

# The transformation of the electricity sector

## And

# The role of intelligent distributed generation & storage

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## Abstract

With the rapid growth of distributed generation and storage, electricity customers have many options allowing them to become more proactive in the market. As they gradually migrate away from the historical norms, four more-or-less distinct types of “customers” can be envisaged:

- **Consumers** who continue to buy all power from the distribution network at regulated bundled tariffs;
- **Prosumers** who invest in distributed generation resources, reducing or eliminating their *net* electricity purchases from the network;
- **Prosumagers** who make additional investments in distributed storage, including **electric vehicles** (EVs), to store excess generation for use at later times; and
- More “exotic” and empowered customer types, such as those who engage in **peer-to-peer (P2P) trading** and/or sharing of energy generation and consumption imbalances using platforms or enabled by aggregators or intelligent intermediaries.

This presentation describes the stratification of customers into these types of customers and their impacts on incumbents as well as disruptive new service providers. Specifically, the speaker will:

- Explore the impacts of increasing distributed generation and storage;
- Examine the explosion of new services and service providers and their impact on the existing grid and incumbent utilities; and
- Discuss future market trends and emerging business and service models.

## Bio of Speaker

**Dr. Fereidoon Sioshansi** is President of Menlo Energy Economics, a consulting firm based in San Francisco, California, with over 35 years of experience in the electric power sector.



He advises domestic and international clients on strategies to cope with the rapid transformation of the electric power sector including utilities, energy intensive industry, companies engaged in electricity delivery supply chain, regulators and policy makers.

Dr. Sioshansi is the editor and publisher of ***EEnergy Informer***, a monthly newsletter with international circulation, now in its 29<sup>th</sup> year of publication.

His professional experience includes working at **Southern California Edison Co.** (SCE), **Electric Power Research Institute** (EPRI), **NERA**, and **Global Energy Decisions**.

Since 2006, he has edited 11 books published by **Academic Press** including the following:

- *Consumer, prosumer, prosumer: How service innovations will disrupt the utility business model, 2019*
- *Innovation and Disruption at the Grid's Edge, 2017*
- *Future of Utilities, Utilities of the Future, 2016*