



2021 Annual Report

E4 CAROLINAS BOARD OF DIRECTORS



**E4 CAROLINAS IDENTIFIES ENERGY OPPORTUNITIES
AND CONNECTS MEMBERS WITH OTHERS TO PURSUE
THOSE OPPORTUNITIES**



Jeff Merrifield
Chair, Board of Directors

2021 was a year of extraordinary achievements for E4 Carolinas. We delivered more meetings, seminars, conferences, and programs to more members than ever before and our virtual delivery was widely accessed regionally, nationally, and internationally. Our membership continued to show healthy growth despite the challenges of COVID-19 and our operating budget topped \$1 million for the first time. Most significantly, we received nearly \$3 million in new multi-year program grants which will allow E4 to advance the region's energy economy and at the same time further reinforce our financial stability and reputation.

CLASS OF 2022



Vice Chair
Wayne Wilkins
CEO
EnergyUnited



Juliann Edwards
Senior VP
Energy Solutions



Rusty Harris
VP & COO Gas
Dominion Energy South Carolina



Lee Mazzocchi
President
Pike Engineering



Brian Maragno
VP, Large Generator Product
Line
Siemens Energy



Bruce McKay
Sr. Dir. Ext. Affairs
BHE Gas Transmission & Storage



Rick Tankersley
Vice Chancellor for Res. & Grad.
Education
UNC Charlotte

E4 CAROLINAS BOARD OF DIRECTORS



CLASS OF 2023



Secretary & Treasurer
Scott Carlton
President
Tokai Carbon USA



Jon Ball
Executive VP
Nuclear Plants
GE Hitachi



Diane Denton
VP
State Energy Policy
Duke Energy



Carl Fisher
VP Customer Accounts & Gov't.
Affairs
Framatome



Roy Jones
CEO
Electricities of
North Carolina



Jim Little
Principal
Nuclear Energy Programs



Gary Rackliffe
VP, Market Development and
Innovation
Hitachi ABB Power Grids



Bryan Stone
President & COO
Lockhart Power

E4 CAROLINAS BOARD OF DIRECTORS



CLASS OF 2024



Chair
Jeff Merrifield
Partner
Pillsbury, Winthrop Shaw
Pittman



Weston Adams
Partner
Nelson Mullins



George Baldwin
Principal
Baldwin Consulting Group



Jeff Barghout
Chief Executive Officer
Robocist



Lori Collins
Principal
Collins Climate Consulting



Heather Feldman
Director, Innovation
Electric Power Research
Institute



Billal Hammoud
Vice President and General
Manager
Honeywell Smart Energy



Sean Sexstone
Sr. Vice President
AECOM/Wachs

E4 CAROLINAS LEADERSHIP AND STAFF



David A. Doctor
Retiring President & CEO

David has led E4 Carolinas since 2014. Under his leadership E4 Carolinas has grown from two staff members and a \$500,000 budget to 11 staff and a \$2 million+ budget in 2022, producing more seminars, conferences, and programs and engaging more members than ever. David retires in 2022.



John Morrison
Incoming President & CEO

On Tuesday, January 18th, John became E4 Carolinas' President and Chief Executive Officer. He is a long-time Carolinian and a recognized energy industry leader. John has served in leadership roles with Carolina Power and Light, Advanced Energy, The North Carolina Department of Commerce, Strata Solar and Ecoplexus Solar.



Kelly Perkins
Finance/Program
Director



Jess Buchanan
Innovation Program
Manager



Courtney Taylor
Digital Communications
Manager



Jennifer Hall
South Carolina Program
Manager



Bonnie Loomis
South Carolina Managing
Director



Dr. Lukas Brun
Managing Director,
Research and Economic
Development

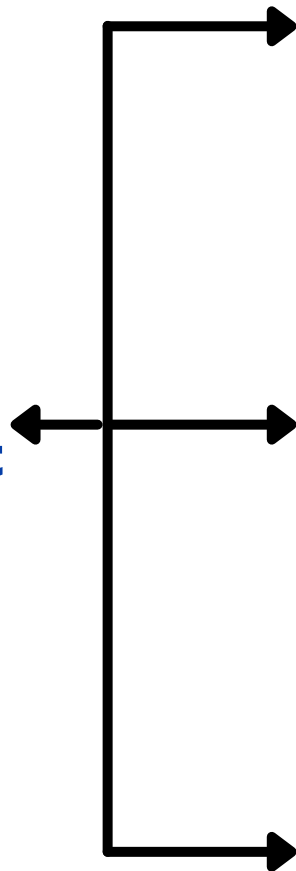


Todd Royal
Senior Project Analyst



Allyson Barbier
Project Analyst

Workforce Development



Leadership Programs

On 2/2 E4 Carolinas graduated its 2020 Leadership Program members and launched its 2021 virtual leadership academies. The Spring Leadership Academy produced February through June, had 23 members, and the Fall Leadership Academy, produced August through December had 17 members.

Leadership Alumni

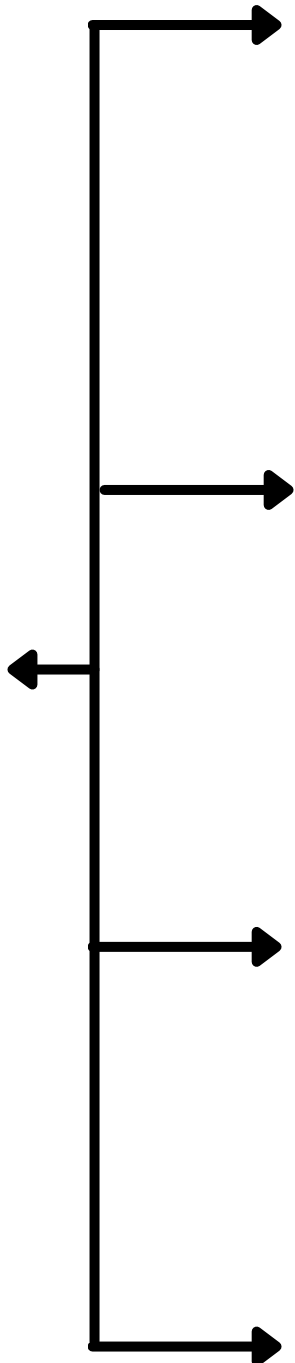
E4 Carolinas Leadership Program alumni met in innovation virtual networking sessions and happy hours on 5/6, 6/3, 8/19 & 10/7

Energy Boot Camp

Five Energy Boot Camp training sessions were produced on:

- 2/2-3 with 12 registrants
- 4/27-28 with 16 registrants
- 6/29-30 with 11 registrants
- 8/31 & 9/1 with 13 registrants
- 11/30 & 12/2 with 14 registrants

Innovation



Energy Conferences

Sponsored by Duke Energy and North Carolina's Electric Cooperatives, three daylong conferences were produced in the Energy Innovation Conference Series addressing:

- Energizing Economic Recovery on 04/26 with 219 registrants
- A Resilient & Reliable Future on 07/28 with 299 registrants
- Clean and Reliable Energy on 11/12 with 339 registrants

Energy Seminars

Sponsored by Bradley Arant Boult Cummings, three-afternoon seminars were produced in the Energy Technology Series featuring:

- ARRIVAL on 07/12 with 200 registrants
- Trilliant on 10/7 with 75 registrants
- 8 Rivers Capital on 11/15 with 77 registrants

Digital Tech Webinars

Sponsored by SIA Partners, four-afternoon seminars were produced in the Digital Technology Webinar Series featuring:

- EV Integration with the Grid on 2/10 with 144 registrants
- Digital Twins on 4/14 with 105 registrants
- The Internet of Energy on 6/16 with 149 registrants
- Digital Technologies Reduce Carbon on 10/13 with 63 registrants

Energy Risk Management

Sponsored by C4CS the annual Distributed Energy Risk Management Seminar was held on 09/28 with 134 registrants

Communicators Seminars

Sponsored by C4CS, three seminars were produced in the Communicators Seminar Series featuring:

- COVID Communications on 4/13
- Presentation Skills for the Virtual World on 08/11
- Cyber-security: Plan, Prepare & Communicate on 10/14

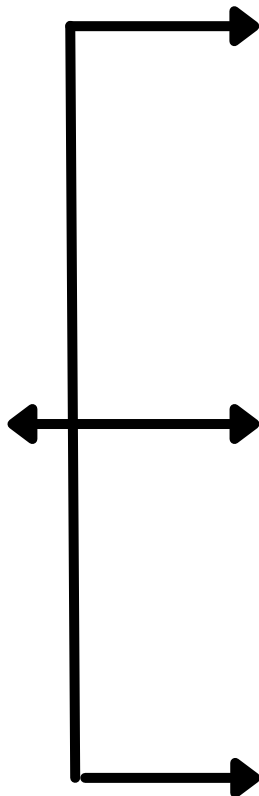
Members Meet/Greet

E4 Carolinas New Member Meet and Greet was held on 09/22 with 26 new members introducing themselves and others connecting

Annual Meeting

E4 Carolinas Annual Meeting was held virtually on October 18th. The Class of 2024 Board members were elected. Julie Janson, Duke Energy Executive Vice President was the featured speaker.

Communications



TASK FORCE PROGRAMS



Economic Development



Special Topics

A number of special topic conferences and seminars were produced throughout 2021 advancing the Carolina Energy Economy, including:

- Produced the Utilities and Infrastructure Track of the North Carolina State Energy Conference on 4/19-20
- Carolina Battery Forum on 4/23 – invitation only
- Review of Duke Energy 2020 Climate Report on 5/6 with 316 registrants
- Southeast Hydrogen Energy Update on 09/28 with 257 registrants

Policy



South Carolina Seminars

In 2021 the Pandemic forced the cancellation of E4 Carolinas spring WDC Policy Tour and Fall Federal/State Energy Policy Summit. Three South Carolina Policy Seminars were produced featuring:

- Clean Energy Policy on 05/21 with 110 registrants
- South Carolina Legislative & Regulatory Update on 07/29 with 59 registrants
- Advanced Nuclear Technologies on 08/27 with 209 registrants
- Santee Cooper Update on 09/10 with 169 registrants

Clean Energy



SC Clean Energy Industries Task Force

South Carolina's largest and oldest energy conference was produced on 12/09 in Greenville, SC with the Southeast Energy Law Seminar following on 12/10. 150 attended the combined in person events

GRANT FUNDED PROGRAMS



Alternative Fuels and Vehicles Resilience Research and Planning

This project is funded by the U.S. Department of Energy's National Energy Technology Laboratory from January 2020 through December 2022. It will enhance Carolina's alternative fuel vehicles fleet and fueling facility disaster preparedness, recovery planning, and resiliency by increasing alternate fuel diversity, and specifically the use of alternative fuels for emergency response fleets that provide critical post-infrastructure disruption transportation, clean-up, utility restoration, and recovery. [Learn More](#)



Advanced Nuclear Technologies Economic Development Research and Planning

This project is funded by the U.S. Department of Commerce's Economic Development Administration from May 2021 through May 2024. It will create an advanced nuclear technologies economic development plan to diversify the region's economy through a public-private partnership creating high-quality jobs and resiliency; attracting investment, and responding to the economic disruption experienced by the cancellation of significant regional nuclear construction projects. [Learn more](#)



Green Hydrogen Study

This project is funded by the Southeast Hydrogen Energy Alliance and the U.S. Department of Energy's Savannah River National Laboratory from June 2021 through March 2022. The project will research, identify and describe the green (non-carbon) hydrogen energy value chain; companies within the Southeast Region that are currently part of the green hydrogen energy value chain; opportunities for green hydrogen to serve existing and new markets; and educate and promote green hydrogen. [Learn more](#)

GRANT FUNDED PROGRAMS



U.S. DEPARTMENT OF
ENERGY
Office of
TECHNOLOGY TRANSITIONS

Energy Hardware Cluster Development and Venture Acceleration



This Project is funded by the U.S. Department of Energy's Office of Technology Transitions from October 2021 through September 2024. This project will create a regional energy hardware cluster innovation and accelerator ecosystem to enhance commercialization opportunities for U.S. energy startups and new ventures originating within an established company. E4 Carolinas will build a regional energy hardware community to support the Joules Accelerator.
[Learn more](#)



Carolina Historically Black Colleges and Universities Energy Leadership Pathway Program



This program is funded by the Duke Energy Foundation from January 2022 through December 2023. The Energy Leadership Pathway is conceived as a potentially ground-breaking and transformative means to promote diversity, racial equity, and inclusion in the region's energy industry. It is believed the Pathway will, if successfully developed, serve as a model for the energy industry in other regions and generally for other industries.



Keeping You Energized



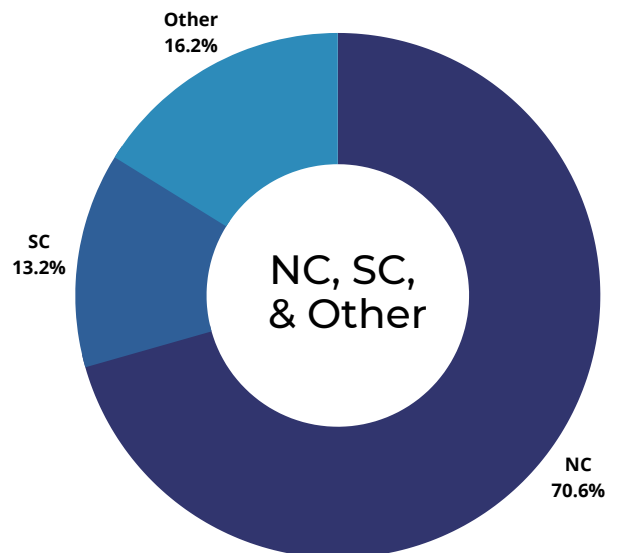
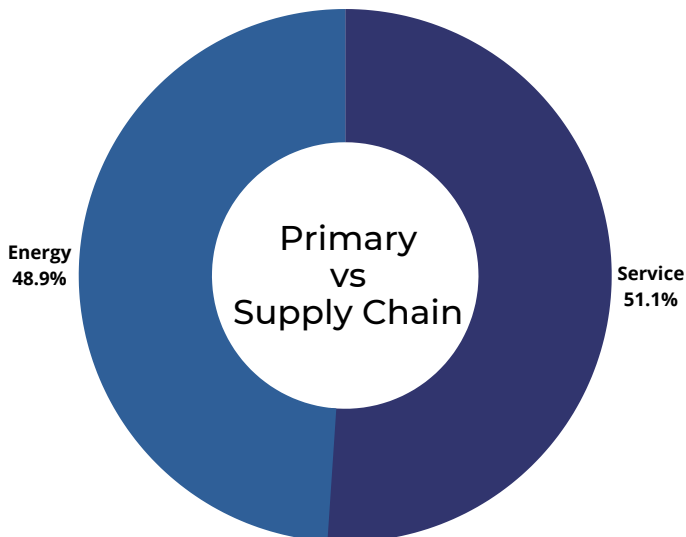
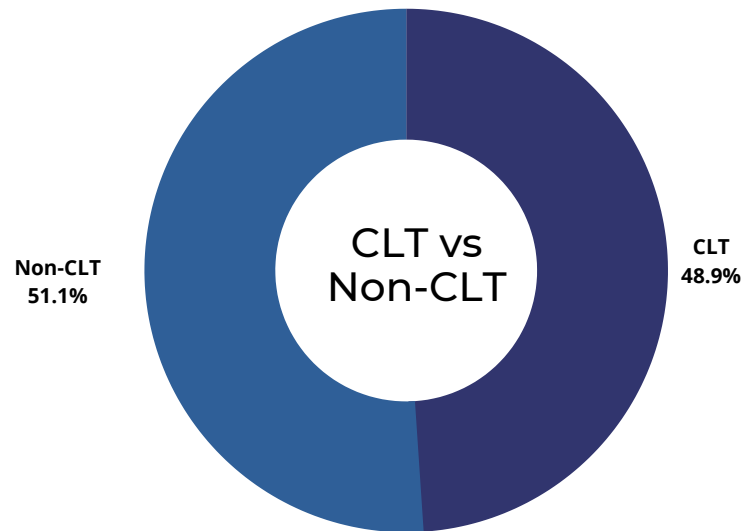
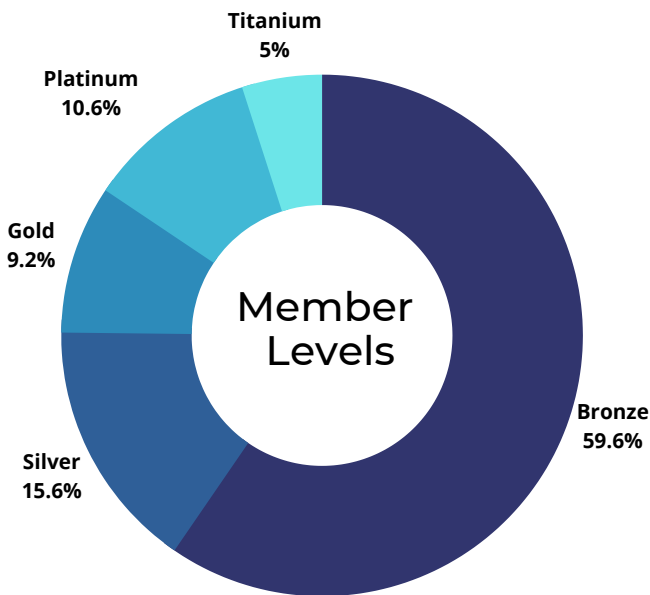
This project is funded by Duke Energy from November 2021 through March 2022. The project will produce a resource platform containing short "stories" describing how our power system and utility business models have evolved and operated today. Explanations will be applicable to the United States power and utility operation, but relevant to Duke Energy's entire operating territory

2021 MEMBERS



E4 CAROLINAS IDENTIFIES ENERGY OPPORTUNITIES AND CONNECTS MEMBERS WITH OTHERS TO PURSUE THOSE OPPORTUNITIES

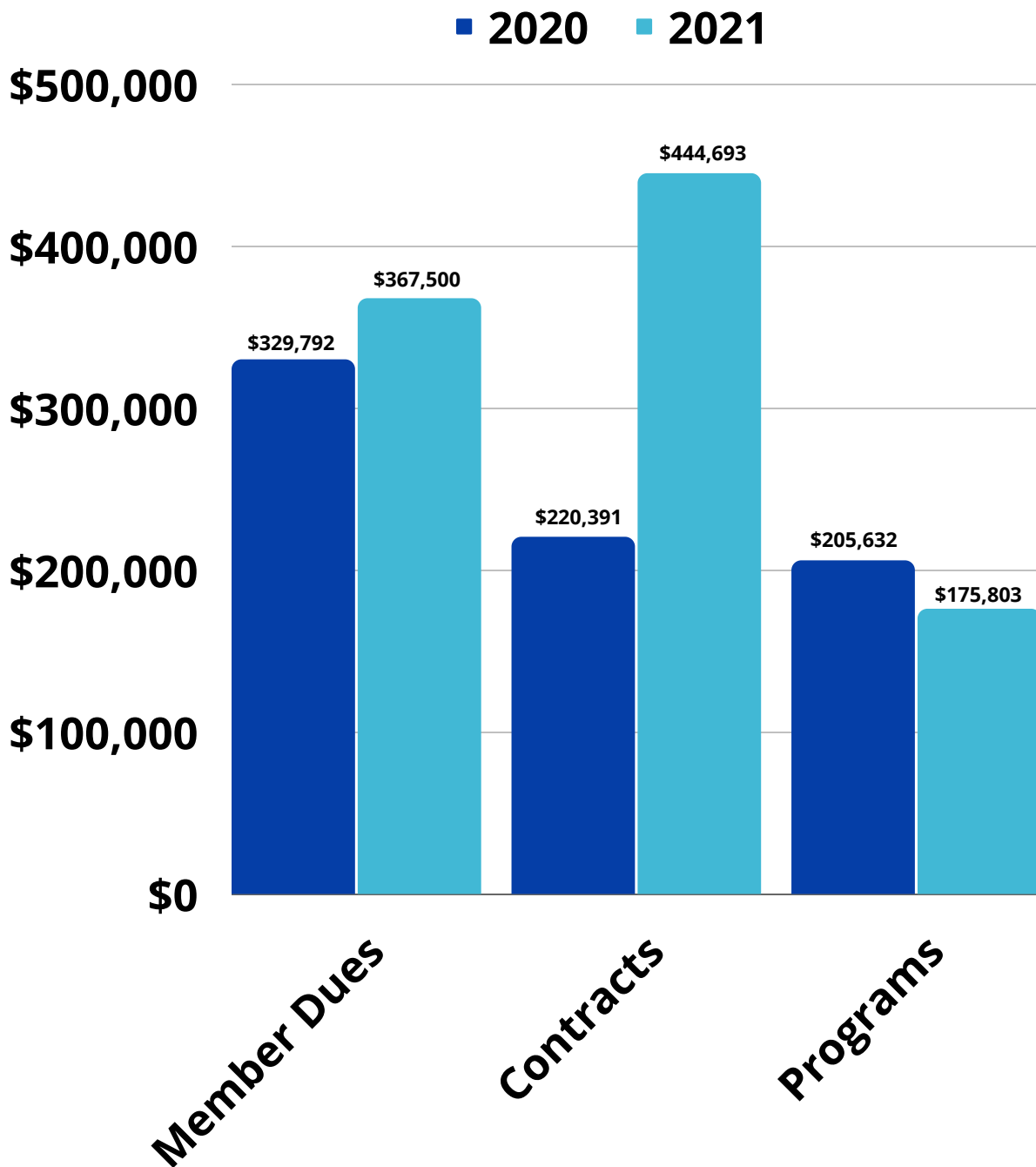
Membership grew in 2021 to 142 companies and organizations. More outside the Charlotte metro area became members, as E4 Carolinas developed significant virtual conferences, seminars, and programs. Membership outside the Carolinas increased, as E4 Carolinas engaged in Southeast regional research and economic development projects.



2021 FINANCES



Revenue grew more than \$200,000 with member dues at a record level and grant-funded contracts surging to \$445,000. Program revenue was less than in previous years with most programs being produced virtually and at no cost.



2021 FINANCES

E4 CAROLINAS CONTINUES TO BE FINANCIALLY STABLE



Assets grew to a healthy \$430,000 of cash.

