



Status of Top-Tier Recommendations

The Energy Office serves as the principal energy planning entity for the state. While the regulatory role of the ORS applies primarily to investor-owned utilities, the planning role of the Energy Office is broader and covers the entire electric and natural gas sectors, as well as the transportation sector.

In developing the SEP, the Energy Office organized its effort in accordance with the tenets outlined in state statute (SC Code of Laws §48-52-210). These efforts were managed by a steering committee and aided by several working subcommittees. Over 130 professionals, representing more than 60 organizations participated in over 45 subcommittee meetings. This iteration of the SEP encompassed three phases. Phase I focused on the development of a baseline, to reflect the current status of energy in the state. Phase II focused on policy recommendations. Ultimately, over 60 recommendations were submitted by the subcommittees for review. Phases I and II of the SEP were completed in 2016. In Phase II, eight top-tier policy recommendations were identified from the larger group, and they were the primary focus of a presentation of the SEP to the State Regulation of Public Utilities Review Committee (PURC) in April of 2017. The PURC unanimously voted for the Energy Office to continue its work on the SEP.

PURC's support of the SEP and its Phase II recommendations opened the path to Phase III, or implementation. Study committees consisting of stakeholders from government agencies, utilities, and nongovernmental organizations were formed to address the eight top-tier recommendations.

This document summarizes the status of work in each study committee corresponding to a top-tier recommendation:

1. Natural Gas Infrastructure
2. Integrated Resource Planning Process
3. Building Energy Codes
4. Funding for Needed Energy Upgrades
5. State Agency Energy Efficiency
6. Environmental Equity Assessment
7. Act 236 Progression
8. Lead by Example – State Transportation



Natural Gas Infrastructure

Ensure that natural gas is a viable energy option for residential, commercial, industrial, and power generation customers across South Carolina and enable the state to continue to attract economic development prospects.

The committee formed subcommittees for several different topics: infrastructure mapping, utilization of existing capacity, consumption reduction efforts, growth needs, and impediments to growth. The committee and its working subgroups met regularly throughout 2017 and 2018 and completed its final report in December 2018.

The committee's report is intended to describe natural gas infrastructure and propose recommendations to the PURC to address a major economic hurdle discussed in Phase II committee work. Natural gas providers generally do not extend infrastructure before they have a customer and potential customers cannot wait for what could be years before receiving service. This "chicken and egg" issue focused the work of the committee. The committee's report includes a map of natural gas assets in South Carolina, identifying areas where service is readily available and areas devoid of natural gas infrastructure. Recommendations in the report include, but are not limited to: the need to identify entities, absent an anchor facility, that have the ability to contract for long-term firm pipeline capacity necessary to support investments in new pipeline capacity; the need to explore the possibility of statewide tracking of lost economic development projects due to lack of natural gas availability; the need to evaluate the potential for demand side management programs to reduce natural gas consumption; and the need to investigate compressed natural gas and liquid natural gas alternatives for industrial uses in natural gas "deserts."

Related Documents: www.energy.sc.gov/energyplan/naturalgas



Integrated Resource Planning Process

Ensure that electric utility Integrated Resource Plans (IRPs) clearly demonstrate and reflect access to energy supplies at the lowest practical environmental and economic cost and demand-side options are pursued when economically and environmentally practical.

This committee created an IRP Guidance Document that consists of 1) a standardized IRP process and 2) recommended best practices for utilities in developing their IRPs. The original intent was to develop an agreed-upon set of best practices to guide IRP development. However, in developing best practices, the committee realized that an IRP process document was needed as well. The committee reached consensus on an IRP process that includes public participation and a filing component with the potential for the Public Service Commission of SC (PSC) to approve a utility's IRP process. The best practices guide and the IRP process documents have been compiled into a single IRP Guidance Document.

The committee also developed an IRP flow chart. This chart is designed to help the public understand how elements such as key inputs and demand side management/energy efficiency relate to the IRP and how information contained in an IRP might be used in other documents or decisions.

The committee identified as a next possible step to explore the possibility of joint dispatching among the state's major electric utilities and how they might benefit from coordinated planning of new generating assets. Joint dispatching allows utilities to coordinate their generation to meet their loads.

As a result of the passage of Act 62 (Energy Freedom Act), the responsibility for review of the IRPs was moved from the Energy Office to the Public Service Commission.

Related Documents: www.energy.sc.gov/energyplan/irpplanning



Building Energy Codes

Ensure that buildings owned or leased by the state of South Carolina are designed to minimize operational costs for energy. Prevent South Carolina from falling behind other states as energy codes advance.

As anticipated, building energy codes have been a contentious topic. Representatives of the commercial building community cite problems for members who work in multiple areas and are consequently very interested in moving toward more advanced and uniform energy codes. Representatives of the residential building community expressed concerns about the additional costs of meeting stricter code requirements versus the benefit of the additional requirements. There was also opposition to returning energy code administration responsibilities to the SC Department of Labor, Licensing and Regulation's Codes Council. An effort to quantify costs associated with moving toward more advanced codes was initiated before legislation regarding changes to the state's process of building code enforcement and adoption was introduced to the SC General Assembly in 2018 (S.579). This bill compromised the ability of committee members to focus on the core agenda; consequently, the committee agreed to expand the agenda to address other issues related to energy codes.

Utility members expressed an interest in code enforcement. With the generous financial support of Southeastern Energy Efficiency Alliance, the committee coordinated a series of eight code-enforcement trainings in October and November 2017 at various locations around the state. The training was presented by the NC/SC Building Performance Institute and sponsored by the SC Association of Heating and Air Conditioning Contractors and the Building Officials of SC.

Future endeavors will involve efforts to improve enforcement and to provide education on energy codes.

Related Documents: www.energy.sc.gov/energyplan/energycodes



Funding for Needed Energy Upgrades

Develop the necessary funds to advance energy efficiency, renewable energy, and alternative transportation opportunities that support policy goals. Currently, South Carolina lacks a revenue stream to support these efforts.

This committee has completed two key projects. First, it requested information about programs offered by utilities, the Weatherization Assistance Project and other governmental entities, and non-profit organizations and prepared an inventory of existing financing programs for energy efficiency projects around the state, viewable on the Energy Office website. Second, the committee proposed revisions to the existing on-bill financing statute (SC Code of Laws §58-37-50) to expand the effectiveness of the programs by raising the permissible interest rate for loans from 4% to 6%. The intent of this change is to make the programs more viable for electricity providers and to allow the financing of service plans and extended warranties. The current focus on energy legislation has stalled introduction of the change, but proponents expect to revisit the issue in the future.

The committee examined the potential for a public benefit fund and/or Clean Renewable Energy Bonds (CREBs) as options for funding energy efficiency upgrades. Unfortunately, the federal Internal Revenue Service announced that it will no longer process applications or issue allocations for CREBs because bonds issued after December 31, 2017, will not qualify. However, providing some relief to low income residents of the state from rising energy cost should be pursued through further evaluations. The Energy Office has received input from American Association of Retired Persons (AARP) and SC Appleseed Legal Justice Center in this regard.

The Energy Office applied to the Energy Financing Partnership Initiative of the National Association of State Energy Officials (NASEO) and was one of several states selected for assistance. The Energy Office and NASEO co-hosted a workshop on energy financing in December 2018. This workshop was well attended, involving by a broad spectrum of participants from government, utilities, and non-profits and enabled participants to familiarize themselves with programs to identify preliminary opportunities for collaboration. A major action item resulting from this workshop was for the Energy Office to expand the initial inventory of funding opportunities into an interactive central information portal, a one-stop shop for information about financing assistance available for energy projects. The Energy Office has begun working on this initiative with state website developers (SC Interactive) and expect the online portal to be online in 2020.

Related Documents: www.energy.sc.gov/energyplan/funding



Facilitation of State Agency Energy Efficiency

Pursue developing a policy to approve (qualification-based) selection of firms to perform energy audits. Currently, the process of performing energy audits, as a precursor to state agency energy efficiency retrofits, can be very difficult.

After its initial meeting, the committee's work has been administrative in nature. A proposal was drafted to investigate the creation of a pre-selected, vetted, and state-approved list of three energy auditing firms. These three firms would enter into a contract with the Office of the State Engineer to offer state and local government organizations energy auditing services resulting in a report documenting potential energy conservation measures for the facility. These services would be made available to state and local government organizations at the organization's expense and would adhere to a set report format developed by the Office of the State Engineer.

Subsequently, the Energy Office issued a survey to 150 state entities. Survey results suggest that there is currently insufficient interest on the part of these entities to proceed with this proposal. Public entities continue to report their energy usage to the Energy Office, per SC Code of Laws §48-20-620.

Related Documents: www.energy.sc.gov/energyplan/stateagencyee



Environmental Equity Assessment

Develop ways to coordinate government action to ensure it does not inadvertently affect environmental justice communities because of compounding impacts and/or cumulative effects of various stressors. Multiple agencies have responsibilities in this arena, with minimal coordination among them.

As the Department of Health and Environmental Control (DHEC) has organized and convened groups to address issues related to environmental equity for many years, DHEC took on the role of convener for a study committee to consider these issues raised through energy plan discussions. The study committee was therefore merged with DHEC's Environmental Justice Hub and has met several times. Membership includes AARP, utilities, other state and federal agencies, members of grassroots organizations, and academics involved in work related to environmental equity. The committee serves as a clearinghouse and coordination mechanism and undertakes special projects as appropriate. The first such project is a series of information sessions to assist disadvantaged communities in understanding solar options and consumer protection issues. The sessions were carried out in conjunction with SolarizeSC with energy efficiency information provided by the Energy Office. Informational sessions were held in Hopkins, Aiken, Florence and North Charleston between July and October of 2018.

Related documents: www.energy.sc.gov/energyplan/environmentalequity



Act 236 Progression

Determine the needs of South Carolina in terms of renewable energy in the context of Act 236 and beyond by examining progress made; program modifications required for an advanced/integrated grid; and opportunities to enhance infrastructure modernization, expansion, and reliability.

This committee addressed the next steps following the South Carolina Distributed Energy Resources Program Act of 2014, which supports the adoption of various types of renewable energy technologies in the state. The goal of the committee was to follow the initial Act 236 path: to identify and analyze issues, propose solutions, and craft appropriate legislation to implement recommended changes.

Stakeholders from a wide array of organizations were invited to an initial meeting to clarify issues of importance. Subsequently, seven subcommittees and an advisory group were created, and each met two or more times prior to the end of 2017.

This committee's work was slowed due to issues arising from pending legislation. Members had difficulty engaging in a collaborative process since they were on opposite sides of solar legislation being debated before the SC General Assembly. In addition, various items brought before the PSC further complicated the situation by making it difficult for utility representatives to participate. Ultimately, all stakeholders agreed to suspend further committee activities until after the 2018 General Assembly session.

In June of 2018, the Energy Office convened a group of over 50 stakeholders at the SC State Museum to discuss PURC's direction to reconvene the SEP's Act 236 Study Committee. Energy Office staff reviewed the SEP's initial recommendations and work that had been accomplished to date. This background included a brief description of activities led by the Electric Cooperatives of South Carolina as part of Phase III implementation efforts, as well as legislation introduced during the 2018 session that led to the group's decision to suspend efforts. A letter of support from PURC, outlining the importance of the collaborative process in moving forward, was greatly appreciated. Energy Office staff discussed steps in the collaborative process and expectations moving forward. The meeting closed with a commitment to move forward with regular meetings on the second and fourth Tuesday of each month.

The Act 236 Study Committee met regularly between June and December of 2018. At the first of these meetings, Energy Office staff garnered input on which issues were most important to stakeholders to address in the near- and long-term. Subsequent meetings were devoted to discussing rate structure, the 2015 settlement agreement that established net metering methodology, and the possibility of developing a short-term solution to continue to allow for net metering. Further meetings involved discussions



about grid modernization, implications of solar for low- and moderate-income customers, interconnection issues and battery storage. A final report was prepared by the consulting firm, Energy and Environmental Economics, Inc. (E3), titled: *Discussion of South Carolina Act 236: Version 2.0*. This report was commissioned to provide a comprehensive overview of the issues discussed during the stakeholder process and not specific recommendations. The report was submitted to the PURC just prior to the end of 2018.

The information resulting from this stakeholder process served to provide an informational foundation for discussions during the 2019 legislative session, ultimately resulting in the passage of Act 62, the Energy Freedom Act.

Related Documents: www.energy.sc.gov/energyplan/act236



Lead by Example – State Transportation

Look for ways to increase the adoption of alternative fuels. Currently, only a small portion of state-owned or leased fleet vehicles are fueled by a Department of Energy established alternative fuel. As a result, South Carolina's fleet lacks diversity, and fuel supply is vulnerable. These limitations compromise fuel efficiency and diversity in transportation.

This committee completed a survey of state agencies and local municipalities to survey their interest and willingness to purchase alternative fuel vehicles (AFVs). A summary of the survey results was developed and shared with State Fleet Management and the State Fiscal Accountability Authority.

The committee took steps to understand the requirements of the federal Energy Policy Act (EPAAct) and how AFVs can be incorporated into the state procurement process. EPAAct remains a barrier until there is a necessary procurement structure put in place that makes available and prioritizes alternative fuel vehicles. Until then, a perceived lack of infrastructure, low demand, and unrealistic procurement expectations will continue. The committee worked to clarify the state procurement process and stakeholders continue to educate decision makers on the necessary steps required to procure AFVs. Energy Office staff continue to conduct meetings with state agencies' fleet managers to discuss fleet optimization and perform fleet analyses.

The committee has discussed a potential SC Department of Transportation policy to require streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation. As part of this effort, the committee has considered ways to encourage and support bicycle and pedestrian activities in transportation policy discussions.

The committee has also developed suggested revisions to particular sections of SC Code of Laws Title 1, Chapter 11, aimed at establishing more concrete goals related to the purchase of AFVs and encouraging alternative fuel infrastructure development. These revisions are currently awaiting development of a coalition of supporters.

Related Documents: www.energy.sc.gov/energyplan/transportation



Next Steps

The SEP is a living document. Accordingly, the data contained in the SEP has been updated and is available on the Energy Office website (www.energy.sc.gov). This data site replaces several reports the Energy Office prepared in the past, and it will be updated on an annual basis. The site is intended to be useful to citizens interested in knowing more about the state's energy use and generation, as well as to those with more specialized interests.

As noted earlier, several of the study committees have developed final reports, which are available on the Energy Office website. Several initiatives begun under the Energy Plan will continue through 2020 and beyond. At the same time, several other policy recommendations developed over the course of the energy-planning process are being addressed through legislation, administrative action, or by the Energy Office directly. Specifically, the Energy Office will be taking on as a next step an Energy Efficiency Roadmap initiative in fall of 2019 with the objective of implementing energy efficiency recommendations resulting from the State Energy Plan.

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Additional information on the State Energy Plan can be found on our website at www.energy.sc.gov/energyplan.