Florida Renewable Energy Projects: Permitting Green Energy Resources

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2013 Florida Electricity by Fuel Type

- Natural Gas: 59.65%
- Coal: 21.6%
- Nuclear: 11.35%
- Oil: 0.21%
- Other: 5.91%
- Renewables: 1.28%
## Growth in Fla. Renewable Capacity

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<td>* Florida also had 6,697 customer-owned renewable energy systems installed and using net metering by the end of 2013 or 63 MW, an increase in capacity of 50 percent from 2012; only 3MW in 2008.</td>
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<th>% Change</th>
<th>14.0%</th>
<th>1.9%</th>
<th>9.2%</th>
<th>5.1%</th>
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- * TYSP Values

2014 Existing Renewable Resource Capacity
(of ~57,000 MW Total Capacity)

- Municipal Solid Waste: 24.6%
- Waste Heat: 19%
- Solar: 13.5%
- Hydro: 3.9%
- Wind: 0%
- Solid Biomass: 35.9%
- Landfill Gas: 3.1%

Installed:
1,617 MW Total
(490 MW firm)
(80% NUG)
2023 Additional Renewable Resource Capacity
(~12,570 MW of new capacity)

- **Solar**: 46.1%, 332 MW
- **Solid Biomass**: 38%, 272 MW
- **Landfill Gas**: 3.9%, 28 MW
- **Municipal Solid Waste**: 12.4%, 162 MW

**Additional:**
- **722 MW Total**
- **(361 MW Firm)**

Hopping Green & Sams
Florida Renewable Energy Projects

- Biofuel
- Biomass/RRF
- Solar
- Ocean Current
Biomass

Electricity and process steam production

• Wood Resource
  • Sustainable wood supply
• Bagasse
Siting Energy Facilities: Common Environmental Issues

- Land Use and Zoning
- Air Emissions
- Water Supply and Disposal
- Waste Disposal
- Wetlands and Wildlife
Land Use and Zoning

- Biomass Facilities
- Solar Projects
Air Emissions

• Air Construction Permits/PSD review
Water Supply and Disposal

• Cooling and process water
  • Use of Reclaimed Water for cooling

• Cooling Water and Process Wastewater Disposal
Waste Disposal

• Biomass
Wetlands and Wildlife

- Wetlands
  - Permitting
  - Avoidance/Mitigation
- Wildlife Impacts