

## Summary

While the threat of disruptive forces on the utility industry has been limited to date, economic fundamentals and public policies in place are likely to encourage significant future disruption to the utility business model. Technology innovation and rate structures that encourage cross subsidization of DER and/or behavioral modification by customers must be addressed quickly to mitigate further damage to the utility franchise and to better align interests of all stakeholders.

Utility investors seek a return on investment that depends on the increase in the value of their investment through growth in earnings and dividends. When customers have the opportunity to reduce their use of a product or find another provider of such service, utility earnings growth is threatened. As this threat to growth becomes more evident, investors will become less attracted to investments in the utility sector. This will be manifested via a higher cost of capital and less capital available to be allocated to the sector. Investors today appear confident in the utility regulatory model since the threat of disruptive forces has been modest to date. However, the competitive economics of distributed energy resources, such as PV solar, have improved significantly based on technology innovation and government incentives and subsidies, including tax and tariff-shifting incentives. But with policies in place that encourage cross subsidization of proactive customers, those not able or willing to respond to change will not be able to bear the responsibility left behind by proactive DER participating customers. It should not be left to the utility investor to bear the cost of these subsidies and the threat to their investment value.

This paper encourages an immediate focus on revising state and federal policies that do not align the interests of customers and investors, particularly revising utility tariff structures in order to eliminate cross subsidies (by non-DER participants) and utility investor cost-recovery uncertainties. In addition, utilities and stakeholders must develop policies and strategies to reduce the risk of ongoing customer disruption, including assessing business models where utilities can add value to customers and investors by providing new services.

While the pace of disruption cannot be predicted, the mere fact that we are seeing the beginning of customer disruption and that there is a large universe of companies pursuing this opportunity highlight the importance of proactive and timely planning to address these challenges early on so that uneconomic disruption does not proceed further. Ultimately, all stakeholders must embrace change in technology and business models in order to maintain a viable utility industry.