

SMART GRID CITY™

Is nearly \$40 billion grid tech market in 2014 plausible?

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Climate Solutions' director Patrick Mazza thinks so

Communication and sensing, measurement and control technologies are the smart-grid-enabling technology giants that have yet to be awakened, said a research firm selling a \$5,000 report on how much the US market for such technologies will be worth in five years. Meanwhile, the US market for distributed energy generation and storage will nearly double by 2014, said BCC Research, adding that the market for all smart-grid enabling technologies will reach \$39.4 billion in 2014, up from \$19.4 billion for this calendar year.

Neither BCC nor the author of its report responded to requests for comments for this story in time for our deadline, but Patrick Mazza, research director at a nonprofit green technology research and advocacy group called Climate Solutions, told us that BCC's figures look plausible. In 2003, Climate Solutions issued a report that estimated the global smart energy market was then worth about \$15 billion.

In the last six months, some related developments caught Mazza's eye:

- Communication. Bundling-happy AT&T march 17 announced a deal with smart meter firm SmartSynch to “for the first time” provide utilities with “a cost-effective solution” for communication between individual meters already installed at more than 100 North American utilities. The phone company said the IP-based smart grid model “ultimately helps consumers understand the economics of their consumption patterns so they can make intelligent decisions about their power consumption.” The deal is interesting to Mazza because it's “a big, established telecom looking for its opportunity in this field.”
- Measurement. Silver Spring Networks, another IP play, gathering a US\$90 million round of capital in order to, in part, expand globally. At the time the money poured in, the firm made mention of customers Florida Power & Light, Pacific Gas & Electric, Modesto Irrigation District, Oklahoma Gas & Electric and Consumers Energy. “That's a lot of money in this game,” Mazza said. “They're a company to watch.” Kleiner Perkins led the investment round that began in October and closed March 1. Several media outlets reported that Google Ventures is among Silver Springs's investors.
- More measurement. Smart gas and electric meter maker Itron partnered with Tendril, a provider of home area networks, among other smart grid tech solutions.

The Tendril Residential Energy Ecosystem (TREE) lets “consumers and their energy companies to communicate, collaborate and create,” said the Tendril website. “One of the interesting plays is going to be how the grid will connect into the building,” noted Mazza. “If that can be brought down to a low

enough cost, then we can really think about widespread demand response reaching into homes and smaller businesses.” Thus far, demand that responds to grid needs is a resource supplied almost exclusively by large commercial, industrial and institutional ratepayers. “During a stressful time on the grid, you have equipment that cycles down -- a building's HVAC system will turn down a few degrees or lighting will dim a bit to economize on peak power infrastructure.”

- Distributed energy. Berkeley in September became the first California city to allow property owners to finance solar power systems through property taxes. A couple of other cities in the state followed suit. “It's pretty important for capitalizing solar,” said Mazza. Home and business owners who install the rooftop systems pay the city back over 20 years through a line item on their property tax bill.

- Storage. Xcel Energy about four months ago selected a software platform from V2Green -- now a part of smart grid firm GridPoint, to control the flow of power between the grid and a sodium-sulfur battery storing wind energy in Minnesota. When fully charged, the 1 mw battery will hold about 7.2 megawatt-hours of electricity that could power 500 homes for about seven hours. “It's an important test,” he added.