

ANNUAL REPORT 2018



NEW JERSEY

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## I. MISSION

To advise the Somerset County Board of Chosen Freeholders on energy matters and to advocate for energy efficiency, conservation and renewable energy, and promote public understanding of opportunities and choices regarding energy issues.

# II. PURPOSE

Somerset County Government, as well as the County's residents, businesses and non-profit organizations continues to benefit from the leadership and guidance provided by the Council and the initiatives it has underway. These initiatives are closely aligned with its purpose as established in its bylaws, which are shown below.

The purpose of the Somerset County Energy Council is to:

- recommend alternative energy, energy conservation, resiliency and other sustainability initiatives;
- b. promote an environmentally sustainable and responsible future;
- c. establish partnerships between government and the private and non-profit sectors that serve to advance the Mission Statement;
- d. leverage alternative energy sources and energy saving strategies to foster economic development and growth;
- e. provide information that empowers community leaders so they can advocate for and adopt advanced energy initiatives and strategies dedicated to sustainability and public health protection;
- f. educate citizens and County-based businesses to enhance receptivity and ensure active participation;
- g. provide technical and policy guidance to the Board of Chosen Freeholders;
- h. maximize the use of Somerset County's natural and other resources to achieve alternative and more sustainable energy production and reduced energy consumption;
- i. advocate and implement sustainable building design and advance related County programs; and
- j. recommend public policy and legislative positions that serve to achieve the vision and Mission Statement, especially as it relates to optimal sustainability practices

In sum, it is the Council's intent to continue to recognize, communicate, and celebrate best practices, verifiable results, and demonstrated examples of high performance success stories and models of sustainability, energy-efficiency, and resiliency in the County.

## III. BACKGROUND

The Somerset County Energy Council ("the Council") was established in January 2008 by the Somerset County Board of Chosen Freeholders (the Freeholders), with the intention of advising the Freeholders on energy issues, and educating the public on effective ways to reduce energy consumption. Since its establishment, the Council has implemented programs to assist Somerset County and its local government entities in conserving energy; improving energy sustainability and resiliency; and reducing energy costs. It implemented

the County Energy Audit Program in 2009-10 and supported the establishment of the County's Solar Initiative in 2011. The Council provides information on new and emerging policies, regulations and energy technologies to the Freeholders on an on-going basis. It also implements public education initiatives that promote alternative energy options and conservation strategies, which include hosting conferences and events and sharing information including case studies and links to other energy resources through its website. It has also formed strong partnerships with external agencies including but not limited to the NJ Chapter of the U.S. Green Building Council, Sustainable Jersey and associated Somerset County Green Leadership Hub, as well as the Somerset County Business Partnership's Sustainable Somerset Committee in order to work together to achieve energy sustainability and resiliency goals.

The Council can be comprised of up to 11 members appointed by the Freeholders. All members must be County employees, residents of Somerset County or employees of organizations/companies located within Somerset County. They must also have specialized knowledge and interest in energy issues. The Energy Council is housed under the Somerset County Planning Board and is staffed by the Somerset County Planning Division, with Walter Lane, PP/AICP, Director of Planning serving as a voting member. Planning Division staff support has been provided by Laurette Kratina, PP/AICP, Chief of Strategic Planning since its formation in 2008. In addition to providing administrative and technical support, she assists the Council in carrying out its programs and initiatives; helps the Council forge partnerships and identify resources that can advance its mission and goals.

The Council's 2018 reorganization meeting was held on Tuesday, February 20, 2018. The Council met approximately every other month thereafter as follows: April 17th, June 19th, October 16th and December 4th. This bi-monthly schedule allows the Council's standing committees to meet on the off-months to address specific projects and/or issues. It also affords members appropriate time for research, information-sharing and follow-up actions, while giving the Council the ability to focus on emerging and changing energy issues, policies, programs and technologies. The Council's Meeting Agendas, Minutes, Annual Reports and Bylaws are available online at: <a href="https://www.co.somerset.nj.us/government/public-works/planning/energy-council">https://www.co.somerset.nj.us/government/public-works/planning/energy-council</a>.

In early 2018, two members resigned from the Council – Donald Kasten and J.D. Majewski, PhD. The Board of Chosen Freeholders and the Council are very grateful for their many years of service. New member Jeff Foose was appointed to the Council by the Board of Chosen Freeholders on January 5, 2018. New member Axel Breidenbruch was appointed to the Council by the Board of Chosen Freeholders on November 13, 2018. The year concluded with two vacancies remaining.

Following is the roster of officers and members at the conclusion of 2018:

William Amann, PE, LEED Fellow, DCEP, Chairman Jeanne Perantoni, AIA, LEED AP, Vice Chair Wayne DeFeo, LEED AP, Secretary Axel Breidenbruch Susan Dorward Paul Drake, PP, AICP Jeff Foose

Jeffrey Grant, PE, CEM, CEP Walter C. Lane, PP, AICP

The 2018 Freeholder Liaison to the Council was the Honorable Brian Gallagher. The term as Freeholder Liaison is for one year, and is reassigned annually. Members of the Council serve 3-year terms, and may be reappointed by the Board of Chosen Freeholders. Three (3) of the above Council's members (Vice Chairman Wayne DeFeo, Jeffrey Grant and Walter Lane), whose terms were due to expire on December 31, 2017 were reappointed by the Board on January 5, 2018.

# IV. COUNTY ENERGY PROJECT PRIORITIZATION & TRACKING

During 2018, the Council instituted a new "Project Prioritization and Tracking" system. It is a tracking tool comprised of a MS Excel worksheet that includes the county government-specific projects and initiatives recommended to the Board of Chosen Freeholders over the past few years. Chairman Amann met with the County Public Works Department Director to review, refine and prioritize the projects included in the worksheet in early 2018. The worksheet includes projects which are currently supported by County leaders and that are in various stages of planning and implementation. The worksheet is updated every other month to reflect ongoing accomplishments and next steps.

As an out-growth of this initiative, the Council developed an Energy Efficiency (EE) Work Plan for the County aimed at taking advantage of free energy audits for public buildings available through the NJ Clean Energy Program – one of the Council's highest priority recommendations. County Planning Board Staff organized a meeting of County Division Directors whose facilities would potentially be the subject of the first round of energy audits in summer 2018, and additional follow-up meetings are planned in 2019. County facilities that have not previously been audited have been prioritized. The most current version of the Project Prioritization and Tracking Worksheet comprises Appendix A.

### V. MEMBERS IN THE SPOTLIGHT

Members of the Energy Council are among the top energy policy and industry sector professionals and leaders in New Jersey and the Nation, whose credentials and expertise continue to expand. The following is a summary of recent major accomplishments:

Chairman Amann, PE, LEED Fellow, DCEP served the third year of his term on the Board of Directors of the NJ Chapter of the U.S. Green Building Council (USGBC-NJ). The USGBC-NJ is a non-profit organization focused solely on advancing green building and sustainable communities. His current term commenced in 2016. He was named a LEED Fellow in 2015 by the Green Business Certification Inc. (GBCI). LEED Fellow is the most prestigious designation for the recognition of significant achievement in the green building, energy efficiency, and sustainability community. Chairman Amann currently serves as the chairman of the Climate Reality Central New Jersey Chapter. He completed training as a Climate Reality Leader at the Climate Reality Leadership Corps Training event held in Denver, Colorado in March 2017. He is also a sponsoring member of Urban Green (the NYC branch of the USGBC).

- Council Member Wayne DeFeo, LEED AP was named Executive Director of the NJ Chapter of the U.S. Green Building Council (USGBC-NJ) in December, 2018. His goal as Executive Director is to expand the Chapter's educational and networking efforts, coordinate with organizations that share USGBC's goals, and help increase diversity within the Sustainability field.
- Council Member Walter Lane, PP, AICP, Director of the Somerset County Planning Board, served the second year of his term on the New Jersey County Planners Association Executive Committee. His involvement in leading this organization affords him the opportunity to increase County awareness and support of initiatives that implement energy efficiency, conservation and renewable energy statewide.
- The Somerset County Planning Board, chaired by Bernard Navatto, Jr. and directed by Council member Walter Lane, PP/AICP was a recipient of the Somerset County Business Partnership's 2018 Economic Vitality Award for its "outstanding leadership in making vibrant connections with community partners to help make Somerset County a great place to live, work, learn, play and live". The County Planning Board also received a 2018 "Achievements in Planning Award" from the New Jersey Planning Officials (NJPO) Association for its updated County Master Plan Housing Element which includes strategies for increasing energy resiliency and sustainability by applying green building best practices at the site and neighborhood levels.
- Susan Dorward serves as Sustainability & Energy Coordinator at Raritan Valley Community College (RVCC), and is responsible for a variety of campus sustainability initiatives. As a result of her leadership and hard work, RVCC is one of 11 colleges and universities nationwide honored with a 2016 U.S. Department of Education Green Ribbon Schools Postsecondary Sustainability Award. It was the first community college in the country to sign an environmental stewardship agreement with the U.S. Dept. of Environmental Protection (EPA). RVCC is the second community College in the U.S. and second college in NJ to commit to 100% green electricity through the EPA Green Power Partnership. It was the first NJ institution to receive a national sustainability rating through the Association for the Advancement of Sustainability in Higher Education's (AASHE) STARS Program, and RVCC is the first NJ college to earn River Friendly certification. RVCC became the first carbonneutral community college (Scopes 1 and 2) in the nation during 2017, which was accomplished in part by purchasing REC credits.
- Former Council Member Don Kasten, who resigned from the Council in early 2018, earned his Certified Energy Manager (CEM) certification through the Association of Energy Engineers this year. Mr. Kasten, who recently retired from his position as Manager of Technical Operations at Rutgers University, attended the Council's December 4<sup>th</sup> meeting at which he was honored for his nearly 10 years of service with a framed certificate from the County Board of Chosen Freeholders. He coauthored the "Industrial Assessment Center Assessment Recommendation Code (ARC)" produced by Rutgers University, Center for Advanced Energy Systems for the U.S. Dept. of Energy in 2007.

# VI. 2018 ACCOMPLISHMENTS AND ONGOING INITIATIVES

#### A. PARTNERSHIPS

The Council is represented on several national, state and regional organizations with the goal of expanding and sharing its expertise on energy-related policies, regulations, programs and technologies. The Council strives to keep the Board of Chosen Freeholders informed of the activities of these organizations and how their efforts might benefit Somerset County. The Council also invites experts to speak at its meetings in order to acquire and share information on major energy-related issues and opportunities with County leaders. Likewise, Council members are frequently asked to share their expertise as speakers at various events, and often serve on the boards, committees and task force groups of various partner entities. The partnerships the Council has fostered with these organizations represent opportunities for enrichment and collaboration; as well as the pooling of resources to successfully achieve common goals. The following is a summary of ongoing partnership activities the Council has been engaged in during 2017:

1. Sustainable Jersey (SJ): The Council's mission and objectives align closely with those of Sustainable Jersey, which focuses on providing tools, training and financial incentives that support and reward municipalities for implementing sustainability initiatives. Sustainable Jersey is a non-profit organization that was established in 2009 as an outgrowth of the NJ League of Municipalities, the NJ Department of Environmental Protection and other supporters. It is housed at The College of New Jersey (TCNJ). The Council strongly supports municipal participation in the SJ Certification Program, particularly those actions aimed at implementing energy conservation and efficiency measures. 448 municipalities statewide participated in the program during 2018, of which 213 have earned certification information (for more http://www.sustainablejersey.com/actions-certification/actions/. There are nineteen (19) actions in SJ's Energy Category that participating municipalities can undertake. A sample of these actions are: Energy Efficiency for Municipal Facilities; Energy Tracking and Management; Municipal Geothermal Energy System; Municipal Wind Energy System; Renewable Government Energy Aggregation, Residential Energy Efficiency Outreach, and Purchase Alternative Fuel Vehicles. Additional actions are supported by the Council that are in other categories, for example, Green Building Policy/Resolution and Green Building Education under the "Green Design" category. Last year, SJ began offering a new level of recognition for silver-certified communities that achieve the organizations Gold Star Energy Standards. The following is the current list of Somerset County municipalities involved in SJ's certification program and their current status:

Name of Municipality	SJ Certification Status
Bedminster Township	Bronze
Bernards Township	Silver
Bernardsville Borough	Bronze
Bound Brook Borough	Registered
Branchburg Township	Registered
Bridgewater Township	Bronze
Far Hills Borough	Registered
Franklin Township	Silver
Green Brook Township	Bronze
Hillsborough Township	Silver
Manville Borough	Bronze
Montgomery Township	Bronze
North Plainfield Borough	Registered
Peapack & Gladstone Borough	Registered
Raritan Borough	Registered
Rocky Hill Borough	Registered
Somerville Borough	Bronze
Warren Township	Silver
Watchung Borough	Registered

Source: http://www.sustainablejersey.com/actions-certification/participating-communities/

Members of the Energy Council serve on SJ's Energy Task Force and Residential Efficiency Working Group, in order monitor and evaluate the effectiveness of current actions and weigh-in on the Taskforce's proposed new and modified actions. Council representatives helped shape SJ's new Residential Energy Efficiency Action as well as the "Alternative Fuel Vehicle Readiness Guidebook" that was developed by the North Jersey Transportation Planning Authority in partnership with SJ and finalized this year in support of SJ's new "Green Fleet" actions. Chairman Amann also participated in SJ's Ad-Hoc Committee Meeting on Energy Tracking and Management in January 2018. The Council also helps keep County leaders informed of SJ's activities. Council representatives attended the June 21, 2018 New Jersey Sustainability Summit sponsored by SJ held at The College of New Jersey. SJ produces an annual New Jersey Sustainable State of the State Report which released at this event and is available at the following link: <a href="http://www.sustainablejersey.com/events-trainings/2018-sustainability-summit/">http://www.sustainablejersey.com/events-trainings/2018-sustainability-summit/</a>.

2. <u>Somerset County Green Leadership Hub</u>: The Hub was established through a partnership between Somerset County and Sustainable Jersey in 2014. This organization aims to facilitate and support municipal involvement in the SJ certification program. The Council supports the Hub's efforts to empower community, business and non-profit leaders and maximize the benefits of their sustainability initiatives in order to enhance quality of life, revitalize the economy, protect natural resources and create thriving communities. Involvement in this organization is part of the Council's efforts to help municipalities succeed in implementing SJ's energy and other certification actions and increase their knowledge through participation in educational programs and webinars available through SJ. Jeanne Perantoni, Vice Chair of the Council serves as a member of the Hub's Steering Committee. Administrative support for this organization is

- provided by the County Planning Division. For more information about the Hub, please contact Walter Lane, Director of Planning via e-mail: PlanningBd@co.somerset.nj.us.
- 3. New Jersey Sustainable Business Registry (NJSBR): The Council actively supports participation by the County's growing green business sector in the NJ Department of Environmental Protection's NJSBR (<a href="http://registry.njsbdc.com/">http://registry.njsbdc.com/</a>). Participation in this registry is linked to the Somerset County Business Partnership's "Green Challenge" described below. (<a href="https://www.scbp.org/legislative-affairs/sustainable-somerset/go-green-somerset">https://www.scbp.org/legislative-affairs/sustainable-somerset/go-green-somerset</a>). Businesses that implement sustainability initiatives can become part of this registry, through which they can gain recognition for their leadership, distinguish themselves from their competitors and capitalize on the registry as a marketing/promotion tool. A total of 8 Somerset County businesses are currently members of the registry, which are listed below. Membership must be renewed every two years by adding one new practice and one new measurable environmental benefit.

NJSBR-REGESTERED BUSINESSES	SOMERSET COUNTY  MUNICIPALITIES		
Hipcycle	Bernards		
Organic Nest	Bernardsville		
Raritan Valley Community	Branchburg		
College			
Duke Farms Foundation	Hillsborough		
Honor Yoga	Hillsborough		
Bridgepoint Run Farm	Montgomery		
Janssen Pharmaceutical	Raritan		
J M Sorge, Inc.	Somerville		

The NJSBR is also linked to Sustainable Jersey's municipal certification program, and includes useful savings calculators. More information is available at the following link: <a href="http://registry.njsbdc.com/">http://registry.njsbdc.com/</a>.

4. <u>USGBC-NJ:</u> Members of the Council serve in leadership roles in the USGBC-NJ chapter on an ongoing basis. The Energy Council supports participation in the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification program. LEED is the most widely used green building rating system in the world. LEED provides a framework to create healthy, highly efficient and cost-saving green buildings. There are currently 144 projects involved in the LEED Certification Program within Somerset County. Of these, 111 are certified, and certification is in progress for 33 projects, which are summarized by municipality in the table below. The Council applauds these accomplishments. A detailed list LEED Projects that are located within Somerset County as of December 2018 based on information available through the USGBC's website is included in Appendix B. For more information about these projects, see: https://www.usgbc.org/projects.

LEED PROJECTS IN SOMERSET COUNTY - 2018						
MUNICIPALITY	NO. OF LEED CERTIFIED PROJECTS	NO. OF PROJECTS FOR WHICH CERTIFICATION IS IN PROGRESS				
Bedminster Twp.	1	0				
Bernards Twp.	7	5				
Bernardsville Boro.	0	1				
Bound Brook Boro.	1	2				
Branchburg Twp.	1	3				
Bridgewater Twp.	6	8				
Far Hills Boro.	1	0				
Franklin Twp.	81	4				
Green Brook Twp.	1	0				
Hillsborough Twp.	2	4				
Montgomery Twp.	4	0				
North Plainfield Boro.	0	1				
Peapack & Gladstone Boro.	2	1				
Raritan Boro.	1	0				
Somerville Boro.	1	2				
Warren Twp.	2	1				
Watchung Boro.	0	1				
COUNTYWIDE TOTAL	111	33				

In November 2018, the USGBC launched LEED Zero to address net zero carbon operations and resources in green building projects, which was discussed by the Council. The establishment of a net zero milestone and associated new certification program will encourage a holistic approach for buildings and places to contribute to a regenerative future and enhance public health and wellbeing. A new LEED for Cities" Certification Program was also recently established. The city of Newark, NJ was the first in the world to register, with assistance provided by the NJ Chapter of the USGBC. This comprehensive certification addresses energy, waste, water, crime, education and other factors. The Council is exploring the potential for other jurisdictions, including the County to get involved in this program.

- 5. <u>Together North Jersey (TNJ):</u> The Council was involved in the development of the Together North Jersey Plan, which was published in 2015 and applies to the North Jersey Region, of which Somerset County is a part. The plan outlines a vision for the region organized around the following themes: competitive, livable, efficient and resilient. The Plan's priority goals are to:
  - Grow a strong and inclusive regional economy
  - Increase access to opportunity
  - Protect the environment
  - Work together

Council representatives currently serve on the TNJ 2.0 standing committees designed to guide the plan implementation process. They also serve on the TNJ 2.0 "Resilient" and

- "Efficient" Implementation Task Forces. In this capacity, Council Members attended two rounds of Task Force meetings held during 2018.
- 6. Somerset County Business Partnership and its Sustainable Somerset Committee: The Council supports implementation of the Business Partnership's Strategic Plan's "Advancing a Sustainable Community" objectives (see <a href="http://www.scbp.org/images/uploads/file/SCBP%202010%20Strategic%20Plan.pdf">http://www.scbp.org/images/uploads/file/SCBP%202010%20Strategic%20Plan.pdf</a>) and promotes participation in the Business Partnership's "Green Business Challenge", which is linked to the NJSBR. More information about the Green Business Challenge can be found at (<a href="https://www.scbp.org/legislative-affairs/sustainable-somerset/go-green-somerset/">https://www.scbp.org/legislative-affairs/sustainable-somerset/go-green-somerset/</a>).

Several members of the Council are members of the Somerset County Business Partnership and serve on its Board and various committees, including the Business Partnership's Executive Committee and the Sustainable Somerset Committee. Members of the Council attended each of the monthly Sustainable Somerset Committee Meetings and nearly all Business Partnership meetings and events held during 2018.

Walter Lane, County Planning Director, served as a guest speaker at the November 12, 2018 Sustainable Somerset Committee meeting, providing an overview the County's Electric Vehicle Readiness Plan and related initiatives. He also provided this committee with information on the draft updated countywide Hazard Mitigation Plan on December 11, 2018. The Energy Council co-sponsored a "Future of Energy in NJ" event with the Somerset County Business Partnership, which was held at Raritan Valley country Club on March 16, 2018. Dave Daly, the new President and COO of PSE&G served as keynote speaker and Chairman Amann provided introductory comments at this event. The Council continues to collaborate with the Business Partnership to advance business sustainability and energy conservation goals; support growth of the green business sector in the County and work with the Business Partnership in co-sponsoring educational events and initiatives. It will be reaching out to the leaders of the Sustainable Somerset Committee to identify ways to work together in the coming year.

7. Local Colleges and Universities: The Energy Council maintains strong ties with Rutgers University and Raritan Valley Community College. Council member Paul Drake serves as adjunct professor at the Bloustein School in New Brunswick. Chairman Amann provides curriculum guidance for Raritan Valley and on the Industry Advisory Board for Rutgers College of Engineering. Council member Susan Dorward serves as the Sustainability and Energy Coordinator at RVCC. The Council supports the many energy sustainability and resiliency initiatives underway at RVCC.

An undergraduate intern was provided to the Energy Council through the Raritan Scholars Program at Rutgers University during the fall 2017 semester. The intern prepared a prioritized inventory of potential Council outreach initiatives; as well as a series of infographics, which were posted on the Energy Council's website in early 2018 at the following link: <a href="https://www.co.somerset.nj.us/government/public-works/planning/energy-council/energy-council-projects">https://www.co.somerset.nj.us/government/public-works/planning/energy-council/energy-council-projects</a>.

- 8. NJ Association of Energy Engineers (NJAEE): Some of the members of the Council also belong to this group. Council representatives attended the 2018 NJ Association of Energy Engineers Forum entitled, "Energy Policy & Smart Everything" held on May 24, 2018, which included speakers from the US Dept. of Energy, the NJ BPU, and industry. This program focused on the role of the wireless communication technology, data analysis and emerging public policy in advancing the deployment of DER, energy storage, smart grid, smart metering, smart building and smart cities technology.
- 9. Somerset County Planning Board: The County Planning Board continues to integrate the goals, objectives and recommendations of the Council into its plans, studies and programs. Below are the initiatives that the Energy Council has significantly influenced during 2018:
  - Somerset County Planning Partners Forum: Presentations about the new Somerset County Electric Vehicle Readiness Plan and the North Jersey Transportation Authority's recently completed "Interagency Collaboration on Alternatively Fueled Vehicle Infrastructure – Final Report", were given at the September 26, 2018 County Planning Partner's Forum.
  - Walk, Bike Hike Plan: Work on this North Jersey Transportation Planning Authorityfunded initiative also commenced in 2018. This project identifies on- and off-road
    pedestrian and bicycle trails and linkages to key destinations countywide, and
    promotes walking and biking as a strategy for reducing vehicular trips and associated
    energy consumption, consistent with the Council's goals and objectives.

# B. ENERGY PLANS, POLICIES AND PROGRAMS

The Council monitors proposed energy legislation, regulations, policies and programs at the State and Federal levels, and offers guidance on the impacts and potential benefits they could have on Somerset County, its municipalities, businesses and residents. Below is a summary of some of the initiatives the Council has been closely monitoring during 2018.

1. VW Settlement Funds: The Council has reviewed proposals concerning the use of New Jersey's share of the Volkswagen Emissions Settlement Trust Funds. Up to 15% of the \$72.2 million allocated to New Jersey can be used for Electric Vehicle Charging and hydrogen fueling. The remaining 85% has been made available for other project categories. The NJDEP is the lead regarding trust fund participation and funding allocation, which is being informed by the 2015 NJ Statewide Greenhouse Gas Emissions Inventory. A grant application was submitted in May 2018 to fund acquisition of an electric bus to add to the County Transportation Division/s fleet. New Jersey's Draft Beneficiary Mitigation Plan was released for public comment on November 7, 2018, which defines how the \$72.2 million will be utilized in New Jersey. The overarching goal of the plan is to "improve ambient air quality by using the Trust allocation to implement projects that reduce NOx, benefit disproportionately affected communities; expedite deployment and widespread adoption of zero emission vehicles". Funds will be allocated in three \$24.1 million phases. The final December 2018 is available the following plan dated 13, at link: https://www.nj.gov/dep/vw/BMPfinal.pdf.

- 2. State Energy Master Plan Update: New Jersey's Governor signed Executive Order 28 on May 23, 2018 which directs the BPU and its Energy Master Plan Committee to implement a comprehensive overhaul of the State's 2015 Energy Master Plan and the adoption of an innovative Energy Master Plan in 2019 that "recognizes the need for significant investment and support for clean energy sources, particularly the considerable opportunity for the development of wind energy in New Jersey, and that aims to shift New Jersey's energy production profile away from reliance on outdated technologies that contribute to global climate change and towards clean energy sources". The 2019 Energy Master Plan shall provide a comprehensive blueprint for the total conversion to 100% clean energy sources by 2050, promote wind energy development, continued solar energy development, clean energy storage and clean, efficient technology alternatives within the transportation and port sectors. The Council supports the State Energy Plan Update, and its members attended several of the public hearings held in September and October of 2018. The Council will continue to participate in the development of the 2019 plan as the process continues to unfold during 2019. The final draft plan will be delivered to the Governor in 2019 according the project timeline. For more information, current https://www.nj.gov/emp/index.shtml.
- 3. NJ Clean Energy Bill Enacted May 23, 2018: The Council has been closely following this legislation and its implementation. The major provisions are as follows:
  - Ends the current Solar Renewable Energy Certificate (SREC) program which was enacted by New Jersey when it became one of 30 states nationwide to establish a Renewable Portfolio Standard (RPS): No new SREC applications will be accepted into the program after June 1, 2021. It directs the NJBPU to adopt regulations closing the program to new applicants within 180 days of the bill's effective date. It also calls for immediate program closure when each of the state's energy providers reaches a 5.1 percent benchmark for sold kilowatt hours (KWh) sourced from solar electric power generators before the 2021 deadline. For new applicants, the bill reduces the standard SREC eligibility term from 15 to 10 years, though grid-connected solar facilities are still eligible to earn Renewable Energy Certificates (RECs) beyond the 10-year SREC limitation. The bill also requires that the BPU conduct a study to determine ways to modify or replace the SREC program to "encourage the continued efficient and orderly development of solar renewable generating sources. If a provider does not accumulate enough SRECs, it pays a predetermined Solar Alternative Compliance Payment (SACP) amount per SREC shortage. The new legislation gradually reduces the SACP yearly from \$293 per missing SREC to \$239 in 2028.
  - Raises the existing Renewable Portfolio Standard from 24.4 percent in 2028 to 50 percent in 2030, with milestones of 21 percent in 2021 and 35 percent in 2025: The target for the amount of total energy production gained through solar facilities was raised to 5.1 percent by 2021, as compared to the previous target of 4.1 percent by 2028.

- Establishes an energy storage goal of 600 MW by 2021 and 2,000 MW by 2030: To accomplish this, the BPU must complete an energy storage analysis that considers how ratepayers will be benefited; determines how energy storage will impact the use of electric vehicles, examines current storage technologies and associated benefits and costs; establishes the amount of storage capacity needed over the next 5 years, identifies favorable entry points into the electric distribution system for distributed energy resources; and calculates ratepayer costs for adding energy storage capacity.
- Calls for the creation of an energy efficiency program for all public gas and electric utility companies aimed at reducing gas and electricity usage: The program will require each utility to introduce efficiency and peak demand reduction measures in their service areas that reduce natural gas and electricity usage by two (2) percent as compared to the average of the prior 3 years. Providers much reach this goal within five (5) years of program implementation.
- Reinstates an expired tax credit for qualified wind energy projects in eligible zones and establishes job training programs in manufacturing and servicing offshore wind energy equipment: The program goal is to attain a capacity of 3,500 MW through offshore wind energy by 2030.
- Creates a community solar energy program that allows public utility customers
  to partake in energy projects with local solar installation companies that not
  located on their property but are within the utility company's service area: It
  permits customers to receive credits on their utility bill equal to the amount of
  electricity generated through a solar facility with a capacity of 5 MW or less. The
  BPU has been tasked with establishing regulations and parameters to convert it from
  a pilot to a permanent program within three (3) years.
- 4. <u>NJEDEC Act</u>: When New Jersey's Electricity Discount and Energy Competition Act was instated in 1999, residents of the state were given the unique opportunity to shop for their own gas and electricity rates, enabling customers to choose clean energy sources. The Council hopes to see increased voluntary selection of clean energy choices going forward.
- 5. <u>RGGI:</u> New Jersey's Governor signed Executive Order 7 on January 29, 2018 directing the DEP and the BPU to take all necessary regulatory and administrative measures to ensure New Jersey's timely return to full participation in the Regional Greenhous Gas Initiative (RGGI) of the North ease and Mid-Atlantic States of the U.S., which is supported by the Council. On December 17, 2018, the following two (2) RGGI rule proposals were published in the NJ Register, which are being closely monitored by the Council:
  - The CO2 Budget Trading Rule Proposal establishes the mechanisms for rejoining RGGI and sets the State on a path to reduce its baseline CO2 allowance from regulated entities from an initial cap level of 18 million tons in 2020 to 12.6 million tons by 2030. These entities currently produce 20.5 million tons annually.
  - The Global Warming Solutions Fund Rule Proposal establishes the framework for how the State will spend the proceeds from the quarterly RGGI CO2 auctions, emphasizing projects that will support disproportionately burdened communities.

For more information, see: <a href="https://www.state.nj.us/dep/aqes/rggi.html#/">https://www.state.nj.us/dep/aqes/rggi.html#/</a>.

- 6. <u>CPP</u>: The Energy Council reviewed, and has been monitoring the impacts of the Federal Clean Power Plan (CPP) Rule aimed at improving air quality; reducing associated public health risks; supporting clean energy investments and job growth; and addressing climate change, which was enacted in August 2015 and followed by opposition from the energy industry; and a Supreme Court Decision to stay enforcement of the rule was made on February 9, 2016 while litigation proceeds. The compliance period for the CPP was scheduled to begin in 2022, with requirements to achieve emissions reductions (specific to each state) by 2030. On March 28, 2017, President Trump signed an executive order calling for a review of the CPP. On October 25, 2017 EPA issued an Energy Independence Report which identifies four initiatives intended to reduce unnecessary regulatory burdens on the development and use of domestic energy resources, which may have impacts on the clean/renewable energy sector.
- 7. <u>IECC & ASHRAE</u>: The Council continues to support implementation of the 2015 International Energy Conservation Code (IECC) which was adopted by the NJ Department of Community Affairs on September 21, 2015 and came into effect on March 21, 2016. All building permits filed as of this date must meet these new requirements. The IECC contains separate provisions for commercial and low-rise residential buildings. The Council promotes the use of ASHRAE's new energy audit standard for Level 1 and 2 audits performed on commercial buildings, which was released during 2018 (see <a href="https://www.ashrae.org/File%20Library/Technical%20Resources/Bookstore/previews\_2016437\_pre.pdf">https://www.ashrae.org/File%20Library/Technical%20Resources/Bookstore/previews\_2016437\_pre.pdf</a>).

#### C. ENERGY TECHNOLOGY

The Council continues to examine emerging and newly deployed energy technologies and informs the Freeholder Board of those that may be of benefit to the County, its municipalities, residents and businesses. The Council focused its attention on the following technologies during 2018:

1. Smart Grid & Metering: Deployment of smart grid and smart metering technologies in New Jersey is supported by the Council. New Jersey is considerably behind other states when it comes to smart metering, ranking 47<sup>th</sup> in the nation. Smart meters are two-way enhanced communication devices that offer multiple benefits by giving residents and businesses real-time data on their electric usage so that consumers can make more informed choices that can lead to greater energy efficiency and conservation. They are enabled by smart grid technology, which adds resiliency to the megagrid when sensors are provided that allow for expedited identification of damage and disruptions caused by hazard events. The NJ Board of Public Utilities approved Rockland Electric's proposal for smart meters and advanced metering infrastructure in September 2017 within its service area, but this opportunity has yet to be extended across the State. Additional action by state legislators and NJBPU leaders that will allow smart grid improvements and smart metering to move forward is supported by the Council.

- 2. Electric Vehicles: The Council has been a long-term supporter of the deployment of electric vehicle technology, recognizing the wide range of benefits that can be achieved by transitioning from fossil fuel-based to electric vehicles and motorized equipment. In the spring of 2018, the Board of Chosen Freeholders established a Somerset County Electric Vehicle Task Force, which included the Council Chairman, Council Member Walter Lane and representatives from the County Planning Board, Somerset County Business Partnership, the North Jersey Transportation Planning Authority and Sustainable Jersey. This group was tasked with developing a plan to make Somerset County a statewide model for supporting the use of electric vehicles by preparing and implementing an Electric Vehicle Readiness Plan, through which the County will reduce its fossil fuel use, support a healthy environment, enhance economic growth, attract residents and businesses. The Somerset County Electric Vehicle Readiness Plan was released in October 2018 and is available at the following link: <a href="https://www.co.somerset.nj.us/Home/ShowDocument?id=31116">https://www.co.somerset.nj.us/Home/ShowDocument?id=31116</a>. More information about this initiative is included in the Council's Project Prioritization and Tracking Worksheet (see Appendix A).
- 3. Green Infrastructure: The Council promotes the use of vegetative buffers, landscaping and strategically selected and located shade trees and street trees to reduce the "heat island affect" (the micro-climate impacts caused by absorption of heat from the sun by paved surfaces and other components of the built environment coupled with waste energy from vehicles and other human activities) which can increase air temperatures by as much as 10 degrees as compared to nearby natural areas. The urban heat island effect can drive up energy consumption and cooling costs in built-up areas. The incorporation of planted areas such as bio-swales and rain gardens also address stormwater runoff and should be incorporated into road improvements and development projects. Tree and shrub species can be selected that present minimal hazards to the traveling public and that do not impact overhead utilities. For more information, see the "Green Infrastructure Guidance Manual for New Jersey" provided by the Rutgers NJ Agricultural Experiment Station, which is available at the following link: <a href="http://water.rutgers.edu/Green Infrastructure Guidance Manual/2015-03-31\_Manual.compressed.pdf">http://water.rutgers.edu/Green Infrastructure Guidance Manual/2015-03-31\_Manual.compressed.pdf</a>

#### D. ENERGY RESILIENCY

The Council continues to support and monitor initiatives underway by PSE&G and JCPL to harden the electric grid and improve reliability. Of particular interest to the Council are initiatives aimed at reducing lifestyle and economic disruptions, ensuring essential and critical facilities and infrastructure such as hospitals, emergency shelters, waterworks and wastewater treatment plants that are located within the County can continue to operate under widespread, long-term power outage conditions and disruptions to the liquid fuel supply chain. Access to funding available through the NJ Energy Resiliency Bank for microgrid feasibility studies has been limited thus far to the nine NJ counties (of which Somerset is not a part) that are eligible for FEMA's Superstorm Sandy Recovery Funds. The Council continues to monitor the results of the BPU's Town Center Microgrid Initiative through involvement in the TC-DER Microgrid

Stakeholder Work Group as well as potential opportunities to fund microgrid feasibility analyses and implement microgrids as a hazard mitigation strategy within Somerset County.

1. Draft Somerset County Energy Resiliency Framework: Energy resiliency is a major focus of the Energy Council, which led to the completion of a "Draft Energy Resiliency Framework" (ERF) document by County Planning Division staff in December 2018 as part of the process of updating the Multi-jurisdictional Hazard Mitigation Plan (HMP) for Somerset County. The Draft ERF comprises new HMP Appendix L. It is available at the following link: https://www.co.somerset.nj.us/government/public-health-safety/hazard-mitigation/hazardmitigation-plan. The Draft ERF document raises awareness about the potential impacts hazard events can have on the energy system and includes strategies for reducing power and fuel supply disruptions and mitigating their potential impacts on residents, businesses, communities and essential facilities and infrastructure. This document identifies energy resiliency initiatives that are planned, completed or underway; as well as potential solutions for addressing unmet energy resiliency needs. It includes a draft toolkit that summarizes potential strategies for improving and protecting the energy system and ensuring that access to power is preserved and/or expeditiously restored in the event of severe storms or other hazard events. By including projects that improve energy resiliency in the updated HMP, participating jurisdictions can become eligible for public implementation funding. Council member Paul Drake served on of the Steering Committee for this project, which was a joint initiative of the County Planning Division and County Emergency Management Office funded through a grant from the Federal Emergency Management Administration (FEMA). The project was managed by the Planning Division's Chief of Strategic Planning. It commenced in July 2017 and will conclude in 2019 after review agency approval and local adoption are achieved.

Refinement and adoption of the Draft Energy Resiliency Framework as an element of the County Master Plan is one of the county-level mitigation strategies included in the updated HMP, which will be addressed in the months ahead. It is anticipated that the Council will play a major role in guiding and helping to complete this initiative in the coming months.

#### E. ENERGY CONSERVATION AND EFFICIENCY

The Council continues to support the identification and implementation of energy saving improvements. The Council encourages local jurisdictions to build upon the work accomplished through the County Energy Audit Program conducted in 2010; by implementing the improvements recommended in the 81 audits completed at that time, and by auditing additional public facilities so that more needed energy improvements can be identified and implemented. The Council also supports performing updated audits on facilities that were audited more than 10 years ago.

 Expanded Local Government Facility Auditing: The County entered a professional service agreement with Metro Energy in 2003 which resulted in the completion of energy audits for several County facilities in 2004. Because these audits are now over 15 years old and significant technology advances have been made since that time, updated audits have been recommended by the Council along with new audits for buildings that were not audited previously. The Council compiled information about the BPU's Local Government Energy Audit Program for Fiscal Years 2017 and 2018, which was provided to County leaders and has been encouraging them to apply for free energy audits. Some initial meetings were held to define a strategy for preparing an application that would yield energy audits for a few high-priority County facilities. More information about this high priority recommendation is provided in the Project Prioritization and Tracking Worksheet (see Appendix A).

The Council continues to encourage municipalities and school districts to acquire energy audits for their facilities, and to update audits that are more than ten (10) years old, and monitor progress. Countywide, energy audits have been provided for 171 local government and non-profit facilities since 2009 through the New Jersey Local Government Energy Audit Program and the Somerset County Energy Audit Program. A complete list of facilities audited through these programs is provided in Appendix C.

- 2. Household Energy Self-assessment Tool: A preliminary draft of this tool has been prepared by the Council's Planning Division staff in MS Excel Format and is currently being reviewed and refined by members of the Council. The goal is to finalize this tool in the coming months and make it available as a public resource through the Council's website. The tool will also be provided to High Schools in the County with sustainability curriculum, as well as Raritan Valley Community College, and faculty will be encouraged to work with students and parents to apply the tool in their own homes and neighborhoods.
- 3. County Energy Efficiency Video: A work plan and storyboard for a video promoting the identification and implementation of energy efficiency improvements was developed by the Council during 2018, and filming of the various scenes is now underway by the County videographer under the direction of the County Public Information Office. Upon completion, the video will be posted on the Council's website and made available through You-Tube. It will also be shown at Energy Council events.

#### F. ENERGY TRACKING AND MANAGEMENT

The Council remains very supportive of increased utilization of building/facility energy use monitoring and tracking systems by all levels of government and the private sector. Use of the free USEPA Energy Star Portfolio Manager (ESPM) tool is strongly encouraged. The Council is also supportive of legislative and policy changes that would enable utility companies to enter billing record data directly into the ESPM database if desired by the customer. More information about this high priority County project recommendation is provided in the Project Prioritization and Tracking Worksheet (See Appendix A).

#### G. PUBLIC EDUCATION

Building public awareness of strategies for improving energy conservation and efficiency; as well as clean, renewable energy options is a high priority of the Council. Since the

Council's formation in 2008, it has partnered with the County Freeholders, Planning Board, Business Partnership, Sustainable Jersey and the associated Somerset County Green Leadership Hub, and other organizations in sponsoring workshops and events. The Council recognizes that government entities play an important leadership role in promoting these concepts; and the importance of working with municipalities, businesses, non-profit entities and residents to achieve energy sustainability and resiliency.

- 1. <u>EE Day Proclamation</u>: The Council submitted its second annual proclamation entitled, "Celebrating National Energy Efficiency Day", to the Somerset County Board of Chosen Freeholders, which was presented at its regularly scheduled October 23, 2018 meeting. A copy of the proclamation was posted on the County's website at the following link: <a href="https://www.co.somerset.nj.us/government/public-works/planning/energy-council">https://www.co.somerset.nj.us/government/public-works/planning/energy-council</a>. The purpose of the proclamation is to educate the public about the benefits associated with implementing energy conservation and efficiency measures.
- 2. <a href="Infographics">Infographics</a>: The Council posted the infographics completed by the Rutgers-Raritan Scholars Program Intern during the fall 2017 semester on its website in early 2018. The infographics highlight energy and cost savings that can be achieved through several types of initiatives that can be taken by both the public and private sectors, which are available at the following link: <a href="https://www.co.somerset.nj.us/government/public-works/planning/energy-council/energy-council-projects">https://www.co.somerset.nj.us/government/public-works/planning/energy-council/energy-council-projects</a>. The development of additional infographics in the coming year will be pursued.
- 3. Award Program: The Council partnered with the Somerset County Planning Division to add an "Energy Conservation and Resiliency Category" to the annual Land Development Awards Program in 2015. The 2015 award was given to Dutch Hollow Farm in Bridgewater/Bedminster Townships for implementing the first approved roof-mounted solar array on a preserved farm in NJ. The Borough of Somerville received a 2016 award in the Resiliency and Sustainability Category for its exemplary Severe Weather Policy Statement and Sustainability Initiatives. In 2016, three Somerset County farms (Dutch Hollow Farm, Great Road Farm and Johnson Farm) were recognized with an award in this category. Raritan Valley Community College's Workforce Training Center in Branchburg received an award in 2017 in the "Institutional" Category. In 2018, the Borough of Manville received an award for its "Lost Valley Nature Park Recommendations Report" prepared by the Nature Conservancy with support from the Borough and County Planning Division in the Resiliency and Sustainability Category.
- 4. <u>NJAPA Energy Primer</u>: The Council Chairman authored an "Energy Primer" for the NJ Chapter of the American Planning Association (APA), which was included in the new edition of the "Complete Guide to Planning in New Jersey" published in 2018.
- 5. <u>Somerset County Energy Council Website</u>: Updates and enhancements to the Council's webpage were made during 2018 and will continue in the year ahead.
- 6. <u>Energy Data:</u> Data on energy resources, system development and usage has been included in the 2014 Planning Division's Trends and Indicators Report, which is

currently undergoing a comprehensive update. The 2014 version of the Trends and Indicators Report is available at the following link: https://www.co.somerset.nj.us/government/public-works/planning/master-plan.

7. <u>Future Cities Class:</u> Council Chairman Amann and Member Walter Lane spoke to a group of students at a local public school several times on energy and other community sustainability topics during 2018.

# **VII. Past Projects**

# A. SOMERSET COUNTY ENERGY AUDIT PROGRAM

In 2008, the Freeholders allocated one million dollars to launch the Somerset County Energy Audit Program (EAP). This program provided Level II Energy Audits for forty-two municipal buildings and forty-one school buildings across Somerset County. Specialized consultants hired by the County analyzed one year of energy usage data and surveyed all the existing equipment for each facility as part of the audit process. Energy conservation and efficiency recommendations were identified and documented for each facility along with all funding programs and incentives available for implementation. Each facility was then provided with a final audit report; and data for audited facilities were entered into the Energy Star Portfolio Manager tool, which facilitates monitoring of energy savings over time as improvements are made. Finally, all audit results were analyzed by the Council to determine the payback periods associated with various types of energy improvements and capital investment requirements.

The EAP program was intended to serve as a platform through which local government entities could move forward with energy conservation and efficiency measures that lead to energy and cost savings. It has been estimated that this program yielded an annual cost savings of \$390,594 in 2011. Many recipients took advantage of additional funds for implementing energy improvements available through New Jersey's Direct Install Program in 2012 and the subsequent PSE&G Direct Install Program. Following the Somerset County Energy Audit Program, the Council facilitated municipal and school district participation in the New Jersey Board of Public Utilities' Direct Install Program, which offered funding for the installation of the energy conservation measures identified in the Audits. The Council promoted the use of American Resource and Recovery (ARRA) grants to meet the matching fund requirements associated with the Direct Install Program; and raised awareness of savings opportunities available through the NJBPU's rebate programs. Many local government entities participated in the subsequent PSE&G Direct Install Program and made use of the free program available through the NJBPU for providing audits for additional facilities. "Energy Efficiency for Municipal Facilities" was added as a new action to Sustainable Jersey's certification program in 2017, which awards points for energy audits and energy tracking using Energy Star Portfolio Manager, which are supported by the Council.

#### B. MODEL RENEWABLE ENERGY ORDINANCES

In 2012, the Council collected a series of sample municipal ordinances from throughout New Jersey that establish guidelines and standards for the siting and installation of solar and wind facilities. These sample ordinances served as a resource for the County's municipalities. Sustainable Jersey has included "Make Your Town Solar Friendly" and "Wind Ordinance" actions that promote the development of solar and wind-based renewable energy systems in their certification program, which are supported by the Council.

#### C. SOMERSET COUNTY CEDS

The Council's Alternative and Renewable Energy Committee served as the Somerset County Economic Development Strategy (CEDS) Energy Sub-committee from 2011 – 2013. The role of this committee was to provide feedback on all aspects of the Draft Comprehensive Economic Development Strategy for Somerset County. Chairman Amann and Laurette Kratina, PP, AICP, who provides staff support to the Council from the Somerset County Planning Board, served as members of the CEDS Steering Committee. In these roles, the Council helped shape the development of the CEDS, which was approved by the United States Economic Development Authority in December 2013, and adopted as an element of the County Master Plan in April, 2014. The Adopted CEDS is available the following https://www.co.somerset.ni.us/planweb/sustainable/index.htm. The Council continues to support implementation of the energy-related projects included in the CEDS Strategic Project Inventory, and looks forward to playing a supportive role in the upcoming CEDS update process.

#### D. SOMERSET COUNTY SOLAR RENEWABLE ENERGY PROGRAM

The Council supported the Somerset County Improvement Authority (SCIA) in establishing and promoting its highly successful Power Purchase Agreement-based Solar Renewable Energy Program for funding the design, acquisition, installation, tax ownership, commissioning, operation and maintenance of solar systems located on appropriate county, municipal and school district facilities. The majority of these projects were completed between 2013 and 2014.

The Energy Council continues to support and monitor the expansion of renewable distributed energy resources in Somerset County. Since 2000, a total of 3,583 solar projects have been installed in Somerset County, having a total capacity of 129,437 kilowatts. Ninety-one (91) percent of all solar installations in the County are residential, and the balance are non-residential. Although there are much fewer non-residential solar projects, they are much larger and account for seventy-nine (79) percent of total Kilowatt capacity countywide. A table presenting annual solar installation data for Somerset County and New Jersey is provided in Appendix D.

#### E. SOMERSET COUNTY ESIP FEASIBILITY STUDY

The Council partnered with Hillsborough Township, a Sustainable Jersey Certified municipality, in successfully obtaining a Sustainable Jersey Small Communities Grant in 2013, which was used to perform an Energy Savings Improvement Program (ESIP) Feasibility study for the County. The Center for Building Knowledge at the New Jersey Institute of Technology (NJIT) was contracted to perform this work. Paul Romano from the Center for Building Knowledge and his team used data from the Department of Treasury, the Energy Star Portfolio Manager, NJBPU's Clean Energy Program and Somerset County's GIS-based Community Facilities dataset were used to build a database comprised

of 419 local government and school facilities, which were grouped by use/type as part of this analysis. Detailed information was available for 35 facilities that have implemented some portion of the conservation measures identified in their energy audits. The 35 facilities were also grouped by use/type, and the savings they achieved was extrapolated to estimate future potential savings countywide. The results of this study show that the most frequently implemented recommendations from the audits were those that were the least disruptive to daily operations. Overall, one million dollars of ECMs were implemented in Somerset County, creating \$500,000 in savings annually. Establishment of an ESIP Program would be most cost effective if a group of municipalities joined together to form an aggregate, preferably involving similar facility types.

The findings and recommendations in this study were presented by Council representatives as part of a presentation entitled, "Public/Private Partnerships and Opportunities" given at the NJ Association of Counties Annual Conference in Atlantic City on May 7, 2015 and at the joint meeting of the Business Partnership's Sustainable Somerset Committee and the County Green Leadership Hub held on June 17<sup>th</sup>. Chairman Amann also provided an overview of this initiative and other work underway by the Council to the Somerset County Planning Board at its regularly scheduled April 21<sup>st</sup> meeting. Chairman Amann hand-delivered a copy of the report to the Director of the NJ Board of Public Utilities in the spring, then discussed the report with NJ BPU Officials in December, who expressed interest in looking into this work further with the Council. Electronic copies of the report were also distributed to municipal leaders, green team members, county and state officials. The Council continues to promote the findings of the study and its utilization with regard to educating community leaders and the public about the vast savings that can be achieved through implementation of energy conservation measures.

#### F. THIRD-PARTY BILL PAYMENT SERVICE

The Council provided information about the potential benefits of third-party energy tracking and utility bill monitoring and payment services to the Freeholders, noting that government entities and corporations that use these services have realized significant cost savings. In 2014, the County hired EnergySolve, Inc., a Somerset County-based company (which is now part of AvidXchange); to electronically monitor and track its utility bills (water, sewer, electricity, gas). As a result, substantial savings have been achieved by the County.

## VIII. 2018 STANDING COMMITTEES

The four standing committees within the Somerset County Energy Council in 2018 were:

Energy Efficiency and Conservation Alternative and Renewable Energy Education and Awareness Legislation

The Committees are charged with reviewing issues that come before the Council and recommending potential solutions, performing research, and developing potential events, programs and initiatives for consideration by the Council. The Committees meet on a regular basis (usually during the off-months when the Council does not meet or an hour

before the commencement of regularly scheduled Council meetings). Committee chairs report on their progress at each regularly scheduled Council meeting.

#### A. ENERGY EFFICIENCY AND CONSERVATION COMMITTEE

The Energy Efficiency and Conservation Committee (EE&C) is charged with developing and implementing programs that promote and support the identification and implementation of energy efficiency improvements in Somerset County. It was comprised of the following members in 2018:

Jeffrey Grant (Chair) William Amann Paul Drake

The EE&C Committee concluded that in 2018, it remains cheaper to save a watt than to make a new watt, which is the committee's central message. It continues to promote the use of energy audits as a tool for identifying potential energy efficiency measures that can be implemented in both private and public sector facilities in order to both reduce operating costs and save energy. It continues to explore and promote strategies and funding opportunities for public and private-sector implementation of energy conservation measures (ECMs). The committee recognizes the value of benchmarking and measuring facility energy consumption and costs, since there is no better way to promote implementation of ECMs than to demonstrate the savings that can be achieved. It will continue to play a lead role in examining proposed legislation aimed at creating public-private partnerships and funding opportunities for implementing ECMs.

#### B. ALTERNATIVE AND RENEWABLE ENERGY COMMITTEE

The Alternative and Renewable Energy (ARE) Committee's role is to identify local opportunities for alternative and renewable energy generation; promote energy efficient alternative transportation modes; support sustainable energy initiatives that facilitate economic growth in the County; and encourage increased utilization of clean, renewable energy. This committee was comprised of the following members in 2018:

Paul Drake, PP, AICP, LEED GA (Chair) William Amann, P.E., LEED Fellow, DCEP Jeffery Foose

The ARE Committee invested considerable time and effort during 2018 in providing guidance during the development of the Somerset County Electric Vehicle Readiness Plan, and will assist in the plan's implementation in the months ahead. It continues to evaluate emerging energy technologies and their potential applicability in Somerset County from the perspective of improving the resiliency of the electric power supply system, focusing on emerging energy storage and smart grid technologies during 2018. It also strives to identify cost-effective clean-energy alternatives, and expanding energy technology-based economic growth opportunities. It has been closely monitoring the roll-out of the State's off-shore wind energy, energy storage and new community solar initiatives established through the State Clean Energy legislation that was adopted in April of 2018 and will continue to do so in the months ahead.

#### C. EDUCATION AND AWARENESS COMMITTEE

The Education and Awareness (E & A) Committee is responsible for gathering and sharing information in the furtherance of the goals of the Council. It was comprised of the following members in 2018:

Jeanne Perantoni, AIA, LEED AP (Chair) Walter Lane, PP/AICP Susan Dorward Wayne DeFeo, LEED AP

During 2018, the E & A Committee focused on the development of the above-described energy efficiency video, and has commenced work on planning a special half-day conference that focuses on the State's new clean energy initiatives and the updated State Energy Master Plan, which will be scheduled in the fall of 2019. The committee is guiding completion of the Council's Household Energy Self-Assessment Tool, slated release to the public in early 2019.

#### D. LEGISLATION COMMITTEE

The Legislation Committee is involved with reviewing and tracking pertinent energy-related legislation as well as proposed plans, regulations and programs. This Committee presents major policy and regulatory initiatives that are advancing at the Federal and State levels to the Council for discussion at its regularly scheduled meetings. The committee was comprised of Wayne DeFeo (Chair) in 2018.

# IX. 2019 General Goals

The Energy Council's efforts during 2019 will be directed toward advancing the following new and ongoing goals in concert with appropriate applicable partner organizations. These goals build upon and continue the initiatives in the Project Prioritization and Tracking Sheet (see Appendix A). Success in achieving these goals requires collaboration and cooperation among state agencies, local jurisdictions, residents, businesses and non-profit organizations within Somerset County and across the State. A renewed focus on improving energy resilience and strategies for reducing dependencies on fossil fuels are recommended in light of the escalating impacts of climate change as documented by the U.S. Global Research Program's "Fourth National Climate Assessment: Impacts, Risks, and Adaptation in the United States" released by the Federal Government in November 2018; the Intergovernmental Panel on Climate Change's (IPCC) "Special Report on Global Warming of 1.5 Degrees C" issued in October 2018 and other recent studies and reports that address growing climate change risks.

• Encourage the application of green building strategies countywide: Expand education and outreach to municipal officials and planners and the general public regarding building and site design strategies and best management practices that can make new development and redevelopment projects, neighborhood and communities

more energy efficient, resilient and sustainable. Advocate for the adoption of the International Building Code in New Jersey. Encourage the development of "Net-Zero buildings". Promote community sustainability by facilitating County and local participation in the LEED for Cities Program. Support the use of green infrastructure and other locational and site design measures that combat urban heat island effects, conserve resources, reduce automobile dependency and mitigate climate impacts. Expand public recognition of green building and energy conservation and efficiency projects and initiatives within the County.

- Advocate for the implementation of improvements that will make the energy system more sustainable and resilient. Support completion of the energy resilience projects identified in the 2019 Updated Somerset County Multi-Jurisdictional Hazard Mitigation Plan, including the completion and adoption of a "Somerset County Master Plan Energy Resilience Element". Encourage the provision of reliable and efficient backup/standby power for essential/critical public facilities, infrastructure and services in the event of prolonged widespread power outages and liquid fuel supply chain disruptions. Promote the deployment of renewable and clean distributed energy generation coupled with energy storage and microgrid (islanding) capabilities that allow critical and essential facilities to remain operational when grid-scale outages occur. Support the use of smart grid and smart metering technologies to enhance grid resilience; maximize prior investments in renewable/solar generation; and accommodate new distributed, renewable energy sources.
- Support electrification of the transportation system: Promote expanded utilization of electric vehicles and charging equipment by public- and private-sector individuals and organizations. Advance implementation of the Somerset County Electric Vehicle Readiness Plan countywide. Support the growth of the EV industry within Somerset County. Promote the incorporation of energy resilience features into the design and deployment of EV technology; especially with regard to electrification of public transit and freight systems. Encourage electric utilities, grid operators and regulators to collect, compile and analyze the data necessary for tracking deployment of transportation electrification and monitoring the impacts of expanding EV technology utilization on the megagrid, overall energy system, economy and air quality.
- Promote the development of effective energy management capabilities: Strengthen County and municipal energy management capacity by encouraging the establishment of local energy managers/sustainability officers and/or the provision of shared energy management services. Encourage increased use of energy audits, Energy Star Portfolio Manager, Greenhouse Gas Inventories, Carbon Footprints and other tools that can be used to for benchmarking; identifying and implementing renewable energy and energy conservation measures (ECMs); and for tracking building and community-wide performance (including the quantification of changes in energy use, cost savings and GHG emissions over time). Identify capacity-building opportunities that will enable local jurisdictions to take advantage of other energy initiatives such as energy aggregation/renewable energy purchasing and Energy Saving Improvement Programs (ESIPs). Support the efforts of utility companies and regulatory agencies to streamline, simplify and expand utilization of these and other tools and programs; provide technical assistance; and make available fuel consumption, energy use and other necessary data.

• Improve public education and awareness about energy sustainability and resilience: Update and expand the use of Council's website, infographics, videos, workshops, brochures and other public education and outreach venues to inform community leaders and the public about the dollars and energy savings that can be achieved, as well as the reduction in greenhouse gas emissions that can be accomplished by implementing various energy efficiency and conservation measures. Highlight the secondary benefits such as improved air quality, climate mitigation, energy resilience, environmental protection, healthier neighborhoods and reduced vulnerability to hazard risks that can be simultaneously achieved by implementing energy conservation, clean energy, grid modernization and energy resilience strategies. Encourage municipal green teams and other partners to help get the word out as well.

# **APPENDICES**

- A. Somerset County Energy Project Tracking Sheet
- B. List of 2018 LEED-Certified Projects in Somerset County
- C. Somerset County Energy Audit Program and NJ Local Government Energy Audit Program Inventory Through 2018
- C. Solar Installations in NJ and Somerset County Through 2018

#### SOMERSET COUNTY ENERGY CCOUNCIL 2018 ANNUAL REPORT - APPENDIX A

SOMERSET COUNTY ENERGY COUNCIL: PROJECT PRIORITIZATION AND TRACKING SHEET									
RECOMMENDATION	PRIORITY	LEAD PERSON, AGENCY	PARTNERS & STAKEHOLDERS	IMPLEMENTATION STATUS	STATUS AS OF [DATE]	ROADBLOCKS	NEXT STEPS		
EV Readiness: 1) Somerset County Electric Vehicle Electric Vehicle Readiness Plan Implementation 2) Strategy for County Charging Stations and Fleet Electrification 3) Municipal Guidance and Support		Freeholder Board, Administrator, Public Works Director, County EV Committee	NJTPA, Sustainable Jersey, Municipalities, EV Industry, Businesses, Residents	A County EV Committee was formed to carry- out these Freeholder-supported initiatives, which met numerous times since its establishment in 3-2018. It involves a partnership with NJTPA and SJ with whom the County EV Readiness Plan was completed and a model ordinance may be developed. 4 EVs (Chevy Bolts) have been purchased and 2 ChargePoint level-2 charging stations have been installed for County fleet use as of 12- 2018. A Public Information Fact Sheet and video have been prepared and released. A press briefing was held in September. The topic was presented at the September 26th PPF, at Freeholder and Business Partnership meetings, described in the Fall 2018 Freeholder News Letter and other media venues. An application for acquisition of an Electric Bus through the VW Settlement Fund has been submitted.	12/31/2018	Building and electric codes, standards and inspection requirements may need to be updated.	Complete and distribute model Ordinance. Provide information about available implementation funding and incentives. Create an EV Page with expanded info. on the County website. Review and potentially support proposed "EV Ready" and "Right to Charge" legislation. Update the County Master Plan Circulation Element accordingly. Identify metrics for tracking EV deployment in the County. Development of a strategy for transitioning the County- owned fleet to EVs and for installing public charging stations on County property is underway.		

RECOMMENDATION	PRIORITY	LEAD PERSON, AGENCY	PARTNERS & STAKEHOLDERS	IMPLEMENTATION STATUS	STATUS AS OF [DATE]	ROADBLOCKS	NEXT STEPS
Energy Audits of County Buildings (Part of EEI Work Plan)		Public Works Dept. Head, County EEI Working Group, Directors of affected County Divisions	NJBPU	A County EEI Work Plan was prepared and refined in October based on feedback from the Public Works Director, and his selection of the County Vehicle Maintenance Center and Recycling Center since they have not yet been audited. Limited documentation is available about ECM implementation at the County Complex based on the audit performed in 2004. A copy of the 2004 audit has not been found. A copy of the NJ BPU's 2018 LGEAP application was provided to Director McCall following the September County Workgroup Meeting. A summary of the September Workgroup Meeting was prepared and also provided to Director McCall. The EEI work plan also addresses 2B and 2C below.	12/31/2018	complete the application; or explore the possibility of a consultant for this	A follow-up meeting with the County Workgroup that includes Paul McCall is needed. Chairman Amann offered technical guidance to complete the LGEAP application. Establishment of a permanent County Energy Project Implementation Team responsible for carrying out the EEI Work Plan and other County Energy Projects is needed.
ECM Implementation (Part of EEI Work Plan)		Public Works Dept. Head, County EEI Working Group	County Departments and Divisions, Energy Council, NJBPU, PSE&G	Identification of ECMs in County Vehicle Maintenance Garage and Recycling Facility via the facility audits (completion of 2A)is a prerequisite.	12/31/2018	The County has been unable to complete the LGEA Application to-date.	Paul Drake indicated audit and ECM implementation assistance may be available to local govt. through PSEG. He said he would provide information, but has not yet done so. Staff could reach out to Mike Savage from PSEG instead to potentially acquire this information.

		LEAD PERSON,	PARTNERS &		STATUS AS OF		
RECOMMENDATION	PRIORITY	AGENCY	STAKEHOLDERS	IMPLEMENTATION STATUS	[DATE]	ROADBLOCKS	NEXT STEPS
Energy Performance Tracking Part of EEI Work		Public Works Dept. Head, County EEI	County Departments and Divisions, Energy	BPU's CEP Consultants will set-up Energy Star Portfolio for the LGEAP-audited facilities. Ongoing update and utilization of this tool would be the County's responsibility. Can also consider having billing data entered for all County facilities by a third party service provider, but supplemental information on building characteristics would have to be provided by the County. Access to the Portfolio Manager Account established for the County Complex by Vinny that contains 2003 & 2004 data should be pursued. Free online training through the EPA Energy Star Portfolio Mgr. Program is available. Use of Public Works Administrative Staff for ongoing data		trained county staff allocated to this task and/or funding to acquire an outside consultant to perform these services is	acquisition of cost estimates for having this work done by a third party
Plan)	20		Council, NJBPU	input could be explored.	12/31/2018	needed.	entity/service provider
Improved/Expanded Public		Energy Council, County Green	RVCC, Planning Division, Business Partnership, Sustainable Jersey, NJBPU- CEP, GBC-NJ, Rutgers Clean Energy Institute, etc./county employees, residents, businesses, non- profits &	A List of Potential Energy Council Initiatives and draft Infographics were prepared in 2017 by a Raritan Scholars intern. The infographics were posted on the SCEC website in 2018. A second Freeholder Energy Day Proclamation took place in Oct. 2018. A proposal for a Raritan Scholar Intern was submitted but was unsuccessful. An update of the SCEC brochure was accomplished in June 2018. No Award nominations for energy EE and Renewable Energy projects were received in 2018. A EE Video Work Plan was completed and filming is underway. A proposal for a 2019 Energy Conference was prepared and submitted to the Freeholders. A Household Energy Self-Assessment Tool has been drafted and is under review by Chairman Amann and		staff resources and	Update of Infographics needed. Scheduling of a E & O Meeting for Oct/Nov 2018 is underway. An Audit and Benchmarking Information Brochure is
	3		-	-	10/11/2010		_
Messaging	3	Leadership Hub	municipalities	Secretary DeFeo.	10/11/2018	funding are needed	needed.

RECOMMENDATION	PRIORITY	LEAD PERSON, AGENCY	PARTNERS & STAKEHOLDERS	IMPLEMENTATION STATUS	STATUS AS OF [DATE]	ROADBLOCKS	NEXT STEPS
County Facility LED Lighting Pilot	4	Public Works Dept. Head, County Planning Division	Energy Council	The Planning Division was authorized by the Public Works Director to test employee comfort with LED lighting and estimate the potential to successfully deploy LED lighting in County Facilities on 6-12-18. LED lighting would be installed in the Planning Division. County F & S has loaned a light meter to the Planning Division to take "before and after" readings for comparison.	12/31/2018	clarity needed regarding LED bulb purchase procedures	Light meter readings must be taken based on existing conditions. LED bulbs must be ordered and installed.
2019 HMP Energy-related Mitigation Projects: SC1 - County Microgrid SC5 - County Master Plan Energy Resiliency Framework SC10 - Residential Emergency Preparedness SC11 - Resilient Building Stock SC13 - Backup Power		Administrator,	Divisions, Energy Council, potential consultant services, municipalities,	The Updated HMP was completed and released for public review in October 2018. Paul Drake represented the Energy Council on the HMP Steering Committee. A Draft Energy Resiliency Framework was developed and included as Appendix K. It was used to inform the identification of County-level energy-related Mitigation Projects.	12/31/2018	clarity needed regarding implementation authority, roles and responsibilities among County Govt. entities	Establishment of a HMP Implementation Team, and Initiative-specific work groups responsible for developing and carrying out work plans specific to each initiative is recommended as the first step in initiating these projects.
County-facilitated Multi- municipal ESIP of which County Govt. could be a part	6	County Administrator, Public Works Dept., Planning Division, Energy Council	municipalities, electric utilities, NJBPU	The ESIP Feasibility Study demonstrated significant energy and cost savings opportunities exist through ECM implementation.	12/31/2018	Project complexity requires consultant expertise to establish. Significant education and outreach resources are needed.	A few interested municipalities have already moved forward. Remaining municipal interest must be determined. Also analyze existing NJ ESIPs and the degree to which they have been successful.

The projects listed in this worksheet directly involve and benefit Somerset County Government. The Energy Council also encourages and supports implementation of various energy efficiency, resiliency and renewable energy initiatives by local jurisdictions, residents, businesses and non-profit organizations as noted in the 2019 General Goals (Section IX) of the 2018 Energy Council Annual Report.

Prepared by Somerset County Planning Division on behalf of the Somerset County Energy Council, Revised 12-31-18

# SOMERSET COUNTY ENERGY COUNCIL 2018 ANNUAL REPORT - APPENDIX B

# PROJECTS PARTICIPATING IN THE USGBC LEED CERTIFICATION PROGRAM IN SOMERSET COUNTY THROUGH 2018

PROJECT NAME	MUNICIPALITY	CERTIFICATION TYPE	PROJECT TYPE	CERTIFICATION DATE	POINTS
The Offices at Bedminster	Bedminster Twp.	LEED O+M	Existing Buildings	Nov-16	42
106 Allen Rd.	Bernards Twp.	LEED O+M (Silver)	Existing Buildings	Feb-12	55
Valley Brook Village: Building A	Bernards Twp.	LEED BD+C (Gold)	Homes	Apr-14	77
Valley Brook Village: Building B	Bernards Twp.	LEED BD+C (Silver)	Homes	Apr-14	61
Valley Brook Village: Building C	Bernards Twp.	LEED BD+C (Silver)	Homes	Apr-14	61
Headmaster's Residence	Bernards Twp.	LEED BD+C (Gold)	New Construction	Apr-13	48
One Verizon Way	Bernards Twp.	LEED O+M (Silver)	Existing Buildings	Dec-09	43
McNally Cottages	Bernards Twp.	LEED ID+C	Commercial Interiors	in progress	
600 Mountain View Corp. Blvd.	Bernards Twp.	LEED BD+C	Core and Shell	in progress	
500 Mountain View Corp. Blvd.	Bernards Twp.	LEED BD+C	Core and Shell	in progress	
Sewerage Authority Administration Building	Bernards Twp.	LEED BD+C	New Construction	Nov-10	32
Westgate I	Bernards Twp.	LEED O+M	Existing Buildings	in progress	
Westgate II	Bernards Twp.	LEED O+M	Existing Buildings	in progress	
CrestView Drive	Bernardsville Boro.	LEED BD+C	Homes	in progress	
141339-Bound Brook-Union Ave. Office	Bound Brook Boro.	LEED O+M	Existing Buildings	May-14	46
STS New Distribution Center	Bound Brook Boro.	LEED BD&C	New Construction	in progress	
JPMC-New Br. Bank	Bound Brook Boro.	LEED BD+C	New Construction	in progress	
Raritan Valley CC Student Center	Branchburg Twp.	LEED BC+D	New Construction	in progress	
PNC Bank Branch – Branchburg	Branchburg Twp.	LEED ID+C	Retail	Sep-14	40
RVCC Workforce Training Center	Branchburg Twp.	LEED BD+C	New Construction	in progress	
Whitman Science Center Addition, RVCC	Branchburg Twp.	LEED BD+C	New Construction	in progress	
J & J MD&D Bridgewater	Bridgewater Twp.	LEED O+M	Existing Buildings	Oct-15	48
MetLife-Bridgewater	Bridgewater Twp.	LEED O+M (Platinum)	Existing Buildings	Mar-15	80
Bridgewater (756 U.S. Hwy 202)	Bridgewater Twp.	LEED ID+C	Commercial Interiors	Jun-17	40
Somerset Corporate Center - Building 200	Bridgewater Twp.	LEED O+M	Existing Buildings	in progress	

PROJECT NAME	MUNICIPALITY	CERTIFICATION TYPE	PROJECT TYPE	CERTIFICATION DATE	POINTS
Somerset Corporate Center –					
Building 300	Bridgewater Twp.	LEED O+M	Existing Buildings	in progress	
Somerset Corp. Ctr. VI	Bridgewater Twp.	LEED BD+C	Core and Shell	in progress	
55 Corporate Drive	Bridgewater Twp.	LEED O+M	Existing Buildings	Jun-10	39
Bridgewater Municipal Building	Bridgewater Twp.	LEED BD+C	New Construction	Dec-12	32
MetLife FM Portfolio 13	Bridgewater Twp.	LEED O+M (Gold)	Existing Buildings	Jan-10	59
Somerset Corporate Center 400	Bridgewater Twp.	LEED O+M	Existing Buildings	in progress	
Somerset Corporate Building 500	Bridgewater Twp.	LEED O+M	Existing Buildings	in progress	
Somerset Corporate Center					
Building 100	Bridgewater Twp.	LEED O+M	Existing Buildings	in progress	
Milltown School	Bridgewater Twp.	LEED BD+C	New Construction	in progress	
Hampton Inn Bridgewater	Bridgewater Twp.	LEED BD+C	New Construction	in progress	
Far Hills CDS Gym Addition	Far Hills Boro.	LEED BD+C (Gold)	New Construction	Nov-19	40
RP Phase 1 Dining Commons	Franklin Twp	LEED BD+C	Schools	Nov-13	29
Sentinel NJ-1 Data Center	Franklin Twp.	LEED BD+C (Gold)	Core and Shell	Aug-14	60
Elizabeth Avenue Elementary				in progress	
School	Franklin Twp.	LEED BD+C	Schools	in progress	
144813-Somerset	Franklin Twp.	LEED O+M	Existing Buildings	Apr-15	41
Somerset (439 Elizabeth Ave.)	Franklin Twp.	LEED BD+C	Retail	Sep-14	27
Franklin Township (1373 Rt. 27)	Franklin Twp.	LEED BD+C	Retail	Sep-14	27
Model A1 (109 Chester Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (109 Chester Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (105 Chester Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (105 Chester Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C1 (148 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C2 (148 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (101 Chester Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (101 Chester Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (146 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (146 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (142 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (144 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69

PROJECT NAME	MUNICIPALITY	CERTIFICATION TYPE	PROJECT TYPE	CERTIFICATION DATE	POINTS
Model A1 (144 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (140 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (140 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (142 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (138 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (138 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (134 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (136 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (136 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C2 (132 Victor Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C1 (132 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (134 Victor Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (145 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C1 (147 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C2 (147 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (143 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (145 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (141 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (143 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (139 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (139 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (141 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (135 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (137 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (137 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (133 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (133 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (135 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C1 (131 Mark Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model C2 (131 Mark Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B2 (161 Minetta Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B2 (164 Minetta Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69

PROJECT NAME	MUNICIPALITY CERTIFICATION TYPE PROJECT TYPE		CERTIFICATION DATE	POINTS	
Model B2 (164 Minetta Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (33 Fuller Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (33 Fuller Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B1 (161 Minetta Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (38 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B1 (31 Fuller Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B2 (31 Fuller Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (30 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D1 (34 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model D2 (34 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (38 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (30 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (26 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (26 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (18 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B1 (22 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B2 (22 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B2 (10 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (14 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (14 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 18 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A1 (6 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B1 (10 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model A2 (6 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B2 (2 Parkside Unit B)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Model B1 (2 Parkside Unit A)	Franklin Twp.	LEED BD+C (Silver)	Homes	Oct-12	69
Voorhees Station I	Franklin Twp.	LEED BD+C (Platinum)	Homes	Jul-14	93
Voorhees Station III	Franklin Twp.	LEED BD+C (Platinum)	Homes	Jul-14	93
SHI Offices – 290 Davidson Ave.	Franklin Twp.	LEED ID+C (Gold)	Commercial Interiors	Mar-13	65
Parkside Family Community Center	Franklin Twp.	LEED BD+C	New Construction	in progress	_

PROJECT NAME	MUNICIPALITY	CERTIFICATION TYPE	PROJECT TYPE	CERTIFICATION DATE	POINTS
The Frankin Care Center (3371 Rt.					
27)	Franklin Twp.	LEED BD+C	New Construction	in progress	
New Fletcher Thompson Office	Franklin Twp.	LEED ID+C	Commercial Interiors	in progress	
MetLife FM Portfolio 8	Franklin Twp.	LEED O+M (Silver)	Existing Buildings	Jan-10	53
L'Oreal UP2 Expansion	Franklin Twp.	LEED BD+C (Gold)	New Construction	Jun-11	40
Voorhees Station II	Franklin Twp.	LEED BD+C (Platinum)	Homes	Feb-14	93.5
Stop&Shop #809	Franklin Twp.	LEED O+M	Existing Buildings	Apr-08	35
Office Building	Green Brook Twp.	LEED BD+C (Silver)	New Construction	Jul-14	50
Carriage Farm	Hillsborough Twp.	LEED O+M	Existing Buildings	in progress	
Kohls Hillsborough	Hillsborough Twp.	LEED O+M	Existing Buildings	Sep-15	49
Coach Barn Renovation	Hillsborough Twp.	LEED O+M	Existing Buildings	in progress	
New Sanctuary for Faith Lutheran					
Church	Hillsborough Twp.	LEED BD+C	New Construction	in progress	
Carriage Farm	Hillsborough Twp.	LEED O+M	Existing Buildings	in progress	
Carriage Farm	Hillsborough Twp.	LEED BD+C (Silver)	New Construction	Apr-07	37
107465 Montgomery Township	Montgomery Twp.	LEED ID+C	Retail	Sep-15	26
Bloomberg NJ	Montgomery Twp.	LEED ID+C (Gold)	Commercial Interiors	Feb-12	65
J and J Skillman	Montgomery Twp.	LEED ID+C (Silver)	Commercial Interiors	Sep-17	51
Skillman South Bldg Office					
Renovation	Montgomery Twp.	LEED ID+C	Commercial Interiors	Dec-17	44
Birdsall Bath Design Showroom	North Plainfield Boro.	LEED ID+C	Retail	in progress	
The Willow School Art Barn	Peapack & Gladstone Boro.	LEED BD+C (Platinum)	New Construction	Nov-07	58
	Peapack & Gladstone				
Health Wellness Nutrition Center	Boro.	LEED BD+C	Schools	in progress	
Willow School Phase I	Peapack & Gladstone Boro.	LEED BD+C (Gold)	New Construction	Oct-04	39
Johnson and Johnson Raritan 920	Raritan Boro.	LEED O+M (Silver)	Existing Buildings	Mar-16	51
Starbucks Somerville Town Ctr.	Somerville Boro.	LEED ID+C	Retail	Sep-14	41
26 West High St.	Somerville Boro.	LEED O+M	Existing Buildings	in progress	
JM Sorge Office	Somerville Boro.	LEED O+M	Existing Buildings	in progress	

PROJECT NAME	MUNICIPALITY	CERTIFICATION TYPE	PROJECT TYPE	CERTIFICATION DATE	POINTS
184 Liberty Corner	Warren Twp.	LEED BD+C (Gold)	Core and Shell	Sep-13	61
TD Bank-Warren NJ-Liberty Corner	Warren Twp.	LEED BD+C (Gold)	New Construction	Feb-12	60
10 Independence Blvd.	Warren Twp.	LEED O+M	Existing Buildings	in progress	
40 High Oaks Drive	Watchung Boro.	LEED BD+C	Homes	in progress	

BD+C = Building Design and Construction: Applies to buildings that are being newly constructed or going through a major renovation; includes New Construction, Core & Shell, Schools, Retail, Hospitality, Data Centers, Warehouses & Distribution Centers and Healthchare.

O+M = Building Operations and Maintenance: Applies to exisitng buildings that are undergoing improvement work or little to no construction; includes Existing Buildings, Schools, Retail, Hospitality, Data Centers, and Warehouses & Distribution Centers.

ID+C = Interior Design and Construction: Applies to projects that are a complete interior fit-out; includs Commercial Interiors, Retail and Hospitality

Source: U.S. Green Building Council website - https://www.usgbc.org/projects, accessed 12-21-18

in progress = 33, LEED Certified = 111

#### SOMERSET COUNTY ENERGY COUNCIL 2018 ANNUAL REPORT - APPENDIX C

# SOMERSET COUNTY MUNICIPALITIES THAT HAVE PARTICIPATED IN THE STATE OF NEW JERSEY - LOCAL GOVERNMENT ENERGY AUDIT PROGRAM (NJ-LGEAP) AND THE SOMERSET COUNTY ENERGY AUDIT PROGRAM (SCEAP) THROUGH 12-31-18

Local Government Entity Prog		Facilities Audited	Street Location	Audit Firm	Date
Bedminster Board of Education	SCEAP	Public School (K-8)	234 Somerville Rd.	PS&S	Jul-10
	NJ-LGEAP	Municipal Building	1 Collyer Lane	Dome-Tech	Mar-12
Bernards Township	NJ-LGEAP	Engineering Service Building	277 S. Maple Ave.	Dome-Tech	Mar-12
bernards rownship	NJ-LGEAP	Police Dept.	1 Collyer Lane	Dome-Tech	Mar-12
	NJ-LGEAP	Municipal Building Annex	32 S. Maple Ave	Dome-Tech	Mar-12
	NJ-LGEAP	Cedar Hill Elementary	100 Peachtree Rd.	Concord	Apr-11
	NJ-LGEAP	Liberty Corner Elementary	61 Church St.	Concord	Apr-11
Bernards Public Schools	NJ-LGEAP	Oak Street Elementary	70 West Oak St.	Concord	Apr-11
	NJ-LGEAP	Ridge High School	268 S. Finley Ave.	Concord	Apr-11
	NJ-LGEAP	William Annin Middle School	70 Quincy St.	Concord	Apr-11
	SCEAP	Municipal Building	166 Mine Brook Rd.	PS&S	Jul-10
Bernardsville Borough	SCEAP	DPW Building	166 Mine Brook Rd.	PS&S	Jul-10
	SCEAP	Library	1 Anderson Rd.	PS&S	Jul-10
	NJ-LGEAP	Bedwell Elementary	141 Seney Dr.	CDM	Jun-09
Somerset Hills School District,	NJ-LGEAP	Bernardsville Middle School	141 Seney Dr.	CDM	Jun-09
Bernardsville	NJ-LGEAP	Bernards High School	25 Olcott Ave.	CDM	Jun-09
	NJ-LGEAP	Olcott Building	25 Olcott Ave.	CDM	Jun-09
	SCEAP	Municipal Building	230 Hamilton St.	Metro Energy	Apr-10
Bound Brook Borough	SCEAP	Recreation Center	Thomas Avenue	Metro Energy	Apr-10
	SCEAP	High School	111 west Union Ave.	Metro Energy	Jun-10
	SCEAP	Smalley Middle School	163 Cherry St.	Metro Energy	Jun-10
Bound Brook School District	SCEAP	Lafayette Elementary School	50 W. High St.	Metro Energy	Jun-10
	SCEAP	LaMonte Elementary School	337 West Second St.	Metro Energy	Jun-10
	SCEAP	LaMonte Annex Elementary School	330 West Second St.	Metro Energy	Jun-10
	NJ-GEAP	Public Works	34 Kenbury Rd.	Concord	Dec-09
Branchburg Township	NJ-LGEAP	Municipal Building	1077 U.S. Hwy 202 North	Concord	7-Oct-09

Local Government Entity	Program	Facilities Audited	Street Location	Audit Firm	Date
	NJ-LGEAP	Police Building	1077 U.S. Hwy 202 North	Concord	7-Oct-09
	NJ-LGEAP	Branchburg Central Middle School	220 Baird Rd.	TRC	Jan-18
Branchburg Board of Education	NJ-LGEAP	Stony Brook Elementary	136 Cedar Grove Rd.	TRC	Jan-18
	NJ-LGEAP	Whiton Elementary	470 Whiton Rd.	TRC	Jan-18
	NJ-LGEAP	Arts Building	Campus Dr.	SWA	Jun-09
	NJ-LGEAP	Child Care Center	Campus Dr.	SWA	Jun-09
	NJ-LGEAP	College Center	Campus Dr.	SWA	Jul-09
	NJ-LGEAP	Conference Center	Campus Dr.	SWA	Jul-09
Raritan Valley Community College	NJ-LGEAP	Hunterdon Hall	Campus Dr.	SWA	Jul-09
(Branchburg)	NJ-LGEAP	Library	Campus Dr.	SWA	Jul-09
(Branchburg)	NJ-LGEAP	Physical Education Building	Campus Dr.	SWA	Jul-09
	NJ-LGEAP	Planetarium	Campus Dr.	SWA	Jul-09
	NJ-LGEAP	Science Complex	Campus Dr.	SWA	Jun-09
	NJ-LGEAP	West Building	Campus Dr.	SWA	Jun-09
	NJ-LGEAP	Somerset Hall	Campus Dr.	SWA	Jul-09
Bridgewater Township	SCEAP	Library	1 Vogt Drive	PS&S	Jul-10
Bridgewater Township	SCEAP	Recreation Center	455 Somerville Rd.	PS&S	Jul-10
	NJ-LGEAP	Middle School	Merriwood Rd.	Concord	Jun-09
	NJ-LGEAP	Hillside Intermediate	844 Brown Rd.	Concord	Jun-09
	NJ-LGEAP	Bradley Gardens	148 Pine St.	Concord	Feb-10
	NJ-LGEAP	Crim Elementary	1300 Crim Rd.	Concord	Feb-10
Dridgovator Daritan Cahaal District	NJ-LGEAP	Hamilton	10 Hamilton Lane	Concord	Feb-10
Bridgewater-Raritan School District	NJ-LGEAP	John F. Kennedy Elementary	255 Woodmere St.	Concord	Feb-10
	NJ-LGEAP	Van Holten Elementary	460 Van Holten Rd.	Concord	Feb-10
	SCEAP	High School	600 Garretson Rd.	СНА	Oct-09
	SCEAP	Adamsville Elementary School	400 Union Ave.	СНА	Oct-09
	SCEAP	Eisenhower Intermediate School	791 Eisenhower Ave.	СНА	Oct-09
Far Hills Borough	SCEAP	Municipal Building	6 Prospect St.	Metro Energy	Jun-10
	NJ-LGEAP	*Municipal Complex	475 Demott La.	TRC	Dec-18
	NJ-LGEAP	*Police Dept.	495 Demott La.	TRC	Dec-18
Franklin Township	NJ-LGEAP	Senior Center	505 Demott La.	TRC	Dec-18
	NJ-LGEAP	*Social Services	935 Hamilton St.	TRC	Dec-18

Local Government Entity	Program	Facilities Audited	Street Location	Audit Firm	Date
	NJ-LGEAP	*DPW	40 Churchill Ave.	TRC	Dec-18
	NJ-LGEAP	Hillcrest Elementary	500 Franklin Blvd.	Concord	Apr-12
	NJ-GEAP	Franklin Park	30 Eden St.	Concord	Apr-12
	NJ-LGEAP	Franklin High School	500 Elizabeth Ave.	Concord	Apr-12
	SCEAP	Franklin Middle School	415 Francis St.	Dome-Tech	May-10
Franklin Township Board of	SCEAP	Pine Grove Manor School	130 Highland Ave.	Dome-Tech	May-10
Education	SCEAP	Middlebush Administration Bldg.	1755 Amwell Rd.	Dome-Tech	May-10
EddCation	SCEAP	Samon G Smith School	1649 Amwell Rd.	Dome-Tech	May-10
	SCEAP	Elizabeth Ave. School	363 Elizabeth Ave.	Dome-Tech	May-10
	SCEAP	Franklin Park School (Annex)	1 Central Ave.	Dome-Tech	May-10
	SCEAP	Comerly Rd. School	35 Comerly Rd.	Dome-Tech	May-10
	SCEAP	MacAfee Rd. School	53 MacAfee Rd.	Dome-Tech	May-10
Franklin Township Sewerage	NJ-LGEAP	Main Offices and Garages	70 Commerce Dr.	СНА	Nov-15
Authority	NJ-LGEAP	19 Pump Stations	Various locations	СНА	Nov-15
	SCEAP	Town Hall	111 Greenbrook Rd.	Metro Energy	Apr-10
	SCEAP	Public Works/Senior Center	111 Rock Rd.	Metro Energy	Apr-10
Green Brook Township	SCEAP	Police Dept.	109 Greenbrook Rd.	Metro Energy	Apr-10
	SCEAP	Firehouse #1	115 Greenbrook Rd.	Metro Energy	Apr-10
	SCEAP	Firehouse #2	1 Rock Rd. West	Metro Energy	Apr-10
Green Brook School District	SCEAP	Green Brook Middle School	132 Jefferson Ave.	Metro Energy	Jun-10
	NJ-LGEAP	Farm Barn	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Coach Barn	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Orchid Range	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Conservatory	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Cottage 45	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 7, 8 & 9	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Cottage 10	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 13	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 21	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 27 and 29	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 30	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 47	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16

Local Government Entity	Program	Facilities Audited	Street Location	Audit Firm	Date
	NJ-LGEAP	House 52 A & B	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
Duke Farm Foundation,	NJ-LGEAP	House 59	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
Hillsborough	NJ-LGEAP	House 74	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
rimsborougn	NJ-LGEAP	House 79	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 87	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	House 120	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Shop 18 & Shop 70	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Motor Pool	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Building 5 - Pump House	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Garage 19	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Building 23	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Building 24	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Building 56	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Cottage 35 & 37	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
	NJ-LGEAP	Cottage 43	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
		Reservoir Well Pump & Community			
	NJ-LGEAP	Garden Well	Vicinity of Dukes Parkway W.	DCM Smith	Oct-16
Hillsborough Township	SCEAP	Municipal Building	379 South Branch Rd.	СНА	Jul-10
	NJ-LGEAP	Amsterdam Elementary	301 Amsterdam Dr.	СНА	Oct-12
	NJ-LGEAP	Auten Rd. Intermediate	281 Auten Rd.	СНА	Oct-12
	NJ-LGEAP	Hillsborough Elementary	435 U.S. Highway 206	СНА	Oct-12
	NJ-LGEAP	Hillsborough High School	466 Raider Blvd.	СНА	Oct-12
Hillsborough Twp. School District	NJ-LGEAP	Hillsborough Middle School	260 Triangle Rd.	СНА	Oct-12
	NJ-LGEAP	Woods Rd. Elementary	120 South Woods Rd.	СНА	Oct-12
	SCEAP	Triangle Elementary School	156 Triangle Rd.	PS&S	Jul-10
	SCEAP	Woodfern Elementary School	425 Woodfern Drd.	PS&S	Jul-10
	SCEAP	Sunnymead Elementary School	55 Sunnymead Rd.	PS&S	Jul-10
	NJ-LGEAP	Blackwell's Mills Pump Station	15A Collins Dr.	Concord	Jan-10
Hillsborough Twp. MUA	NJ-LGEAP	Sunnymead Pump Station	Sunnymead Rd.	Concord	Jan-10
	NJ-LGEAP	High School and Admin. Building	1014 Route 601	Concord	Mar-12
	SCEAP	Roosevelt School	401 Brooks Blvd.	СНА	Jul-10
Manville Board of Education	SCEAP	Weston School	100 Newark Ave.	СНА	Jul-10
iviativille Board of Education	SCEAP	ABIS Middle School	North 13th St.	СНА	Jul-10

Local Government Entity	Program	Facilities Audited	Street Location	Audit Firm	Date
	SCEAP	High School	100 Brooks Blvd.	СНА	Jul-10
	SCEAP	Municipal Building	325 North Main St.	PS&S	Jul-10
Manville Borough	SCEAP	Police Dept.	200 North Main St.	PS&S	Jul-10
	SCEAP	Public Works Garage	Railroad Ave.	PS&S	Jul-10
Montgomery Township	SCEAP	Municipal Building/Police Station	2261 Route 206	Metro Energy	Apr-10
Workgomery Township	SCEAP	Community and Senior Center	356 Skillman Rd.	Metro Energy	Apr-10
	NJ-LGEAP	Lower Montgomery Middle School	373 Burnt Hill Rd.	Concord	Mar-12
	NJ-LGEAP	*Orchard Hill Elementary	244 Orchard Rd.	Concord	Mar-12
Montgomery Twp. School District	NJ-LGEAP	*Upper Montgomery Middle School	375 Burnt Hill Rd.	Concord	Mar-12
	NJ-LGEAP	Village Elementary School	100 Main Blvd.	Concord	Mar-12
	SCEAP	Montgomery High School	1016 Route 601	PS&S	Jul-10
	SCEAP	Municipal Building/Emergency Services	263 Somerset St.	СНА	Jul-10
North Plainfield Borough	SCEAP	Memorial Library	2-8 Rockview Ave.	СНА	Jul-10
	SCEAP	Public Works garage	252 Steiner Pl.	СНА	Jul-10
	SCEAP	Vermeule Community Center	614 Greenbrook Rd.	СНА	Jul-10
	SCEAP	East End School	130 Oneida Ave.	Metro Energy	May-10
North Plainfield Board of	SCEAP	Harrison School	12 Harrison Ave.	Metro Energy	May-10
Education	SCEAP	North Plainfield High School	34 Wilson Ave.	Metro Energy	May-10
Eddeation	SCEAP	Stony Brook School	269 Grove St.	Metro Energy	May-10
	SCEAP	West End School	447 Green Brook Rd.	Metro Energy	May-10
Raritan Borough	SCEAP	Municipal/Police Building	22 First St.	Dome Tech	May-10
Railtail Bolougii	SCEAP	Recreation Center	Orlando Dr.	Dome Tech	May-10
	SCEAP	Municipal Building	15 Montgomery Ave.	Dome Tech	Jun-10
Rocky Hill Borough	SCEAP	Fire Station	154 Washington St.	Dome Tech	Jun-10
	SCEAP	Rescue Squad	Princeton Ave. Ext.	Dome Tech	Jun-10
Somerset County Votech	SCEAP	Vo-Tech High School	North Bridge St. & Vogt Dr.	PS&S	Jul-10
	SCEAP	Athletic Field House	222 Davenport Ave.	Dome Tech	Mar-10
	SCEAP	Administration Building	51 West Cliff St.	Dome Tech	Mar-10
Somerville Board of Education	SCEAP	Vanderveer Elementary School	51 Union Ave.	Dome Tech	Mar-10
	SCEAP	Somerville High School	222 Davenport Ave.	Dome Tech	Mar-10
	SCEAP	Somerville Middle School	51 Cliff St.	Dome Tech	Mar-10

<b>Local Government Entity</b>	Program	Facilities Audited	Street Location	Audit Firm	Date
	SCEAP	Borough Hall/Library	25 West End Ave.	PS&S	Jul-10
Somerville Borough	SCEAP	Public Works Garage	32 Fifth St.	PS&S	Jul-10
	SCEAP	Police Headquarters	24 S. Bridge St.	PS&S	Jul-10
South Bound Brook School Distirct	SCEAP	Robert Morris School	122 Elizabeth St.	Metro Energy	Apr-10
	SCEAP	Borough Hall	46 Mountain Blvd.	PS&S	Jul-10
	SCEAP	Public Works	1 Bardy Rd.	PS&S	Jul-10
Warren Township	SCEAP	Police Dept.	44 Mountain Blvd.	PS&S	Jul-10
	NJ-LGEAP	Angelo L. Tomaso Elementary	46 Washington Valley Rd.	СНА	May-12
	NJ-LGEAP	Central Elementary	109 Mt. Bethel Rd.	CHA	May-12
Warren Twp. Board of Education	NJ-LGEAP	Middle School	100 Old Stirling Rd.	CHA	May-12
	NJ-LGEAP	Mt. Horeb Elementary	80 Mt. Horeb Rd.	CHA	May-12
	NJ-LGEAP	Woodland Elementary	111 Stirling Rd.	CHA	May-12
	SCEAP	Borugh Hall	15 Mountain Blvd.	Dome Tech	Apr-10
Watchung Borough	SCEAP	Polic/court Facility	840 Somerset St.	Dome Tech	Apr-10
	SCEAP	Mountain Blvd. Firehouse	Mountain Blvd.	Dome Tech	Apr-10
Watching Board of Education	NJ-LGEAP	*Valley View School	50 Valley View Rd.	Concord	Feb-16
Watchung Board of Education	NJ-LGEAP	*Bayberry School	113 Bayberry La.	Concord	Feb-16
Watchung Regional High School	NJ-LGEAP	Watchung Regional High School	108 Sterling Rd.	Concord	Dec-09

Notes: \*Facilities that received audits through the SCEAP in 2010 and were audited again through the LGEAP. This list does not include facilities that have received energy energy audits funded through the private-sector.

Source: NJ Clean Energy Program, Completed Reports: http://www.njcleanenergy.com/commercial-industrial/programs/local-government-energy-audit/completed-reports, accessed 1-17-19 and the Somerset County Energy Council, Somerset County Energy Audit Program Completed Reports Prepared by Somerset County Planning Division, January 2019

# SOMERSET COUNTY ENERGY COUNCIL 2018 ANNUAL REPORT - APPENDIX D

# New Jersey and Somerset County Solar Installations as of 12/31/18

	New Jersey Residential (kW)			et County Itial (kW)		Jersey al (kW)	Somerse Non-Res	t County	New J Grid Sup	lersey		et County oply (kW)		Jersey All Projects		et County of All
Year	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity		-		Total Capacity
2000	4	12	0	0	2	11	0	0	0	0	0	0	6	23	0	0
2001	2	5	0	0	0	0	1	68	0	0	0	0	2	5	1	68
2002	25	73	1	5	10	586	0	0	0	0	0	0	35	659	1	5
2003	65	365	12	73	18	762	1	13	0	0	0	0	83	1,127	13	85
2004	252	1,521	11	85	44	1,005	3	1,016	0	0	0	0	296	2,527	14	1,102
2005	627	4,630	43	353	94	4,953	10	495	0	0	0	0	721	9,583	53	848
2006	747	5,335	28		141	12,979	10	,	0	0	0	0	888	18,314		2,556
2007	525	3,808	51		121	10,476	10	,	0	0	0	0	646	14,284	61	1,471
2008	655	4,958	30		218	23,256	19	1,052	0	0	0	0	873	28,213		,
2009	1,059	8,032	95	792	339	46,332	17	4,279	5	- , -	0	0	1,403	57,735		5,071
2010	2,137	16,495	277	2,235	545	79,356	31	9,266	19	25,187	2	2,077	2,701	121,039	308	11,501
2011	5,115	42,952	230	2,612	1,305	266,778	105	22,986	51	137,619	1	3,678	6,471	447,349	335	25,599
2012	5,312	45,863	231	2,478	1,086	230,558	49	12,027	23	56,794	0	0	6,421	333,215	280	14,505
2013	5,962	47,958	354	2,489	519	149,089	11	12,358	18	23,162	0	0	6,499	220,210	365	14,848
2014	6,826	55,338	287	2,383	227	84,741	10	2,481	8	63,371	0	0	7,061	203,450	297	4,864
2015	12,867	101,806	345	2,584	202	52,535	8	5,283	8	41,684	0	0	13,077	196,025	353	7,867
2016	21,877	180,350	547	4,461	344	91,362	14	14,320	22	136,222	0	0	22,243	407,933	561	18,782
2017	18,547	159,236	450	3,890	460	129,984	20	7,273	7	57,157	0	0	19,014	346,377	470	11,163
2018	15,835	137,887	263	2,213	429	111,779	9	5,597	4	43,687	0	0	16,268	293,353	272	7,810
Total	98,439	816,624	3,255	27,567	6,104	1,296,543	328	101,871	165	588,253	3	5,756	104,708	2,701,420	3,583	129,437
PCT. OF STATE			3.31%	3.38%			5.37%	7.86%			1.82%	0.98%			3.42%	4.79%

Source: NJ Board of Public Utilities, Solar Installation Data as of 12-31-18 Accessed 1-17-18, see: http://njcleanenergy.com/renewable-energy/project-activity-reports/project-activity-reports

# **2018 Somerset County Board of Chosen Freeholders**

Patrick Scaglione, Director, Brian D. Levine, Deputy Director, Patricia L. Walsh, Mark Caliguire, Brian G. Gallagher



This report was finalized and approved for distribution at the Somerset County Energy Council's February 19, 2019 Meeting.