# The Abject Failures of Solar Energy

## Nevada's Energy Policy Disaster Continues

### Lombardo's Executive Order

WHEREAS, in order to achieve the objectives of Senate Bill 358 (2019) while still maintaining adequate energy resources, Nevada must pursue a balanced approach to energy use and development by utilizing all available energy and storage resources, including natural gas, solar, geothermal, hydroelectric, wind, hydrogen, energy efficiency and energy storage projects;

Senate Bill 358 is special interest legislation benefiting large players participating in the the solar scam industry. The state senator, Chris Brooks, most responsible for 358, was in the solar energy business, a blatant conflict of interest. Lombardo's list of energy sources is a list of impractical energy sources except for natural gas.

The Governor blew his chance to tell the people that green energy is a scam. He has given legitimacy to bizarre energy schemes that benefit special interests.



#### **Solar Energy - A Green Dream?**

The delivery of solar energy depends on the weather. There is no solar energy at night or when it is cloudy. But we need energy even when its cloudy or night. That unpredictability is the defining failure of solar energy.

The cost of solar energy is extremely high and every existing fossil fuel generating plant must be retained to fill in when solar isn't available.

### **The Future Disaster**

The \$2 billion Gemini solar farm is under construction north of Las Vegas. To meet the objectives of Senate bill 358 many more huge plants must be built. With or without subsidies solar electricity is enormously expensive.

The construction cost of these plants becomes a debt payable by the people of Nevada via their electric bills. The developers sell the plants as conservative investments to infrastructure funds as soon as possible. Traditionally the power delivery agreements are long term, fixed price contracts. The Gemini contract is for 25 years. If high interest rates and inflation continues these contracts will suffer catastrophic declines in value. The consequence is likely to be bankruptcies and financial turmoil. We have already seen financial failure in the Crescent Dunes plant near Tonopah, Nevada. The Ivanpah plant just over the border in California was granted an increase in the price of electricity due to technical failures. Expect the Gemini developers to request a modification to the power delivery contract.

#### Solar Energy is "grotesque"

In a Boston Globe op ed, James Hansen, the scientist most responsible for calling attention to the projected global warming problem denounced renewable energy, including solar, as "grotesque" and "fantastical." He has declared that nuclear energy is the only practical method for reducing CO2 emissions. Many other activists, like Michael Shellenberger and Stewart Brand, take the same position. These activists have noticed that wind and solar are totally impracticable instruments for reducing CO2 emissions because they are insanely expensive and can substitute for fossil fuels only to a limited extent.

Unfortunately the nuclear industry in the U.S. has been destroyed by green activists, so nuclear is not an easy option.



Video: Hansen and Shellenberger

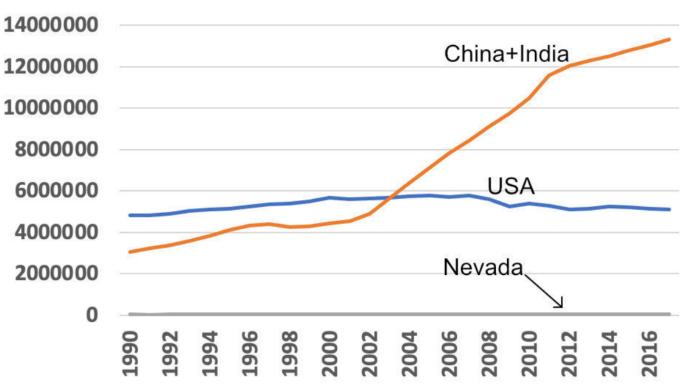
Climate Scientists for Nuclear

#### **The Rooftop Solar Scam - Everyone Else Pays**

Rooftop solar, lacking economies of scale, generates electricity for approximately 25cents per kilowatt hour. Subsidies and electricity banking may make rooftop solar competitive with utility power. With rooftop solar the utility loses almost all revenue and provides backup generation capability without compensation. Electricity banking in some jurisdictions forces the utility and taxpayers to substitute 25-cent power for 1.5-cent power. The cost of using more fuel in natural gas plants is 1.5 cents per kilowatt hour. Everyone else pays for the homeowner's saving, if any.

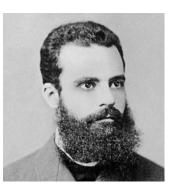


#### China+India Compared to USA Thousands Metric Tons CO2 Emissions 1990-2017



### **Solar Electricity is Religion**

A century ago, Vilfredo Pareto pointed out that men's beliefs are more the result of passion than of logic. Solar energy should be evaluated based on science and economics, but it has become an object of spiritual belief, part of what some thinkers call the Religion of Green.



#### **More Information**

For copies of this poster and an expanded version: Renewable puzzle.com/poster

A discussion of Bill 358 and the former governor's plan <u>renewablepuzzle.com</u>

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Sincerely, Norman Rogers

The views expressed here are my opinions.

Video: Religion of Green