

Delaware Sustainable Energy Utility



2017 Annual Report





DESEU VISION AND MISSION STATEMENT

Delaware Sustainable Energy Utility Vision Statement

The Delaware Sustainable Energy Utility (DESEU) will be the leading organization in the State of Delaware that offers cost effective opportunities for energy savings, creates new markets for customer-sited renewable energy generation and reduces environmental impacts of energy production and use.

The DESEU's efforts will build jobs in Delaware, improve our national security, support the local economy, improve energy reliability and protect Delaware from the damaging effects of volatile energy prices. The DESEU will accomplish this by utilizing both its authority granted by the State of Delaware and private sector entrepreneurial strategies.

Respected as an accountable, transparent, effective and nimble non-profit organization, the DESEU operates at the highest standards recognized in its industry.

Delaware Sustainable Energy Utility Mission Statement

Delaware Sustainable Energy Utility, a 501 (c) 3 non-profit organization, serves Delawareans by promoting the use of affordable, reliable clean energy and energy efficiency initiatives. The DESEU operates as the premier one-stop-shop for connecting and empowering energy consumers with the resources to reduce costs, improve the environment and ensure energy independence for future generations.

The DESEU develops and implements energy efficient solutions, clean energy and air pollution reduction programs. These programs include funding, financing, and educational programs. In addition, we provide highly valuable technical and financial services to our clientele so that they can make informed decisions regarding their energy future.

The DESEU offers our programs by fully utilizing the authority granted by the State of Delaware to issue tax-exempt bonds, use Regional Greenhouse Gas Initiative (RGGI) funds, and bank solar renewable energy credits (SRECs). The DESEU also utilizes private sector entrepreneurial strategies.

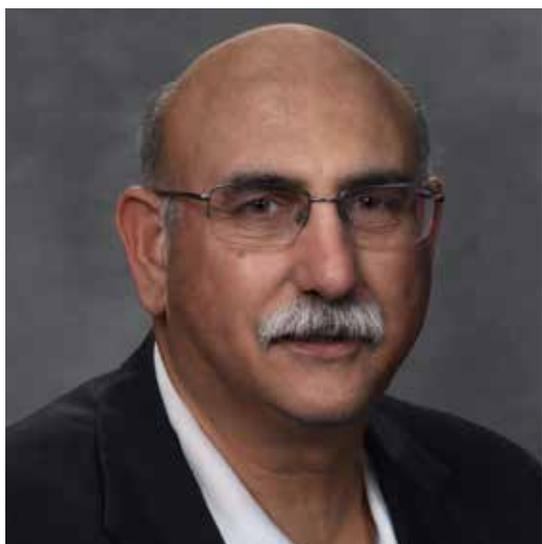
The DESEU focuses on building relationships with residents and businesses so that they are motivated to use less energy, generate clean energy and reduce harmful emissions. We serve people of all incomes and housing styles. We serve businesses, industries and institutions from all sectors.

We apply our programs to new construction projects, the rehabilitation of existing buildings, transportation projects and innovative technologies.

A LETTER FROM THE CHAIRMAN AND EXECUTIVE DIRECTOR



State Senator Harris B. McDowell III



DESEU Executive Director Tony DePrima

Dear Delawareans,

Throughout 2017, the Delaware Sustainable Energy Utility built on its many successes by improving and expanding existing programs and introducing new ones. Overall, the DESEU continues its track record of providing value to the State of Delaware through its energy efficiency and clean energy programs.

This Annual Report includes pages dedicated to our energy saving programs with supporting data and testimonials. It also includes our annual financial statement, annual energy savings charts, and our hopes for 2018.

In 2017, the DESEU hit an important goal. After several years of growth, we have now hit the point where we are focused on sustaining what we have. There will be less focus on creating new programs and more focus on improving existing programs. And when called for, ending programs that do not meet our mission.

The DESEU has achieved several major accomplishments in 2017:

- Launched the Energize Delaware Affordable Multifamily Housing Program
- Launched the Zero Energy Modular Home (ZeMod) Program and debuted two model homes
- Started a low-interest Residential Solar Loan Program
- Made improvements to the Home Performance with ENERGY STAR® Program and selected Franklin Energy as the new program manager
- Provided a bridge loan to Colonial School District to fund \$7.7 million dollars in energy efficiency improvements
- Stood up the Delaware Statewide Energy Savings Database

The DESEU is excited to continue serving Delaware businesses, non-profits, state agencies, local governments and residents through our Energize Delaware programs. We are dedicated to the goals of reducing energy consumption via energy efficiency, creating green jobs, reducing greenhouse gas emissions and pollution, all while saving our customers money and reducing our dependence on foreign oil.

We thank all Delawareans for our success!

Sincerely,

Senator Harris B. McDowell III
Chairman

Anthony J. DePrima
Executive Director

2017 DESEU ACCOMPLISHMENTS

The Delaware Sustainable Energy Utility (DESEU) and its Energize Delaware programs have a proven track record of providing energy savings for Delaware's homes, businesses, non-profits and schools. These programs aid business expansion and job growth through energy saving and green energy projects that reduce operating costs and lower greenhouse gas emissions.

We are proud of the progress we've made during the 2017 calendar year. We've established new partnerships to broaden our program inventory, making energy savings programs accessible to even more Delawareans. Here are some of our 2017 accomplishments:

- **ENERGY STAR® Awards:** The DESEU received the U.S. Environmental Protection Agency's 2017 ENERGY STAR Excellence Award for ENERGY STAR Promotion. This award recognizes Energize Delaware's work throughout 2016 to educate customers about the benefits of the Home Performance with ENERGY STAR program.



We are also excited to announce that we've been awarded the 2018 ENERGY STAR® Partner of the Year Award for our leadership and best practices in implementing the Home Performance with ENERGY STAR program in 2017.

- **Improving Home Performance with ENERGY STAR:** We completed a comprehensive evaluation that provided excellent insight into how the program can be improved. The program was required to be re-bid and the results of the evaluation were used to shape the bid.

After a very competitive selection process, Franklin Energy was selected as the program manager. We look forward to this new relationship and a more effective and innovative Home Performance program.

- **Launched the Affordable Multifamily Housing Program:** In the second half of 2017 we joined New Ecology and Elevate Energy, two like-minded non-profits, in funding technical assistance, monetary incentives, and low-cost financing to help multifamily building owners improve the living environment for residents while improving their bottom line.

- **Started Residential Solar Loan Program:** Also launched in the second half of 2017, our new residential solar loan program offers loans up to \$30,000 for up to ten years to homeowners installing solar systems.

The program is proving to be very popular and was designed to replace our "Upfront SREC purchasing program" which was phased out after achieving its mission to jump start residential solar installations.

- **Stood up the Delaware Energy Savings Database:** This database is currently used by the DESEU and DNREC to log all of the energy savings and renewable energy generation from its various programs.

The database is capable of having Delaware's utilities also log their savings data. Our goal is to build a one stop source for retrieving and analyzing the state's energy saving and renewable energy generation data.

- **Solar Thermal Program Successes:** After several years with little interest in the program, in 2017 solar thermal technology took off in Delaware, particularly with the dairy and poultry farmers.

Solar thermal systems heat liquids that pass-through heat exchangers to heat water or air. Over twenty farms in Delaware are now using this technology. It was so popular it has hit its budget limit for the year!

2017 Energize Delaware Programs

| PROGRAM | MARKETS SERVED |
|---|--|
| Home Performance with ENERGY STAR® | Homeowners, Low-Income Homeowners |
| Home Energy Efficiency Loans | Homeowners |
| ZeMod (Zero Energy Modular Homes) | Low to Moderate Income Delawareans |
| Community Energy Centers | Low-Income Delawareans |
| Pre-Weatherization Assistance | Low-Income Homeowners |
| Affordable Multifamily Housing | Affordable Housing Providers |
| Energy Assessments for Non-Profits and Government | Non-Profits; Local Government |
| Low-Interest Revolving Loan Fund | Businesses; Non-Profits; Government |
| Energy Savings Performance Contracting and Bond Financing | Public Schools; Government |
| Energy Efficiency Investment Fund (EEIF) Support | Non-Profits; Local Government |
| Pathways to Green Schools | Public & Private Schools |
| Faith Efficiencies | Houses of Worship |
| Farm Program | Farmers |
| Solar Thermal and Geothermal Grant Program Support | Businesses; Non-Profits; Government |
| Residential Solar Loan Program | Homeowners |
| SREC Procurement Auction | Homeowners; Businesses; Non-Profits; Schools; Government |

Home Performance with ENERGY STAR®

The flagship Home Performance with ENERGY STAR program is going into its fifth year. A whole-house approach to improving comfort and safety in the home, it provides homeowners significant savings on their utility costs. Delaware homeowners learn ways to improve the energy efficiency of their homes through completion of a subsidized, comprehensive home energy assessment performed by certified contractors. They also receive up to \$200 of energy saving items such as LED light bulbs and pipe insulation.



After the assessment, homeowners making recommended energy-saving improvements can take advantage of rebates that make the energy improvements more affordable.

Qualifying homeowners may also receive special 5.99% financing for energy-saving home improvements, up to \$30,000, through the

Engize Delaware Energy Efficiency Residential Loan Program.

Reduced assessment costs and increased rebates are available to income qualified Delawareans as well as property owners in the State's Downtown Development Districts.

| | | | |
|---|-------------|-------------------------------------|--------------|
| Program Start | 2014 | Annual Energy Savings | \$702,767 |
| 2017 Home Assessments Completed | 1,897 | Lifetime Energy Savings | \$14,055,335 |
| 2017 Homeowners Receiving Rebates | 1,712 | Tons of Air Emissions Avoided | 2,759 |
| Rebates & Incentives Awarded | \$3,635,550 | FY18 Program Budget | \$4,000,000 |

ERIN AND SHAUN HARTLEY



“We learned about the Home Performance with ENERGY STAR program when we received a quote for repairing our broken heating and cooling system. We wanted to take advantage of any rebates that were available for this major repair so we signed up for the program.

The home energy assessment provided by Energy Efficient Earth really helped us decide what improvements we were going to make to our home. We loved how the report clearly showed how each recommendation would help make our home more comfortable. We would never have thought about doing the air sealing work if it weren't for the assessment.

We also appreciated that the program had an Approved Contractor list. It made finding contractors easier and gave us peace of mind that we were working with qualified companies. Now that the work is done, we look forward to a more comfortable home this summer!”

- Erin and Shaun Hartley

ZeMod (Zero Energy Modular Homes)

The Solstice Model Home



ZeMod Delaware is a unique new housing option for Delawareans, offering highly energy efficient, solar powered modular homes. Built by Beracah Homes, in Greenwood, Delaware, these zero energy homes produce as much energy as they use, which means no electric or fuel costs.

ZeMod homes feature super-insulated walls, doors and windows, an all-electric HVAC system which incorporates efficient heat-pump technology, ENERGY STAR® rated appliances and lighting, and rooftop solar.

Energize Delaware provides energy efficiency incentives and down-payment assistance for income qualified buyers to ensure the affordability of the homes for low to moderate income Delawareans.

Two model homes were built in 2017: the 980 square foot ranch style Solstice and the 1,204 square foot cottage style Sundial.

These homes can be designed and built for anyone interested in a Zero Energy Modular home.



FUTURE ZeMod HOMEOWNERS EXCITED TO MOVE IN



The Sundial Model Home

We love that we'll be living in a healthy, energy efficient home that is also good for environment. We are really excited about the solar panels and how they will save us money on our electric bill. We can't wait to move in!

- Faye & Howie Pleasanton, Future ZeMod Owners



Community Energy Centers



With locations in Wilmington, Newark, Dover and Georgetown, the Community Energy Center program offers low-income Delawareans a one-stop-shop to access bill payment assistance, energy education, weatherization, energy and budget counseling, as well as referrals to other related programs and home repair services.

In addition to one-on-one counseling, the Centers also conduct Home Energy Workshops throughout the community. Attendees at workshops receive free weatherization kits, are taught how to install the materials provided, and learn other ways to reduce their energy bills.

The Community Energy Centers are a partnership with the Energy Coordinating Agency of Philadelphia, who administers the program, and through contractual arrangements with First State Community Action Agency and Catholic Charities who manage the day to day operations at the Community Energy Centers.

| | | | |
|--|--------------|---|------------------|
| Program Start | 2016 | New Castle County Clients Served | 938 |
| Clients Served | 1,506 | Kent County Clients Served..... | 282 |
| Home Energy Workshops Held..... | 41 | Sussex County Clients Served | 286 |
| Workshop Attendees..... | 721 | FY18 Program Budget..... | \$450,000 |

HOME ENERGY WORKSHOP HELPS NEWARK MAN REDUCE UTILITY BILLS



The City of Newark hosted two home energy workshops in August of 2017 and heard back from one of the attendees who was thrilled at the results he saw after putting what he learned to work, including outfitting his home with LED lights and caulking some of his windows.

In the following months, he closely monitored his electric and water consumption through the City of Newark’s Customer Connect system and saw that his bills were lower than the same time last year.

The City of Newark was pleased that their residents were applying what they learned in the workshops and were seeing tangible results on their utility bills.

Pre-Weatherization Assistance



Program Administrators Dan Holmes and Vivian Sheppard of Catholic Charities

The Pre-Weatherization program helps low-income families in Delaware prepare their homes to meet the requirements for the State of Delaware’s Weatherization Assistance Program.

Many potential Weatherization Assistance Program (WAP) clients cannot afford the structural home repairs needed to qualify the home, and therefore lose the ability to participate in weatherization assistance.

Participants whose properties have been deferred by WAP for structural reasons are referred to Energize Delaware’s Pre-Weatherization Program.

Energize Delaware provides funding to pay for the repair of the structural issues, such as leaky roofs, broken windows and doors, or moisture in crawl spaces. The Pre-Weatherization Assistance Program will inspect homes, hire contractors, schedule repair work, and perform a quality assurance post- inspection, then re-admit these units into the Weatherization Assistance Program.

Program Start2015
Clients Served in 2017104
Average incentive to clients\$3,500
FY18 Program Budget.....\$730,000

Past participants continuing on to complete Weatherization Assistance Program:
150

COORDINATION BETWEEN AGENCIES MAKES HOME MORE EFFICIENT AND SAFE



A single mother with five children from Georgetown, DE was deferred from the State’s Weatherization Program due to numerous repairs that were not within the scope of work performed by the Weatherization Program.

This client was in need of a new roof, furnace, tub, doors, windows, wall, ceiling and floor repairs in order to meet the Weatherization Program requirements. These required repairs far exceeded the Pre-Weatherization budget, so the Program Team referred her to Milford Housing Development Corporation (MHDC) for a roof and to First State Community Action Agency (FSCAA) for a furnace and additional repairs. The Pre-Weatherization Program kept in contact with both agencies and the client throughout this process.

Thanks to the coordination of repairs between the Pre-Weatherization Program, MHDC, and FSCAA, this client’s home has now successfully received the weatherization from the State’s Weatherization Program.

Energy Assessments for Non-profits and Government



Through its partnership with the University of Delaware’s award-winning Mid-Atlantic Industrial Assessment Center (IAC), the Delaware Sustainable Energy Utility funds energy assessments for large and medium size buildings operated by non-profits and local governments in Delaware. The DESEU pays 90% of the cost.

The energy assessments are done by University of Delaware graduate students under the supervision of IAC directors.

The program offers energy savings solutions for a wide variety of buildings including senior centers, community centers, churches, municipal buildings and firehouses. Savings between 20%

and 30% are typically found after the installation of recommended upgrades.

Participants in this program often go on to take advantage of the Energy Efficiency Investment Fund and the Energize Delaware Low-interest Revolving Loan Fund.

| | | | |
|--------------------------------------|-----------|---|--------------|
| Program Start | 2013 | Lifetime Energy Savings Found | \$16,483,560 |
| 2017 Participating Non-profits | 9 | Tons of Air Emissions Avoidance Found ... | 3,945 |
| Annual Energy Savings Found | \$824,178 | FY18 Program Budget..... | \$104,000 |

FIRST PRESBYTERIAN CHURCH OF NEWARK - ENERGY ASSESSMENT



The First Presbyterian Church of Newark traces its beginning back to 1839, with its current campus being dedicated in 1965. In an effort to reduce its carbon footprint and identify ways to lower its expenses, the Church received an energy assessment through Energize Delaware in 2014. Recommended improvements will save the church almost \$20,000 annually, and church has implemented the recommended LED lighting and HVAC upgrades.

“The report and advice provided by the IAC and Energize Delaware played an important role in guiding the Church’s efforts to “green” our campus. It helped us prioritize improvements and identified programs available through Energize Delaware and the State of Delaware to help fund the projects.”

- Jim Newsom

Low-Interest Revolving Loan Fund



The Energize Delaware Revolving Loan Fund has a track record of providing low-interest loans for businesses, farms, non-profits, school districts and local governments to reduce their energy bills by improving the efficiency of their operations. 2017 was another strong year, closing 13 loans totaling \$5,317,494.

The program's appeal is the attractive return on investment (ROI). The loans are structured to be cash positive from day one. Savings over the life of the project must be greater than the investment including financing.

The program's objective is to encourage the installation of end-user energy efficiency and customer-sited renewable generation and greenhouse gas reduction measures. The result is lower customer bills and reduced environmental impact.

| | | | |
|--------------------------------------|-------------|---|-------------|
| Program Start | 2011 | Capacity of Solar PV Systems..... | 1,702 kW |
| 2017 Applications Received | 12 | Annual Energy Savings Closed Loans* | \$405,395 |
| Value of New Loan Applications | \$3,263,864 | Lifetime Energy Savings Closed Loans* .. | \$8,107,900 |
| Loans Closed | 13 | Tons of Air Emissions Avoided..... | 1,073 |
| Value of Closed/Completed Loans..... | \$5,317,494 | FY18 Program Budget..... | \$4,000,000 |

*Includes annual retail value of solar generation

FIRST PRESBYTERIAN CHURCH OF NEWARK - LOW-INTEREST LOAN

In 2017 the First Presbyterian Church of Newark received a \$175,000 loan from the Energize Delaware Revolving Loan Fund to replace their furnace and air conditioning systems with two combined heating and air conditioning units. These upgrades, recommended by their 2014 IAC Energy Assessment, are estimated to save the Church almost \$3,000 annually.

“The loan from Energize Delaware is what made this project possible. Without it the Church would have had to defer these improvements, delaying the benefits the Church would receive through lower expenses and a reduced carbon footprint.”

- Jim Newsom



Energy Savings Performance Contracting Program



The DESEU has the authority to issue tax exempt energy efficiency bonds or low-interest loans to finance Energy Saving Performance Contracts (ESPC). Available to public agencies and school districts, ESPC's use utility cost savings to finance construction through pre-qualified Energy Services Companies (ESCO) that offer guaranteed energy savings.

The 2018 bonds will finance a variety of energy savings at three school districts and three state agencies. It is expected that the total project cost will be \$30 million.

During construction the DESEU will be measuring construction job hours on these projects so that the full economic impact can be understood.

| | | | |
|---------------------------------------|----------------|------------------------------------|----------------|
| Program Start | 2011 | Total Construction Value..... | \$7.67 million |
| 2017 Contracted State Agencies..... | 1 | Annual Energy Savings | \$492,461 |
| Overall Financing Interest Rate | 3.28% | Lifetime Energy Savings | \$9,849,224 |
| Bond (loan) Term..... | 20 years | Tons of Air Emissions Avoided..... | 3,263 |
| Total Loan Amount..... | \$7.67 million | | |

COLONIAL SCHOOL DISTRICT



In 2017, the Colonial School District received a bridge loan of \$7.6 million for energy efficiency and renewable energy capital improvements in sixteen buildings. These improvements are projected to yield \$9.8 million in savings over 20 years with a net savings of \$626,866.

“Partnering with the SEU on this energy project has been great. The energy savings that we’ll see means that we’re shrinking our carbon footprint, which is so important, but the SEU’s program means that we can do it without asking our taxpayers for any additional funding. This really lets us focus on our resources and making a bigger impact with our students.”

- Dr. Lori Duerr, Assistant Superintendent, Colonial School District

Energy Efficiency Investment Fund Support



Administered by DNREC's Division of Energy & Climate, the Energy Efficiency Investment Fund (EEIF) provides grants to Delaware businesses, local governments, and non-profits to help replace aging, inefficient equipment and systems with energy efficient alternatives.

The DESEU provides funds to expand the program to cover non-profit organizations, as well as local governments that were previously excluded.

Prescriptive grants are available for high efficiency natural gas heating and water heating equipment, energy efficient lighting and lighting control improvements, vending improvements, and more.

The program also offers incentives for energy assessments, as well as custom incentives for unique energy efficiency projects that do not qualify for a prescriptive grant.

Results only include organizations receiving DESEU funds.

| | | | |
|---|------------------|--|--------------------|
| DESEU Program Support Start | 2016 | Lifetime Energy Savings | \$2,320,926 |
| 2017 DESEU Funded Organizations..... | 16 | Tons of Air Emissions Avoidance | 649 |
| Rebates/Incentives Awarded | \$93,800 | Total Program Funding Budgeted | \$1,000,000 |
| Annual Energy Savings | \$116,046 | | |

MARY CAMPBELL CENTER



The Mary Campbell Center is home for 67 residents. The Center works to maintain a high quality homelike environment. In that vein, we authorized the completion of an energy audit in 2017 with the goals of increasing energy efficiency, reducing greenhouse gases and lowering costs. We worked with the DESEU to obtain an Energy Efficiency Grant to pay for half of the cost of the energy audit. We are currently working with the DESEU to implement some of the findings of the audit and obtain additional EEIF rebates.

- Bill Christopher, Board of Directors

Pathways to Green Schools



Administered by Green Building United (formerly the Delaware Valley Green Building Council), the Pathways program continues to assist schools to become energy efficient by providing mini grants for student eco-action and green team projects, free energy audits and assistance with energy benchmarking in ENERGY STAR® Portfolio Manager.

Practical Energy Solutions provides participating schools with energy audits that include student participation and collaboration with teachers on energy curriculum.

Three schools that have participated in the Pathways program were recognized nationally

for their efforts. Warner Elementary School and Forwood Elementary School earned the Eco-Schools USA Green Flag certification. Forwood Elementary and Postlethwait Middle School were named 2017 U.S. Department of Education Green Ribbon Schools.

| | | | |
|--|-------------|--|--------------------|
| Program Start | 2014 | Annual Energy Savings Found | \$107,147 |
| Participating Schools..... | 20 | Lifetime Energy Savings Found | \$2,142,940 |
| Schools Enrolled in Portfolio Manager | 20 | Tons of Air Emissions Avoidance Found | 680 |
| School Audits Complete | 3 | FY18 Program Budget..... | \$123,000 |
| Schools Receiving Mini-Grants..... | 7 | | |

FORWOOD ELEMENTARY



“The Pathways to Green Schools Program provided invaluable assistance to the Forwood Elementary Green Team as we pursued the Delaware and U.S. Department of Education Green Ribbon Schools and NWF Green Flag recognitions.

One highlight from the last year is working with Practical Energy Solutions to put together an Energy Expo with hands-on learning stations about energy efficiency and conservation and renewable energy. The Forwood students loved it! It’s exciting that more Pathways participants will be holding similar events this year.”

-Leona Williams, 4th Grade Teacher and Green Team leader.

Forwood Elementary School team accepts their award from the U.S. Department of Education.

Faith Efficiencies



Earth Care Display at Camden Friends Meetinghouse

The Faith Efficiencies program provides a wide range of energy resources including energy audits, remediation strategies, funding options and ongoing cost-saving energy education to faith communities throughout the State.

The program, implemented by Delaware Interfaith Power and Light (DeIPL), also serves the members of participating faith communities by offering Home Performance with ENERGY STAR® workshops and providing design assistance to establish Earth Care Displays to provide further energy education and resources.

DeIPL's mission is to rally faith communities to address causes and impacts of climate change by empowering them to adopt creative, effective and affordable energy conservation, energy efficiency and renewable energy strategies.

| | | |
|--|------------------|--|
| Program Start | 2015 | Results from Implemented Recommendations: |
| 2017 Participants | 6 | Annual Energy Savings |
| Annual Energy Savings Found | \$19,301 | Lifetime Energy Savings..... |
| Lifetime Energy Savings Found | \$386,020 | Tons of Air Emissions Avoidance |
| Tons of Air Emissions Avoidance Found | 50 | FY18 Program Budget..... |
| | | \$70,000 |

WESLEY UNITED METHODIST CHURCH



“As a congregation concerned with our environmental impact, Wesley United Methodist Church is thankful to have been able to participate in the Faith Efficiencies Program.

Through the assistance provided by this program, our church was able to have a comprehensive energy audit performed at minimal cost. The church is in the process of implementing the audit recommendations and estimates that the upgrades will potentially reduce annual electric usage by several thousand dollars.

By participating in the incentives available through the Energy Efficiency Investment Program we hope to fully implement the audit recommendations in 2018.”

- Jim Short, Church Member

Farm Program



Solid sidewall conversion

The Energize Delaware Farm Program provides a comprehensive approach to help Delaware’s farmers reduce their energy costs through energy efficiency improvements and renewable energy.

EnSave, the Program Implementer, works with the farmer to create customized road maps for installing energy efficiency improvements on the farm.

Available through the program are subsidized energy audits, grants for energy efficient equipment, low-interest loans, up-front SREC purchases for renewable projects, and assistance accessing other state and federal programs for energy efficiency and renewable energy projects.

| | | | |
|---|--------------------|---|--------------------|
| Program Start | 2016 | Loans Closed | 5 |
| Participating Farms | 27 | Value of Loans Closed | \$1,257,907 |
| Energy Audits Completed | 15 | Annual Energy Savings Installed..... | \$25,975 |
| Annual Energy Savings Found | \$121,500 | Lifetime Energy Savings Installed..... | \$450,116 |
| Lifetime Energy Savings Found | \$2,430,000 | Tons of Emissions Avoidance Installed..... | 95 |
| Tons of Emissions Avoidance Found..... | 614 | FY18 Program Budget..... | \$300,000 |
| Grants Awarded | \$72,690 | | |

CARTANZA FARM



Georgie Cartanza decided to participate in the Energize Delaware Farm Program to help fund some energy efficiency improvements on her 11-year-old broiler farm. An energy audit of her entire operation identified improvements that would save Georgie a total of \$14,000 annually in energy costs. She also received grants from Energize Delaware to install insulated tunnel intake doors, lowering her return-on-investment from 10 years to less than 7 years.

“The program truly offers something for every farm, and several sources of funding can be combined to maximize the savings. Plus, it’s easy to go through the process to get funding.”

- Georgie Cartanza, Dover

Solar Thermal and Geothermal Grant Support



The Energize Delaware Solar Thermal and Geothermal Program provides non-residential building owners and non-profit organizations grants for the installation of solar thermal and geothermal systems.

The program is jointly run by the DESEU and DNREC Division of Energy and Climate. This incentive program offers grants to qualified installations of solar thermal hot water and space heating and geothermal systems in Delaware based on system sizes.

This program is open to all non-residential and non-profit solar hot water and/or geothermal customers in Delaware regardless of utility provider. For both solar hot water and geothermal systems, the grants are capped at \$200,000 per project. This program has become very popular with the Agricultural Sector in Delaware over the past year.

Results only include organizations receiving DESEU funds.

| | | | |
|---|--------------------|--|--------------------|
| DESEU Program Support Start | 2014 | Annual Energy Savings | \$80,219 |
| 2017 DESEU Funded Participants | 27 | Lifetime Energy Savings | \$1,604,380 |
| DESEU Funded Grants Awarded | \$1,594,045 | Tons of Emissions Avoided | 1,322 |
| MMBTU Savings (all fuels) | 12,296 | FY18 Program Budget..... | \$3,000,000 |

ROBBINS POULTRY FARM



By installing 4,400 square feet of solar thermal collectors on the farm’s chicken houses, Robbins Poultry Farm was able to reduce propane costs, limit greenhouse gas emissions, and improve the air quality in the chicken houses.

“We have had great experience with IGS and their continued support whenever questions arise. We have noticed a difference in propane use.”

- Norma Robbins, Milford

“Energize Delaware’s knowledgeable staff, sensible program guidelines, and efficient application review process have allowed Intelligent Green Solutions to seamlessly deploy dozens of solar thermal systems across Delaware.”

- Matt Velez, Intelligent Green Solutions, System installer

Residential Solar Loans



KW Solar customer Hemanth Kothuru's system

The Energize Delaware Solar Loan program is a low-interest loan designed to encourage the purchase of customer sited and owned renewable generation.

This will result in customer utility bill savings, reduction in the environmental impact of energy production, delivery, and use, and will promote local job growth in the solar installation industry.

Loans range from \$3,000 to \$30,000 with a fixed rate of 3.9% and a term of up to 10 years. The loan amount cannot exceed 70 percent of the total project cost.

The DESEU has partnered with InClimate Solutions to service the residential solar loans and the residential energy efficiency loans offered to eligible participants in the Home Performance with ENERGY STAR® program.

Program Start2017
Applications Received24
Value of Loan Applications\$404,698
Loans Closed18
Value of Closed Loans\$309,559

Capacity of Installed Systems193 kW
Annual kWh Production256,089 kWh
Tons of Air Emissions Avoided.....134
FY18 Program Budget.....\$765,000

JAMES PAUL TINDILIA - 11 kW SOLAR SYSTEM



“The project is an 11 kW array situated on the back roof, invisible from the street. I am ecstatic with the way the Residential Loan process worked. Both my salesperson and the project engineer at CMI Electric painstakingly determined the costs of the system, factored in government rebates and other incentives, and filled out all the paperwork for the loan. I have to admit the process was seamless.”

- James Paul Tindilia, Wilmington

Annual SREC Procurement Auction



The DESEU manages the annual Solar Renewable Energy Credits (SREC) auction on behalf of Delmarva Power in accordance with rules set by the Delaware Public Service Commission. The auction provides a market for solar system owners to sell their SRECs through long-term contracts to Delmarva Power, protecting ratepayers from above market SREC pricing. Delmarva Power is the largest procurer of SREC's in Delaware.

The DESEU operates the program and plans to run at least one solicitation each spring as an online auction in order to fulfill Delmarva's long-term SREC needs. Facilities may qualify for a 10% SREC bonus if built with Delaware labor.

| | | |
|---------------------------------|--------|--|
| Program Start | 2012 | Value of all SREC Transactions: (20 year contracts) |
| 2017 Auction Bids Received..... | 1,658 | |
| SRECs Bid into Auction | 35,316 | \$427,018.30/year for the first 10 years; |
| Auction Bids Accepted | 437 | \$390,304.50/year for the last 10 years |
| SRECs Accepted..... | 19,952 | |

J & T FARMS - 183.6 kW SOLAR SYSTEM



“My wife, Tina, and I have five poultry houses and electricity is our biggest expense. We see going solar as another tool that will help us be more successful for the long term. Winning the 2017 SREC Auction helped make going solar a good financial decision for our farm. We look forward to many years of getting power from the project and income from the sale of Solar Renewable Energy Credits.”

- Joel Wharton, Millsboro

Energize Delaware Program Results

Energy Savings From Completed Projects

| Program | Energy Savings Annual | Energy Savings Lifetime | Gross Energy Savings (MMBTU) Annual | Gross Energy Savings (MMBTU) Lifetime | Annual Emissions Avoided* Metric Tons |
|------------------------------|-----------------------|-------------------------|-------------------------------------|---------------------------------------|---------------------------------------|
| Home Performance - Jobs | \$ 569,292 | \$ 11,385,835 | 25,369 | 507,380 | 2,048 |
| Revolving Loan | \$ 206,671 | \$ 4,133,420 | 5,180 | 103,600 | 1,073 |
| Performance Contracting | \$ 492,461 | \$ 9,849,224 | 21,608 | 432,168 | 3,263 |
| EEIF for Non-Profits | \$ 116,046 | \$ 2,320,926 | 4,101 | 82,020 | 649 |
| Solar Thermal and Geothermal | \$ 80,219 | \$ 1,604,380 | 12,296 | 245,920 | 1,322 |
| Farm Program | \$ 25,975 | \$ 450,116 | 1,114 | 22,280 | 95 |
| Faith Efficiencies | \$ 1,711 | \$ 34,221 | 49 | 974 | 7 |
| Residential Solar Loans | \$ 25,609 | \$ 512,178 | 874 | 17,480 | 134 |
| SREC Upfront Purchase** | \$ 254,602 | \$ 5,092,040 | 8,690 | 173,800 | 1,902 |
| Total Savings | \$ 1,772,586 | \$ 35,382,341 | 79,281 | 1,585,622 | 10,494 |

Potential Savings Found Through Energy Audits

| Program | Potential Energy Savings Annual | Potential Energy Savings Lifetime | Potential Gross Energy Savings (MMBTU) Annual | Potential Gross Energy Savings (MMBTU) Lifetime | Potential Annual Emissions Avoided* Metric Tons |
|--------------------------------|---------------------------------|-----------------------------------|---|---|---|
| Home Performance - Audits | \$ 133,475 | \$ 2,669,500 | 3,662 | 73,240 | 711 |
| Energy Audits for Non-Profits | \$ 824,178 | \$ 16,483,560 | 38,269 | 765,372 | 3,945 |
| Pathways to Green Schools | \$ 107,147 | \$ 2,142,940 | 8,820 | 176,390 | 680 |
| Faith Efficiencies | \$ 19,301 | \$ 386,020 | 715 | 14,296 | 50 |
| Farm Program | \$ 121,500 | \$ 2,430,000 | 5,869 | 117,380 | 614 |
| Affordable Multifamily Housing | \$ 10,900 | \$ 218,000 | 329 | 6,578 | 26 |
| Total Potential Savings | \$ 1,216,501 | \$ 24,330,020 | 57,663 | 1,153,256 | 6,026 |

*The emissions avoided include CO₂, SO₂, and NO_x.

** Partial year; program closed.

Looking Forward

A number of new Energize Delaware initiatives are in the works for 2018.

- **Completing the Energy Efficiency Bond Issue:** Originally planned for 2017, the bond issue will move forward in 2018, and is expected to be as high as \$31 million. Throughout 2017, DESEU worked with state agencies and school districts to develop Energy Saving Performance Contracts (ESPC) to be funded with an Energy Efficiency Bond Issue. There are three state agencies and three school districts participating in the program.
- **Growing the Statewide Energy Savings Database:** In 2017 the DESEU developed a Statewide Energy Savings Database in cooperation with the State of Delaware Division of Energy and Climate and the Energy Efficiency Advisory Council. All agencies and utilities will have the opportunity to report energy savings through this centralized database.
- **Launching the Home Energy Check Up Program:** This program is planned to complement the Home Performance with ENERGY STAR® Program by offering no cost, quicker and simpler energy assessments that can help homeowners decide a best path forward for energy savings. Our goal is to launch in Fall of 2018.
- **Strengthen the Revolving Loan Fund Program and Policies:** In 2017, the Revolving Loan Fund program went through a complete evaluation by two outside independent loan consultants. Their final report made several recommendations to improve the operations with the goal of better protecting the SEU assets and growing organizational capacity, which in turn will attract new funders, investors and partners. We will begin implementing those recommendations in 2018.
- **Energize Delaware Brand Awareness Campaign:** Based on recommendations in the DESEU's Strategic Plan, the DESEU will be launching a comprehensive brand awareness campaign. The goal is to raise awareness about the organization and the services it offers to Delawareans. In 2017 the DESEU selected Delaware firm Aloysius

Butler & Clark (AB+C) to evaluate our current branding and implement the campaign, which should launch in May 2018.

- **Property Assessed Clean Energy (PACE) Implementation:** PACE allows for voluntary clean energy financing through commercial property assessments. Similar PACE programs in other states have been successful. The DESEU and the Delaware Division of Energy and Climate drafted legislation in 2016 and is working on building enough support for its adoption in 2018. Should the legislation be adopted, the DESEU will lead the effort on developing guidelines and working with the counties to implement the program.
- **EV Charging Station:** In 2018, the DESEU will have a Dual Port Level 2 EV charger installed at our office building (500 W. Loockerman Street, Dover, Delaware) in cooperation with the building owner. This project supports the DESEU's mission by demonstrating a willingness to adopt advanced technologies and provide environmental leadership. The DESEU also plans to lease an electric vehicle.



Delaware Sustainable Energy Utility Financial Statements

Below are comprehensive financial statements excerpted from the Delaware Sustainable Energy Utility's Fiscal Year 2017 (July 1, 2016 - June 30, 2017) audit performed by the accounting firm of Whisman, Giordano & Associates LLC, Certified Public Accountants, Newark, Delaware. Complete audited statements are available at www.EnergizeDelaware.org/financial-reports.

Balance Sheet as of June 30, 2017

Assets

| | | |
|------------------------------------|----|---------------|
| Cash and Cash Equivalents | \$ | 4,749,205.00 |
| Investments | \$ | 20,092,871.00 |
| Other Current Assets | \$ | 5,244,049.00 |
| Program Receivables (Bonds) | \$ | 65,380,776.00 |
| Program Loans Receivable, net | \$ | 17,883,709.00 |
| Fixed Asset, net | \$ | 237,816.00 |
| Limited Use Assets Held by Trustee | \$ | 115,116.00 |

Total Assets \$ 113,703,542.00

Liabilities and Net Assets

| | | |
|------------------|----|---------------|
| Accounts Payable | \$ | 5,327,720.00 |
| Bonds Payable | \$ | 55,930,916.00 |
| Net Assets | \$ | 52,440,906.00 |

Total Liabilities and Net Assets \$ 113,703,542.00

Statement of Revenue and Expenses as of June 30, 2017

Revenue

| | | |
|-----------------------------------|----|--------------|
| Program Service Revenue | \$ | 4,560,543.00 |
| State of Delaware Contract - RGGI | \$ | 9,040,927.00 |
| Other Income | \$ | 465,214.00 |

Total Revenue \$ 14,066,684.00

Expenses

| | | |
|--------------------|----|--------------|
| Program Activities | \$ | 6,611,237.00 |
| Support Services | \$ | 5,457,269.00 |

Total Liabilities and Net Assets \$ 12,068,506.00

Increase in Net Assets \$ 1,998,178.00

2017 Delaware Sustainable Energy Utility Oversight Board & Staff



Senator Harris B. McDowell III
Chair and Co-Founder
Delaware State Senator



Richard I.G. Jones, Jr.
Vice-Chairman
Delaware State Director, The
Nature Conservancy



Kristopher E. Knight
Treasurer/Secretary
Deputy Secretary of State



Shawn M. Garvin
Secretary, Delaware Department
of Natural Resources and
Environmental Control



W. Charles Paradee III
Delaware House of
Representatives



Pamela Bakerian
Executive Director, Delaware State
Farm Bureau



Michael J. Chajes, Ph.D
Professor, Department of Civil
and Environmental Engineering,
University of Delaware



Sean Finnigan
Chief of Staff, Delaware House of
Representatives



Joseph Schorah
Board Member



Andrew Slater
Delaware Public Advocate



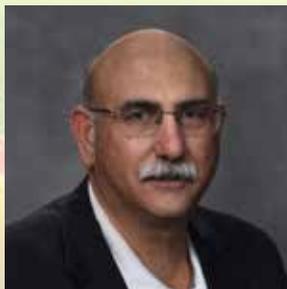
Rob Underwood
Ex-Officio Member
DNREC Division of Energy and
Climate



Dr. John Byrne
Honorary Member & Co-Founder
Director, UD Center for Energy
and Environmental Policy



Frank Murphy
General Counsel



Tony DePrima
DESEU Executive Director



Suzanne Sebastian
DESEU Program Manager



Lisa Gardner
DESEU Office Manager



Kate Bayard
DESEU Marketing and
Communications Manager



Joohee Lee
University of Delaware Ph.D Stu-
dent and DESEU Intern

Energize Delaware programs would not be possible without the work of many Delaware businesses and organizations.

A&A Air Services • Advanced Solar Heating and Cooling • Air Doctorx Heating & Air • Aire Serv HVAC • Alltemp Air • Ameresco • Arctec Air Heating & Cooling • Atlantic Refrigeration Homes • Boulden Brothers • Burns & McBride USA • Climate Solutions Services • CMI Solar & Community Services Corporation • Compass Delaware Division of Energy and Climate Interfaith Power and Light • Delmarva Services Group • Enhanced Heating & Air • Franklin Energy • First Class Heating & Action Agency • Fletcher Plumbing, Corporation • Gold Star Services • Green Power Solutions • KW Solar Solutions • Milford Housing Development Corporation Designs • Red Dog Cooling, Heating, & Seal Right Insulation • Seiberlich Trane Energy Bros. Construction • Strong Heating & Cooling • Delaware Industrial Assessment Center • William G. Day Company

and Air Conditioning • B G Scanlan Industries • Beracah Home Comfort • Catholic Charities • Clean Energy Electric • CNC Solar • Coastal Comfort HVAC • Energy • Custom Mechanical • DEDC • Delaware HELP Initiative • Delaware Power • Energy Efficient Earth • Energy Conditioning • Equinox Weatherization Air Conditioning • First State Community Heating & AC • George Sherman Street Solar • Hentkowski • Independence Maichles Heating & Air • MidEnterprises • NCALL • New Ecology • Pep-Up • Radiant Plumbing • RS Bauer • Schagrin Gas Company Services • Southern Comfort Mechanical • Spicer Studio JAED • Summit Heating & Air • University of



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An initiative of Delaware's Sustainable Energy Utility

