

GET SMART: WE NEED A 21ST-CENTURY ELECTRICAL GRID SYSTEM

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It's time for our electrical grid system to get smart. More precisely, it's time for a smart grid.

Our electrical system consists of power-producing plants (coal, natural gas, oil, solar, wind, nuclear and hydro) and consumers of electricity (houses, schools, commercial buildings and industrial plants).

The producing plants generate electricity based upon anticipated demand, always

ensuring that they produce more than the expected need. In the traditional grid, we simply produce power at power generators and consume it at customers' locations. We measure how much electricity is used by each customer and that's the extent of our data collection.

Smart grids allow for information to be generated at the customers' locations (such as current usage, historical consumption by day of the week, day of the month, month of the year, etc). This information allows us to alter electricity production based on immediate changes (as well as more detailed forecasting) to react

to demands more effectively. In addition to improved information from other sources on the grid, a smart grid allows us to add more and more energy production points. These could include individual customers choosing to use solar or wind generation and industrial sites using excess heat from their processes to generate electricity.

Use of a smart grid will better enable producers to provide power to customers in an open market, and give power generating options directly to customers.

The risks associated with smart grids boil down to the same issues we face with all

computer systems: security and stability.

With a traditional grid, so long as the power plant is working and the power lines and infrastructure are physically intact, the users have power. Adding computers to the system might mean that the power could be disabled due to a computer system interruption. The benefits are enormous, so they're certainly worth the risk. However, those risks need to be managed. For example, we need to ensure that any computer systems that are tied to the smart grid, whether at a customer's location or a power generating point, meet certain security

requirements and be easily updated to protect against future security flaws. Due to the interconnected nature of the smart grid, any point of entry (a small producing station, for instance) could impact the entire grid.

Therefore, we should have the ability to quickly isolate and remove any producing station from the grid to protect the integrity of the entire grid. This means having the ability to physically sever a connection to any power station or group of customers, removing their connection to the power grid as well as removing their computer systems from the communication network

where the rest of the points are communicating.

The ability to quarantine any specific point will be critical to reacting if there's a system failure or a cyber attack on the grid.

We must also ensure that government officials and bureaucrats have sufficient knowledge of the smart grid before trying to impose regulations that could compromise the security and efficiency of such a system. With the spread of smart grids, we can liberate customers from an outdated business model and allow free enterprise to provide options and services.

FOLLOWING TARIFFS WITH SUBSIDIES ONLY COMPOUNDS TERRIBLE GOVERNMENT POLICY



President Donald Trump has started trade wars with China, Mexico, Canada, and Europe, and probably every country he's ever heard of is in his sights. When someone picks a fight with multiple opponents, it's a safe bet that some

of those opponents will fight back rather than knuckle under. It's happening, and the United States is getting punched where it hurts. Harley-Davidson motorcycles and Jack Daniels bourbon are high-profile victims of Trump's harmful policies, and American farmers producing soybeans, corn, and wheat have been hit the hardest.

In July, coinciding with a Trump campaign swing through the farm belt, the U.S. Department of Agriculture announced it would give out \$12 billion in trade-related aid for farmers, or an average of \$37 out of the pocket of every man, woman, and child in the country — all in a hasty effort to make up for some of the

damage that trade restrictions have already caused.

The first \$4.7 billion of that aid is now becoming available. Soybean farmers will receive \$3.6 billion of those funds, even though a study conducted by Ohio State University and the University of Illinois reports that the soybean crop has lost only \$2 billion in value from Trump's trade wars. Corn producers, who have lost \$846 million, will receive only \$96 million in USDA payments. They're upset, as are the producers of almonds, pistachios, walnuts, plums, and prunes, who also get less than their "fair share" of the taxpayer spoils.

We support the removal of

governmental impediments to free trade.

"All this trade warring and farm subsidizing begs the question of where the president got the authority to cause all this market havoc," said Libertarian National Committee Chair Nicholas Sarwark. "These trade barriers and producer subsidies are almost uniformly predicated on long-outdated edicts that were poorly reasoned and unjustified even at the time they were passed."

An obscure national security law was offered as the excuse for steel tariffs, even though U.S. manufacturers produce 70 percent of the steel we use domestically and we import

most of the rest from allies. The legal rationale for farm subsidies was a Great Depression-era crop insurance program that had not been used in decades but was never taken off the books. Of course, producer subsidies established during the New Deal were a reaction to low commodity prices that had resulted directly from mismanagement of monetary policy by the government-created banking oligopoly known as the Federal Reserve.

"Bad government policy in one area begets bad government policy elsewhere, ad infinitum," Sarwark said. "It's time for the administration to stop using bad laws for political gain. It's time for Congress

to repeal those bad laws before even considering enacting more laws that they hope will fix everything. Democrats and Republicans are clearly not up to those tasks, but Libertarians are."

To that end, more than 800 Libertarians are running for local, state, and federal office this year. At the federal level, the Libertarian candidate for the U.S. Senate from New Mexico, former two-time Gov. Gary Johnson, has received the endorsement of Kentucky's Sen. Rand Paul. Johnson is polling higher than his Republican opponent for that office, and he could become the first Libertarian candidate elected to federal office.

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