



NC CLEAN ENERGY
TECHNOLOGY CENTER

JULY

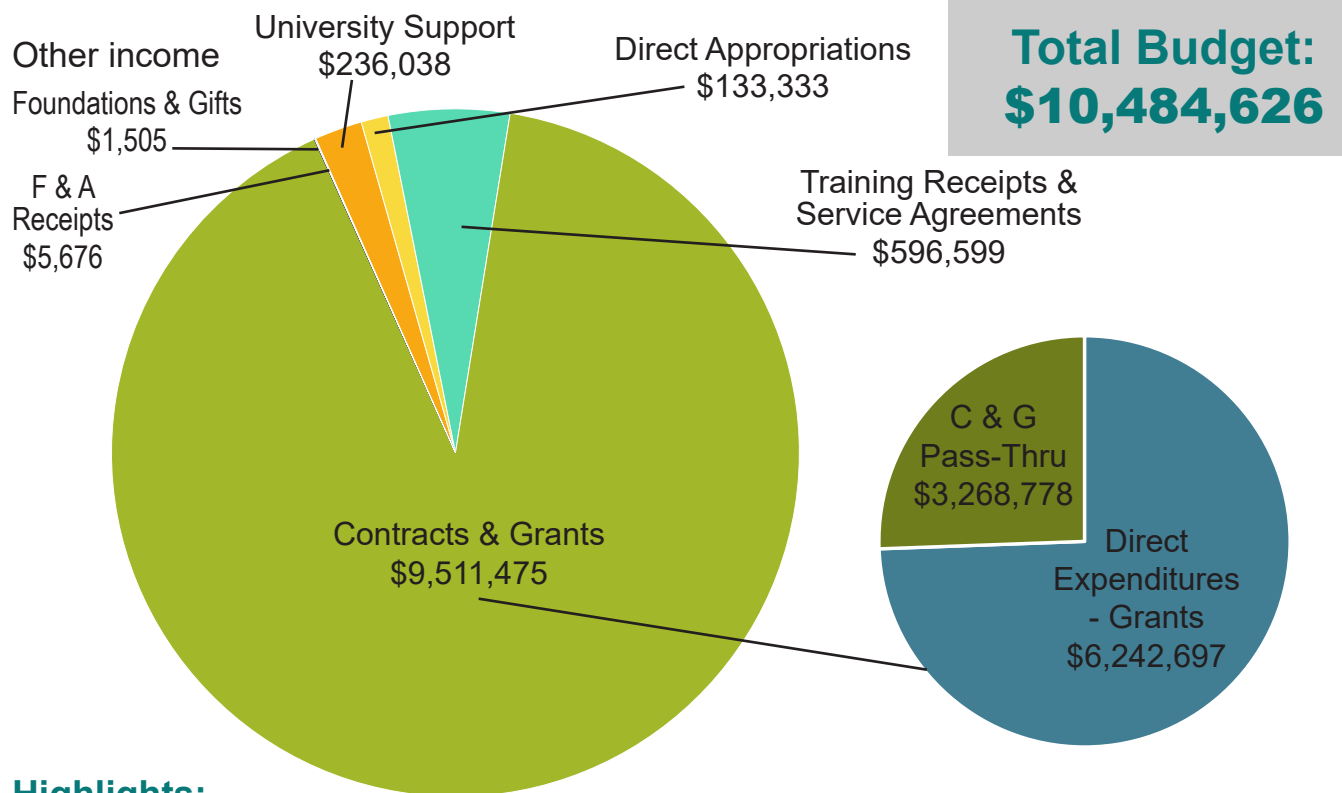
2021

JUNE

-2022

**ANNUAL
REPORT**

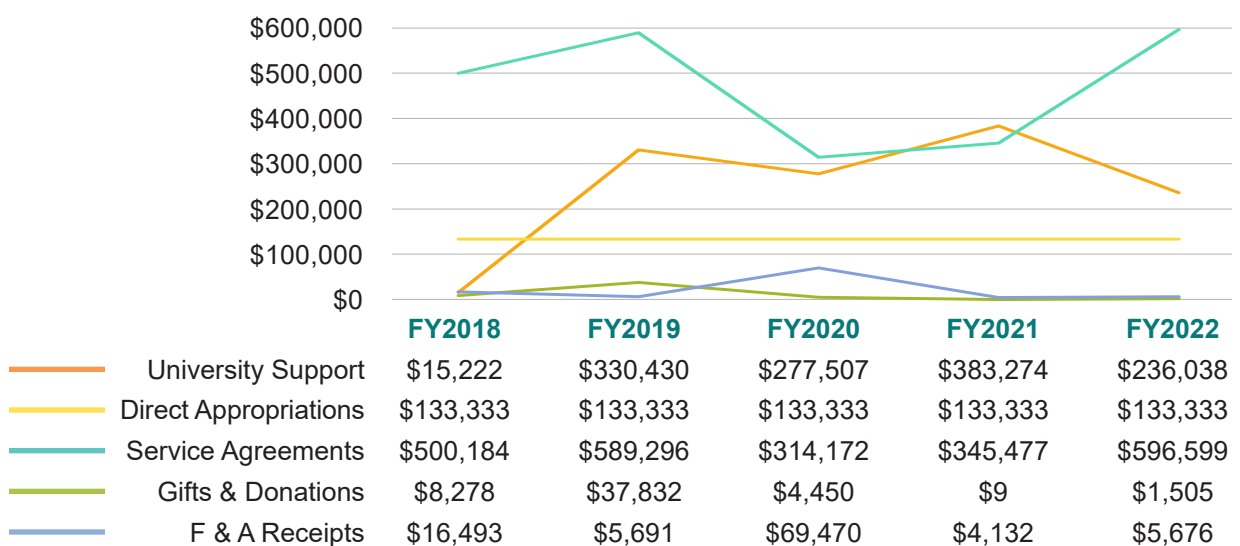
NC STATE UNIVERSITY



Highlights:

- NCCETC received \$133,333 in direct appropriations from the North Carolina General Assembly. For FY2022, NCCETC received \$236,038 in university support from the NC State College of Engineering and the Office of Research Innovation; University support varies each year.
- For FY2022, the NCCETC annual operating budget consists primarily of grant support from DOE, NCDOT, NCDEQ and Private Sector Entities with approximately 24% of grant funds appropriated to subrecipients to broaden the reach of the Center's mission and core programs.
- State Appropriations and revenue from Service Agreements also support the Center's mission and for FY2022, 32% of these funding sources were leveraged for cost share.

FY2022 NCCETC Operating Budget – Non-Grant Sources (5-Year Trends):



- The 5-year trends of non-grant funding sources illustrate how vital grant funds are for the Center.
- State Appropriations are subject to action by the State Legislature on an annual basis leading the financial strategy of the Center to seek grant funding and engage in Service Agreement work for sustainability.

MISSION STATEMENT

The N.C. Clean Energy Technology Center advances a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies, practices, and policies.



PROGRAM AREAS

Renewable Energy

Clean Power &
Industrial Efficiency

Clean Transportation

Energy Policy & Markets

Training



ENERGY & SUSTAINABILITY SERVICES

NCCETC offers business, industry, government and utilities a suite of services aimed at optimizing sustainability and energy-related objectives:

Planning and Guidance

Educational Opportunities, Training and
Professional Development

Research and Market Analysis

Technical Assistance



2021^{JULY}

BY THE NUMBERS

2022^{JUNE}



CELEBRATING 34 YEARS!

26



FACILITY
ENERGY
ASSESSMENTS

3,330 kW

SOLAR PV
IDENTIFIED

28 MW

COMBINED HEAT &
POWER IDENTIFIED

\$6.7m

POTENTIAL ENERGY
COST SAVINGS
PER YEAR



306

HOURS OF
TRAINING
OFFERED

STUDENTS
TRAINED **63**

13

HANDS-ON
TRAINING
CLASSES

4

DIPLOMA
GRADUATES

TECHNICAL
ASSISTANCE
LOCATIONS



63

MENTIONS OF
THE CENTER IN
NEWS ARTICLES

WE'RE
TRENDING!

 3,376

2,863 

 946

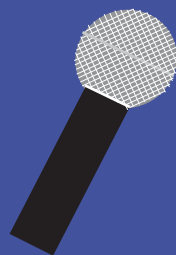
4,152 

16,000
NEWSLETTER
RECIPIENTS



60

EVENTS &
WORKSHOPS
HOSTED BY
THE CENTER



30

PRESENTATIONS
& WEBINARS GIVEN

HIGHLIGHTS



2022 STATE ENERGY CONFERENCE OF NORTH CAROLINA

Over 700 clean energy professionals

joined NCCETC at the **2022 State Energy Conference (SEC) of North Carolina**, which returned in-person in Raleigh, NC for the first time since 2019. Attendees came from a variety of backgrounds including state and local governments, non-profits, startups, academia and corporate organizations – joined under the SEC's theme: "Connecting North Carolina's Diverse Energy Economy."



23 OF 34

**TOTAL CONFERENCE
SESSIONS APPROVED
FOR CONTINUING
EDUCATION CREDITS**

Continuing education credits (CECs) were offered to attendees for all virtual and in-person sessions of the 2022 State Energy Conference of North Carolina. Available continuing education credits included:

- American Institute of Architects (AIA) across 13 sessions for a total of 13.5 learning units (LU) & 9 Health, Safety, Wellness (HSW) units
- LEED Green Building Certification Inc (GBCI) - 13 sessions
- North Carolina Continuing Legal Education (CLEs) - 18 sessions

Attendees documented more than 1,885 total hours of completed continuing education.

Certificates of completion were offered to all attendees who requested documentation of their attendance. Many other professional organizations, including Professional Engineers (PEs) and Certified Public Accountants (CPAs), allowed individuals to self report attendance.



**220 CERTIFICATES
OF COMPLETION FOR
CONTINUING EDUCATION
CREDENTIALS ISSUED**

HIGHLIGHTS



LOCAL NORTH CAROLINA SEAFOOD COMPANY AWARDED GRANT TO FUND ENERGY-EFFICIENCY IMPROVEMENTS

Local seafood distributor Atlantic Seafood Company was awarded a \$106,100 grant from the U.S. Department of Agriculture's 2021 Rural Energy for America Program (REAP), which provides grants and/or loan guarantees to rural small businesses and agricultural producers for renewable energy systems and energy efficiency improvements. Staff at NCCETC supported Atlantic Seafood during the application process for the REAP grant, providing technical assistance and completing an energy audit for the program's required energy efficiency and savings analysis. Atlantic Seafood Company is constructing a new office and distribution center in Holly Ridge, North Carolina, and grant funds will support the replacement of aging refrigeration equipment with new, energy efficient equipment.

CUSTOM CLEAN ENERGY TRAINING COURSES HOSTED BY NCCETC

Six students completed a 40-hour REPV training course customized by the NCCETC course customized by NCCETC for the Centre for Homeownership and Economic Development. The in-person course in January 2022, covers the fundamentals of solar photovoltaic design & installation, including hands-on solar installation day. The NCCETC also hosted a custom Solar & Clean Energy Fundamentals Workshop for the South Carolina Energy Office (SC Office of Regulatory Staff) Online Program in May 2022. The completely customized course was based on the Certificate of Renewable Energy Management (CREM) program consisting of 16 hours of instruction with four sessions hosted over two weeks. In total, 62 attendees completed the course.

2021 SUSTAINABLE FLEET TECHNOLOGY VIRTUAL CONFERENCE



1,350 TOTAL REGISTERED ATTENDEES

20 HOURS OF WEBINAR RECORDINGS

More than 800 fleet professionals tuned in live during one of the 11 free webinar sessions hosted by the NCCETC as part of the **2021 Sustainable Fleet Technology Virtual Conference**. The virtual conference series showcased best practices to make fleets run more efficiently, with valuable presentations and conversations from award-winning speakers, including fleet managers, technicians, company presidents and CEOs, nonprofit managers and more. Conference sessions included Innovative Charging Solutions, Hydrogen as a Transportation Solution, Natural Gas Transportation Applications & Success Stories, and Funding Sources & Creative Financing for Alternative Fuel Vehicles. Learn more at www.sustainablefleetexpo.com.

DSIRE & DSIRE INSIGHT

The **Database of State Incentives for Renewables and Efficiency (DSIRE)**, operated by NCCETC, announced the addition of incentive programs for electric vehicles and charging infrastructure to the database. DSIRE is a publicly available resource on federal, state and utility policies and incentives for renewable energy, efficiency, energy storage, and electric vehicles.

The database now includes over 250 incentive programs for the purchase of electric vehicles and associated charging infrastructure.

DSIRE®

Database of State Incentives for Renewables & Efficiency

**THE POLICY TEAM TRACKED
OVER 1,500 BILLS & 1,450
REGULATORY PROCEEDINGS
RELATED TO SOLAR, GRID
MODERNIZATION, & ELECTRIC
VEHICLES**

There are currently state or utility incentives available in 38 states plus the District of Columbia (DC) for electric vehicles, plug-in hybrid vehicles, and electric buses. Incentives for electric vehicle charging infrastructure are currently available in 43 states plus DC.

**820 POLICIES &
INCENTIVES
UPDATED ON DSIRE**

NORTH CAROLINA AQUARIUM AT FORT FISHER FLOATS INNOVATIVE IDEA FOR A FLOATING SOLAR+STORAGE SYSTEM

The NCCETC partnered with the NC Aquarium at Fort Fisher to evaluate the feasibility of an innovative solar plus energy storage installation to improve both the sustainability and the resiliency of the aquarium. The proposed design concept has a unique feature: the solar installation will float on top of a pond located behind the Fort Fisher Aquarium, taking advantage of underutilized land while allowing for cooling of the solar panels to improve efficiency. Staff from NCCETC's Clean Power & Industrial Efficiency program conducted a technical and financial feasibility analysis to assess the potential for solar photovoltaic based on the space available. They evaluated the best locations for a solar installation, including rooftop, parking lot canopies, and floating solar while considering a range of sizes to optimize the system's energy performance and financial payback.

OFFSHORE WIND BRINGS OPPORTUNITIES OFF THE NC COAST

NCCETC, the NC Department of Commerce, and other organizations are working together to find ways to advance offshore wind energy projects in the state, with a focus on economic development and job creation. NCCETC is currently serving as a member for the new **North Carolina Taskforce for Offshore wind Economic Resource Strategies**, or NC TOWERS, which was established by Executive Order 218 to affirm North Carolina's commitment to offshore wind power as the state transitions to a clean energy economy. The Taskforce will provide expert advice to Governor Cooper and state policymakers for developing the state's offshore wind supply chain, workforce, and infrastructure.



Jennifer Mundt speaks at the inaugural session of NC TOWERS on Feb. 3, 2022.

OTHER MAJOR PROJECTS JULY 2021-JUNE 2022

50 States Reports - Solar, Grid Modernization and Electric Vehicles

Clean Fuel Advanced Technology (CFAT)

Solar PV Feasibility Study for NC State's Fitts-Woolard Hall

Community Solar Access for Low and Moderate-Income Utility Customers

Sustainable Fleet Technology Webinar Series

U.S. Department of Energy Southeast Combined Heat and Power
Technical Assistance Partnership

The State of the Green Mobility Industry in the Southeast

Planning an Affordable, Resilient and Sustainable Grid in North Carolina

GET INVOLVED

Achieving a sustainable future requires securing the work done by the Center. Become a Friend of the North Carolina Clean Energy Technology Center and support its mission of advancing clean energy for a sustainable energy economy. Individuals, private firms, and non-profit organizations are invited to support the Center (through the N.C. State Engineering Foundation) and its initiatives.

CONTACT US

Physical Address:
1575 Varsity Drive
North Carolina State University
Raleigh, NC 27606

Mailing Address:
Campus Box 7409
North Carolina State University
Raleigh, NC 27695

www.nccleantech.ncsu.edu
nccleantech@ncsu.edu



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