

# THE OPT-OUT CONUNDRUM: ANOTHER HURDLE FOR THE US SMART METERING SECTOR

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**As the US utility industry continues its steady march towards full smart metering adoption, yet another obstacle remains in its path: a proliferation of customer concerns over smart meter deployment. These pages have previously discussed the growing concerns in the US over safety, security and privacy of smart meters. The momentum for what is now called the “opt-out phenomenon” has continued to accelerate despite the fact that a number of recent studies have concluded that smart meter RF emissions are not harmful to our health.**

Since perception often becomes reality, a growing number of regulatory agencies are bowing to these emotionally charged but unwarranted customer concerns, even though cell phones, microwaves and other RF emitters continue to get a pass. The concern over health effects of smart meters is simply not justified by the facts. The Electric Power Research Institute (EPRI) has recently published data that compares smart meter RF emissions to the safe levels established by the Institute of Electrical and Electronics Engineers (IEEE) and the US Federal Communications Commission (FCC), and has concluded that smart meter RF exposure is far lower than the FCC limits.

Valutech Solutions recently completed a study of US smart metering deployments to identify current opt-out programs and costs and ascertain the extent of recent opt-out activity. The results are quite interesting, and suggest that customers are concerned only to a point. It appears from the data that utilities that charge higher fees for opt-out consideration have experienced significantly fewer numbers of opt-outs. One utility with a completed smart meter deployment, perhaps the oldest opt-out program in the US, charges a significant amount for smart meter replacement and has experienced almost no opt-out interest.

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## OUTAGE AND NETWORK IMPACT

One overlooked aspect of opt-out expansion is the negative impact customer opt-outs have on electric distribution network reliability. A significant benefit of smart meter deployment is a utility’s ability to receive outage detection data during storm conditions that can be used to reduce outage response times and improve network reliability. This benefit is degraded when customer opt-outs negatively affect network communications bandwidth and response times, and cause uncertainty over customer restoration status. One US utility located in an outage-prone area of the US actually petitioned its regulatory body to set outage management at a higher priority than individual customer opt-out concerns due to the importance it placed on outage detection and response.

Utility business cases frequently cite distribution network optimization among the major significant benefits of smart meter deployment. Optimization of circuit and transformer loading

can be accomplished through analysis of time-based smart meter interval data used to calculate network loading at peak usage periods. As utilities further explore volt/VAR options to reduce energy usage, analysis of smart meter supplied interval data will become even more critical. These efforts could become compromised as the number of opt-out customers increases.

Third party energy suppliers often base their energy supply and reconciliation functions on the information provided from smart meters. Customers without smart meters could therefore be denied the ability to fully participate in active and competitive energy markets. So in addition to paying monthly fees, utility opt-out customers could be further penalized through exclusion from eligibility to purchase power based on time-of-use, critical peak pricing or other cost saving rates.

## CONFUSING REGULATORY JURISDICTIONS

Further complicating matters is the diverse nature of the regulatory environment in the US. At the national level, the Federal Energy Regulatory Commission (FERC) sets federal requirements for transmission grid operations. Statewide, overlapping jurisdictions and rule making bodies have contributed to a hodgepodge of opt-out regulations that confuse customers and make generalizations difficult. So city councils and utility boards may adopt regulations that are inconsistent with rules enacted by state utility commissions.

One important but largely unreported consequence of this opt-out noise is a utility’s loss of control over its own metering. Since Thomas Edison’s time, utilities have had a complete say in the manner and methods of metering a customer’s electric service. Utility engineers have become experts in the technical requirements of metering, and have built their delivery systems around those capabilities. Permitting outside regulators to ignore the utility experts and instruct a utility concerning permissible metering alternatives without regard for the larger technical implications could undermine billing system integrity, degrade AMI system performance and affect distribution network reliability.

Isn’t it time that regulators yielded to the overwhelming amount of evidence on smart meter safety and return control over utility metering to the utility professionals? Political correctness should not stand in the way of common sense solutions that are based on sound research and a large body of scientific evidence. **MI**

*Valutech Solutions’ study on US smart meter opt-out programs is available for purchase at [info@valutechsolutions.com](mailto:info@valutechsolutions.com).*



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