

Charting a New Path for Louisiana's Electricity Generation and Use

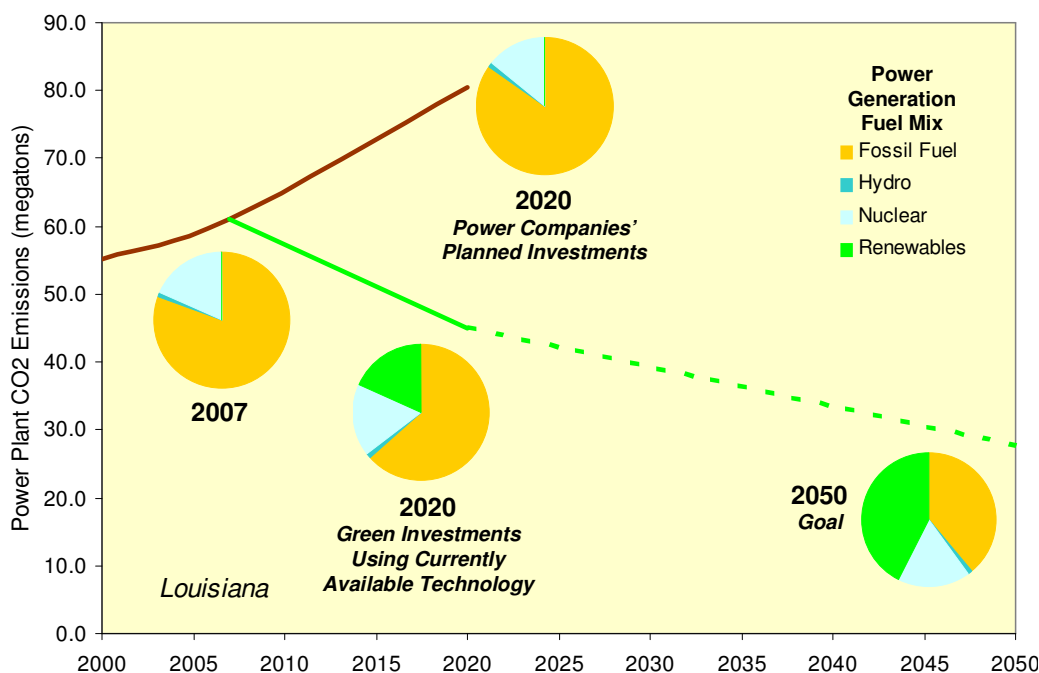


Louisiana's energy future is at a crossroads

One path leads to increased dependency on fossil fuels—threatening our economy and fueling global warming. The other leads to a new, smarter energy future for Louisiana. Investing in clean energy alternatives—like solar and wind power—can create and protect jobs in Louisiana, save families and businesses money, and make America more energy independent. Clean energy is also the most effective solution to the threat of global warming. We can start making progress right away using proven technology, and then draw on American innovation to take us the rest of the way with new technologies.

How does Louisiana generate electricity today?

In 2007, electric power generated in Louisiana primarily came from coal (23.8 percent), gas (47.2 percent), and nuclear (18.3 percent). Most utilities intend to continue relying heavily on fossil fuels in the coming decade. Louisiana power companies plan to increase the energy generation from coal by 47.2 percent, gas by 19.4 percent. Less than 0.1 percent of electricity generated in Louisiana is expected to come from renewable sources like wind, solar, geothermal, and biomass under current plans.



Louisiana has a choice to invest in a cleaner energy future

Louisiana can achieve a new energy future by making better investments as utilities replace increasingly aged infrastructure and expand capacity. An important first step is for Louisiana to generate at least 20 percent of electricity from renewable sources by 2020, a goal readily achievable with today's technology. Continuing to convert 15 percent of the state's energy portfolio to renewable energy sources each decade could yield an energy profile of at least 65 percent renewables by 2050.

Louisiana can also benefit from improved energy efficiency. Technologies are available that could reduce demand nationally by 20 to 30 percent over the next decade. Innovations in energy efficiency should allow us to keep demand constant after 2020, even as the population grows.

About the chart: 2000, 2007 and 2020 Power Companies' Planned Investments from CARMA 1.0 (www.CARMA.org). The 2020 Green Investments projection assumes that, using currently available technology, Louisiana makes (1) improvements in efficiency to reduce overall demand by 25 percent and (2) shifts away from fossil fuels so that 20 percent of power generation is from renewable energy sources. The 2050 Goal assumes (1) hydro and nuclear are unchanged, (2) continued efficiency improvements keep total demand flat, and (3) renewable energy replaces at least 65 percent of power generation formerly done through fossil fuel burning. Note that the projection of future CO₂ emissions from fossil fuels assumes no investment in carbon capture and storage.

Making a Difference in Louisiana

New Orleans was hit hard by the tragedy of Hurricane Katrina in 2005, but the city is rebounding thanks to the help of many initiatives. In 2007, Sharp Solar kicked off the “SOLA in NOLA” initiative, a solar build project that benefited residents of New Orleans' Lower 9th Ward who were affected by Katrina. Sharp donated 10 1.5kW solar panel systems to the Holy Cross Neighborhood. Nine of the systems were installed on residential homes and the tenth on a Community Center. These panels will supply free and clean energy for a lifetime. Architecture students from Louisiana State University are working on a similar project to design cost-effective solar powered low-income housing. Further development of solar power in the state is on the horizon, as New Orleans was designated a Solar American City by the U.S. Department of Energy.



Sources:

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<http://media.www.lsureville.com/media/storage/paper868/news/2006/02/22/News/Here-Comes.The.Sun-2054915.shtml?nrewrite200612112153&sourcedomain=www.lsureville.com>

Making a dent in global warming pollution

Simply by shifting to renewable energy sources and improving energy efficiency over the next decade or so, Louisiana can reduce its future carbon dioxide (CO₂) emissions from electricity generation by 44 percent compared to the business-as-usual path that utilities are following now.

Given that 21 percent of Louisiana's CO₂ emissions come from electricity generation, diversifying and updating our power sources is critical for cutting the state's total global warming pollution.

Increasing Louisiana's energy and economic security

Investing in renewable energy sources will reduce Louisiana's dependence on fossil fuels and at the same time create new green collar jobs. A new energy future in Louisiana could include:

Expanded solar power. Louisiana has enough solar resources to produce 4,500 to 5,500 Whr per square meter

using photovoltaic systems and 3,500 to 4,500 Whr per square meter using concentrating solar power systems. This means that devoting just 1 square mile in Louisiana to solar power can provide enough electricity for about 1,200 households each year.

Expanded wind power. Louisiana is currently ranked 50th for wind power, with MW of existing electricity generation capacity. The American Wind Energy Association ranks Louisiana 47th in terms of its future wind potential.

Biomass power. Louisiana has 11.8 million dry tons of biomass available each year that could be used to generate about 2,400 MW of electricity.

How does Louisiana use electricity?

Louisiana's energy is used to power:

- homes (36 percent),
- businesses (28 percent), and
- industry (35 percent).

Per capita residential electricity use is 6,625 kilowatt hours per year, 46 percent greater than the national average.

References and Additional Reading:

American Council for an Energy-Efficiency Economy, www.aceee.org.

American Wind Energy Association, www.awea.org.

Bioenergy Feedstock Information Network, bioenergy.ornl.gov

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For more information, visit www.nwf.org/globalwarming.