

BusinessWeek

GIGAOM January 23, 2009, 12:01AM EST

Hidden Tech Winners in Obama's Green Stimulus Bill

Environmental innovations require smart technology, and therein lie opportunities for companies that can collect and sort the data

By [Celeste LeCompte](#)

The Obama Administration's \$825 billion [economic recovery package](#), nicknamed the "Green New Deal," is packed with references to doubling renewable energy generation, funding public transportation and energy-efficiency projects, and investing in clean water and environmental restoration. But it's not just a present for the clean-tech crowd—the tech world is getting some goodies, too.

Although the \$6 billion broadband allocation [seems puny to some](#), the bill pledges funding for computerizing the health-care system, modernizing education delivery (including technology), and, yes, the green-hued "smart grid." And many of the same items that have the clean-tech crowd [champing at the bit to see the bill passed](#) offer hidden opportunities for tech firms, too. Today's environmental innovations, from greener highway design to safer water delivery, depend heavily on data, data, and more data, positioning tech firms to seize a substantial piece of one of the hottest markets going.

The smart grid is a huge opportunity that plenty of tech firms are already excited about. Smart meters have a long value chain, and Obama's proposed \$32 million investment into a smarter grid would have a ripple effect throughout the tech world, reaching everyone from large smart meter makers such as General Electric ([GE](#)) to startups like Silver Springs Networks, as well as semiconductor manufacturers and data-management software companies. But the opportunity doesn't end there.

WHAT "SMART" MEANS

Think of the smart grid as layering "metadata" into the electrical lines. Instead of just electrons, a smart grid transmits information about pricing, where energy was produced, where it was consumed, what it cost, and more. The same approach is being applied to other infrastructure systems as well.

For example, the bill earmarks \$31 billion for transportation "modernization." [Congestion pricing](#), one possible application, would require the transportation equivalent of the smart grid. Instead of tracking electrons, however, the system would keep tabs on cars. That could require a host of high-tech tools, from traffic sensors and wireless networks to billing software and new protocols to anonymize and encrypt data. Water, which is slated to receive hundreds of millions of dollars in stimulus funding, offers similar opportunities, as well.

The smart grid, the smart highway, and the smart water pipeline need lots of data, and most of that data is going to be collected in remote locations—say, wind farms and water reservoirs in Kansas—or from many distributed users. Pulling that data in is going to require large networks of sensors, most of which will be based on some form of [low-power wireless technology](#). While the big players, such as Broadcom ([BRCM](#)) and Atheros ([ATHR](#)), will likely corner the market on wireless consumer devices, there are a number of startups—including G2 Microsystems, Gainspan, and ZeroG Wireless—that could be big winners in the remote sensor market.

A DATA DELUGE

All the data collected by such sensor networks—whether it's information about electrons, cars, water, or a manufacturing supply chain (eligible for funding as part of a \$100 million research earmark in the stimulus package)—isn't useful unless it's sorted, interpreted, and put to good use. That's great news for companies that provide the software, servers, and data centers that host and store that information. While [physical infrastructure plays a smaller role](#) in the Green New Deal than it did in FDR's original New Deal, digital infrastructure is going to play a much more profound role in the Obama plan.

Companies such as IBM ([IBM](#)) have been quick to spot many of these opportunities in the new, "smart" economy. The IT giant recently launched its [Smarter Planet](#) campaign, with an eye toward bringing IT innovations to the energy, transportation, water, and retail sectors of the economy. But the company isn't going it alone. Drew Clark, director of strategy for the IBM Venture Capital Group, says Big Blue has been cultivating relationships with key startups in the space. "While we're really great at the overall architecture and conceptual view and building it, there are many pieces of this...that we'll want to plug in to," he says.

In the current economic climate, strategic relationships between big tech and clean-tech startups may become more common. It's not because the big players are getting greener, though. These days, their best markets are.

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