Renewable Energy Cheat Sheet (Updated 12-16-10)

Patrick Orr, Policy VISTA, Global Green New Orleans

Relevant Facts

- Louisiana gets an average five hours of maximum sunlight (the time the sun is at its most direct angle) per day, more than Germany or Japan, two countries with thriving solar industries.[1]
- United States gets 3,900% more sunlight than Germany, yet Germany has 6,000% more solar.[2]
- If you live in Louisiana and take advantage of state and federal tax credits, it currently takes 7-8 years for a residential solar-electric power system to pay for itself.[3]
- The average taxpayer has paid $521.73 towards fossil fuel subsidies over the last 5 years, but only $7.24 towards solar.
- If solar got the same amount of government subsidies as fossil fuels, it would be the cheaper option for consumers in 100% of the United States.[4]
- The stimulus bill has provided $75 million for 4 different solar programs, $10 million for Biomass, and $20 million for hydropower projects. When completed, these projects will double the capacity of bio and solar power in the South.[5]
- Compared to the rest of the nation, Louisiana consumes more energy per dollar of economic activity than most other states. [6]
- Louisiana' consumption of industry energy as a percentage of its overall energy budget exceeds that of the nation and the rest of the South.[7]
- The *2009 State Energy Efficiency Scorecard* from the American Council for an Energy Efficient Economy rated Louisiana 41st of the 50 states +DC for its adoption and implementation of Demand Side Management measures.[8]

Tax Incentives

- Louisiana Renewable Energy Tax Credit: This credit is given in the form of a rebate after any other tax obligations have been met. It covers 50% of a system's cost up to $12,000, but buyers can purchase as many systems as necessary in order to get the 50% discount on an entire project if it exceeds $25,000.
- The Louisiana Solar Energy System Exemption ensures that the value of a home's solar generating system is not included in a property tax assessment.

---

[1] http://southcoastsolar.com/learn-more/solar-faq/
[2] http://i.imgur.com/rdfVO.jpg
[3] http://southcoastsolar.com/learn-more/solar-faq/
[4] http://i.imgur.com/rdfVO.jpg
[5] Brown, Marilyn and Gumerman, Etan. SEEAlliance.org. Information collected from "Renewable Energy in the South," downloadable from SEEAlliance.org.
[6] Energy Efficiency in the South, http://www.seealliance.org/se_efficiency_study/louisiana_efficiency_in_the_south.pdf, p. 2
[7] *ibid*.
[8] *ibid*, p. 3.

- Federal Renewable Energy Tax Credit: This is a 30% credit (not rebate), usually used with the State tax credit. It can roll over if it is not entirely used in the current year.[9]
- There are few government-sponsored commercial incentives for renewable energy or energy efficiency in the state of LA. The only option is through Louisiana's DNR, and this is through the HERO program; a maximum of $5000 for small commercial facilities less than 10,000 sq. ft.[10]

Solar Water Heater Issue

There is an unofficial moratorium on approving solar-water heating system installation in Louisiana because the head of the permitting office will not approve any systems until a decision is reached on potential Louisiana Department of Health and Hospitals regulations. The new rule in question would require homeowners to install a "double-check" backflow preventer as well as pay for yearly inspections, rules that would in essence remove the financial incentive for solar-water heating.

State Renewable Portfolio Standard (RPS) Pilot Program

In October 2010, the Louisiana Public Service Commission (LPSC) approved a pilot program to test options for a statewide RPS. A Renewable Portfolio Standard sets a percentage of total generation contributed by renewable energies that utilities must meet. Louisiana is one of 14 states that does not have an RPS, 29 states (+PR and DC) have a mandatory RPS and 7 have goals. Some aggressive states include Hawaii (40% by 2030), New York (29% by 2015), California (33% by 2020), and Colorado (30% by 2020 in Independently Operated Utilities).[11]

The LPSC will issue a Request For Proposals for investor-owned utilities to research and develop renewable projects. Eventually these utilities can qualify for a fixed purchase price of $30/MWh, plus hourly avoided cost from Entergy (money Entergy saves by using their systems less). Under the plan, Entergy must also purchase 350MW from various renewable utilities through 10-20 year contracts. The LPSC hopes to attract a variety of projects in order to test which ones perform best, and will then consider a state mandatory RPS if the pilot is deemed successful.

Integrated Resource Plan (IRP) for New Orleans (http://www.entergy-neworleans.com/IRP/)

On October 26, Entergy New Orleans presented its plan for a local IRP. An Integrated Resource Plan determines what resources a utility will draw from in the future, and is a good opportunity to enact meaningful change through investment into renewables and demand side management (DSM). The company determined it would rely mostly on natural gas with some biomass, but that solar and wind are too inefficient and costly for large-scale application at this time. Also, Entergy aims for DSM to make up 2.56% of the total generation by 2030 (see graph on next page).

The online public question and answer session lasted from October 26 to November 10, with all

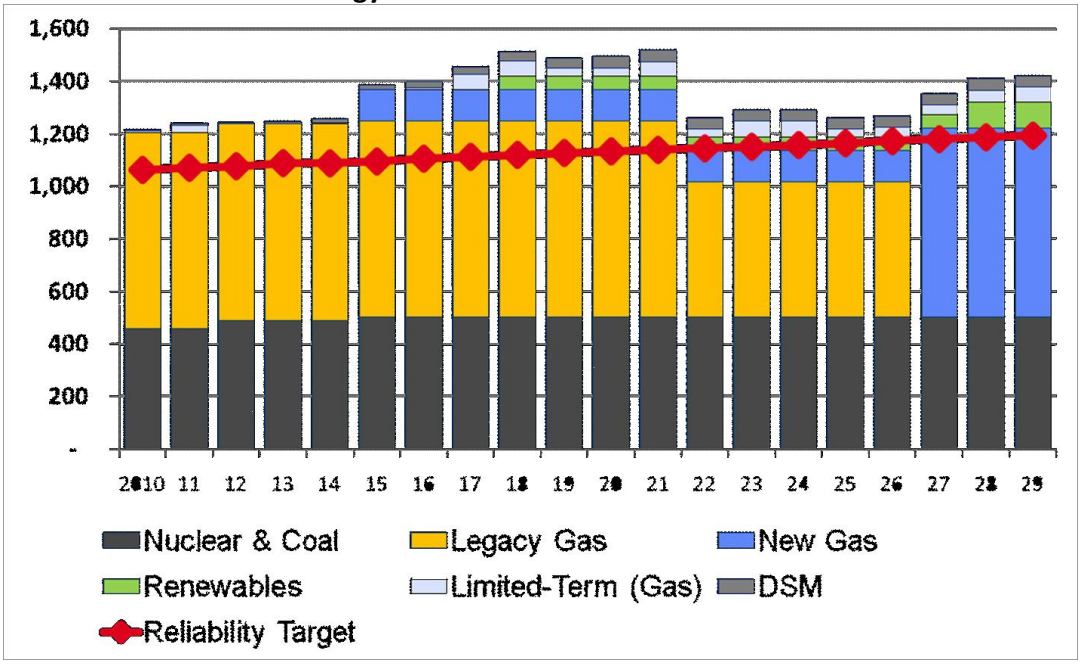
[9] http://www.dsireusa.org/incentives/index.cfm?re=1&ee=1&spv=0&st=0&srp=1&state=LA

[10] http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=LA18F&re=1&ee=1

[11] See "RPS Policies" on http://www.dsireusa.org/summarymaps/index.cfm?ee=1&RE=1

questions answered and available online by November 17 (http://www.entergy-neworleans.com/content/IRP/IRP_QandA.pdf). The intervener process will last until December 22, with answers by January 18. Then the City Council must hold public comment before approving or sending the IRP back for changes.

Entergy's Generation Outlook until 3030



Net Metering

Net metering for photovoltaics can, and has been, installed throughout New Orleans following a state law allowing net metering in 2005 and subsequent city legislation in 2007. The only areas that can't support net metering systems are the Central Business District and the French Quarter. Entergy held a meeting on 11/11/10 with the U.S. Department of Energy (DOE) and experts from New York and San Francisco (cities that have dealt with similar problems) to decide what options are available for secondary networks like the one in downtown New Orleans. These secondary networks are grids commonly found in cities because they better suit the demands of urban areas, and they usually have a network protector installed to prevent any backfeeding, an aspect essential to net metering. After the meeting, it looks like Entergy will compromise to allow buildings in these areas to install a level of solar power equal to the building's minimum energy use on a weekend.

Notable Companies/Practices:

- There are around 20 solar companies in Greater New Orleans.
- Gulf States Industry Association: This new collective nonprofit representing solar providers in Greater New Orleans looks to support solar interests at City Council and state legislative

meetings, provide legal aid and advice for member organizations, and unify the solar industry to enhance information sharing and activism potential.

- Sustainable Environmental Enterprises (SEE): SEE has created a model by which the company finances the installation of the solar for low income families and then recovers payment for it through the monthly utility bill. See: www.seethemovement.com/products.html.
- West Energy: This wind company is looking at placing wind turbines on oil rigs. Their first project is in Galveston, TX, with a test turbine in place on an offshore rig. They are looking into putting the turbines off Plaquemines Parish, and are currently testing site options and in talks with the Parish government. They will not put anything in LA until the state offers commercial incentives.
- Freeflow Power: This turbine company is contracting with the naval base in Plaquemines Parish to install hydro turbines in the Mississippi river. They are developing a test site that will inspire further installation if successful.

Wind

A report released by DOE's National Renewable Energy Labs (NREL) in June 2010 (http://www.nrel.gov/docs/fy10osti/45889.pdf) states that the U.S. has the potential to install as much as 4,150 gigawatts of offshore wind-energy capacity, representing more than four times the capabilities of the nation's power plants in 2008. Hawaii, California, Michigan and Louisiana were among the states with the greatest offshore wind potential, and Louisiana had the most potential in the 7.0-7.5 m/s range. All wind available in LA is in the range from 7.0-8.0 m/s.

Offshore Wind Capacity in Louisiana According to NREL Report				
	0-30m offshore	**30-60m**	**>60m**	**Total**
Area	36,698 square km	8,380 sq. km	17,997 sq. km	63,075 sq. km
Megawatts	183,492 mw	41,899 mw	89, 085 mw	315,376 mw

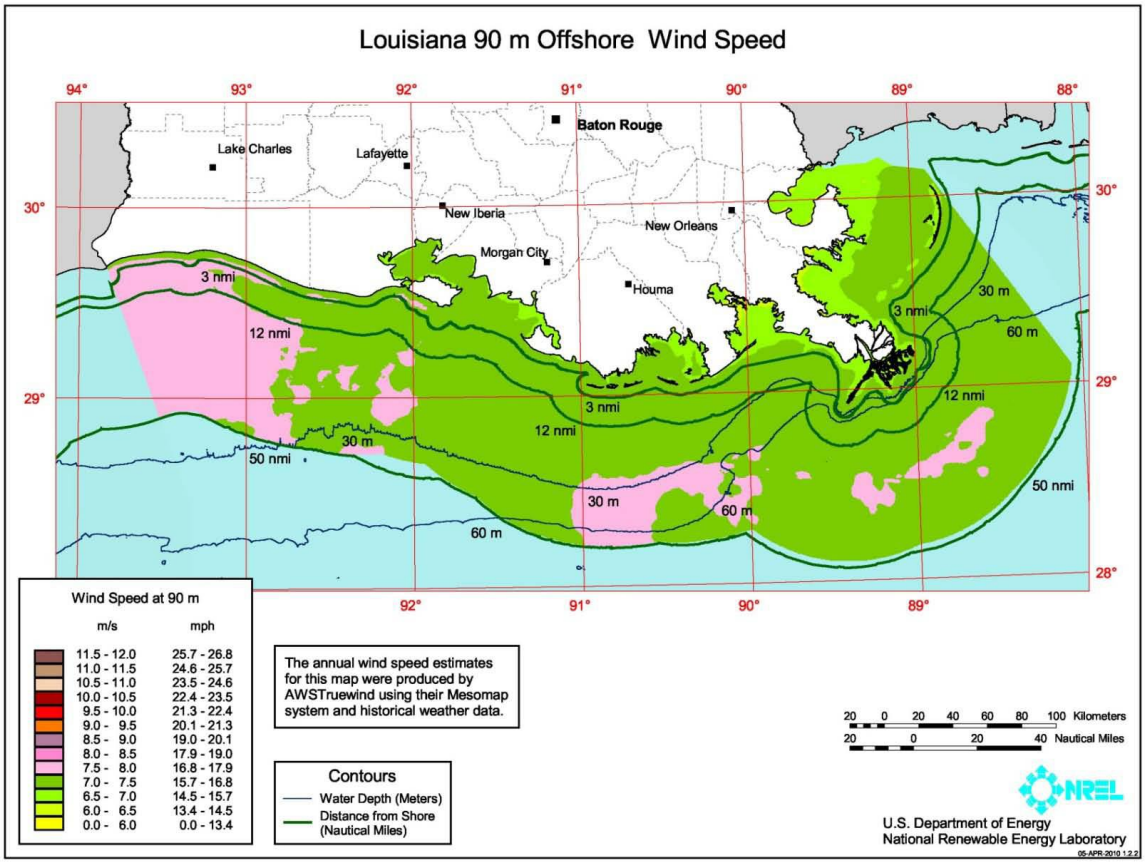


Image from: http://www.nrel.gov/docs/fy10osti/45889.pdf