

2011 Resource Guide

A guide for members of the Florida Legislature

- Your Contacts for Information
- Electric Utility Issues
- Co-op Profile
- ACRE



 **Clay Electric Cooperative, Inc.**
A Touchstone Energy® Cooperative 

Clay Electric Cooperative, Inc. Office of the General Manager/CEO



Dear Representative:

Thank you for serving as a member of the Florida Legislature.

In this Guide we have compiled some information that we believe will be of value to you during the 2011 Legislative session. As you will note, the Guide is divided into four areas: (1) Your contacts for information; (2) Electric utility issues; (3) Co-op profile; and (4) Information about the Action Committee for Rural Electrification (ACRE) program.

Please refer to this Guide when you need to know who to contact regarding an issue that concerns the electric cooperatives of Florida. Henry Barrow, director of Clay Electric's Member & Public Relations Department, or one of our district managers in the area you serve, will be happy to respond to your questions. Their phone numbers are provided on the Information Contacts page of this Guide. We will be happy to provide you with background information on a variety of other electric utility industry topics which might be discussed during the Legislative session. Contact information regarding representatives of the Florida Electric Cooperatives Association in Tallahassee is also provided.

Most importantly, we want to be of service to you because many of your constituents are member-owners (customers) of Clay Electric. We serve over 165,000 accounts in 14 North Florida counties. As you review the information in this Guide, please let us know if you have comments or questions.

We look forward to working with you.

Sincerely,

A handwritten signature in black ink that reads "Richard K. Davis".

Richard K. (Ricky) Davis
General Manager/Chief Executive Officer



Your Contacts for Information



At Clay Electric, your primary contacts for information are Henry Barrow, Director of Member and Public Relations, and Jim Beeler, Salt Springs District Manager.



Henry Barrow
Director of
Member & Public Relations
 225 West Walker Drive
 Post Office Box 308
 Keystone Heights, FL 32656
 (352) 473-8000 ext. 8266
hbarrow@clayelectric.com



Jim Beeler
District Manager
 Salt Springs District
 P.O. Box 5500
 Salt Springs, FL 32134
 (352) 685-4201 ext. 2201
 FAX (352) 473-1973
jbeeler@clayelectric.com



At the Florida Electric Cooperatives Association in Tallahassee, your primary contacts are Bill Willingham, Executive Vice-President and General Manager; Michael Bjorklund, Director of Legislative Affairs; and Quinton Greene, Lobbyist.



William (Bill) B. Willingham
Executive Vice-President/
General Manager
 2916 Apalachee Parkway
 Tallahassee, FL 32301
 (850) 877-6166



Quinton N. Greene
Lobbyist
 2916 Apalachee Parkway
 Tallahassee, FL 32301
 (850) 980-5802



Michael Bjorklund
Director of Legislative Affairs
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 Tallahassee, FL 32301
 (850) 877-6166

Electric Utility Issues

Information provided by Michael Bjorklund, Florida Electric Cooperaives Association

There are many important issues discussed during each Legislative session. There is a chance that during Florida's 2011 Legislative session, energy and utility issues may be raised that could have long-term impacts on the availability and affordability of electricity in Florida.

The following pages provide information and analysis on the issues of:

- Renewable energy requirements
- Eliminating certain electric utility sales tax exemptions
- Energy efficiency standards and public education to enhance energy conservation efforts
- The challenges associated with energy generation and the need to diversify energy portfolios

If you have any questions about the information contained in this guidebook, please contact the persons listed in the contacts section. We hope that this guidebook will be a useful tool as electric utility issues come before the Legislature, and we hope you have a very successful legislative year.



Electric Utility Issues

Energy Priorities for the State of Florida

Energy Priorities for the State of Florida

We believe that a responsible and reasonable energy policy for the State of Florida will:

1. Encourage utilities to use a variety of generation fuels, including clean coal, nuclear, natural gas and renewables, while requiring the reduction of emissions levels.
2. Adopt policies that spur the development of renewable energy sources.
3. Avoid establishing a generation portfolio standard that forces utilities to use energy sources that aren't cost effective.
4. Encourage the building of nuclear generation facilities by reducing red tape and bureaucratic roadblocks.
5. Help electric cooperatives continue to provide affordable and reliable electricity by keeping the co-ops out of the duplicative regulation of the PSC.
6. Help prevent a rise in ratepayer bills by ensuring that sales tax exemptions for equipment and fuels used to generate electricity remain in place.
7. Expand efforts to encourage consumers to conserve electricity and improve energy efficiency.
8. Require "retail electric rate impact studies" to accompany all proposed state energy legislation. No energy legislation should be considered without knowing its potential economic impact on the citizens of our state.
9. Encourage Florida's Congressional delegation to increase federal funding for the development of new energy technologies.



Electric Utility Issues

Renewable Energy

The key to meeting Florida's growing demand for electricity is using a diversified portfolio of electricity generation that employs a variety of fuels - coal, natural gas, nuclear - and through energy efficiency and conservation. An additional amount of electricity could be provided by renewable sources like solar and biomass generators and possibly even wind. However, the common perception that renewable energy and energy efficiency can be somehow "ramped up" to replace present forms of base load generation on a large scale is not realistic.

This is especially true in Florida where we do not have the renewable resources that are available in other states (see renewable maps in the appendix). Florida's utilities already are utilizing biomass, but other opportunities in this area still exist.

Intermittent energy sources like solar and wind have a role in the state's energy future, but their value is limited unless they are backed up by relatively expensive fossil fuel peaking generation. Unless these technologies experience breakthroughs (for example, in the ability to store energy for use when the sun is not shining or the wind is not blowing) and their high prices come down, they will remain a small portion of our energy generation for quite some time.

There have been several bills that promote renewables in Florida. The most recent bills

were HB 7135 that became law in 2008, and SB 1154 from the 2009 session, and SB 596 was filed in 2010, neither of which passed. HB 7135 directed the Public Service Commission (PSC) to draft a renewable rule that required ratification by the Legislature before the rule could be adopted. The PSC drafted the rule as directed, but the Legislature did not act on the proposed rule.

During the 2009 session the Senate passed SB 1154, which would have created a clean energy standard that combined a renewable and "clean energy" goal where clean energy included new nuclear reactors, gas and coal plants equipped with carbon capture and sequestration (CCS).

SB 1154 included a financial penalty for failing to meet that goal. The bill was not heard in the House. We would not be surprised to see similar bills filed in the 2011 session that relate to a clean energy goal and potentially a bill to create a renewable portfolio standard.



While goals based upon available resources and cost controls could be a good tool for promoting renewables, goals with mandates and penalties could be very costly for Florida's ratepayers. Co-ops generate a

larger percentage of their energy needs from renewables than any other group of utilities in Florida, but they have done so without raising rates, as they have been able to purchase biomass energy at or below cost.

Electric Utility Issues

Renewable Energy (cont.)

While renewables should be encouraged, renewable mandates that require purchasing or generating electricity at costs that are double or triple avoided costs are potentially dangerous and will function as a hidden tax that increases electric rates. Clay's wholesale power supplier (Seminole Electric Co-op, a generation & transmission co-op), currently has about 100 megawatts of renewable resources with an additional 25 megawatts scheduled to come online in 2011.

According to Seminole, the majority of renewable capacity in the U. S. – about 80 percent - is provided by hydroelectric installations. Seminole currently purchases renewable energy from a landfill gas operation, a waste wood plant, and a municipal solid waste plant. Four of Seminole's nine member systems also purchase a very limited amount of energy from a hydroelectric plant through the Southeastern Power Administration (SEPA). Seminole's renewable energy resources meet 4 percent of its members' total energy requirements at this time. In a recent statement, Seminole said, "Most renewable resources are small compared with conventional fossil or nuclear fueled plants, and some renewable technologies cost significantly more. While it is unlikely that renewable energy technologies will ever fill a high percentage of any utility's customer needs, except for regions with existing hydroelectric resources, Seminole continues to look for practical and economic applications for the use of renewable energy."

To date Florida's electric cooperatives have been able to acquire renewable resources that are comparable to fossil fuel generation in both cost and reliability. However, the low hanging fruit has been picked, and additional renewable options range from relatively expensive to outrageously expensive. Electric cooperatives take issue with legislation that

requires electric utilities to purchase renewable energy under terms that may be much more expensive than other sources. Our concerns are in line with those raised in the Senate Committee on Communications, Energy, and Public Utilities' Issue Brief 2011-109, Review Potential Methods of Encouraging Renewable Energy That Minimize the Economic Impact on Utility Ratepayers (the "Brief") that details the challenges policymakers face in implementing renewable incentives, which was released in October 2010. The Brief highlights the issue of cost and other details related to an RPS. In addition, the Brief discusses a program that was recently enacted by Gainesville Regional Utilities (GRU) called a Feed-in-Tariff (FIT). The FIT requires the retail utility to purchase electricity produced by a specific type of technology at a predetermined rate for a specific timeframe. In the case of GRU, participants are being paid what appears to be approximately three times avoided cost. The Brief discusses many of the difficulties that go along with a FIT and an RPS including the disproportionate impact on low-income individuals. For your convenience, a copy of Issue Brief 2011-109 has been included in the appendix of this resource guide.

The increased use of renewable energy is a common goal for all; but this goal has to be balanced with the need to keep electricity affordable and reliable. An RPS might sound good in concept, but in reality, such a plan could lead to significant increases in costs for Floridians. In addition, renewables such as solar and wind are intermittent energy sources that cause planning and reliability problems for utilities that must provide power regardless of whether the sun is shining or the wind is blowing. Clay Electric will continue to support legislation that promotes renewable programs so long as the costs are reasonable.

Electric Utility Issues

Sales Tax/Review of Exemptions and Exclusions

During the 2010 session, SB 216 would have required a review of all sales tax exemptions by a joint committee of the legislature. The committee would have the responsibility to recommend which exemptions remain or are repealed. The impact on Florida utilities and their ratepayers would be significant if utility sales tax exemptions are repealed. For example, the additional cost for a new gas generation facility could be over \$25 million if section 212.08 (5) (c) is repealed. If the exemptions for boiler fuels, material

components for operation, maintenance, and capital projects were removed, the additional recurring cost for Seminole would be approximately \$75 million annually unless these items are treated as a sale for resale. These costs would ultimately be borne by the ratepayers, including those residential accounts that are exempt from the sales tax pursuant to Section 212.08 (7) (j). SB 216 was not heard during the 2010 session, but with the state of the economy there is a chance that this bill or a similar bill will be filed for the 2011 session.

Electric Utility Issues

Energy Efficiency Standards and Public Education

In 2008 the Legislature passed two bills to address energy efficiency of new buildings. HB 697 and HB 7135 encourage the Florida Building Commission to adopt more energy efficient standards for new construction.

This is a good start. However, if Florida is serious about energy efficiency, these codes need to be much stronger, especially for apartments and other rented structures where the tenant has little incentive or opportunity to make efficiency improvements to someone else's property.

In addition, the landlord has little incentive to make substantial capital improvements that will only provide savings to the tenant. Today's scheme of build it cheap and then put pressure on the electric utility to retrofit the building is very inefficient.

Public education - For decades Florida's electric utilities have labored to educate their ratepayers about conservation and efficiency, but successes have been limited. While some have placed the blame and the burden of addressing green house gases on electric utilities and auto manufacturers (see Executive Order No. 07-127), any success in this area will be largely dependent upon the consumers and their willingness to conserve and to pursue more efficient options, even if it requires personal sacrifice. While scientists disagree on whether man-made green house gases are significant, if Florida is serious about addressing the issue, government leadership is required to involve the consumers in the conservation and efficiency movement, and to force consumers to make significant lifestyle changes.

Electric Utility Issues

Some insights into the challenges of energy generation

We have come to depend upon electricity in nearly every aspect of our lives. Having sufficient and affordable supplies of electricity is critical. Electricity is not a luxury but is a necessity which we all depend upon for security, our livelihoods, and our comfort.

While the current economic downturn has slowed the influx of people into Florida, all indications are that the demand for electricity will continue to rise. Utilities have to prepare now to meet increasing demands for electricity, due to the time required to plan and build generation facilities, transmission lines, substations, and distribution lines. The demands for electricity have been tempered by the economic slowdown and future growth can be further tempered by conservation and energy efficiency efforts. Renewable energy sources also will be developed to help meet the demand. However, all of the conservation, efficiency and renewables will not change the fact that additional generation will be needed in the near future to meet Florida's increasing demand for electricity.

Coal

The fuel for 50% of the power generated in the United States is coal. Coal has been vilified in recent years because of its higher emissions, but emission control equipment available today significantly mitigates all but carbon dioxide emissions. Coal remains one of the least expensive fuels for generation, and is available in the U.S. in amounts that will last for several generations. Generating facilities can stockpile coal so it is rare that fuel-related supply interruptions occur.

To eliminate coal from this Florida's generation mix in an effort to address global warming theories is a mistake. Clay Electric's wholesale

power generator (Seminole Electric Co-op) uses coal for approximately 60 percent of its generation and it has a sterling record of environmental stewardship. Seminole's use of coal has enabled Clay Electric to offer its members some of the most competitive electric rates in Florida. Our members benefit from our competitively priced power costs as well as Seminole's efforts to reduce emissions to meet new requirements.

Natural Gas

In the past several decades, utilities have come to rely more and more on natural gas as a generation fuel. The downside is that demand for this fuel has skyrocketed in past years and the price has been very volatile. Recently natural gas prices have fallen, but as prices rose to record levels a few years ago utilities that depend heavily on natural gas for generation were forced to pass dramatic cost increases on to their consumers.

Policymakers' efforts to push utilities toward natural gas and eliminate coal-fueled plants are placing utilities in a precarious position, since natural gas storage is limited. If there are supply interruptions of natural gas, utilities are vulnerable. Hurricanes are a factor we must deal with in Florida, and for utilities they are a huge concern. When oil and natural gas platforms were shut down in the Gulf of Mexico in 2005 due to Hurricane Katrina, natural gas supplies tightened in Florida and utilities came within hours of implementing rolling brownouts and blackouts.

Natural gas may have lower carbon emissions per megawatt generated (approx. 50% less than coal), but reliability and price are its "Achilles Heel" as a generation fuel.

Electric Utility Issues

Some insights into the challenges of energy generation (cont.)

Nuclear Energy

Nuclear energy should have a key role in our energy future. Nuclear plants are safe, reliable and have no CO2 emissions.

In 2007, the unit capacity factor (the fraction of a power plant's capacity that it actually generates) for operating reactors in the United States reached a record 91 percent, compared to 58 percent in 1980 and 66 percent in 1990. In other words, nuclear power plants now are running more than 90 percent of the time.

The main advantages for nuclear is the relatively low cost fuel, zero emissions, and long track record of safe operation. On the down side, environmental groups typically oppose nuclear energy because they are afraid "something might happen" or the plants "might be the target of a terrorist attack". The disposal of nuclear waste materials is a concern, but there are options to deal with the spent fuel. The construction of a nuclear power plant is expensive and takes longer to build, compared to natural gas and coal-fired plants. However, we believe additional nuclear power plants will bolster the reliability of the existing nuclear fleet and nuclear is a viable choice for future energy generation in Florida.

Renewable Resources

There is a lot of interest in developing renewable energy sources. Renewables are popular because the public sees their energy sources as free. Sunlight, wind, combustible gases generated at landfills, wood chips from milling operations and garbage from municipal services make up much of this "free fuel". While the source of energy might be "free", the technologies used to convert that energy into electricity can be quite expensive.

The public may believe that renewable energy

can replace all of the existing base load electricity generation and take care of our future needs, but that is simply not true, and it will remain this way for the foreseeable future unless there are major technological breakthroughs.

Solar water heating systems and photovoltaic (PV) systems are gaining in popularity with homeowners and some businesses. While the relative costs of solar water systems are improving, the cost of PV systems is very high, and these systems are not cost effective to the consumer unless the state and utilities offer substantial rebates or tax credits. While some utilities have built sizable PV systems as pilot projects, the public should not expect PV systems to provide large-scale cost-effective power generation in Florida for some time to come. That is simply the reality of today's PV technology.

It is very doubtful that there is enough wind at sufficient speeds to make today's commercially available wind turbines a viable "supplemental" energy source in Florida. Another concern is the environmental impacts of wind farms, which have generated opposition from wildlife and environmental groups that oppose increased bird and bat deaths and spoiled landscapes.

Programs that promote energy conservation and energy efficiency have an effective track record in helping consumers lower their electricity usage and their energy bills. Many utilities offer their consumers rebates to offset the purchase of energy efficiency devices, like a high efficiency heat pump, or increasing the amount of attic insulation in homes. However, the programs require consumer buy-in and in most cases the payback period is very long and in many cases is negative.

Cooperative Profile

Cooperative Statistics



Clay Electric Cooperative

- Power supplier: Seminole Electric Cooperative (owned by Clay Electric and 9 other co-ops)
- A Touchstone Energy Cooperative- a national alliance of more than 660 electric cooperatives delivering electric power and energy solutions to over 30 million members.
- Average Service Availability Index: 99.97%
- Services billed: 166,078*
- Total Assets: \$517 million*
- Annual Energy Sales: 3.38 billion KWH*
- Annual Meeting: 4th Thursday in March
- Corporate Sponsor: Boy Scouts of America ScoutBlast 2001, 2002; Jacksonville.
American Cancer Society Relay for Life 2003 - 2005; Bradford County.
American Cancer Society Relay for Life 2005 - 2010; Clay County.

* As of December 31, 2010

Profile



Electric Cooperatives Nationally

- Are located in 80% of the nation's counties
- Are the largest electric utility network in the nation
- Total more than 930 local systems in 47 states
- Have 40 million member-owners
- Distribute power over 2.4 million miles of line
- Serve 75% of the U.S. land mass

Cooperative Profile

The Cooperative Difference

There are three major types of electric utilities that serve customers in North Florida: (1) Electric cooperatives (like Clay Electric Co-op); (2) Investor-owned utilities (like Florida Power & Light); and (3) Municipal utilities (like JEA and Gainesville Regional Utilities).

Members of Clay Electric have special privileges that aren't available to customers of other types of utilities. The privileges provided to members of Clay Electric include voting rights (election of members to a board of trustees); ownership rights (refund of Capital Credits); and, the benefit of receiving electric service at cost.

When someone requests service from the cooperative, they pay a \$5 membership fee. With membership in the cooperative they become an owner of the cooperative, and are entitled to Capital Credits.

What are Capital Credits? As a non-profit electric cooperative, a pro-rata share of each year's margin (money left over after all expenses are paid at year's end) is credited to the accounts of members who purchased electricity during the year. The amount assigned to the accounts of members is referred to as Capital Credits.

Capital Credits are in direct contrast to the dividends of investor-owned utilities, which benefit stockholders, not customers. Once a year, members of the cooperative receive a notice informing them of the amount of Capital Credits assigned to them for the previous year. The amount is subject to refund at a later date.

One of the responsibilities of being a member of Clay Electric is a request to participate in the democratic process of electing members to the co-op's board of trustees. The



board of trustees sets overall policies. Each of the nine trustees represents members in their respective districts. Each year, three members of the board are up for election. Trustee district meetings are held early in the year and one or two candidates are chosen from each of the three districts. All candidates selected in the district meetings are then voted upon by all members of the cooperative who attend the co-op's Annual Meeting, held the fourth Thursday in March in Keystone Heights.

Clay Electric was founded in 1937 by local citizens who wanted to bring the benefits of electricity to their rural homes and communities. Since then, Clay has grown into one of the nation's largest electric cooperatives. Clay uses the most modern equipment and technology to serve its growing membership in 14 North Florida counties.

The co-op maintains six district offices within its service area in order to make it easier for members to use the services of the co-op, and to respond quickly to members' requests for service.

To recap, Clay Electric is a non-profit and democratically controlled utility which provides excellent service and competitive electric rates for its members.

Cooperative Profile

Seminole Electric

Clay Electric's wholesale power supplier is Seminole Electric Cooperative. Seminole is a Tampa-based generation and transmission cooperative owned by Clay Electric and nine other distribution cooperatives in Florida.

Seminole's primary generating facility, the Seminole Generating Station, consists of two 650 megawatt coal-fired generating units. It's located north of Palatka on the St. Johns River, in Putnam County, about 50 miles south of Jacksonville.

Seminole's Richard J. Midulla Generating Station, located in Hardee County, northwest of Wauchula, is an 810 megawatt facility. It uses natural gas as its fuel source. The Midulla Station's 500 megawatt combined cycle unit began commercial operation in 2002. An additional 310 megawatts of peaking capacity went into service at this location in December 2006.

Seminole Electric has one of the largest renewable energy portfolios in Florida. This year they expect to meet about 4% of energy needs with renewables, while the average for Florida utilities is closer to 2%.

Seminole currently has about 100 megawatts (MW) of renewable resources under contract and is working to expand that portfolio. In October 2009, the U.S. Internal Revenue Service awarded Seminole the right to issue up to \$34 million in new Clean Renewable Energy Bonds (CREBs) to finance a potential 1 to 5 megawatt solar energy project. Seminole is evaluating its Midulla Generating Station as a site for the facility, which would consist of an array of solar photovoltaic (PV) panels and

associated energy storage capabilities.

Seminole's renewable portfolio currently consists of resources that use biomass, landfill gas, and municipal waste to produce electricity. These facilities produce energy almost as reliably as a traditional fossil fueled or nuclear power plant.

Seminole is a member of the Cooperative Research Network (CRN). The CRN monitors, evaluates, and applies new technologies that can help electric co-ops control costs, increase productivity, and enhance consumer services. As part of its mission, CRN studies and reports on emerging renewable technologies to ensure innovative and sound business decision-making in their deployment. Seminole also is a member of the National Renewables Cooperative Organization (NRCO), which is working to develop new renewable energy projects by member co-ops across the U.S.



Cooperative Profile

A Touchstone Electric Cooperative



Clay Electric is a member of a nationwide alliance of more than 660 non-profit electric cooperatives that are dedicated to providing their member-owners reliable, high quality service at cost. The alliance is called Touchstone Energy.

A major reason for being a member of the alliance is the nationwide advertising effort that promotes the distinctive benefits of receiving service from a Touchstone Energy electric cooperative. These benefits include member-ownership, receiving electric service at cost (because electric co-ops are non-profit), a commitment to high standards of service and a commitment to community involvement.

In a first-quarter 2009 survey by the American Customer Satisfaction Index (ACSI), Touchstone Energy cooperatives ranked 10 points higher for customer satisfaction than the electric utility industry as a whole. This score is evidence that the Touchstone Energy co-ops' communications, community involvement and advertising efforts appeal to co-op members. Clay Electric's ACSI score was 85. The average score of other electric cooperatives participating in the ACSI is 81. The utility industry average is 74. The score also eclipses

the airline industry (63), cable TV (62), and the U.S. Postal Service (73), among others. The ACSI is conducted by the University of Michigan.

While Clay Electric has always offered these benefits, it's good to belong to an alliance that includes other electric cooperatives who share the same values and commitments. Families or companies relocating to Clay Electric's service area from another Touchstone Energy cooperative can be assured they'll receive the same type of commitment to excellence.

The Touchstone Energy name also brings together hundreds of electric cooperatives throughout the United States that often are called by different names. For example, some are called electric co-ops, others are called electric membership corporations, and, some are simply called by name, such as GreyStone Power Corporation in Georgia. Touchstone Energy now represents more than 660 cooperatives that collectively serve more than 30 million members.

The Touchstone Energy program was launched in 1998 by 46 electric co-ops across the country who felt it necessary to work together to face deregulation and competition, modernize their operations through the use of new technology, and have some way to clearly communicate the strengths of cooperatives. The Touchstone Energy program is closely associated with the National Rural Electric Cooperative Association.

Visit the Touchstone Energy website at www.touchstoneenergy.com.

ACRE- Action Committee for Rural Electrification

The Political Action Committee for Electric Cooperatives

The Action Committee for Rural Electrification (ACRE) is the political action committee for the nation's electric cooperatives.

The ACRE program is strong because of the thousands of employees of electric co-ops who believe their collective voices need to be heard in their respective state legislatures or in Washington, D.C. Electric cooperative employees, trustees, customers and friends join the program and make it an effective grass-roots political action committee.

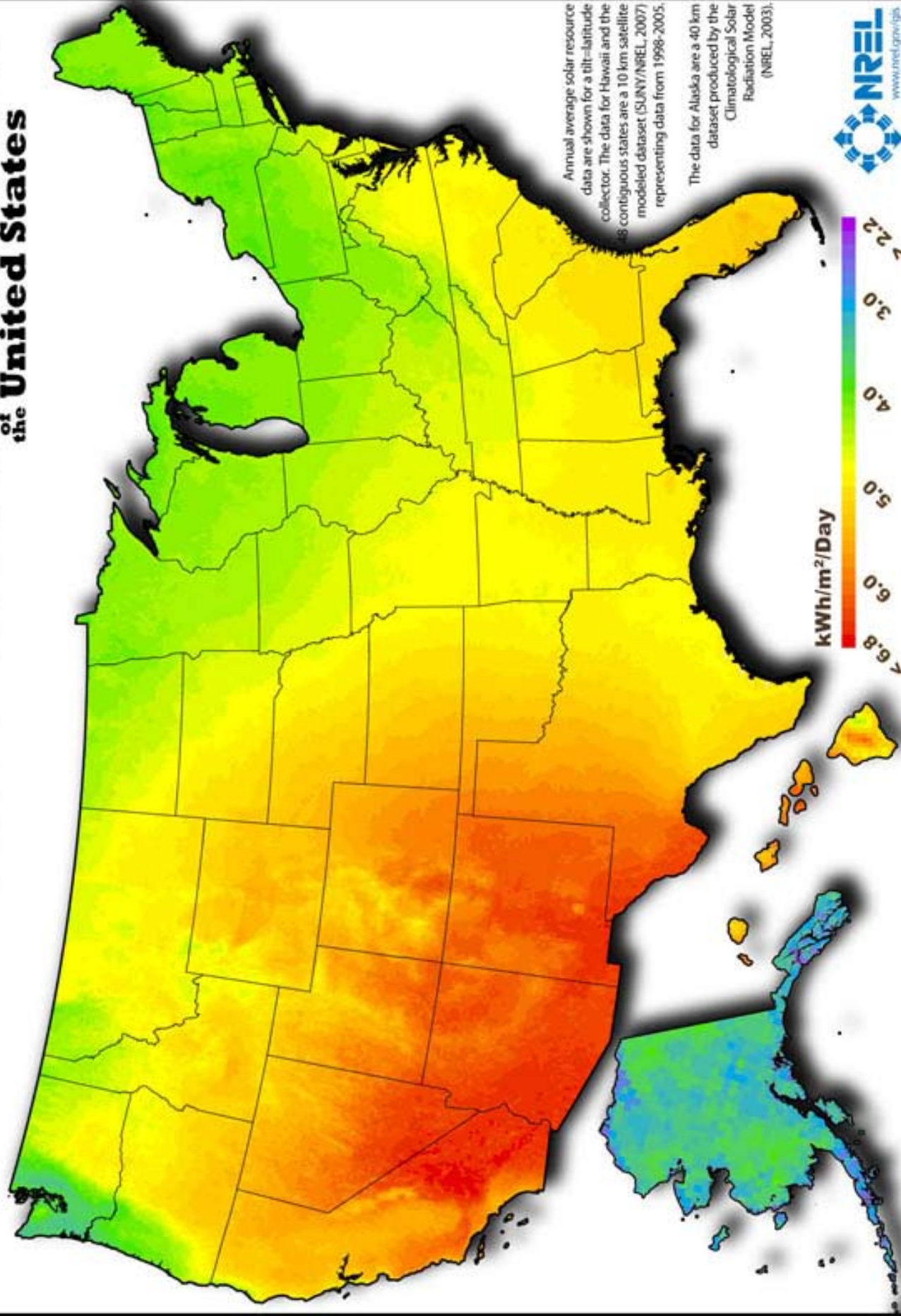
The nation's ACRE program began in the late 1960s. The Florida ACRE program was organized in 1974. There are more than 34,000 ACRE members nationwide and the number of members is growing each year.

ACRE is bipartisan, providing contributions to both Republican and Democratic candidates. ACRE support for candidates is based on one principle – support for candidates who share the concerns of electric cooperatives and their customers. By making small contributions to

the campaigns of those candidates who share the concerns of electric co-ops, it's a way for members of ACRE to say “thank you” for listening and understanding their concerns.



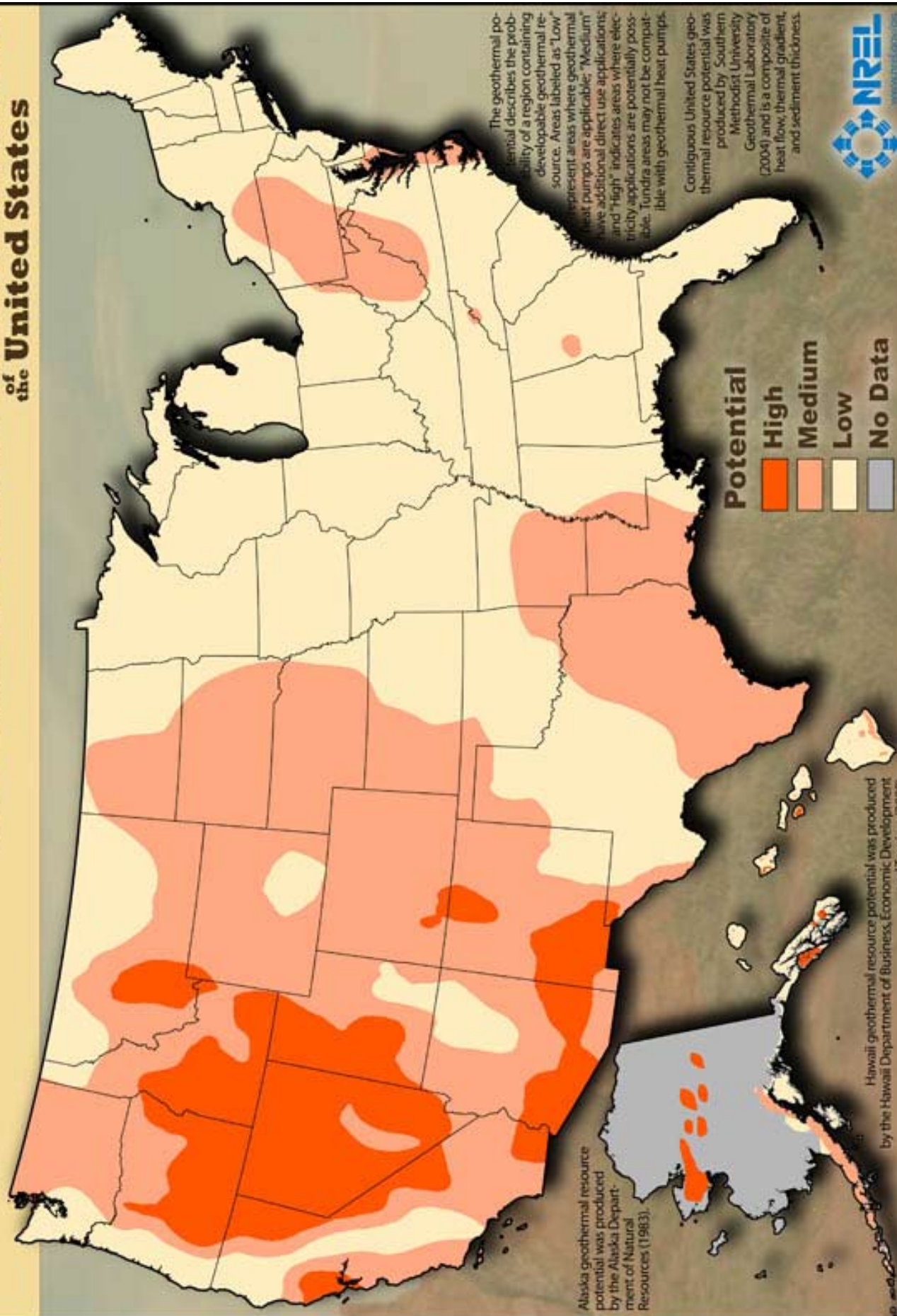
Photovoltaic Solar Resource of the United States



Author : Billy Roberts - October 20, 2008

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

Geothermal Resources of the United States

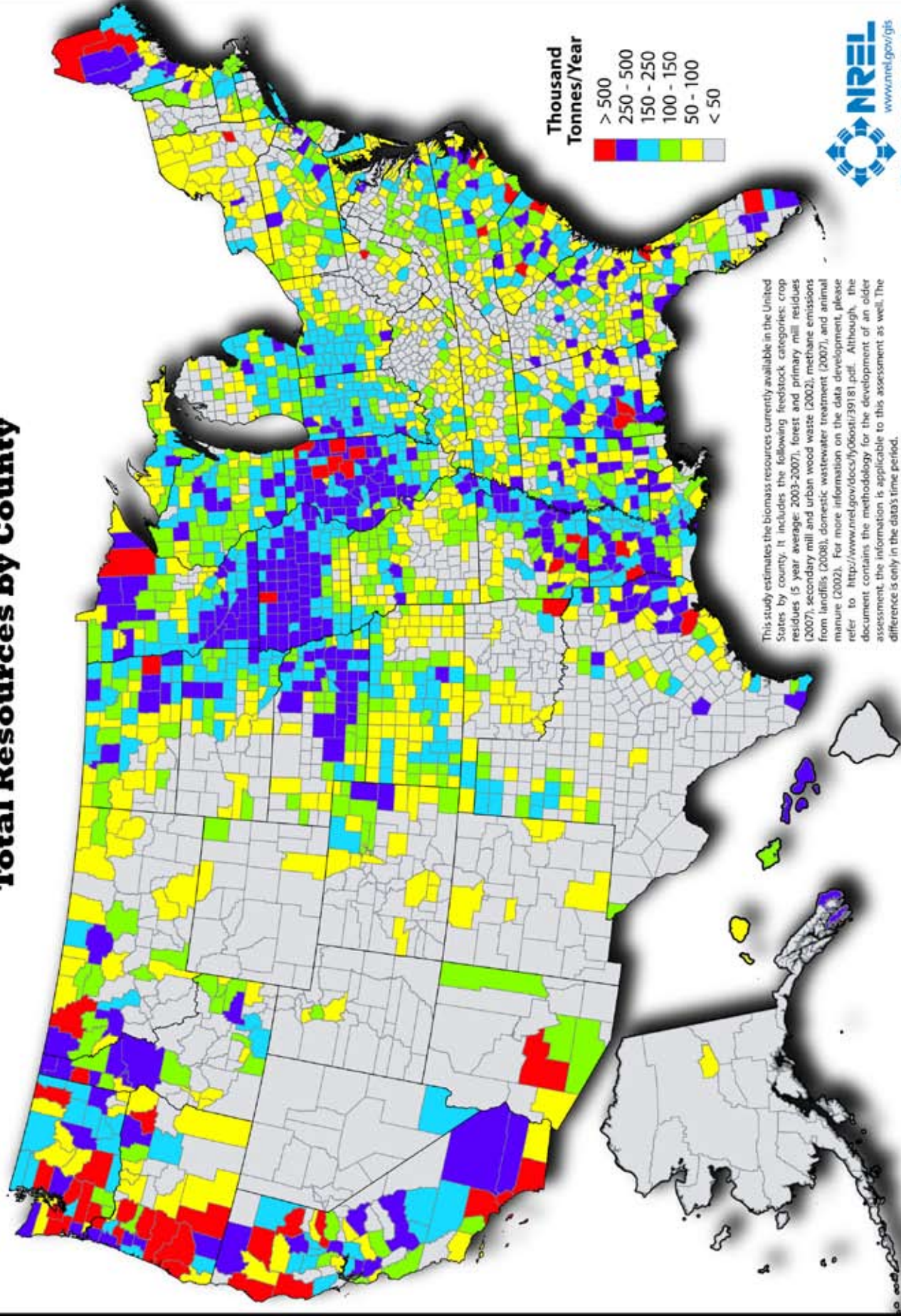


Author: Billy Roberts - October 20, 2008

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

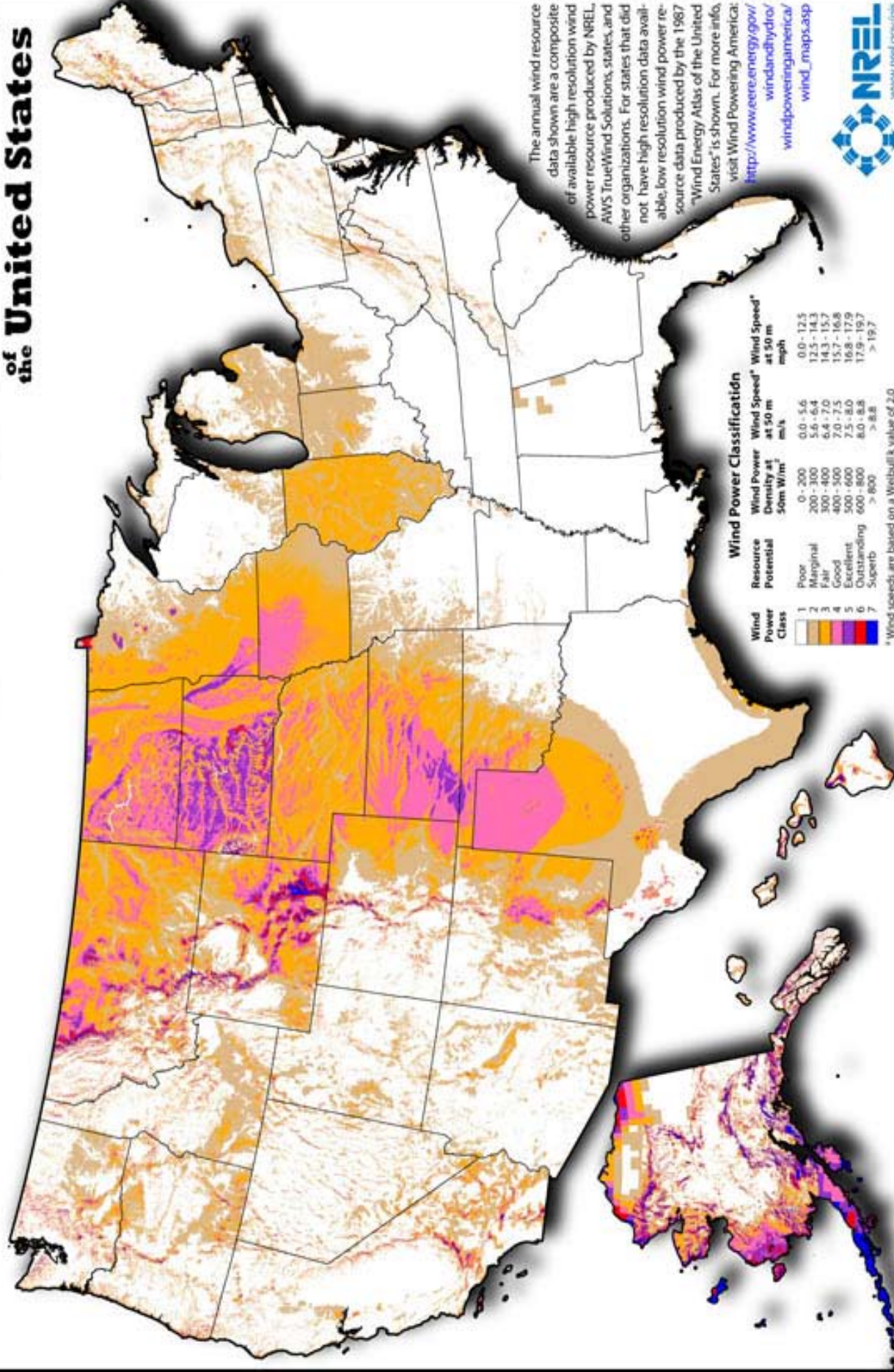
Biomass Resources of the United States

Total Resources by County



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

Wind Resource (50m) of the United States



Author: Billy Roberts - December 12, 2008

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

