



By Don Horne

A MULTIBILLION-DOLLAR PUSH IN THE RIGHT DIRECTION

It might have been overlooked among the hundreds of billions being handed out by Washington, but it is certainly going to help make the nation's grids a lot smarter.

The \$700 billion Emergency Economic Stabilization Act, which was signed into law on October 3, 2008 after much pleading, rejection and eventual acceptance, included provisions for accelerated depreciation for smart meters and other smart grid equipment. Certainly these funds will stimulate greater utility investment in this much-needed technology.

Basically, the new tax provisions reduce the depreciation rate for smart grid technologies from 20 years to 10, bringing smart grid tax treatment in line with other similar high-technology systems.

The larger deductions will encourage increased spending on smart meters and related technology.

At the moment, a smart meter is roughly three times the price of an ordinary meter – and unfortunately, smart technologies are constantly evolving and making equipment once leading edge five years ago quickly obsolete. What occurs, instead of widespread deployment, is a plague of pilot projects – little better than window dressing to show customers that they are “going green” without spending a lot of green.

In Ontario, Canada, smart metering

will be deployed provincewide by 2010. With strong government support, and a determination through public advertising campaigns and concerted pilot projects that were a springboard to wider deployment, this goal appears to be within reach.

Many utilities throughout the United States have crossed north of the border to examine Ontario's smart meter deployment, and it looks like the time is ripe for a nationwide explosion of smart metering, coupled with a smartening up of the various grids.

And a general smartening up is needed now.

Within the next few years, there will be a growing number of hybrid and all-electric vehicles in driveways across North America, all looking for a place to plug in. Also, the explosion of personal wind turbines, solar, geothermal and other renewable generation will be looking for smarter grids to handle any generation that might be flowing back into the grid.

This could be the time that North America may be looking to electricity as the liberator from foreign oil – becoming the primary source of power for everything.

The former director of the CIA Jim Woolsey spoke recently at the GEOINT Symposium in Nashville, Tennessee, urging Americans to embrace renewable power (yes, that means nuclear too),

drastically improve the national grids and throw off the shackles of oil.

He pointed to an historical dependence on salt as a trading commodity (think back to your Latin studies, and you will remember that “salary” is derived from the Roman word for salt, *salarium*), and how that was ended once the technologies of refrigeration and freezing were developed.

So too could the development of battery storage and electric vehicles make oil unimportant in our lives.

This “smartening” of the grids has been going on for several years now, mostly to accommodate the wind and solar expansion that requires real-time monitoring to ensure that a steady flow of power is available whether the wind is blowing or not, or if the sun decides not to come out that day.

Also, the once proudly independent grid systems (like ERCOT), are only now reaching out to neighbours through better intertie connections – allowing for this blossoming of renewable development to bear full fruit.

There will be hiccups, trips (pun intended) and roadblocks along the way, but it is encouraging that even during these tough economic times, firm support from Capitol Hill will be there to rehabilitate the nation's aging infrastructure – and maybe even allow us to kick our century-old addiction to oil.

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Keeping the skyline lit in New York will depend on new infrastructure money creating new transmission links to clean power sources north of the border.