

PRESS RELEASE

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Smart Grid Funding Misspent On Obsolete Technologies, Says New Report

Billions spent with taxpayer dollars on “smart meters” will not lead to U.S. sustainability; Place citizens and economy at risk

WASHINGTON, D.C. — November 26, 2012. A new policy report focused on the electric grid and economy of energy, [“Getting Smarter About the Smart Grid”](#), was published today by the National Institute for Science, Law & Public Policy (NISLAPP) in Washington, D.C. The report states that billions of dollars in federal subsidies for “smart” utility meters have been misspent on meter technology that will not lead to energy sustainability or contribute to the possibility of a more efficient and responsive electricity grid.



“Getting Smarter About the Smart Grid” is authored by smart grid technology expert Timothy Schoechle, PhD, an international consultant in computer engineering and standardization, high-tech entrepreneur and former a Faculty member of the University of Colorado, College of Engineering and Applied Science.

“Getting Smarter About the Smart Grid” states that Congress, state and local governments, as well as ratepayers, have been misled about the potential energy and cost saving benefits of the new “smart” meters, paid for in large part with taxpayer dollars, as well as ratepayer dollars.

The report adds that the smart meters are confused with the much broader concept of the smart grid, and that the undue emphasis on meters diverts resources badly needed for key elements of a true smart grid technology.

*Dr. Schoechle, who has been engaged in development of electric utility meters, home automation systems, gateways, and energy management systems for over 25 years, and who sits on several international standards setting committees related to the smart grid, **calls the smart meter being rolled out across the U.S. “a canard—a story or hoax based on specious claims about energy benefits...”***

Schoechle says the present policy approach to electricity infrastructure in the U.S. evidences a “fundamental lack of understanding of the problems associated with the future of electricity and energy”.

“Getting Smarter About the Smart Grid” recognizes the growing grass roots rebellion against smart meters now happening in 18 states, such as CA, VT, AZ, TX, FL, PA, ME, IL, OR and the District of Columbia, as only the “tip of the iceberg”—one that conceals a deeply dysfunctional energy

economy needing urgent federal, state and local attention. Ratepayers' desire to "opt-out" of the new wireless meters on privacy, security, reliability, cost and potential public health grounds may herald, the report says, "an epochal transformation of the political economy of energy".

"Getting Smarter About the Smart Grid" exposes inherent conflicts in the monopoly utility business model preventing the nation from moving to a renewable energy economy. It defines the technology investments, and standardization, as well as regulatory action, needed for an electricity grid that is wealth-creating, interconnected, secure, and empowering of people. The report says the nation's energy and economic future can no longer be left in the hands of a monopoly power industry dis-incentivized to take the necessary steps toward renewable energy and sustainability.

Jim Turner, Esq., Chairman of the National Institute for Science, Law and Public Policy and partner in the D.C. law firm Swankin-Turner, says **"A key element in a successful transition to a renewable energy economy will be establishing a clear 'demarcation' line between monopoly utility space and customer premises space, where the home gateway belongs to the consumer, not the utility."**

Such a demarcation (or 'demarc'), a concept already embodied in electricity policy in Germany and in the Netherlands, was a critical element in the breakup of the landline telephone monopoly in the U.S. and led to significant growth in the consumer electronics industry as market forces moved to better meet customer needs. In Germany and the Netherlands, together with feed-in tariffs, where homeowners are compensated for energy produced, this demarcation has opened the way for home-based energy management technologies to flourish and facilitate the growth of renewable technologies, while eliminating the potential for significant privacy invasions, with the homeowner in control of their meter data.

Key Points in "Getting Smarter About the Smart Grid"

9 Problems With the Present Electricity Approach:

- 1. Data to be collected by the smart meters, including intimate personal details of citizens' lives, is not necessary to the basic purpose of the smart grid,** such as supply/demand balancing, demand response (DR), dynamic pricing, renewable integration, or local generation and storage, as promoters of the meters, and uninformed parties, routinely claim.
- 2. Federal, state and local governments have mistakenly believed that the installation of smart meters will somehow lead to reduction in use of fossil fuels, greater electricity efficiency and long-term energy economy benefits for the U.S.** In fact, efforts to further develop and standardize those technologies that could achieve those goals have languished, while investments with stimulus funding have instead been made in technologies that merely serve the short-term economic interests of the utility industry and its suppliers instead of the interests of a true smart grid which could economically integrate renewable technologies and distributed, or decentralized, power generation.
- 3. Much of the \$ multi-billion dollar federal subsidy for smart meters does not benefit ratepayers, nor support economic growth, but primarily benefits meter and meter networking manufacturers, while financially propping up unsustainable Investor-Owned Utilities (IOUs).** Regulated utilities can charge back their capital investments to ratepayers, with a

guaranteed 10-13% rate of return (ROR) on assets, by law. Thus, investors in utilities gain from the smart meter deployment, as they would from any other capital expenditure, while there is no clear gain and significant new risks (privacy, security, health & safety, costs) for the ratepayer. The allocation of stimulus dollars to subsidize smart meters has also been a net job destroyer, eliminating meter readers and creating manufacturing jobs overseas, while being an egregious waste of federal resources that only supports corporate interests and delays the needed transformation of the electricity grid.

4. Because Investor-Owned Utilities (IOUs) are paid on a per-kilowatt-of-energy-sold basis, and also receive a guaranteed ROR on assets, they do not have a financial incentive to encourage less energy usage, or to invest in technologies that would help citizens reduce energy consumption.

5. Because coal plants must run at near capacity to achieve necessary economies of scale, adding renewable energy to the power mix may be in fact cost-additive for utilities, not cost-reducing, and ultimately cost-additive for ratepayers. Thus, there is an inherent conflict between coal-based power generation, the dominant means of electricity generation in the U.S., and a transition to renewable energy technologies that could lead to sustainability. The report recommends the U.S. “move away from dependency on baseload generation, particularly coal, as quickly as possible” to facilitate renewable integration and reach our potential for energy independence.

6. Despite paying lip service to the public’s interest in incorporating renewable energy, as evidence in their marketing materials, utilities actually ‘curtail’, or waste, much of the renewable energy now generated in order to protect the economics of investor-owned coal plants. explains why state initiatives wanting to fulfill the promise of a 30% or higher renewable portfolio standard (RPS) is practically impossible in a coal baseload system. The paper suggests that decommissioning coal plants, possibly through a public bailout, may be required to move the United States to a renewable energy future.

7. U.S. policy statements “reflect the mistaken belief that the basic solutions involve fixing or modernizing the existing electricity grid, rather than complete structural transformation of electrical service, which goes beyond particular ‘smart’ technologies.” In reality, shaving peak energy usage by shifting loads may actually increase energy bills as well as CO² emissions by increasing dependency on coal baseload generation—the most expensive generation there is when considering the totality of subsidies and externalized costs. Increasing baseload dependency will not lower energy costs, as it appears our Administration believes, and it will further obstruct integration of renewable sources.

8. Expected growth in electric vehicles within a coal-based system will only worsen the nation’s baseload dependency, thus making the needed shift away from coal to a renewable energy future that much more pressing.

9. Leadership in the energy sector is unlikely to come from the top, due to ‘regulatory capture’, unless caused by a catastrophic event or consequence. At present, there appears to be little evidence utilities and their regulators want to or know how to make the needed changes to the utility business model, leaving it to the American public, through community-based initiatives and municipalization efforts, to drive the needed change toward renewable technologies and

distributed, non-centralized power generation—as is now happening in such places as Boulder, Colorado.

7 Opportunities to Intelligently Move Forward:

- 1. The U.S. must move away from dependency on coal baseload power generation and toward renewable sources.** Renewables (e.g., wind and solar), augmented by flexible “peaking” generation (e.g., natural gas turbines, hydro, etc.) and advanced smart grid supply/demand balancing can completely replace baseload generation.
- 2. Free, renewable energy resources must be prioritized and local opportunities for power generation and storage pursued.** We must stop subsidizing a centralized, wasteful infrastructure approach that will not lead to sustainability or empower citizens to contribute to the grid.
- 3. A clear legal and policy demarcation between customer premises space and utility space must be established.** Utilities should not be the sole “gatekeeper” for access to energy applications controlling consumer use, storage, and generation of electricity. As occurred in the telecommunications industry, establishing a clear market demarcation could unleash the creativity and competitive market strength of consumer electronics, appliance manufacturers, homebuilders, solar installers, apps developers, etc.
- 4. Develop and standardize distributed renewable integration technologies, in-home devices and smart appliances.** The heavy lifting on smart grid deployment is yet to be done. It will require research, engineering, and standardization of new consumer premises equipment and communication protocols to support distributed, variable, and transactive control of electricity generation, use, and storage at the household level.
- 5. Localize electric power, using distributed renewable sources, instead of large solar and wind farms where the economies of scale are not significantly greater than at small scale.** Localization of power generation avoids the energy loss and environmental and capital costs that come with long-distance energy transmission, keeps money in the community, with a 3.5x multiplier effect, and enhances reliability, responsiveness and grid security.
- 6. State legislatures should enable PUCs to fundamentally change the utility business model so it can be sustainable.** Utilities must move to a service model that is not based on the present economics of commodity sale of electricity and rate of return regulation (ROR) that encourages unwise capital investments. Generation must be deregulated and separated from distribution, and the customer premises opened up to market competition in products and services for the premises-based generation, storage, management, and use of electricity. For example, some states are already moving to deregulate renewable generation for the charging of electric vehicles.
- 7. Local communities must take it upon themselves to understand and obtain the safest and most secure technological options available for utility meters and other smart grid technologies.** This education should be gained from independent experts with no vested interests in the present centralized utility paradigm. Wireless technologies should be avoided where safer more secure options exist.

In the Foreword to *“Getting Smarter About the Smart Grid”*, journalist and political analyst Duncan Campbell summarizes, ***“Dr. Schoechle examines and explains the prevailing confusion about the “smart grid” and offers a clear path forward, lucidly showing an alternative to patching up our overly-complex, vulnerable, and increasingly expensive energy system—thus creating a truly smart and genuinely sustainable electricity system.”***

[Download “Getting Smarter About the Smart Grid”](#)

Educational Audio Quadrilogues with Tim Schoechle, PhD and others involved with the production of *“Getting Smarter About the Smart Grid”* can be found at www.GettingSmarterAbouttheSmartGrid.org

Conference Calls for Media & Communities –To be put on the announcement list for educational conference calls related to the smart grid, please contact Emily@GettingSmarterAbouttheSmartGrid.org

Smart Grid Speakers Bureau – Tim Schoechle, PhD, Duncan Campbell, Esq. and others involved in electricity municipalisation efforts in CO, are available to address communities on this topic. If your community needs a speaker, contact Emily@GettingSmarterAbouttheSmartGrid.org.

[Graphic Image of “Getting Smarter About the Smart Grid” Cover \(High Resolution\)](#)

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