Louisiana Renewable Resource Maps

This document includes renewable resources for a variety of sources for Louisiana, including:

- Solar PV
- Solar CSP
- Biomass – 5 maps total:
  - Aggregate biomass map, rolling up 4 main resources (map of each included):
    1. Agricultural residues
    2. Wood residues
    3. Municipal residues
    4. Dedicated energy crops

- Offshore wind
Renewable Energy Resource: Louisiana

PV Solar Radiation

Annual average solar resource data is shown for a tilt = latitude collector. The data is a 10 km satellite modified dataset (SUNYNREL, 2007) representing data from 1998-2005.

This map was developed by the National Renewable Energy Laboratory for the U.S. Department of Energy.

July 18, 2006

kWh/m²/day

- Very Good
- Good

Lake Pontchartrain

Baton Rouge

Lake Charles

Lafayette

Shreveport

Bossier City

Monroe

Kesser

New Orleans

0 15 30 60 Miles

NREL
Annual average direct normal solar resource data is shown. The data is a 10 km, satellite-modeled dataset (SUNY/NREL, 2007) representing data from 1998-2005.
NOTE: This map is a composite of the four biomass maps on the following pages
This study estimates the technical biomass resources currently available in the United States by county. It illustrates agricultural residues (crops and animal manure). See additional documentation for more information at: http://www.nrel.gov/docs/fy08osti/39181.pdf

This map was developed by the National Renewable Energy Laboratory for the U.S. Department of Energy.

July 18, 2006

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Legend:
- **Above 500 Thousand Tonnes/Year**
- **250 - 500 Thousand Tonnes/Year**
- **150 - 250 Thousand Tonnes/Year**
- **100 - 150 Thousand Tonnes/Year**
- **50 - 100 Thousand Tonnes/Year**
- **Less than 50 Thousand Tonnes/Year**
This study estimates the technical biomass resources currently available in the United States by county. It illustrates wood residues (forest, primary mill, secondary mill, urban). See additional documentation for more information at: http://www.nrel.gov/docs/fy06osti/39191.pdf

This map was developed by the National Renewable Energy Laboratory for the U.S. Department of Energy.
July 15, 2005
This study estimates the technical biomass resources currently available in the United States by county. It illustrates municipal residues (methane emissions from landfills and domestic waste water treatment facilities). See additional documentation for more information at:

http://www.nrel.gov/docs/fy06osti/35181.pdf

This map was developed by the National Renewable Energy Laboratory for the U.S. Department of Energy.

July 18, 2006
Renewable Energy Resource: Louisiana

Biomass

Dedicated Energy Crops on CRP Lands

This study estimates the technical biomass resources currently available in the United States by county. It illustrates dedicated energy crops (switchgrass) on CRP lands. See additional documentation for more information at http://www.nrel.gov/docs/fy06osti/308181.pdf

Thousand Tones/Year

- Above 100
- 250 - 500
- 150 - 250
- 100 - 150
- 50 - 100
- Less than 50

This map was developed by the National Renewable Energy Laboratory for the U.S. Department of Energy.

July 18, 2006

0 15 30 60 Miles

Lake Charles

Baton Rouge

New Orleans

Lake Ponchartrain

Lafayette

Monroe

Natchitoches

Shreveport

Bossier City

Lake Charles

Baton Rouge

New Orleans

Lake Ponchartrain

Lafayette

Monroe

Natchitoches

Shreveport

Bossier City
Renewable Energy Resource: Louisiana

Offshore Wind

Wind Power Classification

<table>
<thead>
<tr>
<th>Wind Power Class</th>
<th>Resource Potential</th>
<th>Wind Power Density at 60m Windm</th>
<th>Wind Speed at 50 m m/s</th>
<th>Wind Speed at 50 m mph</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor</td>
<td>0 - 200</td>
<td>0.0 - 5.0</td>
<td>0.0 - 12.6</td>
</tr>
<tr>
<td>2</td>
<td>Marginal</td>
<td>200 - 300</td>
<td>6.6 - 8.4</td>
<td>12.5 - 14.3</td>
</tr>
<tr>
<td>3</td>
<td>Fair</td>
<td>300 - 400</td>
<td>6.4 - 7.0</td>
<td>14.3 - 15.7</td>
</tr>
</tbody>
</table>

Wind model boundary

*Wind speeds are based on a Weibull k value of 2.0

The wind power data for this map was produced by AWS TrueWind using the Mesoscale system and historical weather data. It has been validated with available surface data by the National Renewable Energy Laboratory and wind energy meteorological consultants.

This map was developed for the National Renewable Energy Laboratory for the U.S. Department of Energy.

July 16, 2003

Lake Pontchartrain

New Orleans

Kennebunk

Lake Charles

Baton Rouge

Lafayette

Monroe

Bossier City

Shreveport

12

10

11

74x365 to 541x720

0 15 30 45 60 Miles

0 15 30 45 60 Miles