



**NC SUSTAINABLE**  
ENERGY ASSOCIATION

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**2017** | ANNUAL REPORT





## **Traction:** Leading NC's Clean Energy Economy into the Future

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The year 2017 was a turning point year for North Carolina's clean energy economy. Prior to 2017, we worked closely with our members and partners defending clean energy policies and the market produced what we all knew would happen - jobs, economic development opportunities, and clean energy deployment. Here's a look at where the rubber met the road in 2017.







## MILESTONES

| **TODAY'S CLEAN ENERGY IMPACT**  
**TOMORROW'S CLEAN ENERGY VISION**

### MOVING FROM THE \$10 BILLION DECADE...

NCSEA commissioned its annual report from RTI International to measure the economic impact of clean energy on the state. The 2017 update found that around \$10 billion was invested in clean energy development between 2007-2016, contributing to a total economic impact of nearly \$20 billion.

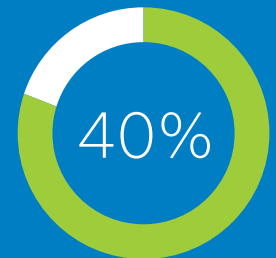


### FAR BEYOND OUR ORIGINAL GOALS...

The success of these growing renewable energy and energy efficiency sectors enabled North Carolina to not only reach, but exceed the 12.5% clean energy requirements in NC's Renewable Energy and Energy Efficiency Portfolio Standard (REPS) in 2017 – four years early.

### TOWARD 40% CLEAN ENERGY IN THE NEXT DECADE...

NCSEA believes we are only at the beginning of what's possible. In the next decade, clean energy in North Carolina can continue smashing expectations. NCSEA – together with our members and partners – is creating a systemic energy vision to power our state with 40 percent clean energy by 2028.





# IMPACT

## MOVING WIND FORWARD

After a six-year permitting process, Amazon Wind Project reached full operation in early 2017. The wind farm is an economic investment for the surrounding community generating millions of dollars in tax revenue each year. The project has 104 turbines that produce energy to power the equivalent of approximately 61,000 homes each year. The Amazon Wind Project paid \$640,000 to the two counties it calls home – Perquimans and Pasquotank. The tax revenue makes the project, powered by Avangrid Renewables, both counties' largest taxpayer.



## BRINGING STORAGE TO THE FOREFRONT

In 2015, NCSEA's *Batteries Not Included* publication identified opportunities and challenges for energy storage deployment in NC; the following year, NCSEA's Energy Storage Working Group - comprised of private companies, government officials, and other partners - rolled up its sleeves to develop the map forward. By summer 2017, the Working Group's efforts led the NC General Assembly to include an energy storage provision in HB589. NCSEA collaboratively secured private funding to match the public funding provided by the NCGA to begin the current energy storage study conducted by the UNC Collaboratory and NC State University.

## EV INFRASTRUCTURE CHARGES UP

Following months of convenings and discussion, NCSEA's Electric Vehicles Working Group, in a letter to Gov. Cooper, recommended that all 15% of funds available to NC from the Volkswagen settlement be used for EV charging stations and infrastructure.



### NC ELECTRIC VEHICLE WORKING GROUP

Our comments were well-received: **78% of public comment respondents agreed.**





# BENCHMARK

**TOTAL INSTALLED CAPACITY:** 1,067 SYSTEMS FOR 1,006 MW

## BIOMASS:

1 system for 15 MW



## SOLAR PV:

1,065 systems for 990 MW

### RESIDENTIAL SOLAR PV:

922 systems for 5.8 MW

### COMMERCIAL/ INDUSTRIAL SOLAR:

59 systems for 11 MW

### UTILITY:

84 systems for 974 MW



## WIND:

1 system for .002 MW

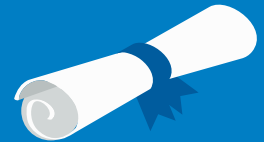




## POLICY

### LANDMARK BIPARTISAN ENERGY LEGISLATION SIGNED INTO LAW

Following years of discussion around the need for energy policy reform in North Carolina, NCSEA spearheaded a year-long stakeholder process involving negotiations with more than 50 parties that culminated in the passage of House Bill 589—NC's first comprehensive energy policy reform in a decade. The law, signed in late summer 2017 by Governor Cooper, will significantly increase clean energy deployment and expand clean energy access for customers across the state for years to come.



### ADVOCATING FOR CLEAN ENERGY CUSTOMERS, OPTIONS IN THE DUKE ENERGY RATE CASE

In the Fall of 2017, Duke Energy Progress filed its rate case. NCSEA's regulatory team focused on three areas of opportunity for clean energy in the utility's proposed rate structure: (1) fair rate design that continues encouraging clean energy adoption; (2) customer access to their energy usage data; and (3) thoughtful and impactful grid modernization.







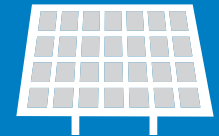
## ECONOMY

### CLEAN ENERGY JOBS, SECTORS EXPANDED

NCSEA's Clean Energy Industry Census shows that as of 2017, North Carolina's diverse clean energy industry boasted almost **1,000 firms and more than 34,000 full-time equivalent jobs – a 31 percent increase over 2016.** In early 2019, stay tuned for an all-new census from NCSEA that provides a deep dive into our ever-growing clean energy economy.

### NORTH CAROLINA HOLDS STRONG AT #2 IN U.S. FOR INSTALLED UTILITY-SCALE SOLAR

And here's the best part: many of the solar installations contributing to this impressive ranking are in North Carolina's most underserved, rural areas – directly benefiting communities through new jobs, investments, and locally-sourced energy infrastructure.



### ROOFTOP SOLAR SALES POISED TO INCREASE

NCSEA has worked with stakeholders for the past half-decade to surface the urgent need for a new solar rebate program. We remained fixed on this goal in the House Bill 589 negotiations of 2017, and upon the bill's passage, NCSEA worked immediately to ensure Duke Energy's new rooftop solar program – one of the bill's key provisions – was implemented as negotiated. By our projections, the future program has the capacity to at least *triple* installed rooftop solar capacity by 2022.





## SUSTAINABILITY AND SERVICE

### NCSEA JOINS 1% FOR THE PLANET NETWORK

NCSEA is proud to have been named a partner in the 1% for the Planet Network. Started in 2002 by Patagonia founder Yvon Chouinard and Blue Ribbon Flies founder Craig Mathews, the network connects a select group of non-profits with businesses who commit to giving 1 percent of their revenues to organizations who are helping save the planet.



### REBUILDING HOMES FOR FUTURE COMMUNITIES

In the fall of 2017, the NCSEA team participated in a service project called Rebuilding Together. Rebuilding Together is a national non-profit that provides materials and labor for the purpose of repairing and revitalizing affordable and low-income housing. The goal is to make the residents' homes safer, healthier, and more comfortable.





## UTILITY SOLUTIONS

### UTILITY BUSINESS MODEL

NCSEA initiated the design and development of the Energy Solutions Reserve Fund (ESRF) to support utility investment in energy efficiency and renewable energy programs. Beginning next year, utilities can subscribe to ESRF which will provide partial risk coverage for unanticipated customer defaults that could result from launching customer energy programs.

### LOCAL GOVERNMENT

Throughout 2017, NCSEA served as a partner in a project called Powering Energy Efficiency and Impacts Project Framework (PEEIF) that was funded by the U.S. Department of Energy's Cities Leading Through Energy Analysis and Planning (Cities-LEAP) project. The project's aim is to enhance energy service delivery to low-income households in a five-county rural area of northeastern North Carolina. NCSEA worked with utilities, the North Carolina Weatherization Assistance Program, local governments, Department of Health and Human Services agencies and local agencies to share data and develop a geospatial database tool for improvement in residential energy efficiency programs.



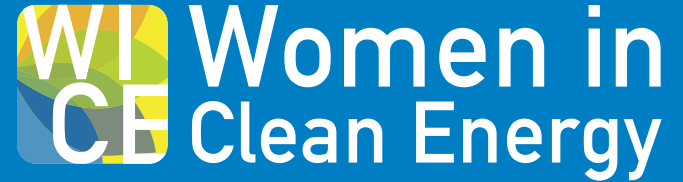
## COMMUNITY

INFORM  
CONNECT  
ADVOCATE  
ADVANCE

### WOMEN IN CLEAN ENERGY LAUNCHES

Women in the clean energy industry face unique set of challenges, as well as opportunities. Led by some of the most influential

women behind NC's clean energy economy, NCSEA launched our Women in Clean Energy group in 2017, which convenes regularly to dialogue about issues and identify solutions.



### NEW WEBSITE, MORE WAYS TO CONNECT

In spring 2017, NCSEA published our brand-new website, designed to better inform and engage users of all backgrounds and levels of clean energy expertise. With an emphasis on storytelling first, we're proud of the new look and feel of our virtual home!

### LEGAL AND FINANCE EDUCATION

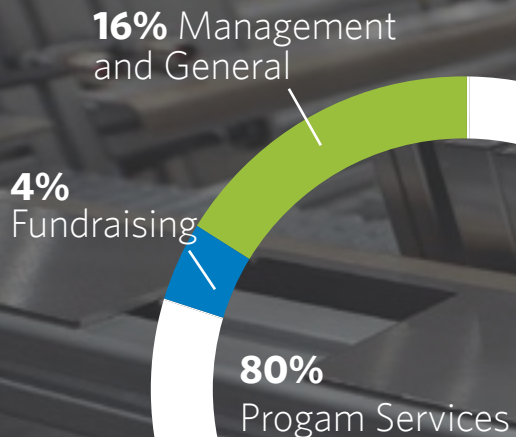
In 2017 NCSEA held two sold-out events on timely clean energy legal and financial issues. First, our third-annual Clean Energy Continuing Legal Education (CLE) provided legal and professional attendees with an introduction to renewable project development in NC, SC, VA, and GA. Finally, NCSEA hosted a Clean Energy Finance event, which covered financing needs for emerging sectors such as energy storage, biogas, and electric vehicles.







## FINANCIAL SUMMARY



### REVENUE AND SUPPORT

Grants	\$628,802.30
Direct Public Support	\$1,679,863.30
Indirect Public Support	\$149,398.09
Sponsorship	\$42,315.00
Membership	\$144,961.83
Program Income	\$197,597.51
Interest Income	\$1,409.00
<b>Total Revenue</b>	<b>\$2,844,347.03</b>

### EXPENSES

Management and General	\$402,433.00
Fundraising	\$109,247.00
Program Services	\$2,072,034.00
<b>Total</b>	<b>\$2,583,714.00</b>
Net Assets - Beginning of Year	\$1,152,801.00
Net Assets - End of Year	\$1,413,463.00
Change in Net Assets	\$260,662.00



# Major Funders

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Thank you to our major funders. Our success would not be possible without you.

Pine Gate Renewables  
The Center for Energy Education  
Environmental Defense Action Fund  
BW Research Partnership

Foundation for the Carolinas  
Energy Foundation  
Z. Smith Reynolds Foundation, Inc.  
Coastal Federal Credit Union