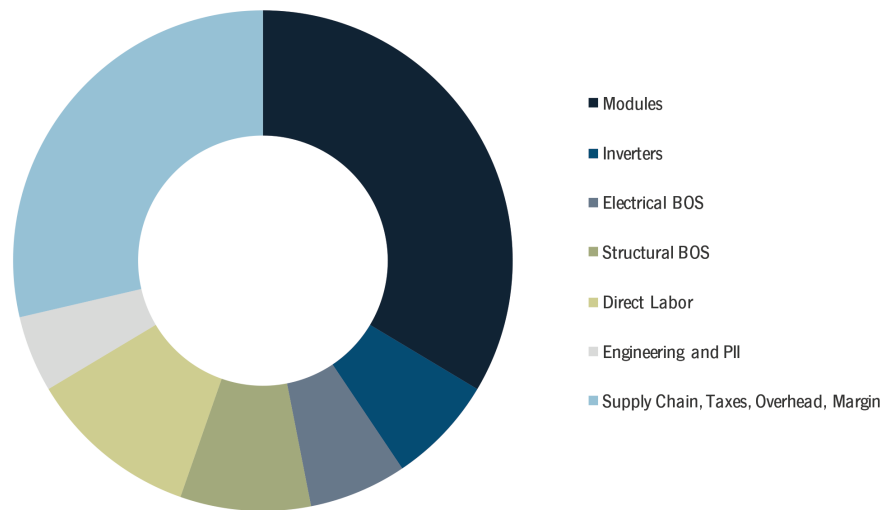
Global Ground-Mount Fixed-Tilt System vs. Tracking Market Share (by GWdc), 2013-2020E

Source: GTM Research



U.S. Commercial Flat Roof PV System Price Breakdown (2015E)

Source: GTM Research



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