

E-100, SUB 165



Comments of Electricities and NC Public Power

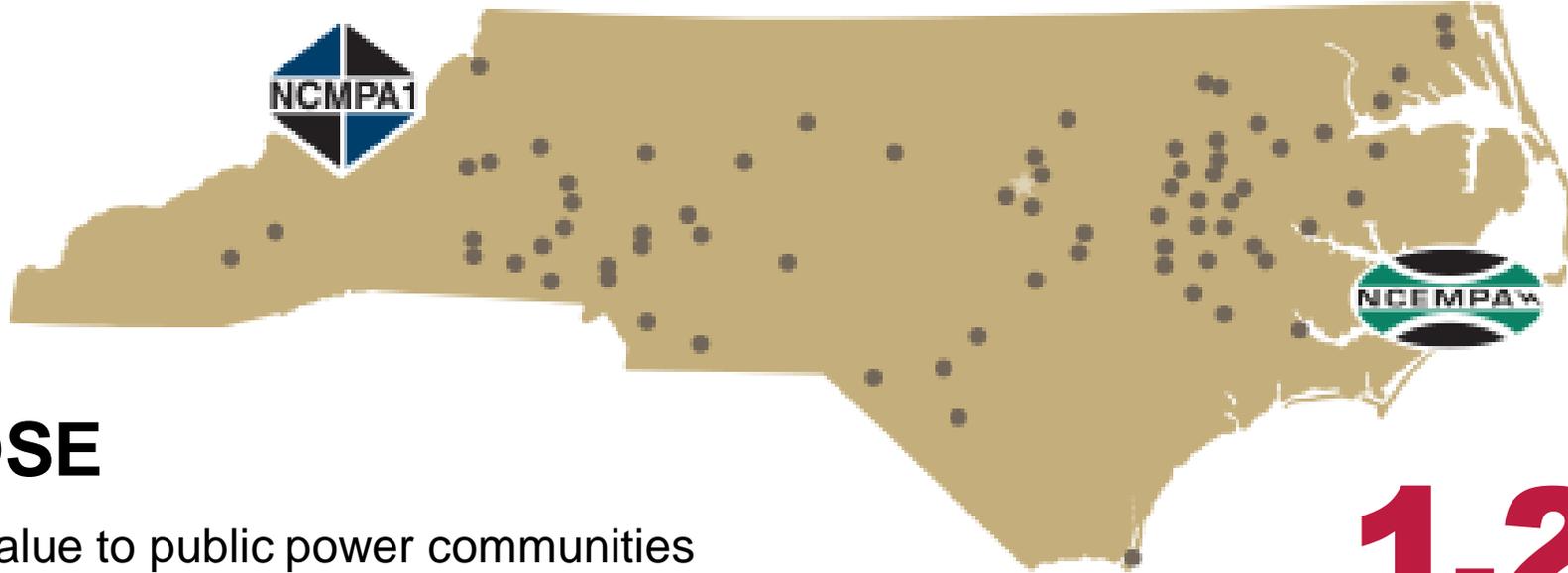
NCUC Technical Conference on NARUC-NASEO Task Force
March 9, 2021



WHAT ARE PUBLIC POWER UTILITIES?

Public power utilities are like our public schools and libraries: a division of local government, owned by the community, run by boards of local officials accountable to the citizens.





PURPOSE

Delivering value to public power communities through collective strength, wisdom, and action while promoting a more successful future for our citizens.

1.2 MILLION PEOPLE

NC Public Power illuminates the homes and workplaces of more than 1.2 million people in North Carolina

ElectriCities N.C. Member List

NCMPA1

Albemarle
Bostic
Cherryville
Cornelius
Drexel
Gastonia
Granite Falls
High Point
Huntersville
Landis
Lexington
Lincolnton
Maiden
Monroe
Morganton
Newton
Pineville
Shelby
Statesville

NCEMPA

Apex
Ayden
Belhaven
Benson
Clayton
Edenton
Elizabeth City
Farmville
Fremont
Greenville Utilities
Commission
Hamilton
Hertford
Hobgood
Hookerton
Kinston
La Grange
Laurinburg
Louisburg

Lumberton
New Bern
Pikeville
Red Springs
Robersonville
Rocky Mount
Scotland Neck
Selma
Smithfield
Southport
Tarboro
Wake Forest
Washington
Wilson

NON-POWER AGENCY

Concord
Dallas
East Carolina Univ.
Elizabeth City State Univ.
Enfield
Fayetteville PWC
Forest City
Fountain
Kings Mountain
Macclesfield
New River Light & Power (Boone)
North Carolina State Univ.
Pinetops
Sharpsburg
Stantonsburg
UNC-Chapel Hill
Walstonburg
Waynesville
Windsor
Winterville

ABOUT ELECTRICITIES

Services:

- Wholesale Power Administration
- Emergency Assistance / Mutual Aid
- Legislative and Regulatory Affairs
- Economic Development
- Commercial & Industrial Services
- Corporate Communications
- Learning & Development
- Electric Distribution System Operations
- Customer Service



NCMPA1 Generation Resources



Largest co-owner of
Catawba Nuclear Station



Supplemental, grid edge and customer resources:

- NCMPA1-Owned: 89 MW
- Customer-Owned: 96 MW
- SEPA Hydro: 67 MW
- Utility Scale Solar: 1 MW



Contracted peaking and
balancing resources
providing resource
adequacy

The Power Agencies: **NCMPA1**



19 North Carolina Municipal Power Agency
1 (NCMPA1) = 19 cities and towns in
western North Carolina

NCMPA1
RESOURCE MIX*
TO SERVE LOAD



90%
Nuclear



10%
**Hydro & Other
Renewables**

NCEMPA Generation Resources



Full Requirements
Power Purchase
Agreement with Duke
Energy Progress (DEP)



Supplemental, grid edge and customer resources:

- NCEMPA-Owned: 38 MW
- Customer-Owned: 210 MW
- SEPA Hydro: 28 MW
- PURPA Utility Scale Solar: 153 MW
- Batteries: 2 MW equivalent
- Voltage Control: 25 MW
- Load control switches: 75 MW

THE POWER AGENCIES: NCEMPA



32

North Carolina Eastern Municipal Power Agency (NCEMPA) = **32 cities and towns** in eastern North Carolina

NCEMPA
RESOURCE MIX*
TO SERVE LOAD



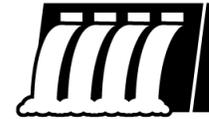
47%
Nuclear



35%
Natural Gas and Oil

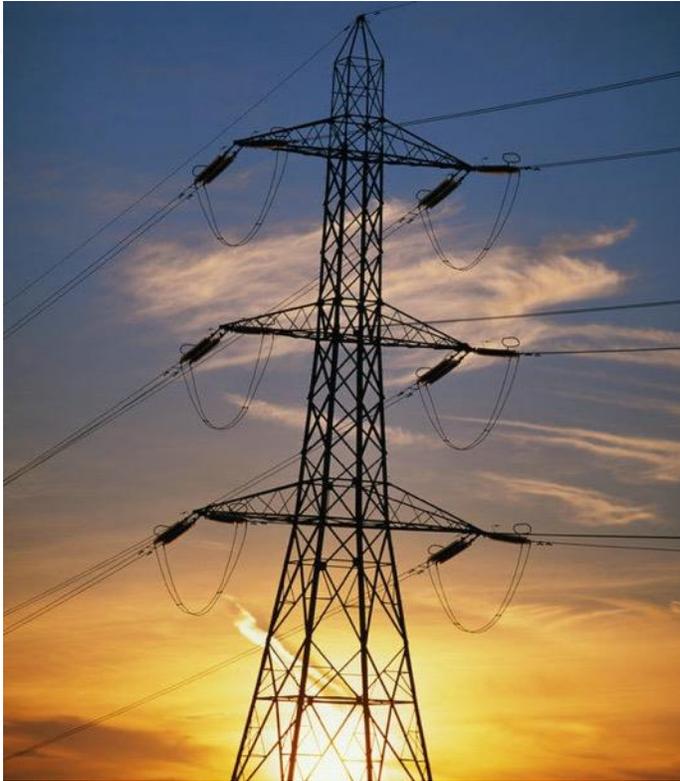


8%
Coal



10%
Hydro & Other Renewables

NC Transmission Planning Collaborative



- Formed by NC load serving utilities
- Process satisfies FERC Orders 890 and 1000 requirements
- Provides transparency for transmission planning process
- Includes stakeholder process
- Transmission projects \geq \$10 million

Power Agencies' Coordination Framework

- Network Integration Transmission Service Agreement (NITSA) and Network Operating Agreement (NOA)
- Dominion Transmission Agreement (NCEMPA only)
- Full-Requirements Power Purchase Agreement (NCEMPA only)
- NERC compliance
- NC Renewable Energy and Energy Efficiency Portfolio (REPS) compliance
- Real-time data exchange with Duke
- NC Transmission Planning Collaborative (NCTPC)

Distribution Planning



**Coordination with
DEP/DEC**



**Interconnection process
consistent with
other NC utilities**



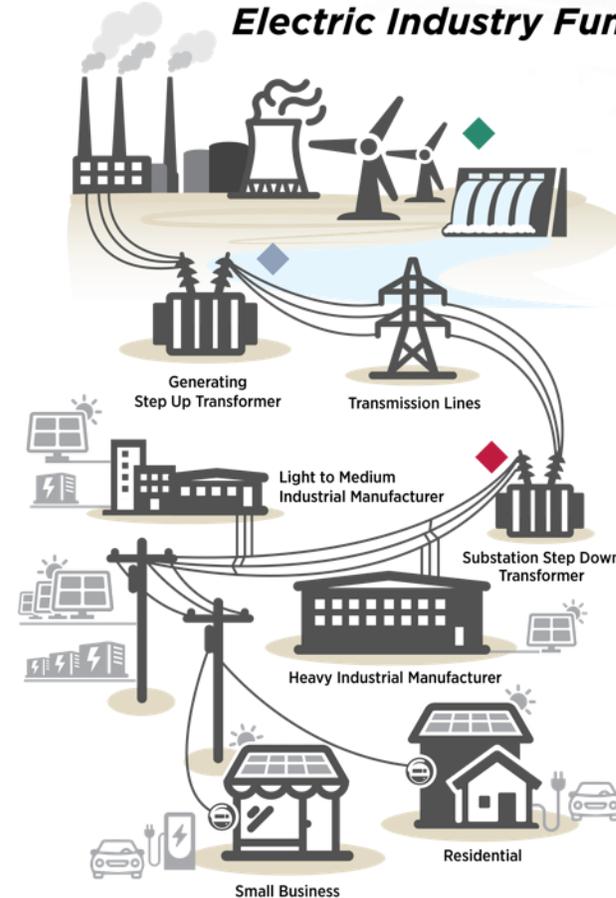
**Investments in energy
management system
technology**

Distribution Planning: Impact of DERs

- The electric industry is transitioning from a traditional, centralized power grid to a more distributed one integrating resources behind the customer's meter.
- Penetration rates are currently low but growing in Power Agency members.
- ElectriCities provides standardized Interconnection Standards and technical support for integrating DERs into electric Member distribution systems.
- Initiatives underway to adopt advanced modeling and tools required to maximize the value of DERs.

POWER TO YOU

Electric Industry Functionality



◆ GENERATION

The start of the energy source. This could be Coal, Natural Gas, Hydro Power, Nuclear, Non-Hydro Renewables, or Oil.

◆ TRANSMISSION

Transmission begins when the energy leaves the step up transformer. **Wholesale Power Sales** begin here. *Customers use 100kV or 230kV*

◆ DISTRIBUTION

Distribution begins when the energy leaves the step down transformer. **Wholesale Power Sales** end here. **Retail Power Sales** continue.

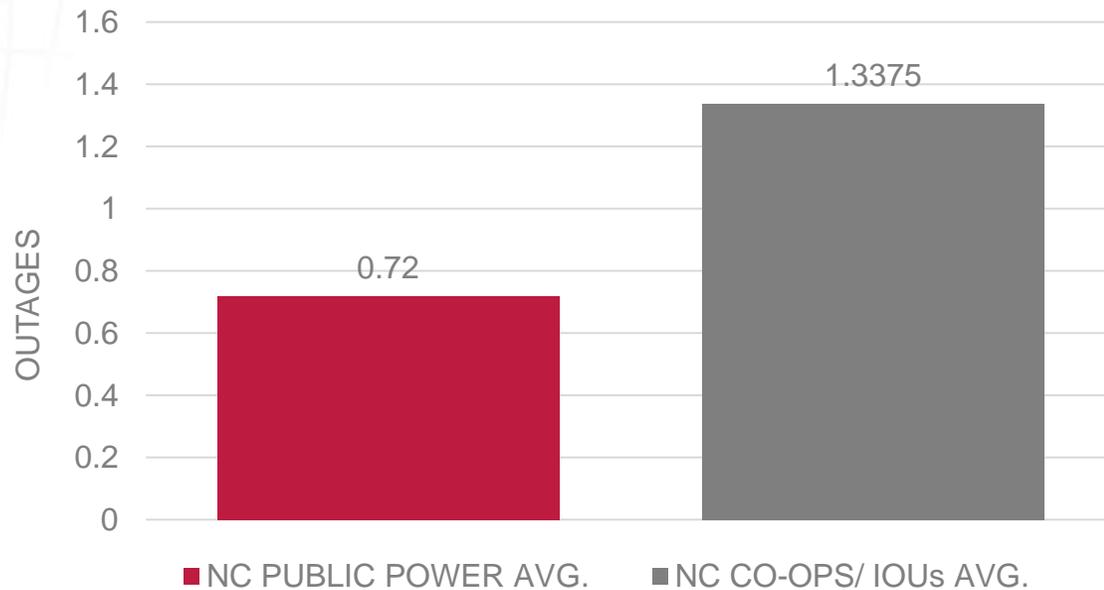
◆ **ELECTRICITIES** of NC

DISTRIBUTED ENERGY RESOURCES (DERs) shown in gray.

Distribution Operations: Reliability

Neighbor helping Neighbor

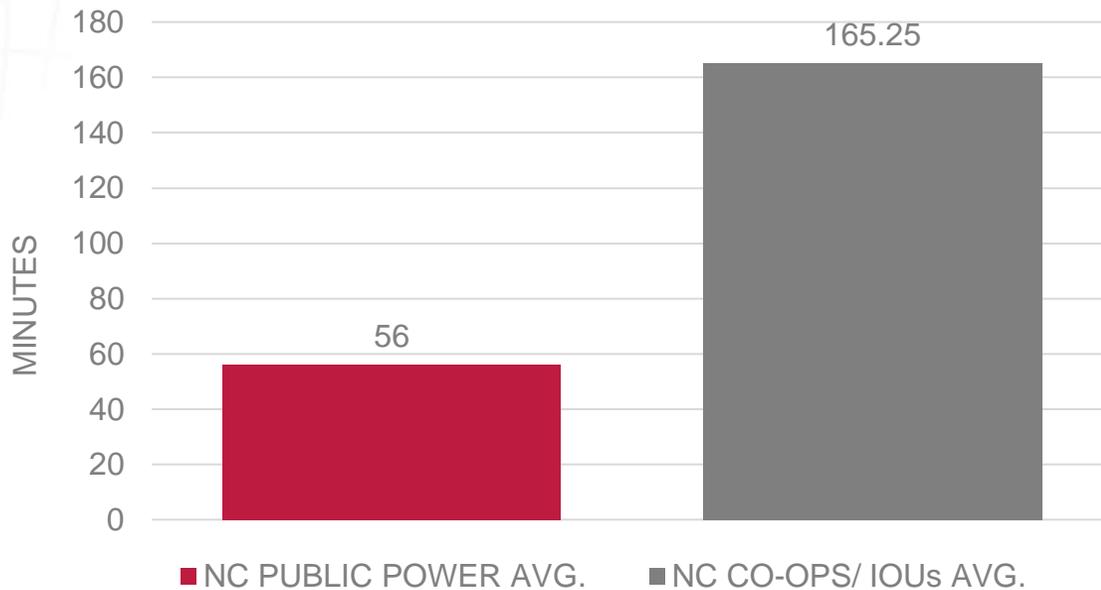
Avg. No. of Customer Outages - 2019



Distribution Operations: Reliability

Neighbor helping Neighbor

Avg. Outage Time Per Customer - 2019



Local Control

Decisions made in local communities

- Increased transparency
- Support for local government
- More efficient operations
- Support local priorities, values, and choices of the community



Thoughts on Enhanced Planning

- Comprehensive planning and coordination currently in place
 - Regulatory requirements
 - Contractual requirements
- Consider enhancement of existing efforts within the current regulatory and contractual construct
 - Duke's ISOP
 - Dominion's IDP
 - NCTPC
- Power Agencies are best suited to integrate DERs with the distribution, transmission and power supply planning process
 - We look forward to continued dialogue and engagement on enhanced planning issues


ELECTRICITIES
of NORTH CAROLINA, INC.

The energy behind public power

www.electricities.com

STAY CONNECTED

 @ElectriCitiesNC

 @ElectriCitiesNC

 @ElectriCitiesNC

 [company/electricitiesnc](https://www.linkedin.com/company/electricitiesnc)

 NC Public Power Channel



OFFICIAL COPY

Mar 10 2021