United States Smart Grid: Utility Electric Vehicle Tariffs Volume II: Summer 2012

Description: Electric utilities in the US are struggling with a number of challenges related to EVs, from determining which infrastructure upgrades may be required on their distribution systems to assessing which tariff structures are most effective. As the first wave of EVs hits the US market, utilities have begun launching EV tariffs. Northeast Group first published its benchmark and analysis of these EV tariffs and their implications for utilities and EV owners in July 2011. This second volume of the benchmark includes EV tariffs from 14 new utilities, as well as additional analysis of the implications of these tariffs.

As of June 30th 2012, 22 utilities across the US have launched EV tariffs. Unsurprisingly, many of the utilities are located in California and Michigan. California utilities are at the forefront of several smart grid initiatives, while Michigan utilities are eager to support automobile manufacturers working on transitioning their production lines to EVs.

Utilities included in this benchmark are located in the following states:
- Alaska
- Arizona
- California
- Georgia
- Hawaii
- Indiana
- Kentucky
- Michigan
- Nevada
- Texas
- Virginia.

Overall, electric vehicles are becoming increasingly popular, but even with tax rebates the upfront costs of electric vehicles are still higher than conventional vehicles. In order to make up the difference, EVs must offer even greater savings in fuel expenses, which is where EV tariffs will play a critical role. EVs are cheaper to fuel compared with conventional vehicles, even under standard electricity tariffs. But customers fueling during off peak hours with EV tariffs can save even more, helping to reduce the payback period for electric vehicles. For electric vehicles to continue to grow in popularity, utilities will have to offer their customers attractive tariff options. EV penetration rates are highest in states with electric vehicle tariffs. Utilities and regulatory commissions across the country will need to increase the number of electric vehicle tariffs available in order to make EVs more attractive for customers.

Key questions answered in this report:
- Which utilities have favored time-of-use (TOU) rates vs. flat rates?
- How have utilities structured their electric vehicle TOU rates and what is the average peak to off-peak discount?
- What issues help determine whether to use single or second meters for EV tariffs?
- Which utility EV tariffs suit which driving profiles best?

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