

**NCGREENPOWER**

EST. 2003

November 12, 2014

**FILED**

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Clerk's Office  
N.C. Utilities Commission

Gail L. Mount

Chief Clerk

North Carolina Utilities Commission

4325 Mail Service Center

Raleigh, NC 27699-4325

RE: NCUC Docket No. E-100 Sub 90

Request to Pilot "50/50 Hybrid" (Renewables and Solar on Schools) and  
"Investor and Crowd-Source Funded Renewables"

Dear Ms. Mount:

NC GreenPower submits for review and approval by the North Carolina Utilities Commission the following proposal to conduct two pilot programs that may ultimately serve as transitional programs for NC GreenPower. The motion to approve these pilots was approved unanimously by the NC GreenPower Board of Directors on August 1, 2014 and by the Advanced Energy Board of Directors on September 26, 2014. Below is additional background information about the pilot plans.

In December 2012, NC GreenPower's Strategic Planning Committee (SPC) was formed to address the future of the program as it approached its 10<sup>th</sup> anniversary. To assess its options, the SPC hired the Solar Electric Power Association (SEPA) and the UNC Environmental Finance Center (UNC EFC) to examine other similar green pricing programs and ways to become a self-sustaining program. Amongst the studies' findings was the fact that many production-based incentive programs like NC GreenPower were changing due to high administration costs and the decrease in public contributions. Donors who once supported a general pool of renewable energy generators wanted to have more of a direct connection with their contributions, to be able to say their funds went to support a specific local project.

The SPC spent 20 months meeting and developing two pilot programs that will possibly transition NC GreenPower from its current production-based incentive model to one that has the potential to attract greater support and provide positive impact for schools and nonprofits across North Carolina. (Note: the pilots will only affect NC GreenPower's Mass Market Renewable Energy product and none of the other products, like Large Volume Renewable Energy or Carbon Offsets.)



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Attached is a copy of the proposed "50/50 Hybrid Pilot" and "Investor and Crowd-Source Funded Renewable Energy Pilot" plans as well as the current NC GreenPower program plan. NC GreenPower submits these pilot plans to the North Carolina Utilities Commission for review and respectfully requests approval of this proposal.

Sincerely,

Randy Brecheisen

Treasurer, NC GreenPower

Attachment

## **Summary of Proposed Program Changes**

Docket #E-100 Sub 90

November 12, 2014

After 20 months of discussions (see Attachment 1 for timeline) and with approvals by both the NC GreenPower and Advanced Energy Boards of Directors, NC GreenPower is filing a proposal with the NC Utilities Commission (NCUC) to modify the current program. The proposed revisions will allow NC GreenPower to not only support a general pool of eligible renewable energy generators but to expand support for the installation of solar PV at schools across North Carolina. This “50/50 Hybrid” program will provide matching funds to schools who cannot afford solar technology, giving teachers valuable tools to educate students about renewable energy. The Investor and Crowd-Source Funded Renewable Energy (ICSF) program will allow community-based projects to crowd-source funds to support renewable energy projects.

### **Background**

Since launching in October 2003, NC GreenPower has been encouraging the development of renewable energy (or “green power”) projects in North Carolina to improve our local environment. Renewable energy is generally more expensive to produce and often requires an incentive to make the projects financially feasible. Renewable energy generators can sell their electricity to the local utility and the environmental attributes (or “Renewable Energy Credit” or “REC”) can also be sold for additional revenue; the REC sale is typically the incentive that is required to make a project economically feasible. By collecting and using voluntary contributions from individuals and businesses, donations are used as incentive payments to purchase RECs from green power generators. To provide environmental benefits to those contributors who donated, NC GreenPower’s projects must be located in North Carolina.

In the last 10 years, there have been many changes in the renewable energy landscape. NC GreenPower began with a handful of projects and now has provided payments to nearly 1,000 green power projects across the state, the majority of which have been residential solar PV. Solar PV had been one of the most expensive



resources and required the highest incentive payments to encourage development but in recent years, the cost of solar PV technology has decreased significantly from \$8 - \$10/watt to around \$4.50/watt. Coupled with attractive Federal and state tax credits, solar PV is no longer accessible only to those with greater wealth but a larger portion of the population can now afford this technology.

As renewable energy programs have matured, there has also been a noticeable shift away from REC incentive structures to “community”-type structures. Administrative costs associated with verifying and paying green power generators for their RECs are very high and donations to support a general pool of generators have declined. Contributors are more interested in having the ability to support specific projects, in particular, projects within their communities like schools, non-profits and other organizations that cannot take advantage of the tax credits.

With nearly 600 REC generators in the current program, payments to generators along with the administrative costs to manage agreements, generation data and process payments exceed the contributions collected. A study by the UNC Environmental Finance Center (UNC EFC) confirmed that in order to become self-sustainable so the program can continue its efforts, NC GreenPower needs to achieve three objectives: 1) increase contributions, 2) reduce the average cost of resource (generator) payments, and 3) decrease administrative costs.

Because of these factors, NC GreenPower’s Board of Directors proposes to initiate two pilot programs to examine the potential of transitioning from the current REC incentive program to ones that support solar PV projects that benefit the overall local community such as schools, non-profit organizations or community centers. If the pilots prove to be successful, the program could expand to other underserved markets and renewable technologies in the future.

### **Current NC GreenPower Program**

NC GreenPower’s current mission is to improve the quality of the environment by encouraging the development of renewable energy resources through consumers’ voluntary funding of green power purchases by electric utilities in North Carolina and



the mitigation of greenhouse gas emissions through consumers' voluntary funding of carbon offsets.

NC GreenPower's current objectives are to:

- 1) improve the quality of the environment,
- 2) increase the amount of generation from renewables,
- 3) mitigate greenhouse gases,
- 4) maximize the amount of investment in renewable generation, and
- 5) maximize the number of participants.

The types of renewable energy resources that NC GreenPower accepts are:

- 1) biomass (methane from landfills, animal and agricultural waste; wood waste)
- 2) small hydropower (10 MW or less)
- 3) solar PV
- 4) wind

NC GreenPower contributors can donate to support Renewable Energy and Carbon Offsets:

- 1) Renewable Energy has three products
  - a. Mass Market product (RECs from a \$4.00 block of 100 kWh)
  - b. Large Volume product (RECs from a \$2.50 block of 100 kWh, minimum purchase of \$250.00/month)
  - c. Brokered Bid (minimum purchase of \$15,000/year at negotiated price/block)
- 2) Carbon Offsets have two products
  - a. \$4.00 block of 1,000 lbs. of carbon offset
  - b. Brokered Bid (minimum purchase of \$15,000/year at negotiated price/block)

NC GreenPower 's mission, objectives and accepted resource types will not change with the proposed pilot programs (see Attachment 2 for current Program Plan ). Only the Mass Market Renewable Energy product will be impacted by revisions to the NC GreenPower program. NC GreenPower remains committed to supporting renewable

energy and carbon offset projects across the state to improve our local environment. The strategy by which we accomplish this goal is reflected in the pilot programs.

## **Pilot 1: Transition Current NC GreenPower Mass Market Renewable Energy Program to 50/50 Hybrid Model**

### **Background**

The “50/50 Hybrid” model will continue to pay incentives to those eligible green power generators who are installing projects across the state. In addition, this model will also expand financial support to those who cannot afford and/or take advantage of tax credits – for this pilot, the recipients will be selected schools. This model will enable NC GreenPower to continue education and awareness efforts around renewable energy in communities across the state.

By dividing revenues and allocating funds in a 50/50 Hybrid program, donors will be allowed to support both the general pool of green power generators in NC GreenPower’s program and also solar PV projects at schools. All schools will be allowed to participate but preference will be given to those in Tier 1 counties (areas of greatest economic need).

A 50/50 Hybrid program has the potential to be much more attractive to contributors because it allows people to feel connected to a specific project possibly leading to increased contributions. With support for residential rooftop solar PV waning as system costs decrease and tax credits make systems more affordable, donors would prefer to support those in their geographic area who could not normally afford solar PV. This model could reduce average resource payments and program costs since smaller blocks and fewer generators would result in less administration. Efforts could then shift to fund renewable energy projects at schools, program marketing, and education/awareness – possibly helping to increase contributions to the program.

### **Program Process Overview**

Upon launching the 50/50 Hybrid program, contributors (both new and existing) supporting NC GreenPower RECs would automatically have their funds directed to



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support both the current REC generators and solar PV on schools. For this pilot program, the current REC block of 100 kWh would be reduced to 50 kWh and a contributor's \$4.00 donation would be split evenly into two products: \$2.00 to the REC block purchase and \$2.00 to support solar PV on schools. If contributors do not wish to support the 50/50 Hybrid program, they could contact NC GreenPower to "opt out" and direct their \$4.00 donation to only support generators in the current NC GreenPower program with 100 kWh blocks.

As funds are available, NC GreenPower will issue an RFP to seek out qualified contractors who meet specific program requirements. NC GreenPower will pay for 50% of the project's costs, up to a maximum of \$10,000 (whichever is less), with the school raising the remaining balance using the my.NCGreenPower fundraising tool. NC GreenPower will notify all NC K-12 schools (~2500 of which 476 are in Tier 1 counties) and their county school boards of the opportunity to participate in the program. Interested schools would apply to NC GreenPower for consideration to receive a 2-3 kW solar PV system; larger systems will be allowed but the schools will need to raise the additional funds to support the effort. NC GreenPower will convene a committee to review applications and select a school to receive the award; NC GreenPower would then publicize this initiative via social media, press releases, and in-person events to raise awareness and funds for the project.

The selected school can self-promote their project and start a "campaign" through my.NCGreenPower. This crowd-source funding campaign will help communities raise funds to support the renewable project at the school. Donations to NC GreenPower are tax-deductible and will be used to support only in-state projects. For crowd-source raised funds, NC GreenPower will retain a small percentage to cover program costs as directed by the NC GreenPower Board of Directors; the remaining funds will be used to support the solar PV system at the school. Because the Tier 1 community may not be able to provide great financial support, the project will be promoted on NC GreenPower's main website to gain support from other areas across the state. When enough money is raised to install the solar PV array at the school, NC GreenPower will work with the school to choose a qualified contractor (no liability to NC GreenPower) and oversee the installation process; contractors will assume all liability for the proper installation and operation of the solar PV system.

If a school does not raise enough funds, it will have options such as extending their fundraising deadline, decreasing the size of solar PV system to decrease project costs, or donating the money raised to another Tier 1 school's fund of their choice or by NC GreenPower's choice. Additional options may be available to assist the school in its fundraising efforts.

If a school exceeds its fundraising goals, the school may use the additional funds to pay NC GreenPower or a contractor to provide energy efficiency consulting/upgrades or donate to another Tier 1 school that is raising money for an NC GreenPower solar PV project.

NC GreenPower will seek out and contract with a professional curriculum developer to create or modify existing educational materials on solar PV for the schools to fully maximize the benefit of having the system as a teaching tool. The selected curriculum developer will recommend and prepare the appropriate materials that will engage both teachers and students in multiple subject areas. The curriculum will also include information on other renewable energy sources as the program may expand beyond solar PV in the future. Expenses for curriculum development may be paid from the current NC GreenPower program's reserved funds, with approval from the Board of Directors.

A school staff member(s) can also be trained by NC GreenPower to be the primary providers of operation/maintenance (O&M) services which should be minimal and will save the school the expense of hiring a contractor except for more serious issues. The goal will be to raise 110% of the project cost so that expenses for O&M training for staff are covered after the project installation.

NC GreenPower will hold all contributions and pay the contractor upon satisfactorily completing the installation of the solar PV system. Completed projects will display the appropriate signage/recognition of NC GreenPower. A press release and/or press event may be offered to celebrate the success of the project to further promote the program.





An unlimited number of schools can start campaigns on the my.NCGreenPower website but only one campaign can be started per project. Projects are not eligible for NC GreenPower incentives (REC agreement) and all campaigns and projects must be authorized by NC GreenPower (Review Committee/Executive Committee/Board of Directors).

### **Benefits**

There are numerous benefits to be gained by contributors, generators, schools and NC GreenPower by offering this 50/50 Hybrid program. A few examples are:

- For Contributors:
  - Ability to be more green without paying for their own project
  - Ability to donate to specific school projects in Tier 1 counties
  - Knowledge that contributions provide education to children and revenue to schools
  - Ability to make tax-deductible donations through trusted nonprofit organization
  
- For Generators:
  - Additional revenue to offset cost of renewable energy project
  
- For Schools
  - Educational tools and curriculum for teachers and students
  - Allows those who cannot normally afford renewable energy to have free system
  - Potential REC revenues
  
- For NC GreenPower:
  - Potential for new, ongoing contributors to program
  - Potential for decreased administrative costs due to fewer generators/lower premiums
  - Increased awareness for program, more marketability

### **Pilot Program Timeline**

This pilot will be offered for a period of one year (estimated dates: March 1, 2015 – February 29, 2016) during and after which assessments of its success will be made. NC GreenPower will track staff time for both general marketing and administration costs for each project. The goal for the pilot year will be to have two to four (2-4) projects successfully funded. If it is determined that the pilot could be offered successfully as a long-term program, any necessary adjustments will be made before filing the program to the NCUC and offering it to the public.

### **Pilot 2: Investor and Crowd-Source Funded Renewable Energy (schools/non-profits/community)**

#### **Background**

Similar to the Brokered Bid product (a separate but related product in the current NC GreenPower program), NC GreenPower would offer a separate but related product to the 50/50 Hybrid program. The Investor and Crowd-Source Funded Renewable Energy (ICSF) product is one where a renewable project already has some investors to pay for the actual equipment, labor and installation but needs NC GreenPower's marketing assistance to crowd-source additional funds through the [my.NCGreenPower.org](http://my.NCGreenPower.org) site.

#### **Program Process Overview**

An investor organizer will identify and recruit potential investors in a community to fund the purchase and local installation of a renewable energy system; the investor organizer manages all aspects of the investment and charges investors a fee to coordinate the legal and financial arrangements required for the initiative. Once enough investors have been found, NC GreenPower will be notified to assist in marketing and fundraising for the project to ensure investors a specific return on their investment. In addition to marketing the project via [my.NCGreenPower](http://my.NCGreenPower.org) and social media to raise awareness and funds, NC GreenPower will make in-person presentations to encourage financial support. NC GreenPower will also recruit volunteers to present to and engage the community (officials, citizens, etc.) in raising funds. As crowd-source funds accumulate, NC GreenPower will assist in selecting



contractors for the project. Contractors must meet NC GreenPower's program requirements. The investor organizer will manage the installation of the renewable energy project and NC GreenPower may offer consulting services for a fee. Campaigns will be advised to raise 110% of the project cost so that operation and maintenance expenses are covered after the project installation.

Donations from community members to NC GreenPower will be used to purchase the RECs generated from the renewable project. REC purchases may be made annually over six years or prepaid upfront, possibly at a discounted rate. NC GreenPower will retire the RECs on behalf of the project and after six years, the investors will donate the renewable energy system to the school/non-profit/community. Of the raised funds, NC GreenPower will retain a small percentage to cover program costs as directed by the NC GreenPower Board of Directors; the remaining funds will be used to support the purchase of RECs from the renewable project.

An unlimited number of campaigns can be started on the my.NCGreenPower website with two restrictions: only one campaign can be started per project and projects for single family homes are prohibited (exceptions may be made for Habitat for Humanity homes, supportive housing and multi-family residences). Projects are not eligible for NC GreenPower incentives (REC agreement) until the project is donated by the investors. All campaigns and projects must be authorized by NC GreenPower (Review Committee/Executive Committee/Board of Directors).

## **Benefits**

There are numerous benefits to be gained by the investors, community/contributors and NC GreenPower by offering this ICSF program. A few examples are:

- For Investors:
  - Return on investment
  - Ability to help a school/non-profit/community
  
- For Community:
  - Educational tool for students and/or residents
  - Free renewable energy system when investors donate it
  - kWh generation payments for life of system after investors donate it
  - Potential REC revenues after investors donate it

- For NC GreenPower
  - Possible positive cash flow and perhaps a self-sustainable program
  - Potential for new, ongoing contributors to current NC GreenPower program
  - Increased awareness for program

### **Pilot Program Timeline**

This pilot will be offered for a period of one year (estimated dates: March 1, 2015 – February 29, 2016) during and after which assessments of its success will be made. NC GreenPower will track staff time for both general marketing and administration costs for each project. The goal for the pilot year will be to have two to four (2-4) projects successfully funded. If it is determined that the pilot could be offered successfully as a long-term program, any necessary adjustments will be made before filing the program to the NCUC and offering it to the public.

### **Future: NC GreenPower is a Community Renewable Energy Program**

While the new pilots are exciting and may prove to be the self-sustaining solutions needed to maintain the life of NC GreenPower well into the future, it is important for staff to continue to achieve the three objectives defined by the UNC Environmental Finance Center: 1) increase contributions, 2) reduce the average cost of resource (generator) payments, and 3) decrease administrative costs. Staff will remain aware of funding opportunities through foundations and grant-giving organizations as these resources will enable staff to continue educating North Carolinians on the importance of renewable energy.

The 50/50 Hybrid pilot program may serve as a transition for what may ultimately become an NC GreenPower that no longer supports production-based incentives for a pool of generators across the state. Instead, NC GreenPower could become a community based program supporting renewable energy projects for schools,

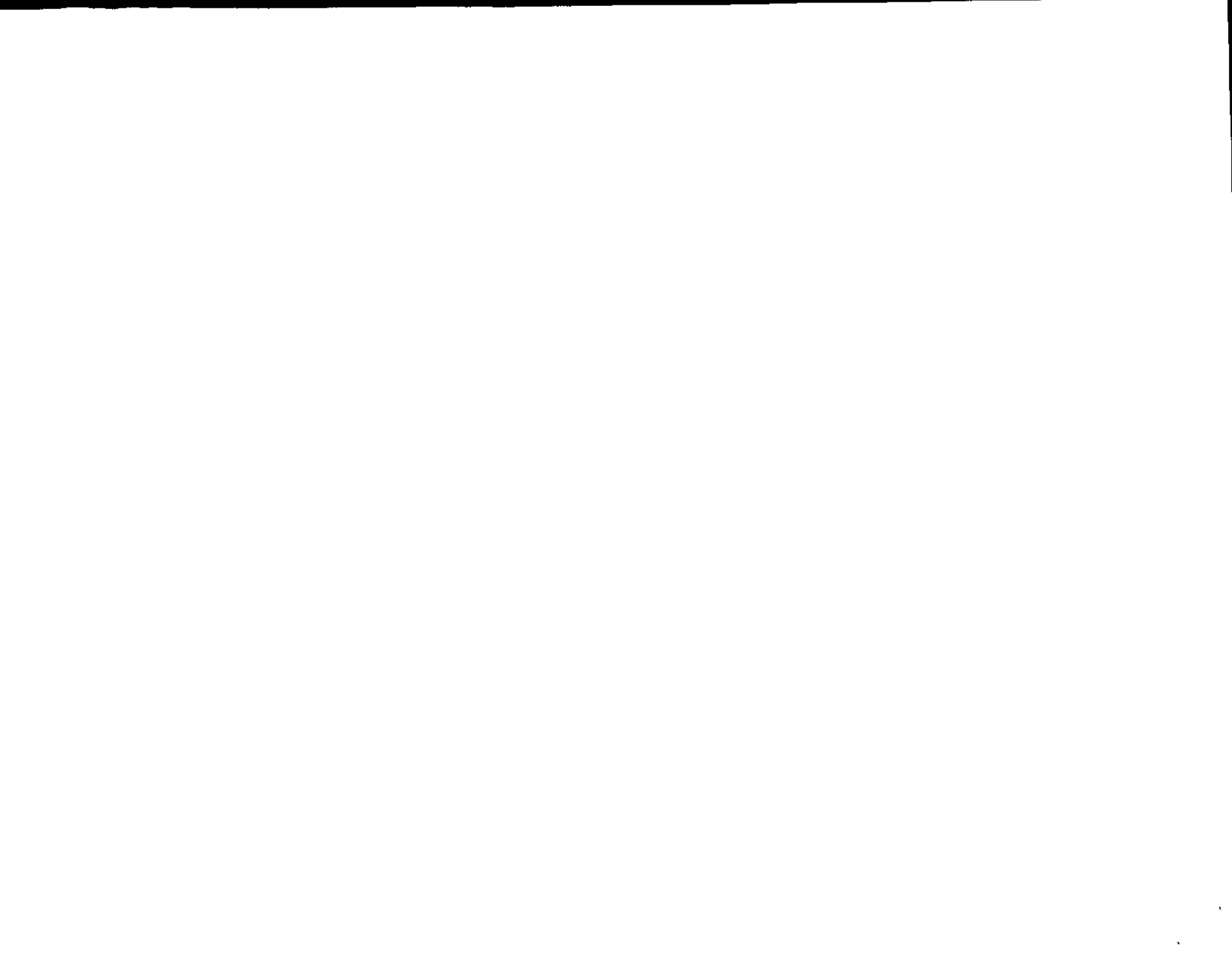


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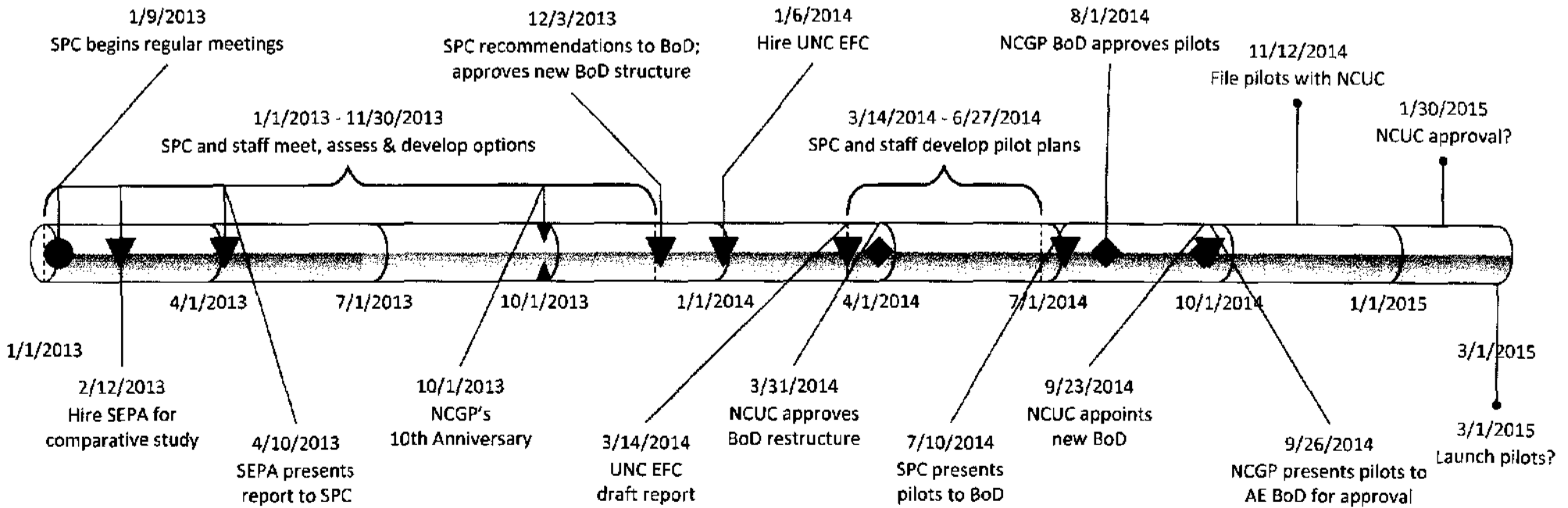
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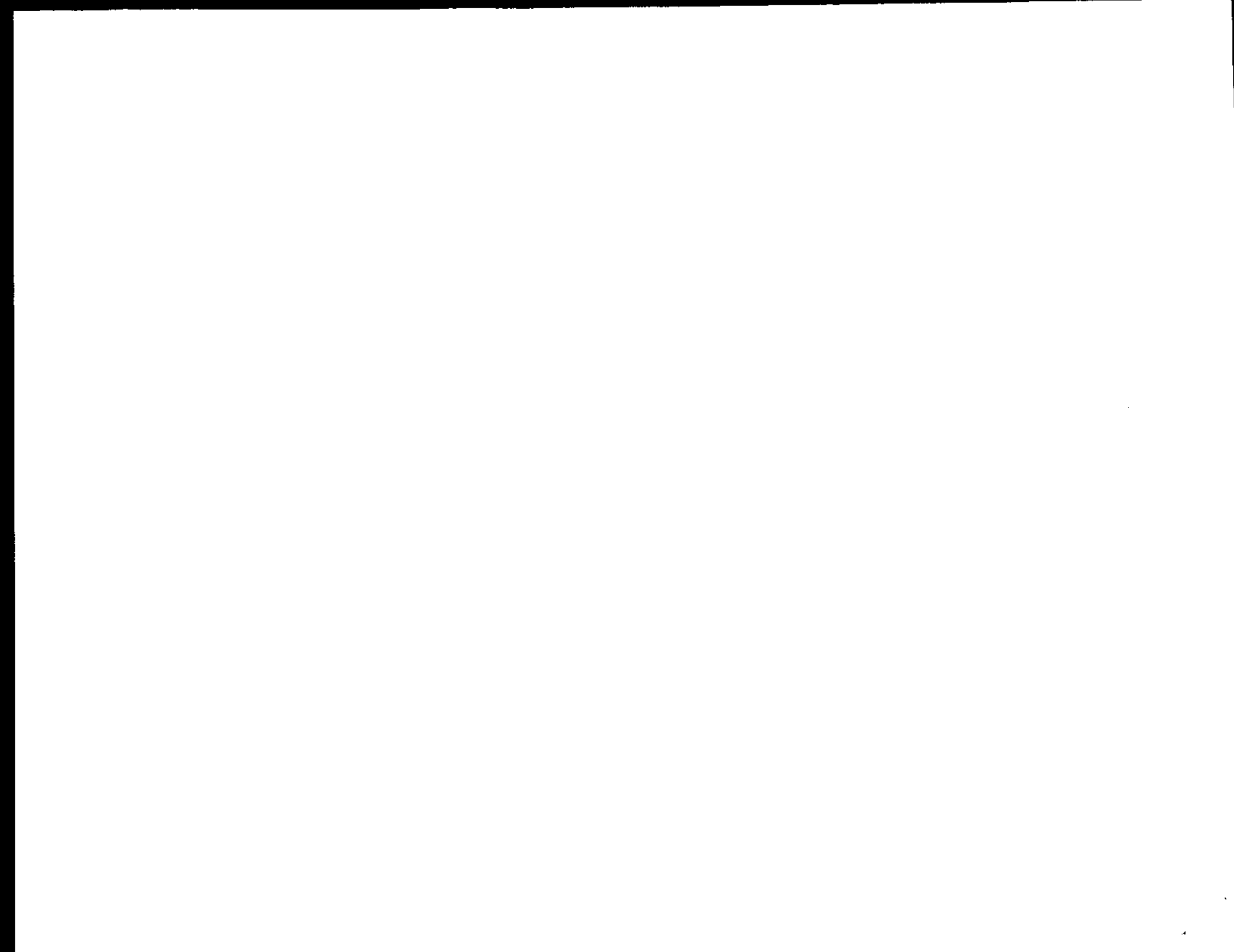
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nonprofits and other organizations that cannot take the renewable energy tax credits and would otherwise not be able to afford cleaner, greener energy initiatives.



# NC GreenPower Pilots' Timelines January 2013 - Current









# Program Plan

**Revised and Updated**

August 1, 2011

## Mission

NC GreenPower (NCGP) is a statewide program designed to improve the quality of the environment by encouraging the development of renewable energy resources through consumers' voluntary funding of green power purchases by electric utilities in North Carolina and the mitigation of greenhouse gas emissions through consumers' voluntary funding of carbon offsets. The program revenues will help provide financial incentives for generators of electricity from renewable sources and for developers of projects mitigating greenhouse gas emissions.

## Objectives

The objective is to use a statewide marketing and communications campaign to promote a simple and easy option for all electric customers to promote the use and development of green power generated in North Carolina and to promote the mitigation of greenhouse gasses. NC GreenPower is good for North Carolina's environment and it offers consumers a choice.

The five main objectives of the program are to:

- 1) improve the quality of the environment,
- 2) increase the amount of generation from renewables,
- 3) mitigate greenhouse gases,
- 4) maximize the amount of investment in renewable generation, and
- 5) maximize the number of participants.

## Program

NC GreenPower offers renewable energy credits and carbon offsets. A renewable energy credit is a subsidy paid to a generator for delivering electricity from renewable resources as opposed to traditional resources such as coal. A carbon offset is a subsidy paid to a project owner or purchased from the market for reducing or mitigating greenhouse gas emissions.



All the electric utilities in North Carolina participate in the program: Carolina Power & Light (dba Progress Energy), Dominion North Carolina Power, Duke Power, Electricities, and the North Carolina electric cooperatives.

Although Electricities and the North Carolina electric cooperatives are participating in the program planning, each city and local electric cooperative's participation is subject to the approval of the governing board for each respective organization.

Customers participating in the program continue to receive electric service from their local utility and pay for energy used under the utilities' applicable rate schedules. In addition to that cost, the contracted block(s) of renewable energy or carbon offsets provided under NCGP is charged at the program's rate irrespective of the customer's actual monthly kilowatt-hour usage. Block charges for the program are used by NCGP to offset the higher cost of producing, purchasing, and/or acquiring the renewable resources or carbon offsets and for the marketing and administration of the program.

For the renewable energy products, NCGP pays a premium only to those generation suppliers that qualify to receive a power purchase agreement from a North Carolina electric utility. NCGP uses a competitive RFP process, unless directed otherwise by the NC GreenPower Board, to select and contract with potential generation suppliers and to pay a premium from revenues in addition to the payment provided by the utility. A negotiated process may be necessary in cases where an inadequate number of bids from green power producers are received.

The actual amount of electricity provided by renewable resources to the statewide electricity grid in NC or the amount of carbon mitigated during any specific month may vary from the number of blocks customers have purchased. However, a true-up of the delivery of the blocks to the purchase of blocks shall be completed within two years of the purchase.

The electric energy purchased from the renewable resources through the NCGP program will not physically be delivered to the participating NCGP customer but will displace electric energy that would otherwise have been produced from traditional generating facilities for delivery to customers.

### **Renewable Energy Credit (REC) Products**

Each participating utility offers its customers the voluntary option to subscribe to available tariffs to support renewable energy. The tariffs offer customers the opportunity to subsidize

## Attachment 2



the delivery of blocks of renewable energy to the electric grid. Each block of renewable energy subsidized authorizes the program administrator to pay a premium to a renewable generator for an equivalent block of energy supplied to the electric grid in North Carolina.

NC GreenPower provides two different renewable energy product offerings, a mass-market product and a large volume product, each meeting different needs and intended to resolve the following issues:

Some renewable energy resources that are currently providing energy to the grid may be at risk for closing due to financial and other implications. Existing resources such as hydro power and clean wood waste biomass can provide renewable energy at a lower cost because they have already met their start-up costs and are just covering operating and additional capital costs. A second issue has been that large companies desire to maximize the purchase of their power from renewable resources, but the price needs to be more competitive with renewable energy credits available to them from out of state. The two-product plan is designed to meet these two needs.

The first product is a mass-market product (\$4 per block of 100 kWh per current utility tariffs), which is available for purchase by any NC electrical energy consumer. This block of new renewable energy will have a resource mix of solar, wind and methane from biomass delivering power to the NC electric grid on or after January 1, 1997. This resource mix has higher costs of production, which will result in a higher cost product than the large volume product. These are also renewable resources that the NC environmental community favors most

The second product is a large volume product, which offers a lower cost alternative for large volume consumers who purchase at least 10,000 kWh (100 blocks) of the product per month. To assist a broader base of renewable energy providers and to allow high volume electricity purchasers to maximize their support of green power, the large volume product will include a resource mix of solar, wind, small hydro, and all types of biomass, with certain limitations, as spelled out in more detail below. Both existing and new renewable energy generation will be included in this product in order to reach a target price of \$2.50 per block of 100 kWh (per current utility tariffs) and to assist existing green power producers. The large volume consumer does not have to purchase the large volume product if they perceive additional value by purchasing the mass-market product.



Therefore, per the current tariffs, for the \$4 per block premium paid to NC GreenPower for the mass-market product, a consumer will be subsidizing 100 kWh of green energy from new solar, wind, and methane. Also, per the current tariffs, for the \$2.50 per block premium, the large volume consumer can subsidize all biomass, small hydro, solar, and wind renewable resources. The products will be accredited or certified by a third party green power certifying entity.

### **Carbon Offset Product**

Each participating utility offers its customers the voluntary option to subscribe to available tariffs to support carbon offsets. The tariffs offer customers the opportunity to subsidize the mitigation of carbon. These carbon offsets will be offered by each participating electric utility in North Carolina on a monthly basis for a premium. Each block of carbon offset subsidized will authorize the program administrator to pay a premium to a project owner or from the market for an equivalent block of carbon mitigated. The proposed price for the carbon offset product is \$4 per 1000 pounds of carbon.

For the carbon offset product, projects will mitigate carbon, not provide electricity to the grid. Priority will be given to the participating utility service territories in NC, SC and VA for acquiring carbon offsets; however, if no acceptable carbon offsets are available, other regions will be considered. NC GreenPower intends to adopt nine quality criteria for offsets originally developed by Environmental Defense Fund.

### **NC GreenPower's Carbon Offset Quality Criteria**

- 1) No RECs
- 2) Additionality
- 3) Accurate Quantification
- 4) Clarity on Permanence
- 5) Appropriate Timeline
- 6) Demonstration of Ownership
- 7) Serialization and Tracking
- 8) Verified and Verifiable
- 9) Net Positive Impact

The intent is to purchase carbon offsets and then offer them to the market. In case NCGP must follow the REC model of collecting funds, then making purchases, the carbon offset product will have a two-year true-up period, which mirrors the REC product.



### Renewable Resources

“Green power” is defined (for NCGP purposes) as renewable energy that consists of electricity provided from solar, wind, small hydro of 10 MW or less, landfill methane, agricultural waste, animal waste and other biomass (wood waste) resources that is delivered to the NC electricity grid. The producer of green power will be required to enter into a power purchase agreement with a NC electric utility for the sale and delivery of energy to the utility. The green power producer will also be required to enter into a contract with NCGP for participation in the NCGP program, including receipt of premiums subsidizing renewable energy delivered to the grid. NCGP’s green power resources will be qualified resources of generation from new and existing developments. The mass market product does not include any existing resources.

**Small Hydro:** Any new small hydro facilities that desire to be eligible for the mass market product must be 10 MW or less and will have to meet licensing standards as defined by the Federal Energy Regulatory Commission (FERC), Low Impact Hydro Institute (LIHI), and the appropriate state and local governing agencies. It is anticipated that any new hydro facilities will involve the installation of new generating capacity on existing impoundments (dams). Any new hydro generating facility that involves a new impoundment will not automatically be included in the program but will require special approval.

**Wood waste:** NC GreenPower recognizes and encourages responsible and sustainable business practices for forest and wood products management. Although North Carolina has abundant forestry and wood resources, the quality and quantity of original forests are in decline due to land development. Thus, developers are creating significant amounts of wood waste at the expense of the quality and quantity of original forests. NCGP does not intend for this type of wood waste to be included in the NCGP program. Therefore, the following guidelines have been developed for the types of wood waste that will be allowed for NCGP qualification: tree trimmings, mill residues (bark, sawdust and fines from primary processing facilities); segregated construction and demolition wood (excluding painted, treated, glued, pressurized wood or any wood contaminated with plastics or metals); clean wood waste from manufactured home plants, pallet recycling facilities, furniture manufacturers, finished building products and other similar industries; wood from land clearing that would otherwise end up in landfills; and wood bedding material removed from poultry brooder houses. Wood “chips” derived from processing whole trees within forested land will not be allowed as qualifying wood waste. However, the Board of NC GreenPower may review this exclusion in the future to determine if sustainable forestry practices are being employed in connection with wood chip production and to determine if such



practices warrant the consideration of wood chips as a green power source, and if the environmental community is willing to recognize their use in such a way.

Solar and Wind: NCGP recognizes that solar and wind are perceived as the greenest of the green for renewable energy sources and therefore makes a concerted effort to maximize the inclusion of these resources in the NCGP program. Both siting and pricing issues continue to be hurdles for these resources. NCGP's ability to maximize the use of these technologies depends upon the cost of and availability of the renewable resources in North Carolina. NCGP recognizes that these resources are very costly and therefore has set relatively high maximum rates to be paid to the producers of these resources (15¢/kWh for solar and 6¢/kWh for wind). These maximums are subject to be adjusted by the NCGP Board of Directors. Once the NCGP program is operating, the NC GreenPower Board may explore including metered domestic solar thermal systems (i.e., hot water heaters).

### **Project and Resource Selection/Contracting (RFPs, allocations)**

Carbon offsets and green power sources of electricity will be identified and selected through the use of a Request For Proposals (RFP) process. The NC GreenPower Board has the authority to change this process or as stated earlier, the Board has the authority to approve negotiations with producers if the use of RFP is limited by too few available participants. The NCGP Board may also elect to select renewable resources or carbon offsets from registries such as the Greenhouse Gas Registry operated by Environmental Resources Trust.

### **Brokered Bids**

The Brokered Bids option for NCGP provides customers interested in annually spending \$15,000 or more on renewable energy credits or carbon offsets with a more competitive North Carolina option. In this option, NCGP accepts bids for renewable energy credits on a continual basis. Generators complete an application with pertinent project information, a bid amount and a date through which the bid is available. The generator's bid is marked up to cover marketing and administrative (M&A) expenses. These bids create a portfolio of available renewable energy credits or carbon offsets to better compete with the open market. Those customers interested in the minimum purchase criteria above have access to the portfolio and can select a piece of a project, a project or multiple projects of interest to them that is within their price range. NCGP would essentially serve as a broker between the bidder and the NCGP customer to facilitate an offer and payment through NCGP. Annual prepayment of any transaction may be required for this option.



### Customer Participation

The participating utilities are responsible for enrolling customers (residential, commercial and industrial) wishing to contribute to NC GreenPower. Customers joining NCGP are committed to purchase a minimum of one block (unit) of carbon offset or renewable energy per month. Under the large volume renewable energy product, the customer must be committed to purchase at least 100 blocks per month. Customers have an option to increase or decrease the number of blocks of green power..

The participating utilities provide their own resources to fulfill their role in enrolling, billing and collecting premiums from customers in NCGP. The utilities help market the program by including informational bill inserts. In addition to forwarding to NCGP the collected revenues on a monthly basis, the utilities will also be responsible for providing NCGP with monthly and annual totals, by residential and non-residential customer groups and by carbon or renewable energy. The NCGP participating utilities will assist with fulfilling disclosure requirements required by law or accreditation standards.

NCGP also accepts direct contributions from the public.

### Governance

Advanced Energy (AE) created a non-profit named NC GreenPower, which acquired 501(c)(3) non-profit status. AE's Board of Directors is the legal members of NC GreenPower. AE's Board, which is composed of one legislative member, one Executive Director member, four utility members and eight "public members" appointed by the Governor to staggered three-year terms, shall have oversight voting rights on major transactions affecting NCGP, such as changes in the legal structure of NCGP. AE is, in turn, governed by members of the NC Utilities Commission.

NCGP's Board of Directors consists of 24 members. The following are members of the NCGP Board:

- 2 AE Board of Directors members (only Public Members qualify and the Treasurer of AE's Board will fill one of these seats)
- 5 North Carolina Utility members
- 7 NC GreenPower Technology members
- 6 NC GreenPower Consumer/Environmental Advocacy members
- 1 Director of North Carolina State Energy Office
- 1 President of AE
- 1 Corporate Client
- 1 NC Department of Environment and Natural Resources



The Treasurer of AE's Board serves as Treasurer for the Board of NCGP to provide consistent financial controls. The Chair of the AE Board appoints the second AE Board representative from the current Public Members of the AE Board. The President of AE shall serve as a member of the NCGP Board.

The five participating utilities each have a representative on the NCGP Board. The President of the utility being represented will appoint the Board member.

The North Carolina Utilities Commission appoints the green power technology members, (from different technologies when available) and the green power consumer/environmental advocacy members. Any NC resident may request that a name be put on the list considered by and appointed by the North Carolina Utilities Commission for appointment to the NCGP Board. The green power technology members and green power consumer/environmental advocacy members' term appointments are for three years on a staggered schedule.

The individual serving as the Director of the State Energy Office shall serve as an NCGP Board member.

The Chair and Vice Chair of the NCGP Board were initially appointed by the North Carolina Utilities Commission. Thereafter, the Chair and Vice Chair are selected by a nominating committee from the current Board and appointed after the approval of the Board.

There is an Executive Committee for the NCGP Board. The Executive Committee members consist of a Chair of the Board, Vice Chair, Secretary, Treasurer, and member-at-large. The State Energy Office Director serves as the member-at-large unless elected to one of the other positions. The AE President shall serve as a voting member of the Executive Committee. Executive Committee members will serve for two-year appointments, with elections in odd numbered years. The AE President and Vice President of Administration serve as officers of the NCGP Corporation in the same capacity as for AE.

The Board meets at least twice per year and annually reports its activities to the AE Board and to the North Carolina Utilities Commission. This annual report coincides with the time and day of Advanced Energy's annual report to the North Carolina Utilities Commission.

### **Administration** (costs, reserve fund, budget, legal and accounting)

NC GreenPower has an arrangement with Advanced Energy (AE) for AE to provide the personnel and services necessary to carry out the objectives of NCGP.



## Attachment 2



Accounting is on an accrual basis and in accordance with Generally Accepted Accounting Principles. An annual budget for Operations, Contingency Funds and Program Related Expenses is prepared by staff and the President and submitted to the Board for approval. NCGP commissions an annual audit to be performed by a certified public accountant.

In the handling of any cash reserves, the NCGP investment objective is the preservation of capital with reasonable growth until funds are needed. Investment opportunities are limited in scope similar to that of the state of North Carolina. Legal counsel, certified public accountants, and banking institutions are the same as appointed by AE, unless there is a conflict of interest established.

### Marketing

The marketing program consists of two levels of marketing campaigns. NC GreenPower is responsible for a statewide public awareness and education campaign designed to inform citizens about the program and to encourage them to participate. NCGP will ultimately be funded by program proceeds and other contributions.

The second layer of the campaign is the task of each of the participating utilities and is designed to inform their customers how to participate. Each utility designs and funds its own campaign to be coordinated with NCGP. Messages are developed that utilities can use to co-brand the program in their own campaigns. It is expected but not mandatory that these utility campaigns will be coordinated with the statewide awareness campaign in order to maximize the marketing efforts of each.

The marketing campaign targets different groups, with different materials and messages for each. Communications to these groups include a "core" NCGP message, but are tailored to the motivations and information needs of that particular group. The format of the message is important to ensure that it can be easily passed along.

