

# PUBLIC

## Part 3 of 4

### INFORMATION SHEET

PRESIDING: Commissioner Duffley, Presiding; Chair Mitchell, and Commissioners Brown-Bland, Clodfelter, Hughes, McKissick, Jr., and Kemerait

PLACE: Raleigh, NC

DATE: Wednesday, August 30, 2023

TIME: 2:00 p.m. to 4:58 p.m.

DOCKET NO.: E-7, Sub 1134 and E-7 Sub 1276

COMPANY: Duke Energy Carolinas, LLC

DESCRIPTION: In the Matter of Duke Energy Carolinas, LLC Application for Approval to Construct a 402 MW Natural Gas-Fired CombustionTurbine Electric Generating Facility in Lincoln County, and for anApplication for Adjustment of Rates and Charges Applicable toElectric Service in North Carolina and for Performance-BasedRegulation

VOLUME NUMBER: 11

#### APPEARANCES

See attached

#### WITNESSES

See attached

#### EXHIBITS

None attached

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REPORTED BY: Joann Bunze  
TRANSCRIBED BY: Joann Bunze  
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PLACE: Dobbs Building, Raleigh, North Carolina  
DATE: Wednesday, August 30, 2023  
TIME: 2:00 p.m. - 4:58 p.m.  
DOCKET NO: E-7, Sub 1134 and E-7, Sub 1276  
BEFORE: Commissioner Kimberly W. Duffley, Presiding  
Chair Charlotte A. Mitchell  
Commissioner ToNola D. Brown-Bland  
Commissioner Daniel G. Clodfelter  
Commissioner Jeffrey A. Hughes  
Commissioner Floyd B. McKissick, Jr.  
Commissioner Karen M. Kemerait

IN THE MATTER OF:

Duke Energy Carolinas, LLC

Application for Approval to Construct a 402 MW Natural  
Gas-Fired Combustion Turbine Electric Generating  
Facility in Lincoln County  
and

Application For Adjustment of Rates and Charges  
Applicable to Electric Service in North Carolina and  
for Performance-Based Regulation

VOLUME 11



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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE: 8-28-23 DOCKET NO.: E-7 Sub 1276

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CITY: RALEIGH STATE: NC ZIP CODE: 27602

APPEARANCE ON BEHALF OF: Duke Energy Carolinas, LLC

APPLICANT: ☒ COMPLAINANT: ☐ INTERVENOR: ☐

PROTESTANT: ☐ RESPONDENT: ☐ DEFENDANT: ☒

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JUL 17 2023

DATE: 6/21/2023 DOCKET NO.: E-7 Sub D76

ATTORNEY NAME and TITLE: Jason Higginbotham  
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APPEARANCE ON BEHALF OF: Duke Energy Carolinas LLC

APPLICANT: ☒ COMPLAINANT: \_\_\_\_\_ INTERVENOR: \_\_\_\_\_

PROTESTANT: \_\_\_\_\_ RESPONDENT: \_\_\_\_\_ DEFENDANT: \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
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May 26 2023

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CITY: CHARLOTTE STATE: NC ZIP CODE: 28202

APPEARANCE ON BEHALF OF: Duke Energy Carolinas, LLC

APPLICANT: ☒ COMPLAINANT: ☐ INTERVENOR: ☐

PROTESTANT: ☐ RESPONDENT: ☐ DEFENDANT: ☐

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**NORTH CAROLINA UTILITIES COMMISSION**  
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**PROTESTANT:**     **RESPONDENT:**     **DEFENDANT:**    

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**NORTH CAROLINA UTILITIES COMMISSION**  
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**APPEARANCE ON BEHALF OF:** DUKE ENERGY CAROLINAS, LLC

**APPLICANT:** XX **COMPLAINANT:** \_\_\_ **INTERVENOR:** \_\_\_

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**DATE:** 8-28-23 **DOCKET NO.:** E-7, Sub 1276

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 8/23/2023 **DOCKET NO.:** E-7 Sub 1276

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**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

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**SIGNATURE:** 

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 8-28-23 **DOCKET NO.:** E-7, Sub 1276

**ATTORNEY NAME and TITLE:** Christopher B. Dodd

**FIRM NAME:** Brooks Pierce McLendon Humphrey & Leonard, LLP

**ADDRESS:** 115 N. 3rd St #301

**CITY:** Wilmington **STATE:** NC **ZIP CODE:** 28401

**APPEARANCE ON BEHALF OF:** CUCA

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** X

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

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X **Yes, I have signed the Confidentiality Agreement.**

**Email:** cdodd@brookspierce.com

**SIGNATURE:** /s/ Christopher Dodd

**(Signature Required for distribution of CONFIDENTIAL information)**

**NORTH CAROLINA UTILITIES COMMISSION**  
**APPEARANCE SLIP**

**DATE:** August 22, 2023 **DOCKET NO.:** E-7, Sub 1276; E-7, Sub 1134

**ATTORNEY NAME and TITLE:** Christina Cress, Partner; Douglas "D.C." Conant, Associate (Bailey & Dixon, LLP)

Chris S. Edwards, Partner (Ward & Smith, LLP)

**FIRM NAME:** Bailey & Dixon, LLP (CDC & DC); Ward & Smith, LLP (CSE)

**ADDRESS:** 434 Fayetteville St., Ste. 2500 (Bailey & Dixon); 127 Racine Drive (Ward & Smith)

**CITY:** Raleigh (B&D); Wilmington (W&S) **STATE:** NC **ZIP CODE:** 27601 (B&D); 28403 (W&S)

**APPEARANCE ON BEHALF OF:** CIGFUR III, Haywood EMC, Blue Ridge EMC, Piedmont EMC, and Rutherford EMC

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** X

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

**Non-confidential transcripts are located on the Commission's website.** To view and/or print transcripts, go to <https://www.ncuc.net/>, hover over the Dockets tab, select Docket Search, enter the docket number, and click search, select the highlighted docket number and select Documents for a list of all documents filed.

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X **Yes, I have signed the Confidentiality Agreement.**

**Email:** ccress@bdixon.com

**SIGNATURE:** Christina D. Cress

Digitally signed by Christina D. Cress  
Date: 2023.08.22 13:33:10 -0400

**(Signature Required for distribution of CONFIDENTIAL information)**



**NORTH CAROLINA UTILITIES COMMISSION**  
**APPEARANCE SLIP**

**DATE:** 8/28/23 **DOCKET NO.:** E-7 Sub 1276

**ATTORNEY NAME and TITLE:** Ethan Blumenthal, Regulatory Counsel

**FIRM NAME:** North Carolina Sustainable Energy Association

**ADDRESS:** 4800 Six Forks Rd., Suite 300

**CITY:** Raleigh **STATE:** NC **ZIP CODE:** 27609

**APPEARANCE ON BEHALF OF:** North Carolina Sustainable Energy Association

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** x

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

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\_\_\_\_\_ **Yes, I have signed the Confidentiality Agreement.**

**Email:** ethan@energync.org

**SIGNATURE:** Ethan Blumenthal

Digitally signed by Ethan Blumenthal  
Date: 2023.08.27 21:17:22 -0400

**(Signature Required for distribution of CONFIDENTIAL information)**

NORTH CAROLINA UTILITIES COMMISSION

APPEARANCE SLIP

DATE: 8-28-23 DOCKET NO.: E-7, sub 1276

ATTORNEY NAME and TITLE: Cassie Gavin, Director of Policy

FIRM NAME: NCSEA

ADDRESS: 4800 Six Forks Rd, suite 300

CITY: Raleigh STATE: NC ZIP CODE: 27609

APPEARANCE ON BEHALF OF: NCSEA

APPLICANT: \_\_\_ COMPLAINANT: \_\_\_ INTERVENOR: X

PROTESTANT: \_\_\_ RESPONDENT: \_\_\_ DEFENDANT: \_\_\_

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**ONLY** fill out this portion if you have signed an NDA to receive **CONFIDENTIAL** transcripts and/or exhibits:

☐ Yes, I have signed the Confidentiality Agreement.

Email: cassie@energync.org

SIGNATURE: /s/ KTM: Cassie Gavin

(Signature Required for distribution of **CONFIDENTIAL** information)

**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

DATE: 8/28/23 DOCKET NO.: E-7, Sub 1274

ATTORNEY NAME and TITLE: Ben Snowden, Partner

FIRM NAME: Fox Rothschild LLP

ADDRESS: 434 Fayetteville St., Suite 2800

CITY: Raleigh STATE: NC ZIP CODE: 27601

APPEARANCE ON BEHALF OF: North Carolina League of Municipalities

APPLICANT:     COMPLAINANT:     INTERVENOR: x

PROTESTANT:     RESPONDENT:     DEFENDANT:    

Non-confidential transcripts are located on the Commission's website. To view and/or print transcripts, go to <https://www.ncuc.net/>, hover over the Dockets tab, select Docket Search, enter the docket number, and click search, select the highlighted docket number and select Documents for a list of all documents filed.

**ONLY** fill out this portion if you have signed an NDA to receive **CONFIDENTIAL** transcripts and/or exhibits:

x Yes, I have signed the Confidentiality Agreement.

Email: bsnowden@foxrothschild.com

SIGNATURE: BSnowden

Digitally signed by BSnowden  
Date: 2023.04.27 16:52:04 -0400

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 8/25/2023 **DOCKET NO.:** E-7 Sub 1276

**ATTORNEY NAME and TITLE:** \_\_\_\_\_

Alan Jenkins

**FIRM NAME:** Jenkins at Law, LLC

**ADDRESS:** 2950 Yellowtail Ave

**CITY:** Marathon **STATE:** FL **ZIP CODE:** 33050

**APPEARANCE ON BEHALF OF:** The Commercial Group

**APPLICANT:** \_\_\_\_ **COMPLAINANT:** \_\_\_\_ **INTERVENOR:** x \_\_\_\_

**PROTESTANT:** \_\_\_\_ **RESPONDENT:** \_\_\_\_ **DEFENDANT:** \_\_\_\_

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\_\_\_\_\_ **Yes, I have signed the Confidentiality Agreement.**

**Email:** aj@jenkinsatlaw.com

**SIGNATURE:** \_\_\_\_\_

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** August 22, 2023 **DOCKET NO.:** E-7, Sub 1276

**ATTORNEY NAME and TITLE:** Catherina Cralle Jones

**FIRM NAME:** Law Offices of F. Bryan Brice, Jr.

**ADDRESS:** 130 S. Salisbury Street

**CITY:** Raleigh **STATE:** NC **ZIP CODE:** 27601

**APPEARANCE ON BEHALF OF:** Sierra Club

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** X

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

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ONLY fill out this portion if you have signed an NDA to receive **CONFIDENTIAL** transcripts and/or exhibits:

X Yes, I have signed the Confidentiality Agreement.

**Email:** cathy@attlybryanbrice.com

**SIGNATURE:** Catherina Cralle Jones

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** August 22, 2023 **DOCKET NO.:** E-7, Sub 1276

**ATTORNEY NAME and TITLE:** Andrea C. Bonvecchio

**FIRM NAME:** Law Offices of F. Bryan Brice, Jr.

**ADDRESS:** 130 S. Salisbury Street

**CITY:** Raleigh **STATE:** NC **ZIP CODE:** 27601

**APPEARANCE ON BEHALF OF:** Sierra Club

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** X

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

Non-confidential transcripts are located on the Commission's website. To view and/or print transcripts, go to <https://www.ncuc.net/>, hover over the Dockets tab, select Docket Search, enter the docket number, and click search, select the highlighted docket number and select Documents for a list of all documents filed.

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X Yes, I have signed the Confidentiality Agreement.

**Email:** andrea@attybryanbrice.com

**SIGNATURE:** Andrea C. Bonvecchio

(Signature Required for distribution of **CONFIDENTIAL** information)

**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** August 28, 2023 **DOCKET NO.:** E-7, Sub 1276, \_\_\_\_\_

**ATTORNEY NAME and TITLE:** David L. Neal, Senior Attorney

**FIRM NAME:** Southern Environmental Law Center

**ADDRESS:** 601 West Rosemary Street, Suite 220

**CITY:** Chapel Hill **STATE:** North Carolina **ZIP CODE:** 27516

**APPEARANCE ON BEHALF OF:** \_\_\_\_\_

North Carolina Justice Center, North Carolina Housing Coalition, Southern Alliance for Clean Energy, Natural Resources Defense Council,  
and Vote Solar (NCJC, et al.)

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** x

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

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**Email:** dneal@selcnc.org

**SIGNATURE:**  2023.08.23 12:33:09 -04'00'

**(Signature Required for distribution of CONFIDENTIAL information)**

**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 08/28/2023 **DOCKET NO.:** E-7, Sub 1276

**ATTORNEY NAME and TITLE:** Munaashe Magarira, Staff Attorney

**FIRM NAME:** Southern Environmental Law Center

**ADDRESS:** 601 W Rosemary Street, Suite 220

**CITY:** Chapel Hill **STATE:** NC **ZIP CODE:** 27516

**APPEARANCE ON BEHALF OF:** North Carolina Justice Center, North Carolina Housing Coalition,

Natural Resources Defense Council, Southern Alliance for Clean Energy, and Vote Solar

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** x

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

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x **Yes, I have signed the Confidentiality Agreement.**

**Email:** mmagarira@selcnc.org

**SIGNATURE:** 

Digitally signed by Munaashe Magarira  
Date: 2023.08.22 09:28:18 -0400

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 05/04/2023 **DOCKET NO.:** E-2 Sub 1300

**ATTORNEY NAME and TITLE:** Thomas Gooding, Associate Attorney

**FIRM NAME:** Southern Environmental Law Center

**ADDRESS:** 601 W. Rosemary Street, Suite 220

**CITY:** Chapel Hill **STATE:** NC **ZIP CODE:** 27516

**APPEARANCE ON BEHALF OF:** North Carolina Justice Center, North Carolina Housing Coalition,

Natural Resources Defense Council, Southern Alliance for Clean Energy, and Vote Solar

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** X

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

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X **Yes, I have signed the Confidentiality Agreement.**

**Email:** tgooding@selcnc.org

**SIGNATURE:** Thomas Gooding

Digitally signed by Thomas Gooding  
Date: 2023.04.29 12:46:36 -0400

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# NORTH CAROLINA UTILITIES COMMISSION

## APPEARANCE SLIP

DATE: 08/22/2023 DOCKET NO.: E-7, Sub 1276

ATTORNEY NAME and TITLE: Matthew D. Quinn, Partner

FIRM NAME: Lewis & Roberts, PLLC

ADDRESS: P. O. Box 17529

CITY: Raleigh STATE: NC ZIP CODE: 27619

APPEARANCE ON BEHALF OF: NC WARN

APPLICANT: \_\_\_ COMPLAINANT: \_\_\_ INTERVENOR: X

PROTESTANT: \_\_\_ RESPONDENT: \_\_\_ DEFENDANT: \_\_\_

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Email:

**SIGNATURE:** \_\_\_\_\_

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**NORTH CAROLINA UTILITIES COMMISSION**  
**APPEARANCE SLIP**

**DATE:** 8-28-2023 **DOCKET NO.:** E-7 Sub 1279

**ATTORNEY NAME and TITLE:** Kurt Boehm

**FIRM NAME:** Boehm, Kurtz & Lowry

**ADDRESS:** 36 East Seventh Street, Suite 1510

**CITY:** Cincinnati **STATE:** Ohio **ZIP CODE:** 45202

**APPEARANCE ON BEHALF OF:** Kroger Co. and Harris Teeter

**APPLICANT:**     **COMPLAINANT:**     **INTERVENOR:** X

**PROTESTANT:**     **RESPONDENT:**     **DEFENDANT:**    

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**Email:** kboehm@bkllawfirm.com

**SIGNATURE:** 

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# NORTH CAROLINA UTILITIES COMMISSION

# APPEARANCE SLIP

DATE: August 25, 2023 DOCKET NO.: E-7 Sub 1276

ATTORNEY NAME and TITLE: Jody Kyler Cohn, Esq.

FIRM NAME: Boehm, Kurtz & Lowry

**ADDRESS:** 36 East 7th Street, Suite 1510

CITY: Cincinnati STATE: Ohio ZIP CODE: 45202

APPEARANCE ON BEHALF OF: The Kroger Company

APPLICANT: \_\_\_\_\_ COMPLAINANT: \_\_\_\_\_ INTERVENOR: ☒ \_\_\_\_\_

PROTESTANT: \_\_\_\_ RESPONDENT: \_\_\_\_ DEFENDANT: \_\_\_\_

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Email:

**SIGNATURE:** \_\_\_\_\_

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 08/25/2023 **DOCKET NO.:** E-2 Sub1300

**ATTORNEY NAME and TITLE:** Benjamin M. Royster, Attorney

**FIRM NAME:** Royster & Royster PLLC

**ADDRESS:** 851 Marshall St.

**CITY:** Mt. Airy **STATE:** NC **ZIP CODE:** 27030

**APPEARANCE ON BEHALF OF:** Kroger Co. and Harris Teeter

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** x\_\_\_

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

**Non-confidential transcripts are located on the Commission's website.** To view and/or print transcripts, go to <https://www.ncuc.net/>, hover over the Dockets tab, select Docket Search, enter the docket number, and click search, select the highlighted docket number and select Documents for a list of all documents filed.

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**SIGNATURE:** \_\_\_\_\_

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 8-28-23 **DOCKET NO.:** E-7, Sub 1276

**ATTORNEY NAME and TITLE:** Marcus W. Trathen

**FIRM NAME:** Brooks Pierce McLendon Humphrey & Leonard, LLP

**ADDRESS:** 1700 Wells Fargo Capitol Center, 150 Fayetteville St.

**CITY:** Raleigh **STATE:** NC **ZIP CODE:** 27601

**APPEARANCE ON BEHALF OF:** Andale, LLC

**APPLICANT:**     **COMPLAINANT:**     **INTERVENOR:** x

**PROTESTANT:**     **RESPONDENT:**     **DEFENDANT:**    

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**Email:** mtrathen@brookspierce.com

**SIGNATURE:** /s/ Marcus Trathen

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** 8/28/2023 **DOCKET NO.:** E-7, Sub 1276

**ATTORNEY NAME and TITLE:** Tirill Moore

Assistant Attorney General

**FIRM NAME:** North Carolina Attorney General's Office

**ADDRESS:** 114 West Edenton Street

**CITY:** Raleigh **STATE:** NC **ZIP CODE:** 27602

**APPEARANCE ON BEHALF OF:** The using and consuming public; the State and its citizens

**APPLICANT:** \_\_\_ **COMPLAINANT:** \_\_\_ **INTERVENOR:** X

**PROTESTANT:** \_\_\_ **RESPONDENT:** \_\_\_ **DEFENDANT:** \_\_\_

**Non-confidential transcripts are located on the Commission's website.** To view and/or print transcripts, go to <https://www.ncuc.net/>, hover over the Dockets tab, select Docket Search, enter the docket number, and click search, select the highlighted docket number and select Documents for a list of all documents filed.

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**Email:** temoore@ncdoj.gov

**SIGNATURE:** 

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**NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP**

**DATE:** August 28, 2023 **DOCKET NO.:** E-7, Sub 1276

**ATTORNEY NAME and TITLE:** Derrick C. Mertz, Special Deputy Attorney General;

**FIRM NAME:** North Carolina Department of Justice

**ADDRESS:** 114 W. Edenton Street

**CITY:** Raleigh **STATE:** NC **ZIP CODE:** 27603

**APPEARANCE ON BEHALF OF:** The using and consuming public pursuant to N.C.G.S. sec. 62-20, and

on behalf of the State of North Carolina and its citizens pursuant to N.C.G.S. sec. 114-2(8)

**APPLICANT:**     **COMPLAINANT:**     **INTERVENOR:** X

**PROTESTANT:**     **RESPONDENT:**     **DEFENDANT:**    

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X **Yes, I have signed the Confidentiality Agreement.**

**Email:** dmertz@ncdoj.gov

**SIGNATURE:** Derrick Mertz

Digitally signed by Derrick Mertz  
Date: 2023.08.23 15:26:03 -0400

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**NORTH CAROLINA UTILITIES COMMISSION**  
**PUBLIC STAFF - APPEARANCE SLIP**

DATE August 28, 2023

DOCKET # : E-7, Sub 1276

PUBLIC STAFF ATTORNEY Lucy E. Edmondson; Robert B. Josey; Nadia L. Luhr; Thomas J. Felling; William E. H. Creech; William S.F. Freeman; Anne M. Keyworth

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ACCOUNTING \_\_\_\_\_

CONSUMER SERVICES \_\_\_\_\_

COMMUNICATIONS \_\_\_\_\_

ENERGY \_\_\_\_\_

ECONOMICS \_\_\_\_\_

LEGAL lucy.edmondson@psncuc.nc.gov; robert.josey@psncuc.nc.gov; nadia.luhr@psncuc.nc.gov; thomas.felling@psncuc.nc.gov;  
zeke.creech@psncuc.nc.gov; william.freeman@psncuc.nc.gov; anne.keyworth@psncuc.nc.gov

TRANSPORTATION \_\_\_\_\_

WATER \_\_\_\_\_

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Commission's website. To view and/or print, please  
access <https://www.ncuc.net/>.

COUNSEL/MEMBER(S) REQUESTING A **CONFIDENTIAL** TRANSCRIPT  
WHO HAS SIGNED A CONFIDENTIALITY AGREEMENT WILL NEED TO  
SIGN BELOW.

/s/ Lucy E. Edmondson

/s/ Robert B. Josey

/s/ Nadia L. Luhr

/s/ Thomas J. Felling

/s/ William E. H. Creech

/s/ William Freeman

/s/ Anne M. Keyworth

# LIAC Subteam C Tasks

## SUB-TEAM C

### Rates & Program Offerings

Address Commission questions regarding existing rates, rate design, billing practices, customer assistance programs and energy efficiency programs

3.a-1) Define success criteria to be used for affordability programs

3.a-2) Determine metrics to be used to monitor program impact

**3.b/c) Assess existing Duke Energy income-qualified programs (3 tasks)**

**3.d) Develop income-qualified program alternatives (2 tasks)**

**3.e) Assess set of Commission-identified rates and programs (5 tasks)**

**3.f) Determine rate impact implications of assessed programs (4 tasks)**

3.h-1) Determine what practices and regulatory provisions related to disconnections for nonpayment should be modified or revised

3.i-1) Identify existing utility and external funding sources are available to address affordability

3.i-2) Estimate the level of resources that would be required to serve additional customers

3.j-1) Identify opportunities and challenges of the utilities working with other agencies and organizations to collaborate and coordinate delivery of programs that affect affordability concerns

# Recap of Completed Tasks

SUB-TEAM C Rates & Program Offerings			
Task	Work Product	Date Shared with/Sent to LIAC	Date Discussed with LIAC
3.a-1) Define success criteria to be used for affordability programs	Table that defines general program success criteria with metrics to monitor	June 9, 2022 via email	June 9, 2022 at Workshop 8
3.a-2) Determine metrics to be used to monitor program impact	Table that defines general program success criteria with metrics to monitor	June 9, 2022 via email	June 9, 2022 at Workshop 8
3.b/c) Assess existing Duke Energy income-qualified programs	Presentations on current Duke Program Offerings	SSI – June 9, 2022 via email WERP, RRP, & NES - May 19, 2022 via email	SSI – June 9, 2022 at Workshop 8 WERP, RRP, & NES – May 19, 2022 at Workshop 7
3.d) Develop income-qualified program alternatives (Pitch Day)	Program Proposal Process	April 12 via email  Completed via email June 9th	April 20 Pitch Day  Completed June 9th at Workshop 8
3.e) Assess set of Commission-identified rates and programs	General Statement	June 9, 2022 via email	June 9, 2022 at Workshop 8

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# Recap of Completed Tasks

SUB-TEAM C Rates & Program Offerings			
Task	Work Product	Date Shared with/Sent to LIAC	Date Discussed with LIAC
3.f/g) Determine rate impact implications of assessed programs	Presentation on findings/Summary on Conclusions	December 2, 2021 via email	December 9, 2021 at Workshop 4
3.h-1) Determine what practices and regulatory provisions related to disconnections for nonpayment should be modified or revised	Presentation on Findings and Conclusions	May 19, 2021 via email	May 19, 2021 at Workshop 7
3.i-1) Identify existing utility and external funding sources are available to address affordability	Tables that identifies Utility and External Funding sources	June 9, 2022 via email	June 9, 2022 at Workshop 8
3.j-1) Identify opportunities and challenges of the utilities working with other agencies and organizations to collaborate and coordinate delivery of programs that affect affordability concerns	Table of Opportunities and Challenges for Specific Organizations	June 9, 2022 via email	June 9, 2022 at Workshop 8

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# Subteam C New Information being Shared Today

1. Legal Findings – Task 3e
2. DEP Data Update Cross-Subsidy Analysis – Task 3b/c
3. SSI Overview – Task 3b/c
4. Success Criteria and Metrics to monitor program impact – Task 3a
5. Funding Sources and Opportunities/Challenges – Task 3j/i



# LEGAL FINDINGS

## Task 3e

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# Legal Findings

3e: Are the following programs, in addition to any others agreed upon by the collaborative, appropriate for implementation in North Carolina and, if so, what statutory or regulatory changes are necessary to permit implementation:

- minimum bill concepts as a substitute for fixed monthly charges;
- income-based rate plans, such as Ohio's percentage of income payment plan;
- segmentation of the existing residential rate class to take into account different levels of usage;
- expanding eligibility for DEC's current SSI-based program to include additional groups of ratepayers;
- a specific component in rates to be used to fund supplemental support programs,

**“The Commission has broad authority under existing North Carolina law, but whether any particular proposal or program may require regulatory or statutory changes to be implemented cannot be determined in the abstract without a more detailed proposal.”**



# DEP/DEC DATA UPDATE CROSS- SUBSIDY ANALYSIS

## Task 3b/c

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# NC Low Income Collaborative Cross-Subsidy Analysis

June 2022



# Causes of Cross-Subsidies

- Prices do not perfectly match cost-of-service
  - Impractical – cost allocation is often retrospective, while rate design is forward looking
- Utilities are network systems
  - Contains a variety of joint and common system costs that are shared (i.e. socialized) among all customers
  - Cross-subsidies are inherent in network systems
    - i.e. some customers will pay more or less their fair share of the common system costs
    - i.e. some cross-subsidies or “cost shifts” are generally unavoidable in any rate design (although nature and magnitude may differ depending on the specific rate design)



- The cross-subsidy analysis was done using data from the Comprehensive Rate Design Study
  - Key difference is the time period for the CRDS was May 2020 – April 2021 (LIAC time period was March 2019 – February 2020)
    - Different time periods were used due to data needs for non-residential rate schedules reviewed in the CRDS, and wanted all analyses in that collaborative to be in the same time period
- The cross-subsidy analysis is a “point in time” study, and any results should be taken as instructive rather than precise measures
- Analyses relies on commission-approved methodologies for cost of service allocation, rate design allocation, and avoided cost proceedings
  - Changes in the methodologies would impact any cross-subsidy results
- Not all factors, such as location-based factors that affect transmission and distribution costs, could be included
  - For example, distribution costs for rural customers would be higher per capita than customers in a city center, however those costs are not separated by location in the cost of service study

# Results

# Cross-Subsidy Analysis by Income Level and Arrears Status – DEP RES

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\*Not all customers can be categorized, resulting in percentages not necessarily summing to 100%



## Explanation of Cross-Subsidy Analysis for LIEAP/CIP Recipients – DEP RES

- Embedded Cost: Lower summer CP demands result in relatively fewer costs being allocated to LIEAP/CIP recipients, causing revenues to exceed costs (i.e. they are cross-subsidizing other customers by around \$11/bill).
- Marginal Cost: Higher winter CP demands result in relatively more costs being allocated to LIEAP/CIP recipients than in the embedded cost analysis, essentially eliminating this cross-subsidy
- A straight average of the embedded cost and marginal cost subsidy results in a \$6 subsidy per month (\$72 per year)
- Higher usage (and thus revenues) year-round for customers that meet the arrearage definition, results in customers paying more than the average customer

# Cross-Subsidy Analysis by Income Level and Arrears Status – DEC RS



\*Not all customers can be categorized, resulting in percentages not necessarily summing to 100%

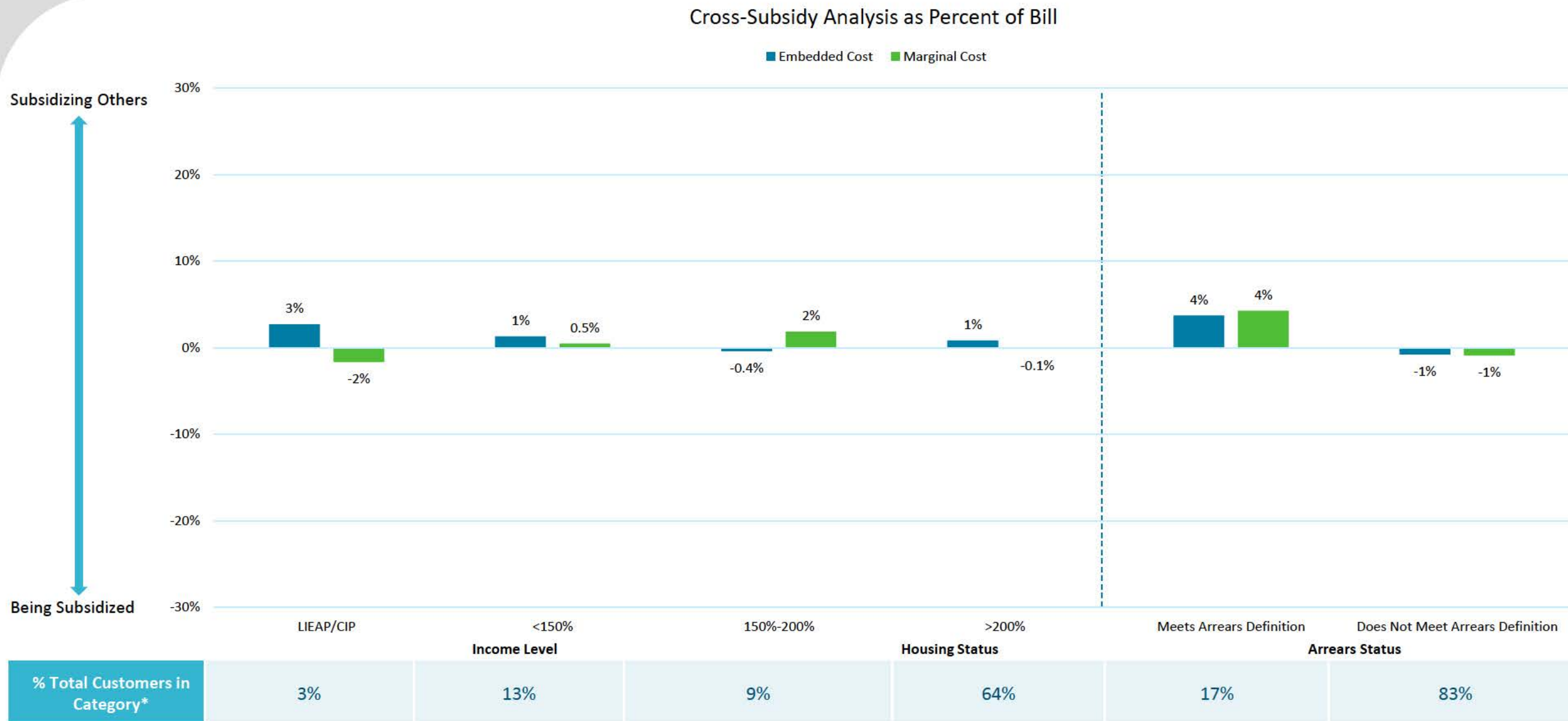


## Explanation of Cross-Subsidy Analysis for LIEAP/CIP Recipients – DEC RS

- A relatively higher winter CP compared to the summer CP results in the cross-subsidy being reduced in the marginal cost analysis compared to the embedded cost analysis
- RS LIEAP/CIP customer use roughly 160 kWh more energy than the average RS customer
  - It is not clear why this is the case
- Under both lenses, RS LIEAP/CIP customers subsidize others due to higher usage/revenues
- A straight average of the embedded cost and marginal cost subsidy results in a \$13.50 subsidy per month (\$162 per year)
- Customers that meet the arrearage definition are cross-subsidizing others due to higher usage



# Cross-Subsidy Analysis by Income Level and Arrears Status – DEC RE



\*Not all customers can be categorized, resulting in percentages not necessarily summing to 100%

# Explanation of Cross-Subsidy Analysis for LIEAP/CIP Recipients – DEC RE

- RE LIEAP/CIP recipients on average use less than ~160 kWh less than the average RE customer, resulting in reduced bills/revenue. As a result, the embedded cross-subsidy is small and under the marginal lens they are subsidizing other customers.
- A straight average of the embedded cost and marginal cost subsidy results in a \$0.50 subsidy per month (\$6 per year)
- Customers that meet the arrearage definition cross-subsidize others but to a lesser extent than for RS

# Numerical View of Cross-Subsidy Analysis – DEP RES

<u>DEP-RES</u>	Avg Customer in Analysis	LIEAP/CIP	<150% FPL	150%-200% FPL	>200% FPL	Meets Arrears Definition	Does Not Meet Arrears Definition
Embedded Subsidy as Percent of Bill	n/a	8%	3%	2%	-1%	6%	-1%
Marginal Subsidy as Percent of Bill	n/a	1%	0%	0.4%	1%	4%	-1%
Embedded Subsidy	n/a	\$11	\$4	\$3	\$(2)	\$9	\$(1)
Marginal Subsidy	n/a	\$1	\$0	\$1	\$1	\$6	\$(1)
Straight Average Subsidy	n/a	\$6	\$2	\$2	\$(0.50)	\$7.50	\$(1)
Average Bill	\$130	\$135	\$131	\$133	\$132	\$143	\$ 128
Average kWh	1,112	1,161	1,122	1,142	1,130	1,241	1,094
Avg Summer CP	3.3	2.7	3.1	3.2	3.5	3.2	3.3
Avg Winter CP	3.2	3.6	3.3	3.4	3.2	3.5	3.1

Embedded, marginal, and straight average subsidy are on a monthly basis



# Numerical View of Cross-Subsidy Analysis – DEC RS

<u>DEC-RS</u>	Avg Customer in Analysis	LIEAP/CIP	<150% FPL	150%-200% FPL	>200% FPL	Meets Arrears Definition	Does Not Meet Arrears Definition
Embedded Subsidy as Percent of Bill	n/a	16%	5%	-3%	4%	9%	-2%
Marginal Subsidy as Percent of Bill	n/a	6%	-1%	-1%	2%	6%	-1%
Embedded Subsidy	n/a	\$20	\$6	\$(4)	\$5	\$11	\$(2)
Marginal Subsidy	n/a	\$7	\$(1)	\$(1)	\$2	\$8	\$(1)
Straight Average Subsidy	n/a	\$13.50	\$2.50	\$(2.50)	\$1.50	\$9.50	\$(1.50)
Average Bill	\$110	\$125	\$109	\$110	\$111	\$123	\$108
Average kWh	1,059	1,215	1,045	1,056	1,068	1,202	1,037
Avg Summer CP	3.4	2.8	3.0	3.6	3.2	3.3	3.4
Avg Winter CP	2.5	3.2	2.5	2.5	2.5	2.7	2.5

Embedded, marginal, and straight average subsidy are on a monthly basis

# Numerical View of Cross-Subsidy Analysis – DEC RE

<u>DEC-RE</u>	Avg Customer in Analysis	LIEAP/CIP	<150% FPL	150%-200% FPL	>200% FPL	Meets Arrears Definition	Does Not Meet Arrears Definition
Embedded Subsidy as Percent of Bill	n/a	3%	1%	0%	1%	4%	-1%
Marginal Subsidy as Percent of Bill	n/a	-2%	0%	2%	0%	4%	-1%
Embedded Subsidy	n/a	\$3	\$2	\$(0)	\$1	\$5	\$(1)
Marginal Subsidy	n/a	\$(2)	\$1	\$2	\$(0)	\$5	\$(1)
Straight Average Subsidy	n/a	\$0.50	\$1.50	\$1	\$0.50	\$5	\$(1)
Average Bill	\$118	\$105	\$115	\$122	\$120	\$124	\$117
Average kWh	1,228	1,065	1,194	1,267	1,253	1,295	1,215
Avg Summer CP	2.9	2.2	2.7	3.1	3.0	2.9	2.9
Avg Winter CP	3.9	3.2	3.8	4.0	4.1	3.9	3.9

Embedded, marginal, and straight average subsidy are on a monthly basis

- The DEC RS and RE results are slightly different from what was presented in the Comprehensive Rate Design Study March 11 Residential Working Group meeting
  - Small calculation error, that when corrected changed:
    - RS <150% FPL embedded cost reduced by 1 percentage point
    - RS <150% FPL marginal cost increased by 0.9 percentage points
    - RS >200% FPL marginal cost increased by 1 percentage point
    - RS Meets Arrears Definition embedded cost reduced by 1 percentage point
    - RE >200% FPL marginal cost decreased by 1.1 percentage points
    - RE Meets Arrears Definition marginal cost increased by 2 percentage points
- All LIAC analytics combined DEP and DEC customers into one group for analysis, while the cross-subsidy analyses are broken into DEP and DEC, and DEC is further broken into the RS and RE rate schedules
- DEP and DEC results cannot be directly compared because the system costs are different



I/A

# SSI OVERVIEW

## Task 3b/c

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## NCUC Order

Investigate the strengths and weaknesses of existing rates, rate design, billing practices, customer assistance programs and energy efficiency programs in addressing affordability. Questions that should be addressed include:

- What defines a “successful program” and what metrics should be monitored and presented that show the impact of programs on addressing or mitigating affordability challenges?
- What percentage of residential customers are eligible for each existing program and what percentage of eligible customers enroll in and/or take advantage of these programs?
- What is the impact of existing programs on the energy burden for enrolled customers?
- Should existing programs be maintained, replaced or terminated? If maintained, should any changes be made to improve results? If programs are replaced, what would replace them?
- What existing utility and external funding sources are available to address affordability? Estimate the level of resources that would be required to serve additional customers
- What are the opportunities (and challenges) of the utilities working with other agencies and organizations to collaborate and coordinate delivery of programs that affect affordability concerns?



## Supplemental Security Income (SSI) Discount

**Duke Energy Carolinas** offers a bill discount to eligible Supplemental Security Income (SSI) recipients.

Supplemental Security Income (SSI) is a federal income supplement program designed to help elderly, blind, and disabled people who have little or no income. It provides cash to meet basic needs for food, clothing, and shelter.

The North Carolina Utilities Commission approved bill discount for recipients of SSI on August 31, 1978:

- Experimental discount rate under the hypothesis that SSI recipients have usage characteristics that differ substantially from the average residential customer - as a result have a small impact on system costs.
- A 1981 Research Triangle Institute study on Duke Power customers who were SSI recipients concluded: "If the North Carolina Utilities Commission feels that this particular class of customers should be granted special rate consideration, then there exist cost as well as social equity justifications for doing so."

# Supplemental Security Income (SSI) Discount

**Eligibility Requirements:** (Primary Account Holder) must meet all of the following:

- DEC residential customers in North Carolina
- SSI supplement check recipient
- Must be either blind, disabled or 65 years of age and older
- Head of household and/or the principal wage earner
- Recipient name must be Duke Energy account holder (Customer must be on electric rate NCER RS or NCER RE)

## Program Administration:

- This rate is offered to DEC NC customers by the NC Department of Human Resources (DHS). If it is determined that a customer is eligible for this rate, DHS provides the customer with an application that must be completed and mailed to:

Duke Energy c/o Billing Account Maintenance  
9700 David Taylor Dr.  
Charlotte, NC 28262-2363

## Program Promotion:

- Bill insert is sent annually to all NC residential customers with details about available residential rates.
- Outside of the annual bill insert, and notices mailed by DHS, there are no other promotional activities involving the SSI rate that we are aware of.

## Program Information:

- Customers that use more than 350 kWh per month receive a discount of \$3.17
- Customers that use less than 350 kWh per month receive a discount equal to: total kWh x .9054 cents
- $9.3826 \text{ cents/kWh} - 8.47772 \text{ cents/kWh} = 0.9054 \text{ cents/kWh}$  discount
- This discount is only available for DEC customers
- A previous customer taken off the SSI Rate, who qualifies again in the future, must reapply.
- SSI status will be canceled for customers that final bill or transfer service. Customers who remain eligible must reapply.



# SUCCESS CRITERIA AND METRICS TO MONITOR PROGRAM IMPACT

## Task 3a



# Success Criteria and Metrics to Monitor Program Impact

	Success Criteria (Desired Outcome)	Metrics recommended to Monitor Program Impact (By Program) <sup>1</sup>
1	Minimize Barriers for Customers to Participate	<ul style="list-style-type: none"><li>• Number of Customers Served</li><li>• Percent of Customers Served</li><li>• Percent of Eligible Customers Served</li><li>• Percent Program Participation by Housing Type</li></ul>
2	Significantly and Sustainably Helps Participating Customers	<ul style="list-style-type: none"><li>• Average Electric Burden per Program Participant</li><li>• Average Arrearages Amount per Program Participant</li><li>• Percentage of Program Participants Disconnected <sup>2</sup></li><li>• Participants at Various Income Levels (50% FPL, 100% FPL, 200% FPL, etc.)</li><li>• Affordability Ratio <sup>3</sup></li></ul>
3	Significantly Helps Participating Customers (Needs Based)	<ul style="list-style-type: none"><li>• Number of Measures installed</li><li>• Evaluated and Verified kWh Reductions (Due to Measures Installed)</li><li>• Needs served based on Opportunity per Customer <sup>4</sup></li><li>• Percent of Households Deferred Due to Health and Safety Issues <sup>5</sup></li></ul>

1. The ability to track these metrics geographically would be valuable. It is important to note that the ability to provide zip code data publicly will depend on the NCUC issuing an order approving this request. There is pending Rulemaking in Docket No. E-100, Sub 161 for zip code level data.

2. This metric could benefit from a more sophisticated calculation to account for economic impacts that are uncontrollable by Duke Energy.

3. This metric quantifies the percentage of a representative household's income that would be used to pay for an essential utility service, after non-discretionary expenses such as housing and other essential utility service charges are deducted from the household's income. It is important to note a data source to support this metric may not be available.

4. The intention of this metrics is to capture what percentage of eligible measures are served per customer/household.

5. Deferral information as a metric will need to be carefully crafted to avoid unintended incentives around program implementation.



# Success Criteria and Metrics to Monitor Program Impact

	Success Criteria (Desired Outcome)	Metrics recommended to Monitor Program Impact (By Program)
4	Low Administrative Cost of Operation the Program	<ul style="list-style-type: none"> <li>• Cost of Program</li> <li>• Cost of Program per Program Participant</li> <li>• Cost of Program per Program Participant weighted by Value to Participants</li> <li>• Maximize Leveraged Dollars <sup>1</sup></li> </ul>
5	Minimizes bill impacts for Non-Participants	<ul style="list-style-type: none"> <li>• Average kWh cost across all Customers</li> <li>• Percentage (and/or) Average Monthly Bill Increase for Non-Participants</li> </ul>
6	Eligible for Cost Recovery <sup>2</sup>	

1. This metrics should explicitly state the involvement of the agency performing the work on behalf of Duke Energy.  
2. No metrics are recommended for monitoring this success criteria, though it is important to consider the reliability of funding sources for each program.

# FUNDING SOURCES AND OPPORTUNITIES/ CHALLENGES

## Task 3j/i

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# Task 3i

What **existing utility** and external funding sources are available to address affordability?

	Utility Funding Sources	
	Bill Assistance	Energy Efficiency
SSI Bill Discount (funded through base rates)	X (Monthly limit up to initial 350 kWh)	N/A
Share the Light (funded through customer contributions and shareholder contribution up to eligible annual match)	X	
Income Qualified Weatherization Program (funded through EE/DSM Rider)		X
Neighborhood Energy Saver (funded through EE/DSM Rider)		X

# Task 3i

What existing utility and **external funding** sources are available to address affordability?

	External Funding Sources	
	Bill Assistance	Energy Efficiency
State Weatherization Program  Administrator: NC DEQ		X Note: Provides funding for weatherization services and health and safety investment
Low Income Energy Assistance Program and Crisis Intervention Program  Administrator: NC DHHS	X (Annual contribution limit)	Note: Provides funding for weatherization services and health and safety investment.
Community Development Block Grant Program  Administrator: NC Department of Commerce		Note: Enables weatherization via funding health and safety repairs.



# Task 3j

What are the **opportunities (and challenges)** of the utilities working with other agencies and organizations to collaborate and coordinate delivery of programs that affect affordability concerns?

	Utility Working with other Agencies	
	Opportunities	Challenges
<b>State Weatherization Program</b>  <b>Administrator: NC DEQ</b>	DEQ plans to deploy a new software platform that proposes to collect housing inspection data. Any weatherization deferral for health and safety needs will be visible for all local agencies to monitor.	Lack of transparency and information sharing, No standardized process to collect/track deferral information Misalignment on the timing of which organization is spending \$ and when, Inconsistent communication channel between Duke and DEQ, Miscommunication/misunderstanding around priority
<b>Low Income Energy Assistance Program and Crisis Intervention Program</b>  <b>Administrator: NC DHHS</b>	Use qualification for LIEAP/CIP to aid in energy burden calculation	Low level of funding per participant compared to the need

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# Subteam D Tasks

## SUB-TEAM D

### Collaborative Coordination

*Coordinate between the affordability collaborative and the rate study and energy efficiency stakeholder groups*

- 4.a-1) Stay abreast of the ongoing work of the separate teams (affordability, comprehensive rate design and energy efficiency)
- 4.b-1) Describe the major interactions and connections between the affordability collaborative and the rate study and energy efficiency stakeholder groups
- 4.b-2) Identify interim material produced from LIAC to make available to the CRD and EE collaboratives
- 4.b-3) Identify interim material produced from the CRD and EE collaboratives to make available to the LIAC
- 4.b-4) Identify LIAC key areas of concern to discuss during joint meeting

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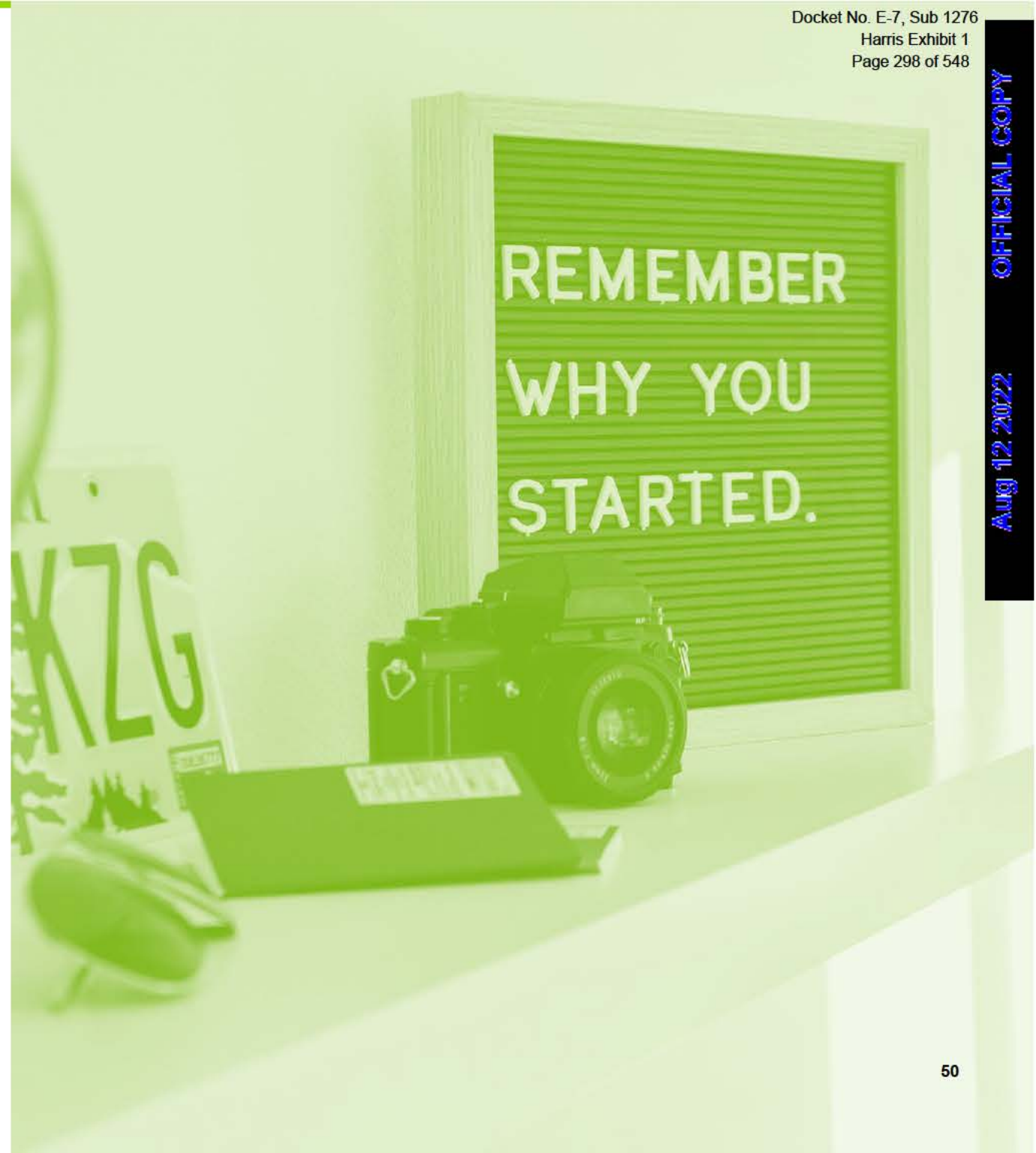
# Subteam Recap of Completed Tasks

SUB-TEAM D Collaborative Coordination			
Task	Work Product	Date Shared with/Sent to LIAC	Date Discussed with LIAC
4.a-1) Stay abreast of the ongoing work of the separate teams (affordability, comprehensive rate design and energy efficiency)	N/A	Ongoing	During LIAC workshops as needed
4.b-1) Describe the major interactions and connections between the affordability collaborative and the rate study and energy efficiency stakeholder groups	Joint Collaborative Session Findings	March 31, 2022, at Workshop 6	
4.b-2) Identify interim material produced from LIAC to make available to the CRD and EE collaboratives	Joint Collaborative Session Workshop Presentation	January 26, 2022 – Joint Collaborative Session	
4.b-3) Identify interim material produced from the CRD and EE collaboratives to make available to the LIAC	Joint Collaborative Session Workshop Presentation	January 26, 2022 – Joint Collaborative Session	
4.b-4) Identify LIAC key areas of concern to discuss during joint meeting	N/A; Identified during Subteam D Meetings		N/A

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# BREAK

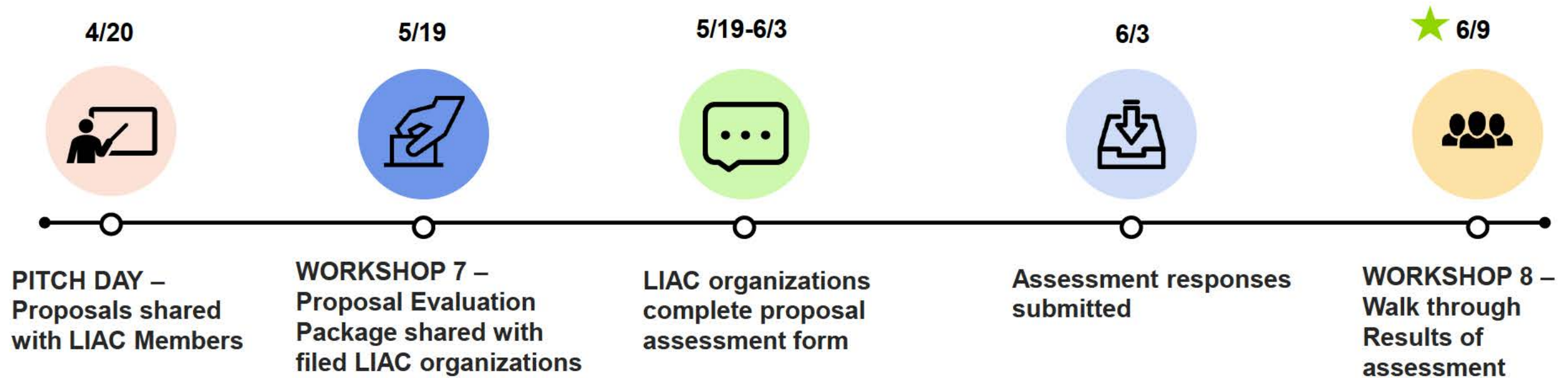
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# PROGRAM PROPOSAL ASSESSMENT RESULTS

# Proposal Process Timeline



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# LIAC Proposal Assessment



LIAC Program Proposal Reference Packet with Assessment Results was shared yesterday via email. It includes:

- Overview of Respondents
- Program Proposal Information
- Assessment Results in Pie Chart form
- Comments from the Assessment

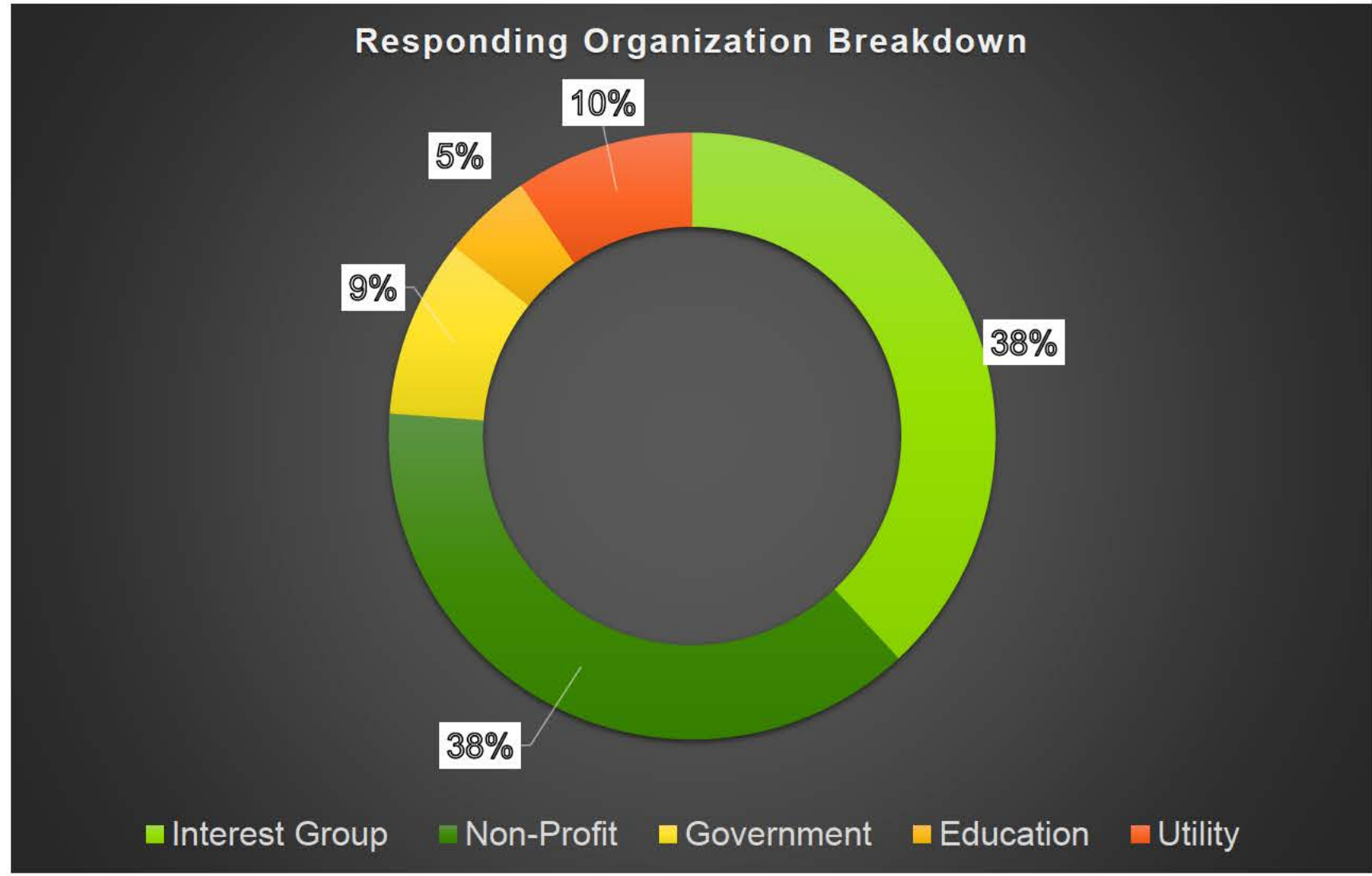
Note: One organization encountered technical difficulties and has since had their responses added to the Packet, the updated Packet will be shared later today. The following slides contain the most up-to-date version of the information.



# Overview of Assessment Results

## ASSESSMENT PARTICIPATION

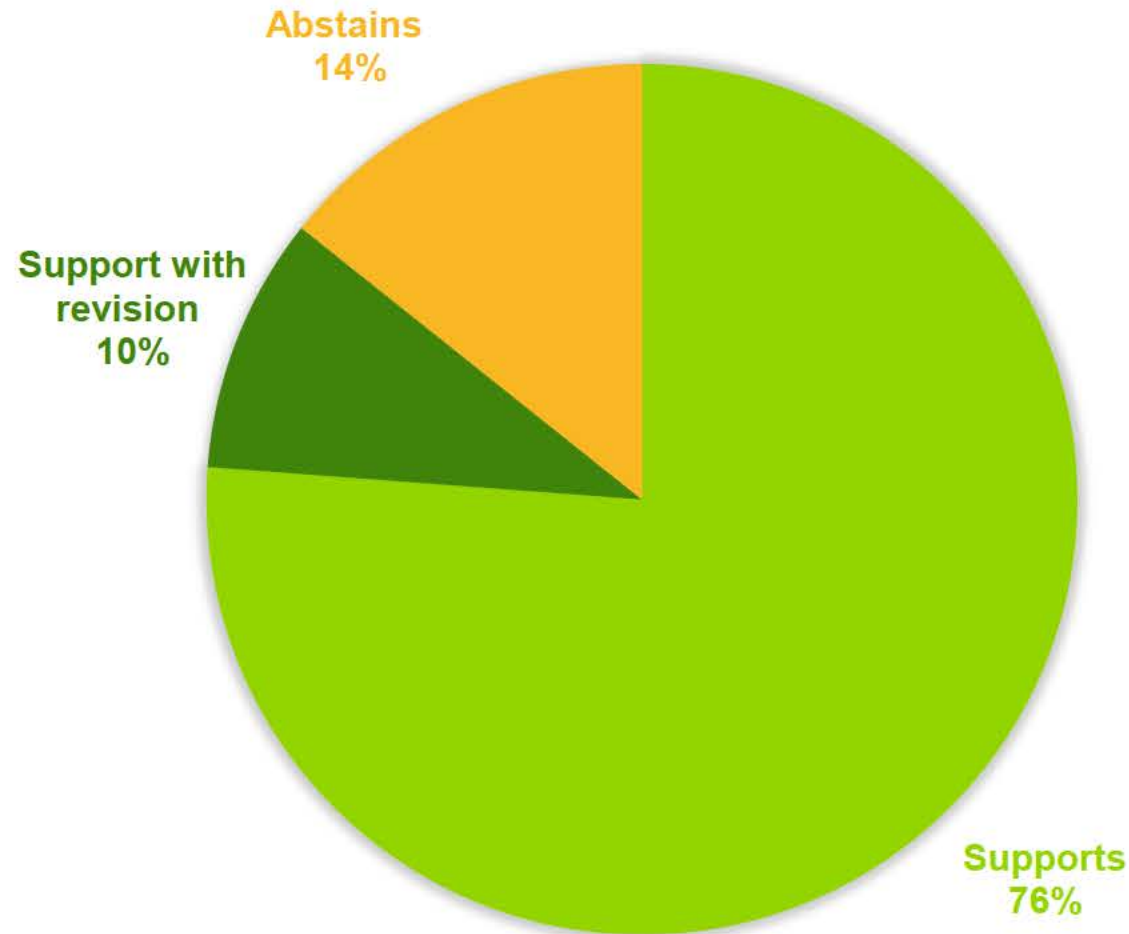
Total Number Responding Organizations	21
Percent of total LIAC organizations that provided input	60%





# Overview of Assessment Results

## *Proposal 1 - Closing the EE Spending and Savings Gap*



### Comments:

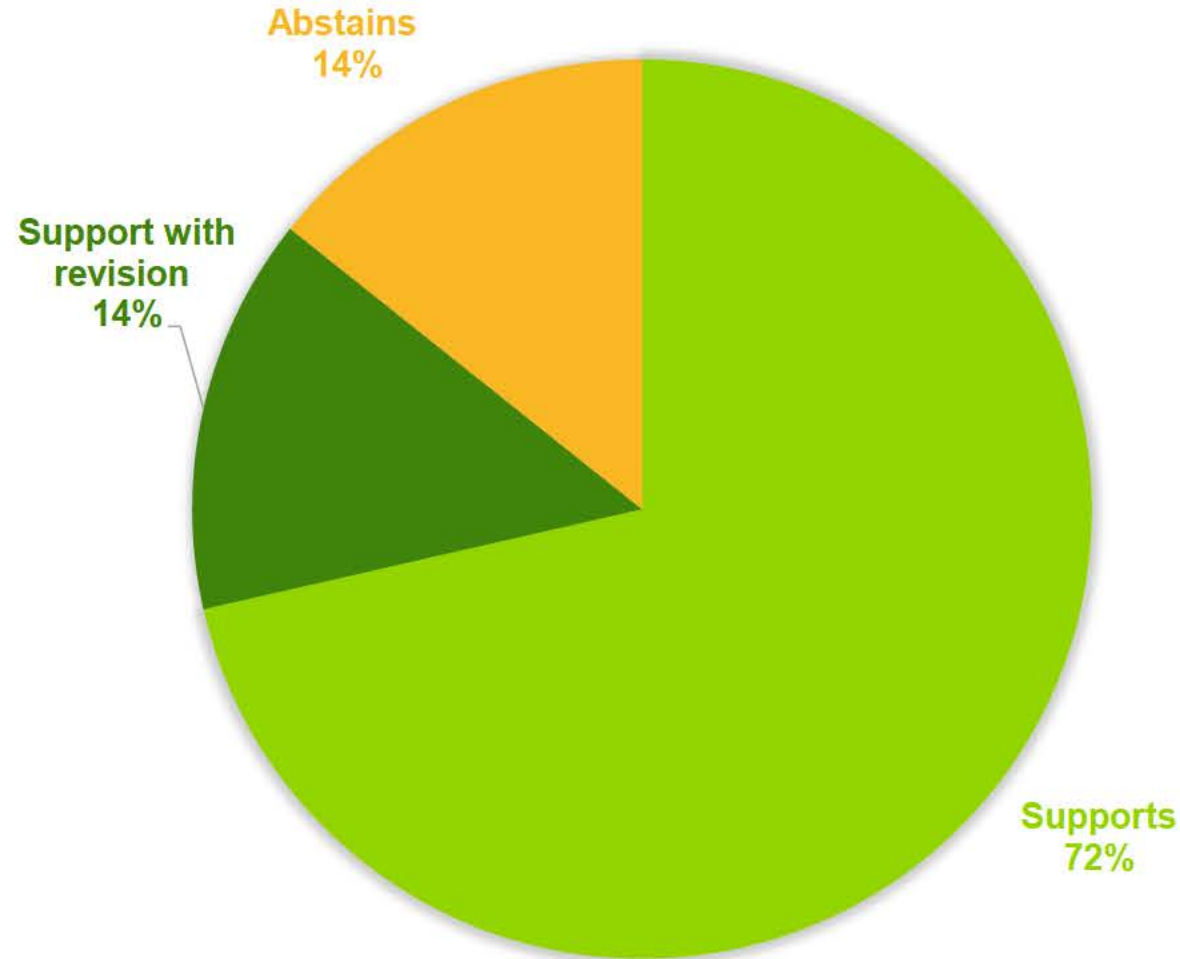
- ““The reasons for the gap in spending should be studied and understood. There are historical differences between DEC and DEP. For instance, DEP has more Tier 1 counties compared to DEC. Additionally, pre-merger, DEP and DEC each had its own portfolio of DSM/EE programs, and there were many differences between the two portfolios. Over time post-merger, many of the programs of the two companies have been modified to be identical; however, these historical differences may account for the gap to some extent. Once the differences are understood then DEP may better target customers of need and mindfully deploy EE programs based on actual identified customer groups. The following general note should be considered included in Public Staff responses to all proposals. .” - **Public Staff of the North Carolina Utilities Commission**
- Duke Energy strives to offer programs that reasonably similar between the jurisdictions and apply learnings before expanding programs to the other jurisdiction, which is why it is filing the DEP Weatherization Program with the NCUC the week on June 7th. The addition of the Weatherization Program in DEP will immediately increase the DE Program spend and reduce the current gap in spending. However, the jurisdictional make-up of the DEC and DEP territories is different, so it's unlikely that the low-income program spend, and energy saving will be consistently proportionate. – **Duke Energy**

\*Some comments have been shortened for the purpose of this presentation. Please see the placket for complete comments.



# Overview of Assessment Results

## Proposal 2 – DEP Income Qualified Weatherization



*“AARP looks forward to learning more about the specific ways in which this program would lower the cost barrier to energy efficiency retrofits in low-income households, and information about the cost and savings for low-income households that participate in this and other energy efficiency programs. AARP supports cost-effective measures to promote clean energy that yield affordable energy, AARP supports energy efficiency and weatherization programs including for low income customers. We urge that DOE and Federal infrastructure funds be used first to fund such a program.” – **AARP***

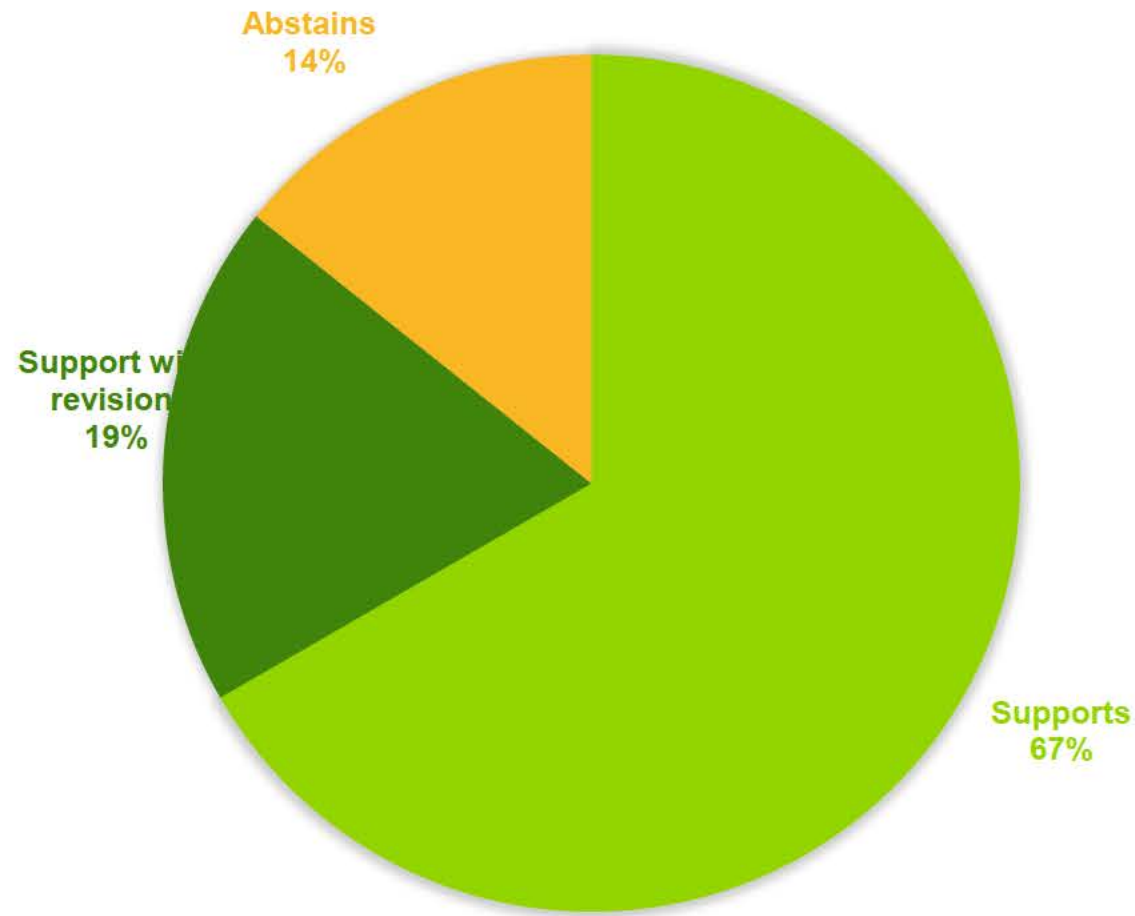
*“Only non-ratepayer funds should be utilized for health and safety work.” - **Public Staff of the North Carolina Utilities Commission***

*“The Company plans to file the DEP Income Weatherization Program with the NCUC within the next two weeks.” – **Duke Energy***



# Overview of Assessment Results

## Proposal 3 – Income Qualified High Energy Use



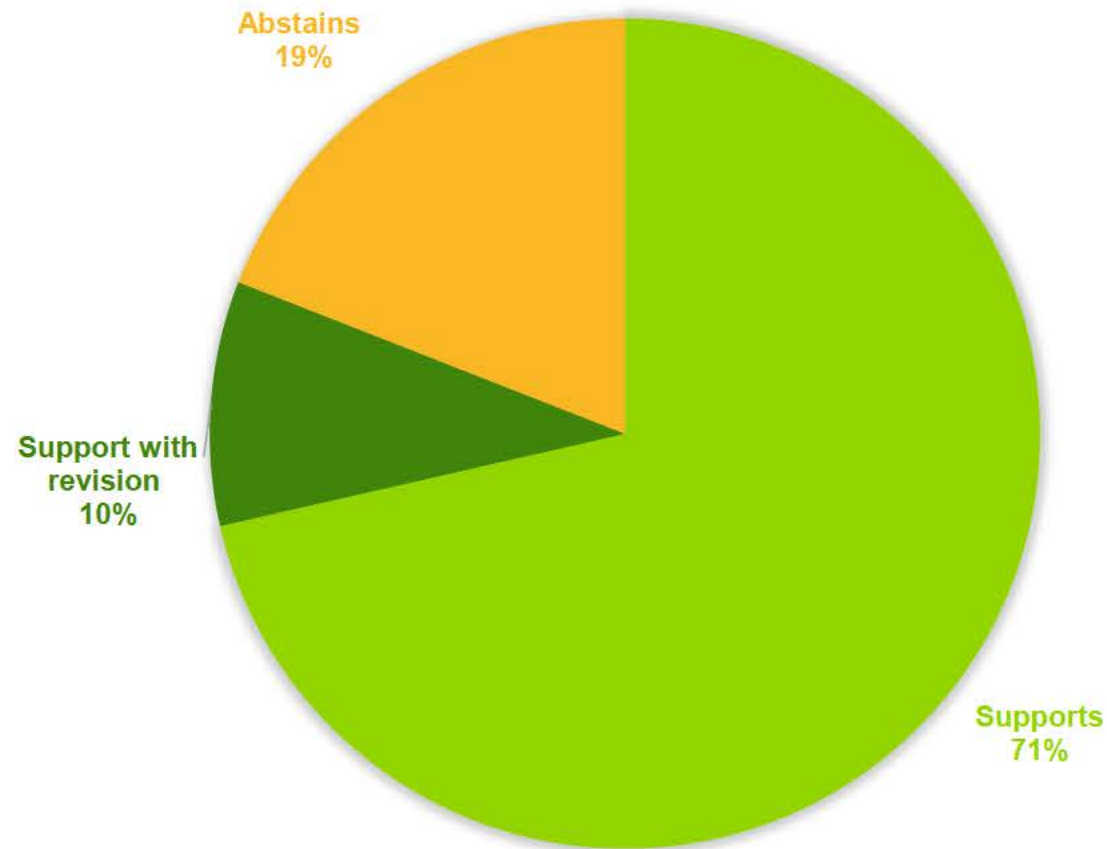
*“AARP supports energy efficiency programs including for low income customers. We urge that DOE and Federal infrastructure funds be used first to fund such a program. We think a pilot program might also be a good idea.” – **AARP***

*“Must include a component for customer education for maintenance of equipment and practical ideas to reduce energy consumption.” – **Rowan Helping Ministries***

*“In the statistical analysis, higher winter peak and summer peak usage were associated with a customer being more likely to be in arrears, receive a 24-hour notice, and be disconnected. These results would support reducing high energy use via this pilot and the resulting research could prove valuable.” - **Nicholas Institute***

# Overview of Assessment Results

## Proposal 4 – Residential ER and HHP Water Heater Rental



*“A waiver of the Commission disconnect rules may be needed to avoid disconnect based on non-payment of non-electric charges. The Public Staff has historically opposed disconnection for non-electric charges. More detail about the rental contracts needs to be provided before it can be determined whether it is appropriate to implement this program through a rental program. It may be more appropriate to implement this measure in a traditional EE program where the customer purchased, owned, and maintained the equipment and then qualified for a credit/discount similar to the Smart Saver program.” -*

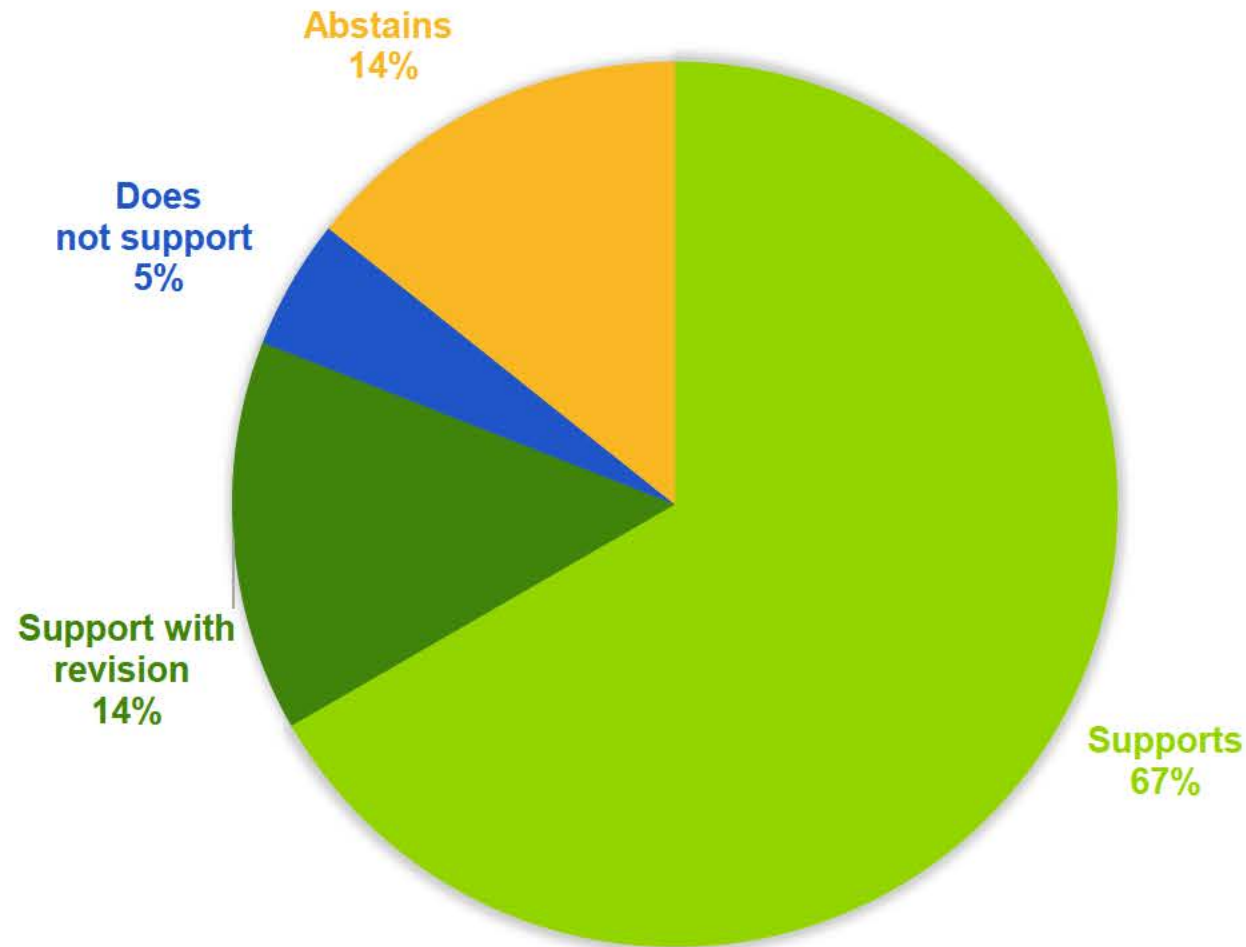
**Public Staff of the North Carolina Utilities Commission**

*“The Companies are committed to evaluating a customer owned program offered via an on-tariff financing offer.” –*  
**Duke Energy**



# Overview of Assessment Results

## Proposal 5 – Manuf. Homes EE Retrofit and Replacement



*“AARP in general supports energy efficiency programs including for low income customers. We would appreciate more information on this program.” – **AARP***

*“It is not appropriate to use of ratepayer funds for replacement of manufactured homes. The program should implement only cost-effective EE measures for low-income customers living in manufactured homes similar to other EE programs.” – **Public Staff of the North Carolina Utilities Commission***

*“The findings of the statistical analysis support a focus on mobile homes regardless of the tenure of the account holder (owner or renter).” – **Nicholas Institute***

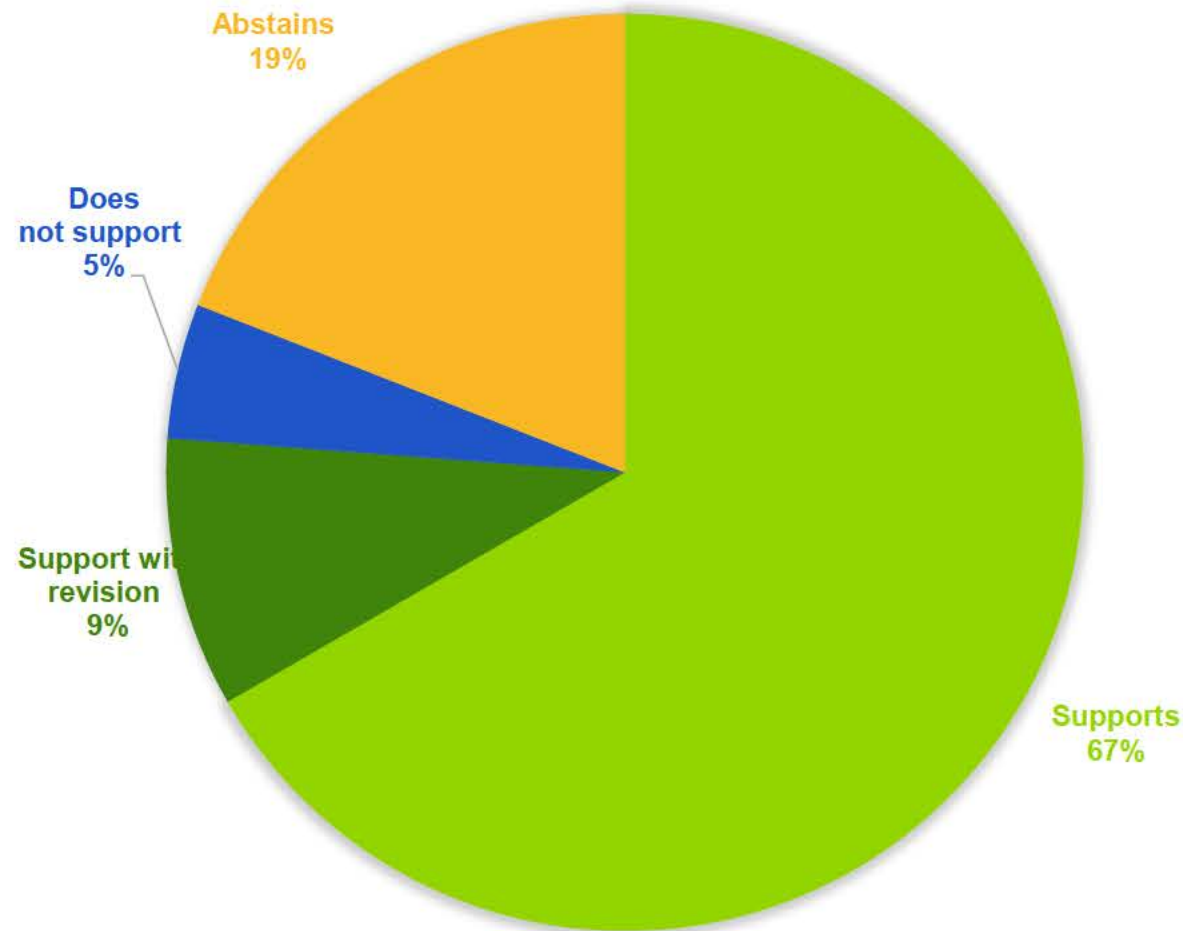
*“This seems beyond the scope of the Duke Energies corporate responsibilities. Great idea for another organization to administer.” – **Rowan Helping Ministries***

*“Yes, the Companies are committed to evaluating this proposal although it may be cost prohibitive.” – **Duke Energy***



# Overview of Assessment Results

## Proposal 6 – Arrearage Management Pilot EE



*"It is generally not appropriate to use ratepayer funds for arrearage forgiveness; however non-ratepayer funds could be utilized for arrearage forgiveness. It may be appropriate to use ratepayer funding for arrearage forgiveness to the extent that it is revenue neutral. Duke should analyze the impact to uncollectables and assess the actual administrative costs and late fees. This delta could flow back to offset arrearages/uncollectables. Such an offset would be appropriate for consideration in the next rate case. It is inappropriate for a utility to profit based on ratepayers' inability to pay their bills. Prior to arrearage forgiveness, all other sources of funding should be sought and utilized. Arrearage metrics should be tracked to ensure that no perverse incentive to stop paying bills has been created. Access to arrearage forgiveness should be limited (1-5 years)."* - **Public Staff of the North Carolina Utilities Commission**

*"We are seeing first hand payment arrangements - post moratorium - are not working for our clients. Our clients are making payment arrangements without the ability to pay. Arrangements need to be made soon after an arrearage occurs and payment needs to fit the financial capacity of the customer."* - **Rowan Helping Ministries**

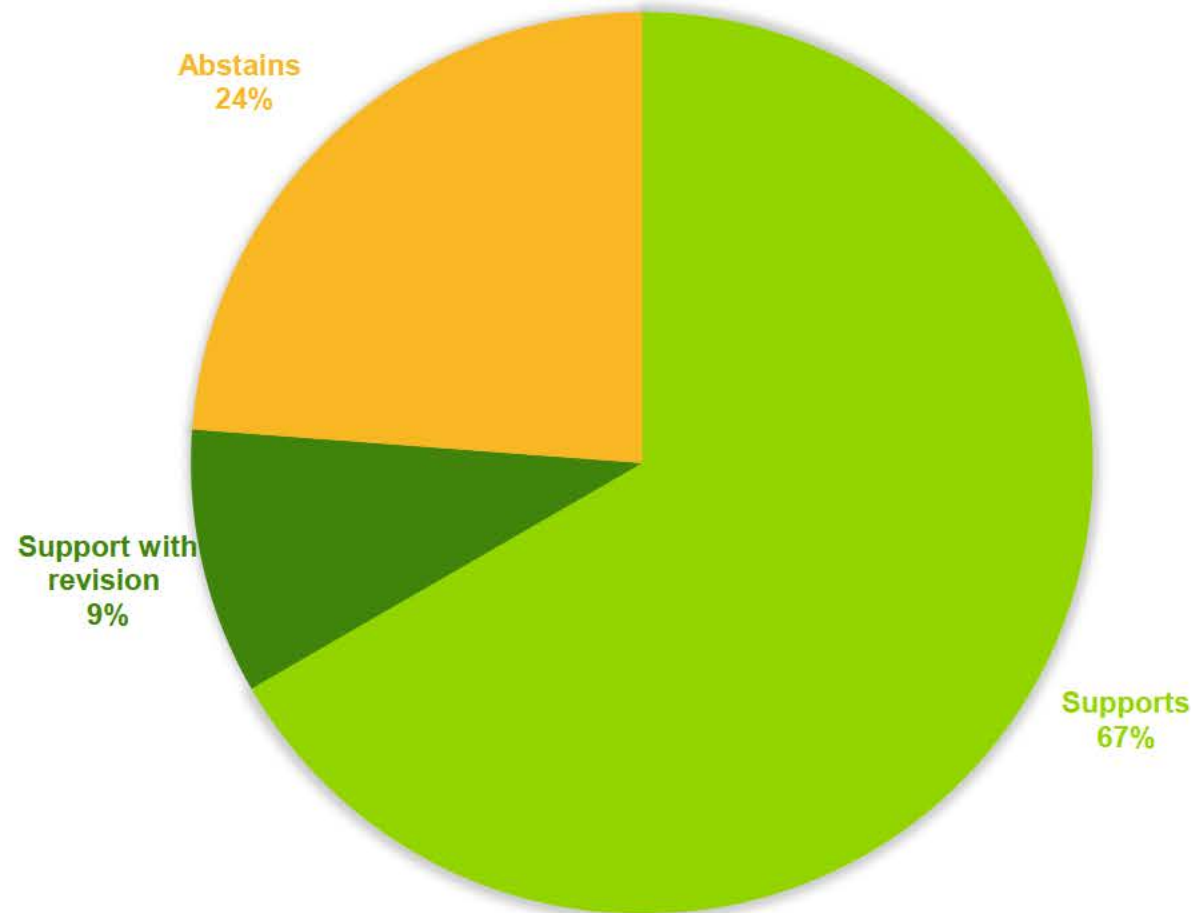
*"The findings of the statistical analysis show that those with higher than the national average electric burdens were statistically significantly more likely to be in arrears and more likely to be disconnected over time."* - **Nicholas Institute**

*"The Companies are opening to evaluating an arrears management program in the CAP proposal that is not specific to energy efficiency program participation."* - **Duke Energy**



# Overview of Assessment Results

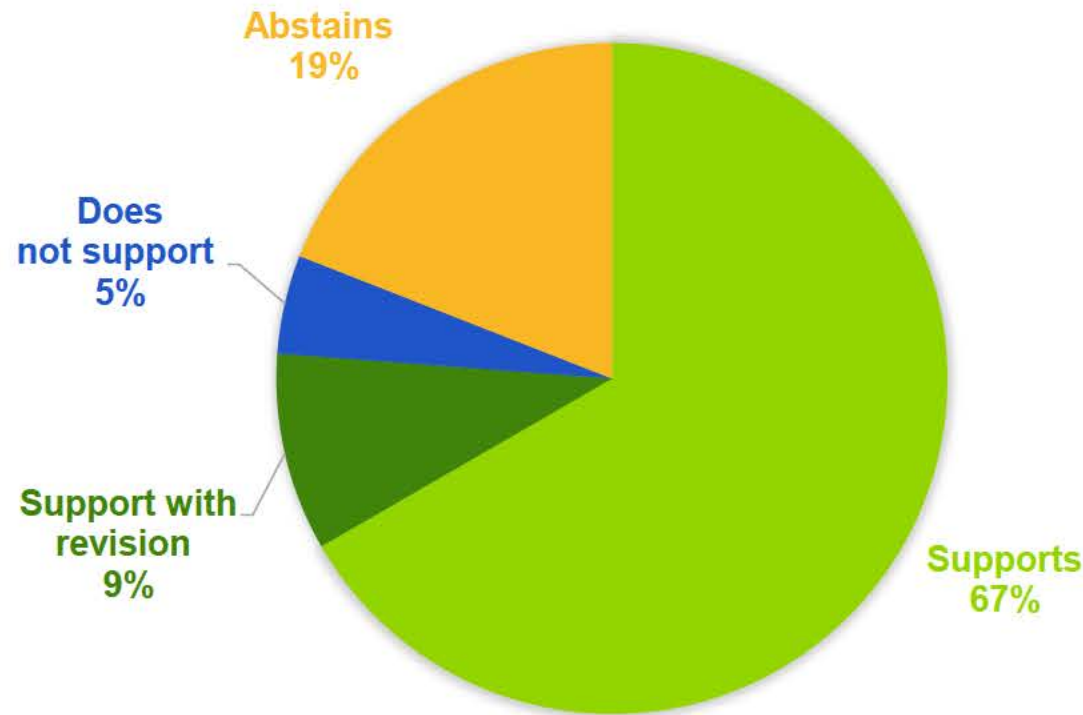
## Proposal 7 – Low Income Carve-out from Market EE



*"A market study is necessary before this proposal should move forward. The participant incentive should not exceed 25% of the cost of measure."* - **Public Staff of the North Carolina Utilities Commission**

# Overview of Assessment Results

## *Proposal 10 – Comprehensive Definition of Affordability and Develop Metrics and Methodologies for Assessing and Monitoring the Relative Affordability of Electric Service*



*“This proposal is not a mitigation program; it seeks to define affordability for purposes of further developing programs to mitigate conditions related to affordability.” - **Public Staff of the North Carolina Utilities Commission***

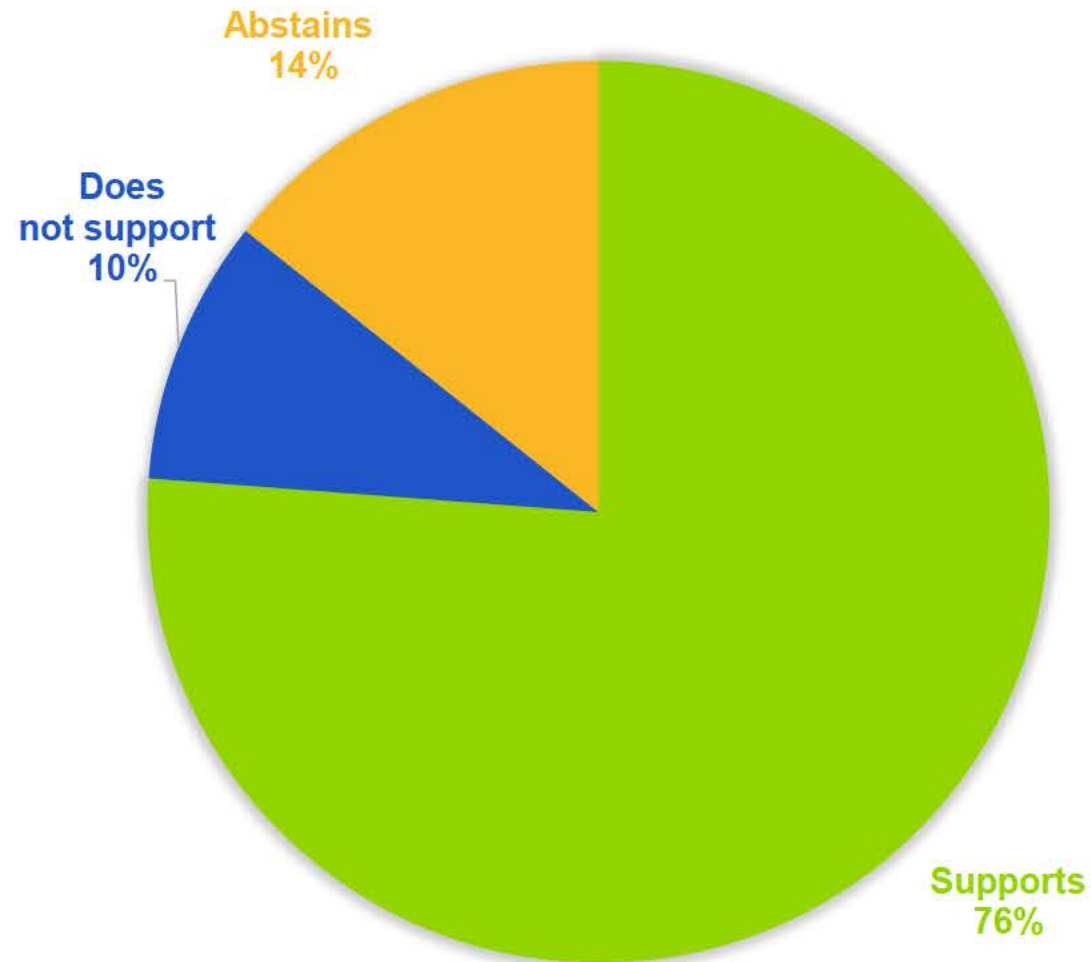
*“The statistical analysis included predictors for many but not all of the factors proposed for the definition of affordability in Proposal 10, and generally, all were significant in predicting the likelihood of being in arrears, receiving a 24-hour notice, and disconnections (excepting home value for disconnections). This suggests complex relationships between sociodemographic, home attributes, neighborhood characteristics, and energy usage. Capturing this complexity in reported metrics over time is supported by the findings of the statistical analysis.” – **Nicholas Institute***

*“The Companies support the North Carolina Utilities Commission opening an affordability docket similar to the process that the California Public Utilities Commission ordered to evaluate affordability for their regulated utilities.” – **Duke Energy***



# Overview of Assessment Results

## Proposal 11 – Prioritized Marketing and Distribution LI Funds



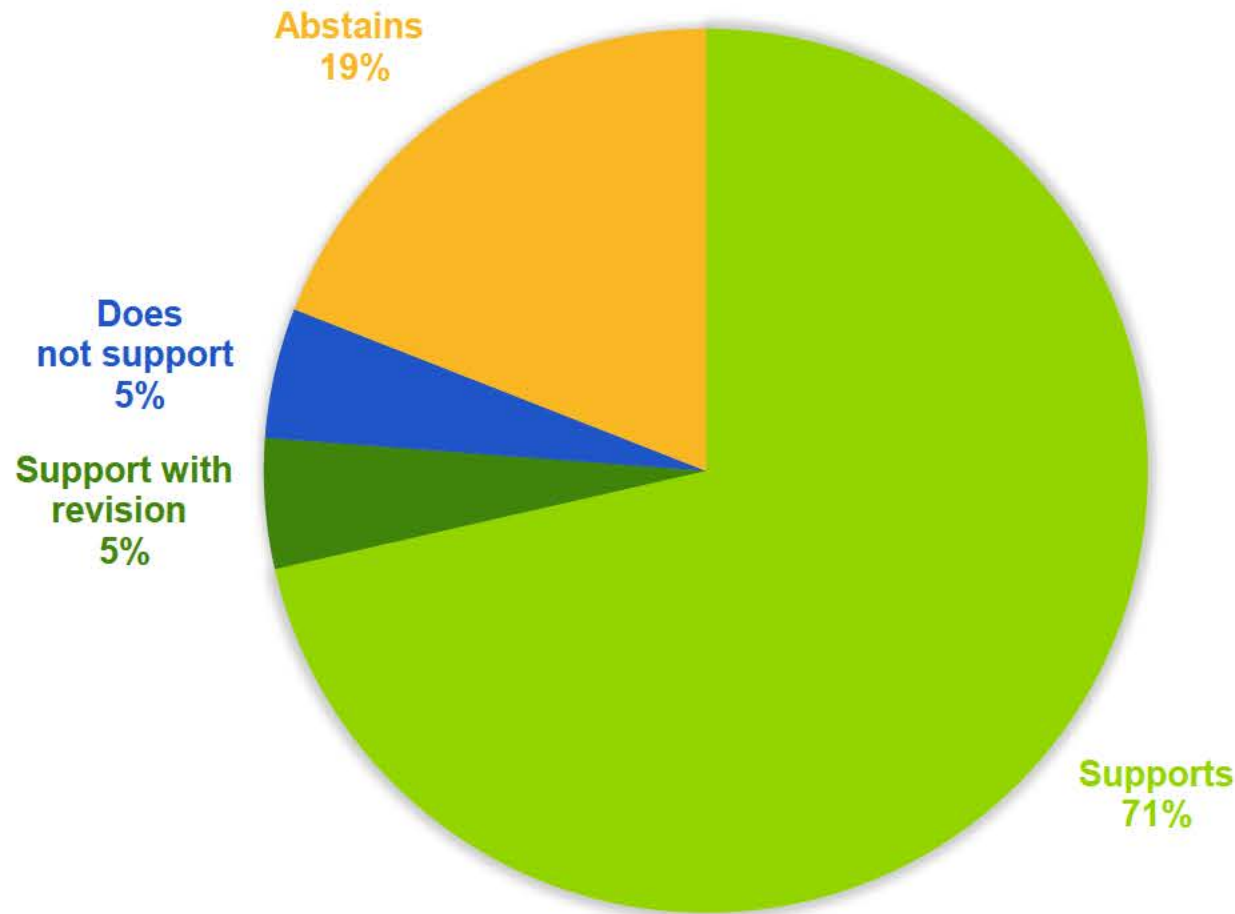
*“All low-income customers should be eligible for low-income programs and initiatives. There does not appear to be an EE component tied to the assistance sought in this program.” -*  
**Public Staff of the North Carolina Utilities Commission**

*“The findings of the statistical analysis provide support for prioritizing outreach to based on sociodemographics and electric burden.” –* **Nicholas Institute**

*“Carving our communities for distribution of funding could negatively more rural communities/households.” –* **Rowan Helping Ministries**

# Overview of Assessment Results

## Proposal 12 – Required Credit and Collections Data Reporting



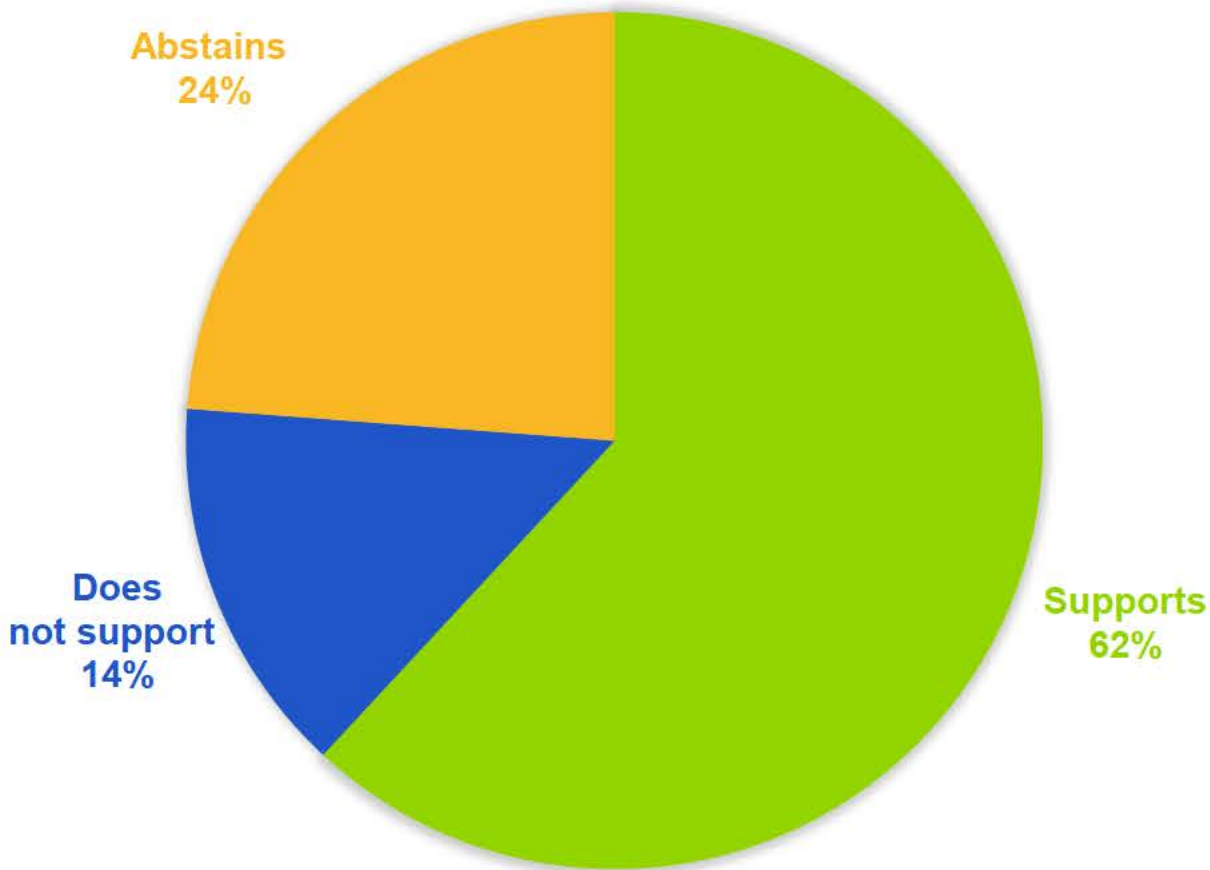
*“These data points could provide meaningful value and may be appropriate as one of the metrics established in the next Duke rate cases.” - **Public Staff of the North Carolina Utilities Commission***

*“The Companies support the supporting of aggregated data pending it meets the required requirements to keep information confidential. If the NCUC approves the reporting of zip code level data, the requirements should align with a NCUC decision in the pending Rulemaking filed in Docket No. E-100, Sub 161.” – **Duke Energy***



# Overview of Assessment Results

## *Proposal 13 - Minimum Bill Pilot Program*

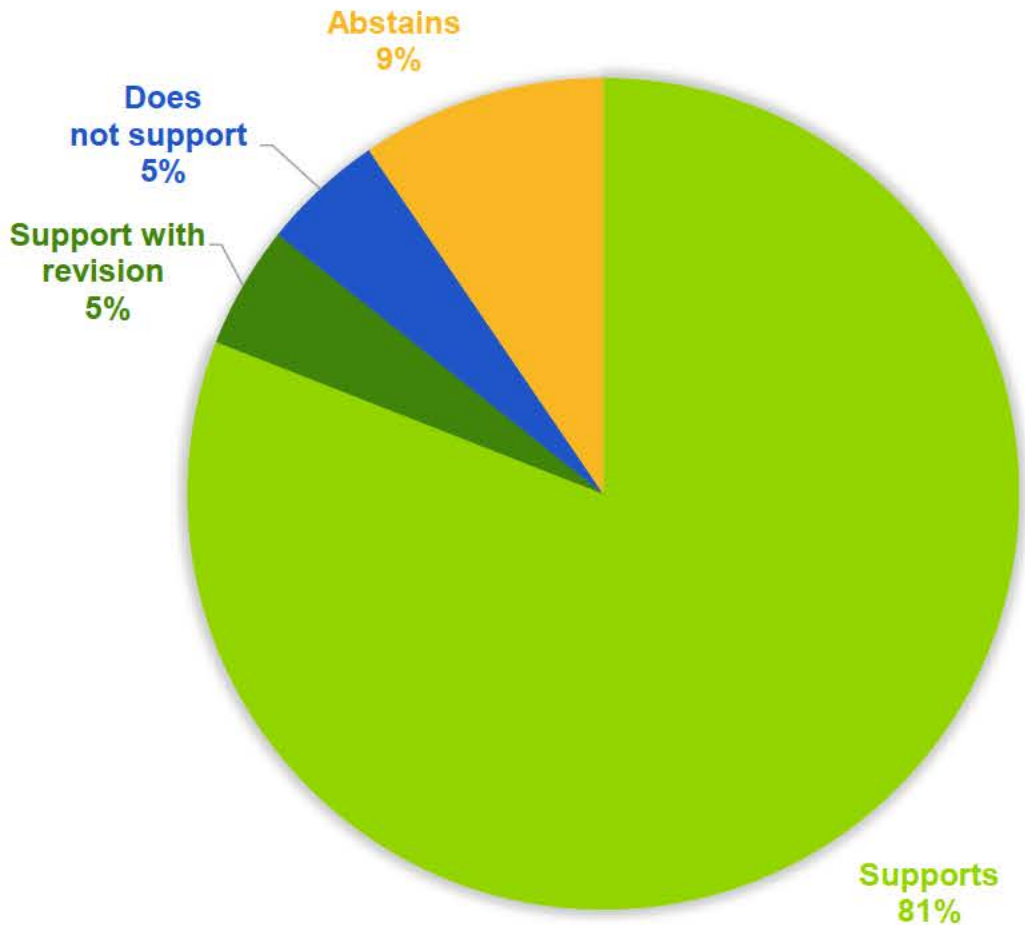


### Comments:

- “This program does not follow cost of service principles. Not a mitigation program.” - **Public Staff of the North Carolina Utilities Commission**
- “Proposal doesn’t explain how this program will be funded. Need more information on how the utility is expected to recover costs when usage that exceeds the minimum payment.” – **Dominion**
- “The statistical analysis findings showed that households with higher winter and summer peak impact were more likely to be in arrears and receive 24-hour notifications. Those households at the highest categories of impact were also more likely to be disconnected.” – **Nicholas Institute**
- “The Companies do not support the proposed minimum bill pilot. Overall, the Companies support minimum bill as a rate design tool similar to minimum bill rate design offered by Duke Energy regulated utilities in South Carolina and Florida.” – **Duke Energy**

# Overview of Assessment Results

## *Proposal 14 - Voluntary Wx, EE, UR Partnership Forum*



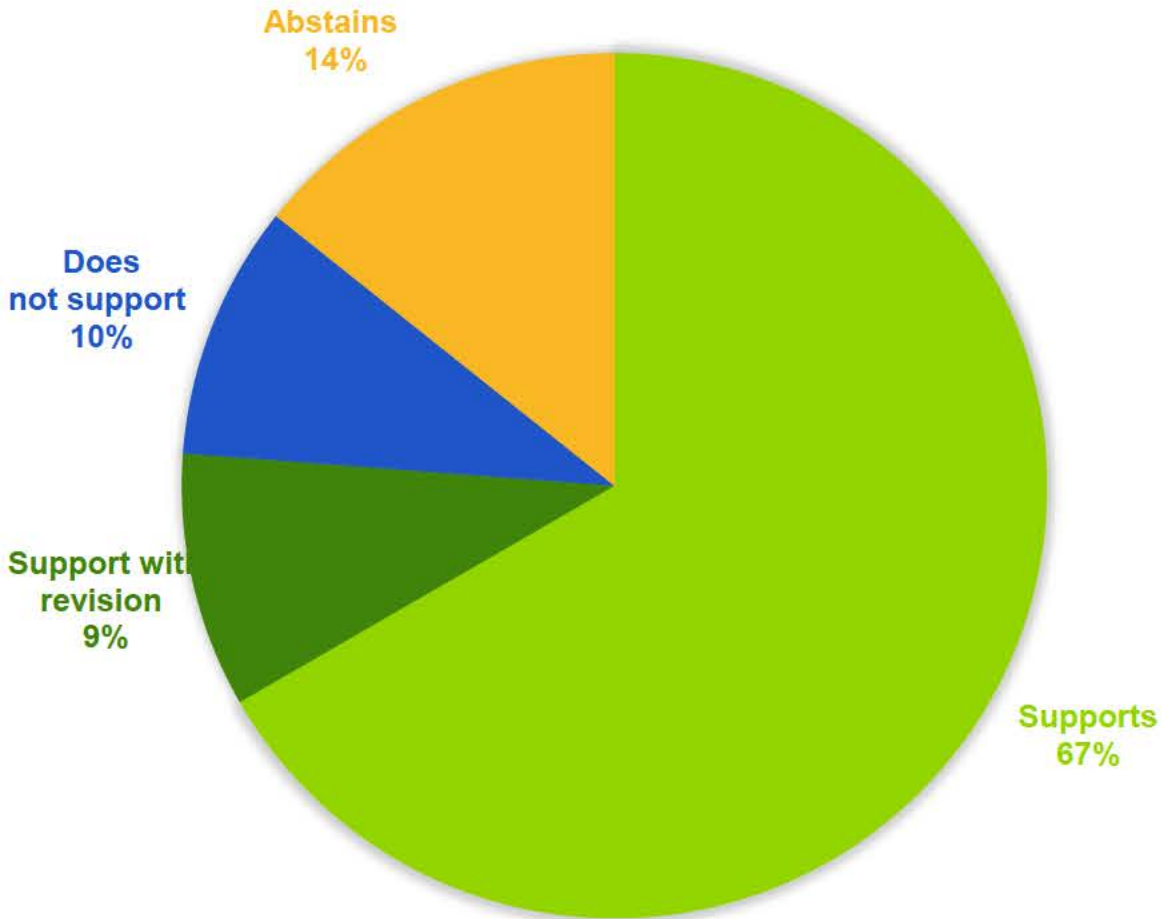
### Comments:

- "This proposal would duplicate initiatives of the State Energy Office and thus is unnecessary." - **Public Staff of the North Carolina Utilities Commission**



# Overview of Assessment Results

## Proposal 15 - Duke Energy Winter Moratorium



### Comments:

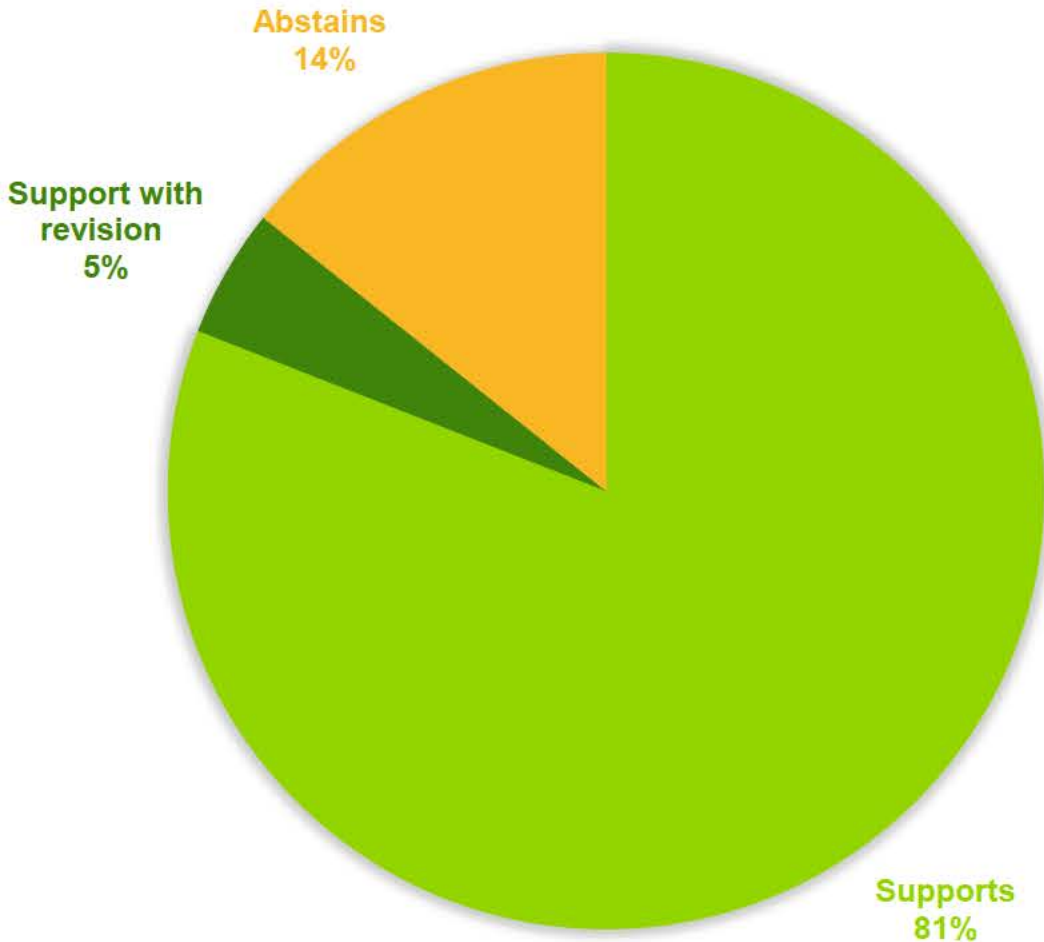
- “Automatically enrolling customers should be done with caution. If we go this route we should send a notice that they will not be disconnected in certain temperatures but clearly stating that not only is the bill accumulating but that there are places to call for housing counseling to explore alternative options (including budget counseling if applicable) or financial assistance.” – **Crisis Assistance Ministry**
- “This would be best suited as a pilot program, specific – at least initially – to the winter season only. The Commission should consider expanding any potential pilot to all IOUs and LDCs.” - **Public Staff of the North Carolina Utilities Commission**
- “Our observation is that the COVID moratorium did nothing to help our clients but saddled them with higher bills and payment arrangements they could not manage once the bills came due. It created a debt tsunami.” – **Rowan Helping Ministries**
- “The Companies support enrolling LIEAP and CIP recipients in a Winter Moratorium that aligns with the timeframe detailed in NCUC Rule 12-11 from November 1 – March 31. LIEAP and CIP recipients would be automatically enrolled in a 6-month payment arrangement at the end of the moratorium. The Companies do not support a summer moratorium or automated referral for arrears greater than \$550. The Company will request to seek cost recover of any debts that result to uncollectible charges; similar to the existing process to collect uncollectible charges. The enrollment of LIEAP and CIP in a Winter Moratorium is dependent up receiving the required information from the NCDHHS.” – **Duke Energy**

\*Some comments have been shortened for the purpose of this presentation. Please see the placket for complete comments.



# Overview of Assessment Results

## *Proposal 16 - Re-examine Regulatory Consumer Protection*



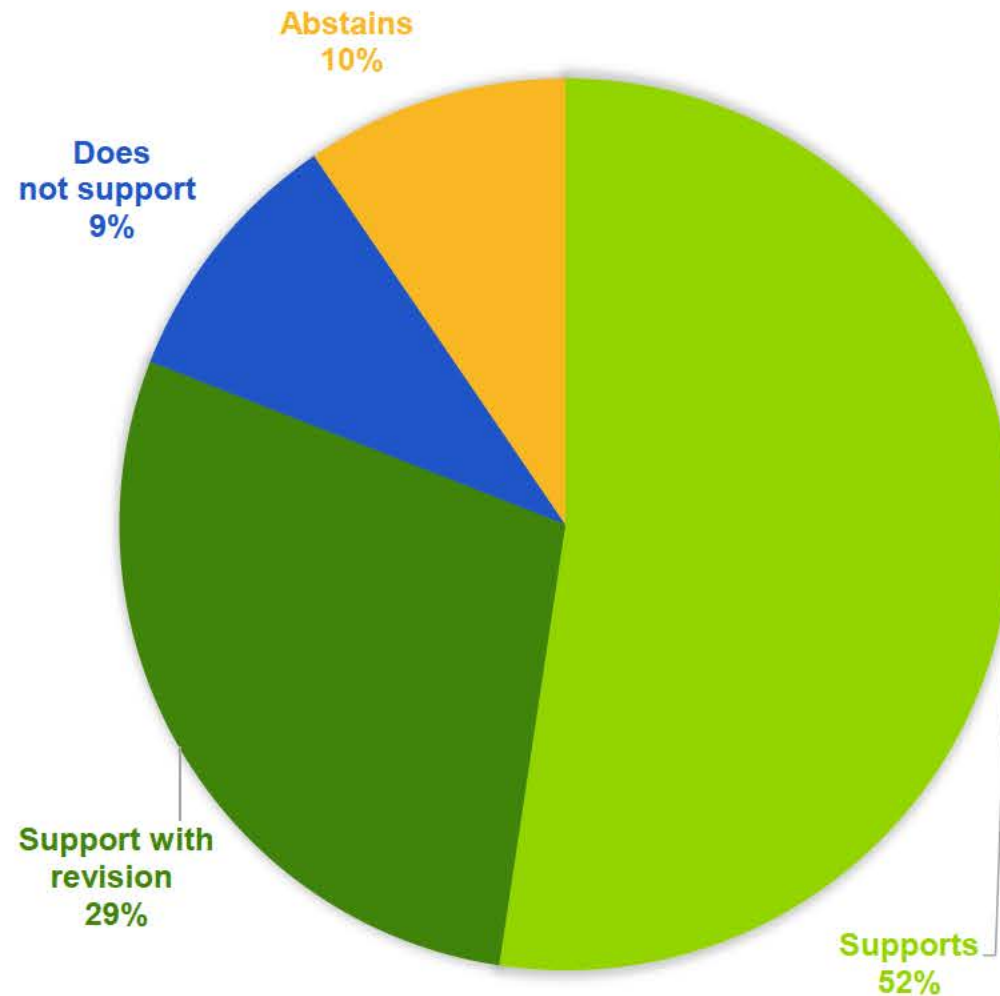
### Comments:

- “The Companies support the review of the existing regulatory consumer protections detailed in NCUC Rule R12-11. If the output of the review requires technical system changes, the Companies request the required timeframe to update impacted systems which could be 12 months. In addition, the Companies will seek cost recovery of costs associated with required technical system changes and costs incurred as a result of any policy/rule changes.” – **Duke Energy**



# Overview of Assessment Results

## Proposal 19 - NC Healthy Homes Initiative

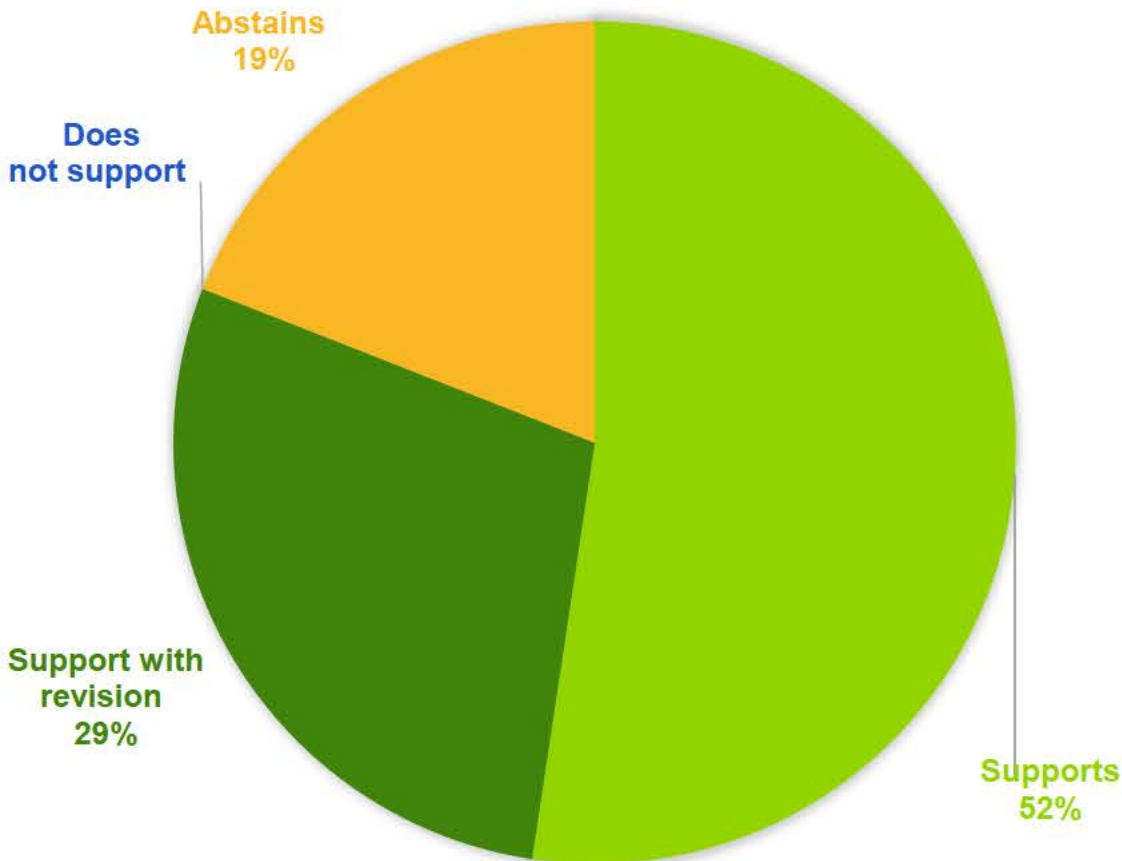


- “This is a critically needed program and builds on NCCAA's experience with the BC/BS grant for the Healthy Homes Initiative and the Duke Healthy Home Fund. But it is not clear from the proposal where the funds would come from for this NC HHI. Ratepayer funds have historically been limited to energy efficiency related upgrades. Ideally, healthcare related funds or other government programs could support an initiative like this to improve the health and safety of homes and make them ready for EE upgrades.” – **Southern Environmental Law Center (SELC) & North Carolina Justice Center**
- “This program should be funded first with DOE weatherization funds and LIHEAP.” – **AARP**
- “The program administration should be determined by RFQ. Only non-ratepayer funds should be utilized for health and safety work. Ratepayer funds could be used for EE measures and reduce cost of service.” - **Public Staff of the North Carolina Utilities Commission**
- “Scope is focused on healthier home initiative vs removing energy burden via EE initiatives.” – **Dominion**
- “We support the intent of the program but think there needs to be more discussion about where the funding for this program comes from since that does not seem to have been defined in this proposal.” – **North Carolina Sustainable Energy Association**
- “We strongly support the establishment of consistent funding for health, safety, and incidental repairs to supplement federal, state, and ratepayer funds for energy efficiency. We know there are potential challenges with regard to use of ratepayer funds for these purposes, but are committed to working through the associated regulatory issues and/or assist in seeking additional funding from other sources.” – **Southern Alliance for Clean Energy (SACE)**
- “The Companies do not support this proposal as it doesn't have a specific time to the scope of identifying opportunities to address affordability for low-income customers.” – **Duke Energy**



# Overview of Assessment Results

## Proposal 20 - DEP Weatherization Program

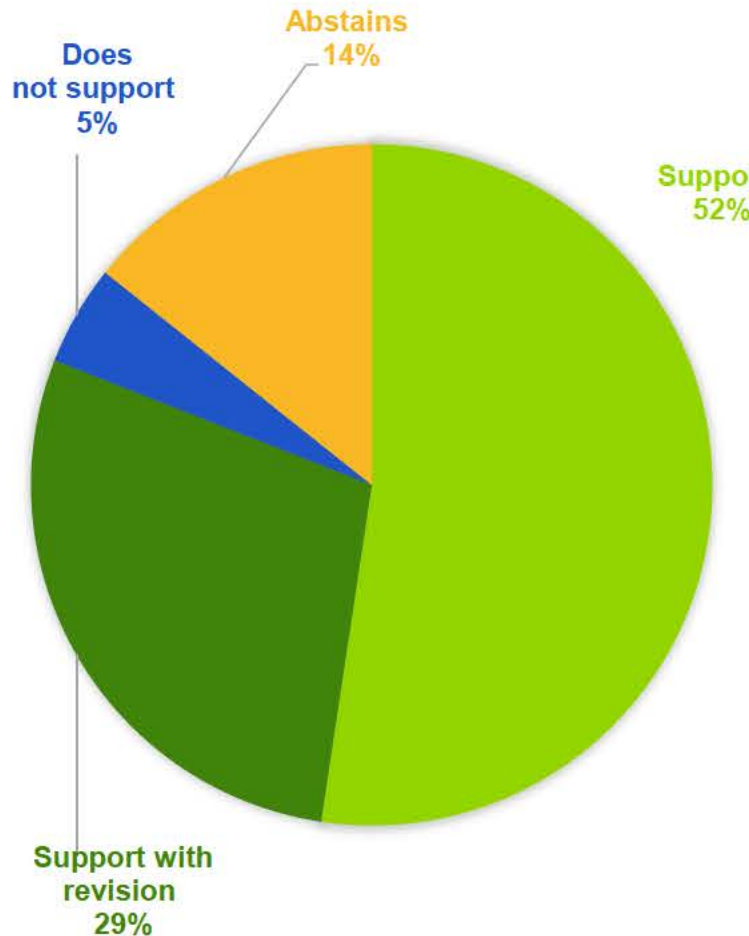


- “For the same reasons that we support LIAC Program Proposal Number 2, which calls for a DEP Weatherization Program modeled after the DEC Weatherization Program, we also support the substance of this Proposal (No. 20). Even though NCCAA has unmatched experience administering this kind of program (as it does the DEC Weatherization Program, Helping Home Fund, and HHI), it is our understanding that Duke Energy would need to go through an RFP process to identify the program administrator and that it may be premature to assign that role to NCCAA at this time.” – **Southern Environmental Law Center (SEL) & North Carolina Justice Center**
- “This is not a suggested revision, it’s a comment overall on this as well as the other weatherization related proposal/s all of which we do support. Weatherization solutions that are more equitably available for low income families would include more options for rental housing.” – **Crisis Assistance Ministry**
- “This program should be funded first with DOE weatherization funds and LIHEAP.” – **AARP**
- “The program administration should be determined by RFQ. Only non-ratepayer funds should be utilized for health and safety work. Ratepayer funds could be used for EE measures and to reduce cost of service.” - **Public Staff of the North Carolina Utilities Commission**
- “In the statistical analysis, higher winter peak and summer peak usage were associated with a customer being more likely to be in arrears, receive a 24-hour notice, and be disconnected. These results would support reducing high energy use via weatherization.” – **Nicholas Institute**
- “The Company plans to file the DEP Income Weatherization Program with the NCUC within the next two weeks.” – **Duke Energy**



# Overview of Assessment Results

## Proposal 21 - NC Low-Income Energy Major Home Repair



- “As we said with respect to No. 19, this is a critically needed program and builds on NCCAA's valuable experiences. But it is not clear from the proposal where the funds would come from for this Major Home Repair program. Ratepayer funds have historically been limited to energy efficiency related upgrades. Ideally, federal state funds could support an initiative like this to provide the repairs necessary to make them ready for EE upgrades.” – **Southern Environmental Law Center (SELC) & North Carolina Justice Center**
- “We support DOE or infrastructure funds from the Federal government be used for a pilot program.” – **AARP**
- “The program administration should be determined by RFQ. Only non-ratepayer funds should be utilized for health and safety work. Ratepayer funds could be used for EE measures and to reduce cost of service.” – **Public Staff of the North Carolina Utilities Commission**
- “In the statistical analysis, higher winter peak and summer peak usage were associated with a customer being more likely to be in arrears, receive a 24-hour notice, and be disconnected. These results would support reducing high energy use and this proposal would facilitate that process by providing for repairs and reducing deferrals from weatherization assistance.” – **Nicholas Institute**
- “Similar to our response to proposal 19, we support the program but are interested in more discussion about how to fund it since that does not seem to have been defined.” – **North Carolina Sustainable Energy Association**
- “We strongly support the establishment of consistent funding for health, safety, and incidental repairs to supplement federal, state, and ratepayer funds for energy efficiency. We know there are potential challenges with regard to use of ratepayer funds for these purposes, but are committed to working through the associated regulatory issues and/or assist in seeking additional funding from other sources.” – **Southern Alliance for Clean Energy (SACE)**

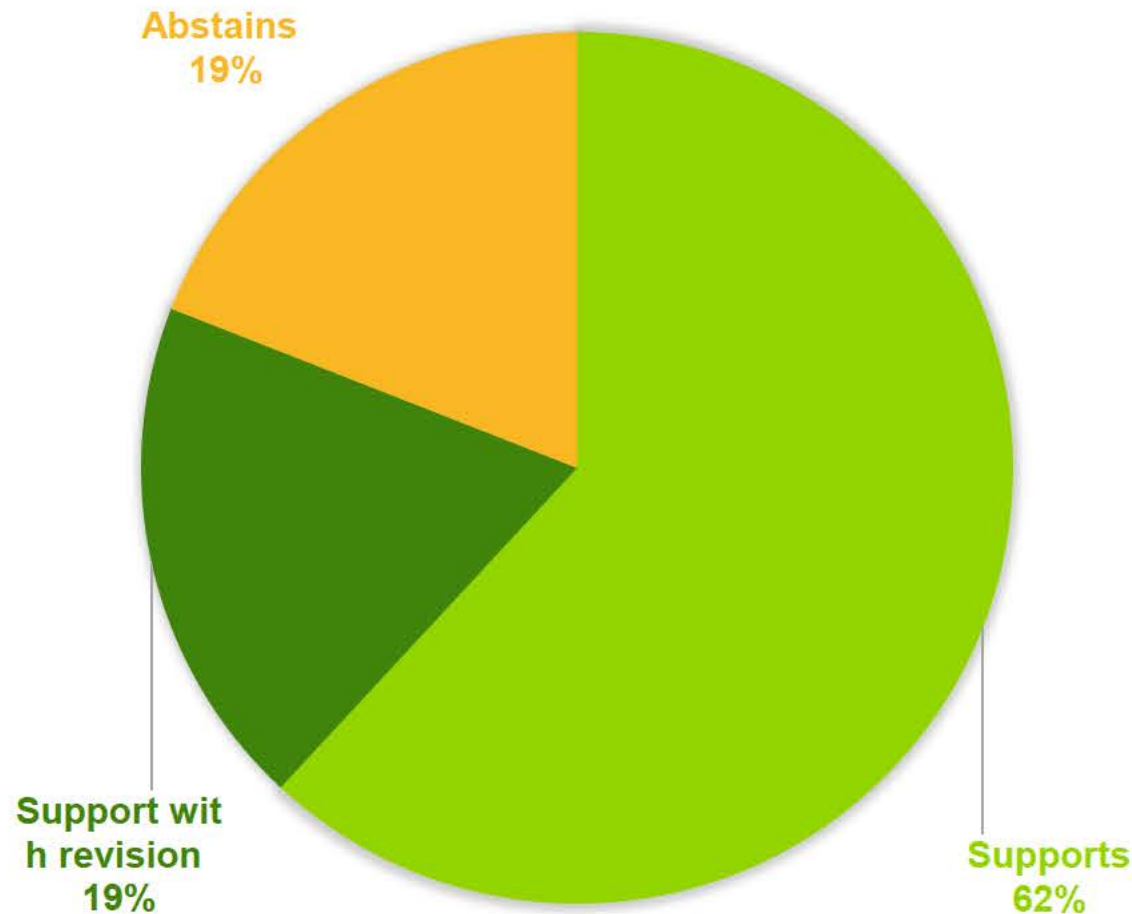


# Overview of Assessment Results

## Proposal 23 - Smart \$aver Low Income Multi-Family Retrofit

### Comments:

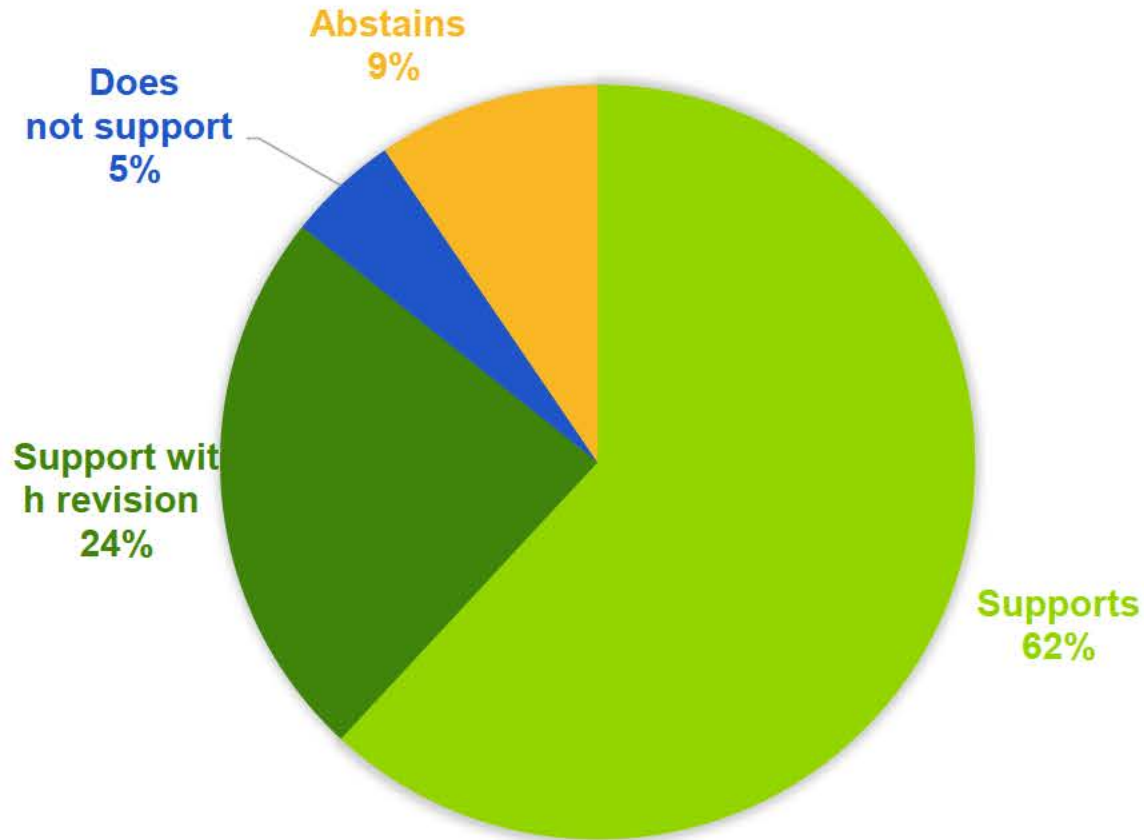
- “We support DOE or infrastructure funds from the Federal government be used for a pilot program.” – **AARP**
- “Ratepayer funds could only be used only for the EE components; non-ratepayer funds could be leverage for non-EE components of this proposal.” - **Public Staff of the North Carolina Utilities Commission**
- “The utility should not be administering the program or leveraging funds. Seems like this should fall under a community action agency or non-profit.” – **Rowan Helping Ministries**
- “The findings of the statistical analysis support focusing on reducing energy consumption in multi-family housing, particularly multi-family rental housing.” – **Nicholas Institute**
- “The low-income multifamily segment of the Duke Energy customer base is an area of opportunity to assist the income qualified tenants. Duke has been working with a group of interested stakeholders on a investigating a low-income multifamily pilot program and thru that work has identified challenges. The Company will continue to work with the rate-case settlement stakeholder group to work through these challenges in attempts to develop a feasible pilot as there clearly is an opportunity to assist customers, but need to better understand how it fits in the portfolio and get more granular on the specifics of the pilot that Duke will oversee.” – **Duke Energy**





# Overview of Assessment Results

## Proposal 24 - Customer Affordability Program "CAP"



- "AARP supports such comprehensive and coordinated measures to help low-income customers pay their bills and supports the idea conceptually. We especially like the auto enrollment feature. We would like more information on the complexities created by having three different benefit tiers. A pilot program should be used to test the viability of this new idea." – **AARP**
- "This program is supported to the extent that it is based upon cost of service principles. Participation in applicable EE programs should be required instead of 'highly suggested.'" - **Public Staff of the North Carolina Utilities Commission**
- "In regards to the Tiered approach, DHHS does not currently capture the data necessary to determine the FPL levels discussed in this proposal. For CIP, LIEAP, LIHWAP, SNAP, and Medicaid, a recipient's income eligibility is determined by whether they fall under a certain FPL but what percentage they fall into is not recorded. - **North Carolina Dept of Health and Human Services**
- "Violates cost-causation principles to recover costs from all classes of customers. Costs should be contained to residential class of customers. This proposed interclass cross-subsidization is not consistent with existing NC law, in particular H951." – **Carolina Industrial Groups for Fair Utility Rates (CIGFUR)**
- "The results of the analysis support efforts that would reduce electric burden for households." – **Nicholas Institute**
- "Requirement for participants in program to have an energy efficiency audit to identify ways to reduce energy consumption. Recertification would take into consideration the customers implementation of energy efficiency recommendations and/or use of the free weatherization services." – **Rowan Helping Ministries**



# OPEN DISCUSSION



# Next Steps

## Homework & Look-Ahead

### Remaining LIAC Sessions

7/7 – Workshop 9

Next up

### WHEN

7/7 – Workshop 9

### WHAT

- LIAC Report

### YOUR TASK(S)

- Look out for updates on the consolidation of Subteam Tasks and Findings and LIAC report from Guidehouse

# ADJOURN

**THANK  
YOU**  
*all for your  
commitment &  
engagement*

# Contact

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## **APPENDIX F – LIAC**

### **1/26 JOINT COLLABORATIVE MEETING BREAKOUT SESSION FEEDBACK/COMMENTS**

**DOCKET NOS. E-7, SUB 1213; E-7, SUB 1214;  
E-7, SUB 1187; E-2, SUB 1219 AND E-2, SUB 1193**



# *North Carolina* **Low Income Affordability Collaborative**

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## *Joint Collaborative Session*

January 26, 2022

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Convened by



**Public Staff**  
*North Carolina Utilities Commission*

# Welcome

## Meet the Session Facilitators



**NNEOMMA NWOSU**  
*Breakout Facilitator*



**MINA HEALEY**  
*Breakout Facilitator*



**JAMIE BOND**  
*Lead Facilitator for LIAC  
and Joint Workshop*



**VIJETA JANGRA**  
*Breakout Facilitator*



# NC Joint Collaborative Session

**Agenda** | January 26, 2022

## Hosted by NC Low Income Affordability Collaborative (LIAC)

	CONVENE		
I	Welcome, Safety & Agenda	Jamie Bond (Guidehouse)	~30 min
	Joint Session Objectives	Conitsha Barnes (Duke)	
	COLLABORATIVE OVERVIEWS		
II	NC Demand Side Management and Energy Efficiency (EE) Collaborative	EE Collaborative Members	~ 90 min (10 break)
	NC Comprehensive Rate Review (CRR) Collaborative	CRR Collaborative Members	
	NC Low Income Affordability Collaborative (LIAC)	LIAC Collaborative Members	
	TOPICAL DISCUSSIONS		
III	Facilitated Group Discussion	All	60-70 min
	Looking Ahead / Closeout	Jamie Bond	
	ADJOURNING	All (GH Facilitated)	

### SESSION OBJECTIVES

- Understand the overlapping work of the LIAC, EE, CRR collaboratives
- Determine how each collaborative might stay abreast of the ongoing work of other two collaboratives as each carries out their work



# Objectives

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH  
DOCKET NO. E-7, SUB 1213  
DOCKET NO. E-7, SUB 1214  
DOCKET NO. E-7, SUB 1167

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION  
DOCKET NO. E-7, SUB 1213

In the Matter of  
Petition of Duke Energy Carolinas, LLC, for  
Approval of Prepaid Advantage Program  
DOCKET NO. E-7, SUB 1214

In the Matter of  
Application by Duke Energy Carolinas, LLC,  
for Adjustment of Rates and Charges  
Applicable to Electric Utility Service in  
North Carolina  
DOCKET NO. E-7, SUB 1167

ORDER ACCEPTING  
STIPULATIONS,  
GRANTING PARTIAL RATE INCREASE,  
AND REQUIRING  
CUSTOMER NOTICE

HEARD: Wednesday, January 15, 2020, at 7:00 p.m., in Courtroom  
Courtroom, 6 West Main Street, Franklin, North Carolina  
Thursday, January 16, 2020, at 7:00 p.m., in the Bunk  
201 South Green Street, Morganton, North Carolina  
Wednesday, January 29, 2020, at 7:00 p.m., in the  
Historic Courthouse, 1 SE Court Square, Graham, NC  
Thursday, January 30, 2020, at 7:00 p.m., in Courtroom  
County Courthouse, 602 East 4th Street, Charlotte, NC

***Given the overlapping nature of the work of the energy efficiency collaborative, the proposed rate study effort, and the affordability collaborative, those working on the three efforts should, to the extent possible, stay abreast of and consider the ongoing work of the separate teams as they each carry out their work.***

...

***[The Commission recommends a] joint meeting of the three groups to specifically identify and discuss key areas of concern.***

Source: Docket No. E-7, SUB 1214 | Application by Duke Energy Carolinas, LLC, for Adjustment of Rates and Charges Applicable to Electric Utility Service in North Carolina | Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice | Evidence and Conclusion for Finding of Fact NOS. 52-54



**Demand Side Management & Energy Efficiency Collaborative**

**Comprehensive Rate Review Collaborative**

**Low Income Affordability Collaborative**

# Welcome



*Check the Tech:*

## Who's in "the room"?

INTERACTIVE



# Collaborative Overviews

Aug 12 2022 OFFICIAL COPY



DSM/EE



CRR



LIAC

# Carolinas DSM/EE Collaborative

**Tim Duff**  
*Duke Energy*

**Forest Bradley Wright**  
*Southern Alliance for  
Clean Energy*





**Carolinas DSM/EE Collaborative**





## Purpose

- Originally convened in 2007 to develop the first portfolio of approved DSM/EE programs for DEC
- Took its current form through a series of settlement agreements beginning in 2010
- Not a decision-making body, but rather an open forum focused on maximizing Duke's EE efforts
- NCUC (and soon after the PSCSC) recognized the following:
  - *“the successful development and implementation of EE programs required constant monitoring and modification, and that an advisory group is helpful in that regard”*
  - *“The Commission finds that the Advisory Group provides an important forum for Duke to receive input from a variety of stakeholders. The implementation of the Advisory Group will facilitate innovation and accountability.”*

## MISSION STATEMENT

*The Duke Energy Carolinas Collaborative is an advisory group of interested stakeholders, from across North and South Carolina, representing a wide array of customer groups and interests related to energy efficiency. The Collaborative is a forum for providing insight and input concerning topics related to energy efficiency and DSM including program design and development; measurement and evaluation; regulatory and market conditions; specific issues or topics as requested by the NC Utilities Commission and the Public Service Commission of SC; and emerging opportunities to achieve cost-effective energy savings.*



# Membership

- Clemson University Industrial Assessment Center
- NC State University
- NCSEA
- Environmental and Energy Study Institute
- SC Coastal
- Environmental Defense Fund
- DEQ
- SACE
- Energy Futures Group
- ACEEE
- Upstate Forever
- NC DENR
- SC State Energy Office
- NC Housing Coalition
- CUCA
- Green Built Alliance
- SC Community Action Partnership
- NC Justice Center
- Blue Horizons Project
- NC Public Staff
- SC ORS
- Institute of Energy Professionals
- Clean Energy Group
- Advanced Energy
- Vote Solar
- Apartment Association of NC

# The Collaborative's Role

Be the voice for the constituents the members represent

Bring the best ideas from around the country to Duke staff

Vet Duke's programs so that customers can be sure they are the result of a good faith effort to serve responsibly

Understand the obstacles Duke faces to expanding EE/DSM and use the influence of our separate organizations to overcome those obstacles

Advance the cause of EE/DSM on all levels

Support efforts, both inside and outside Duke, to innovate and expand EE/DSM customer programs into the next era of EE technology



# Signs of Successful Collaboration



## Regular, robust engagement

- Meets at least every other month often more
- Agenda set by members
- Annual priorities from members and Commissions



## Fewer issues requiring litigation

- Program modifications and development vetted in the Collaborative
- Informal information sharing promotes problem solving and trust
- Commission may direct the Companies to work with the collaborative to investigate areas of interest



## Transparency regarding program performance and operation

- EM&V and program changes discussed in advance of filing
- SME give explanations and receive feedback on marketing, measures, challenges, etc.

# Income Qualified Programs in the Carolinas - NES

## Neighborhood Energy Saver

- Offered in both DEP and DEC
- Targets neighborhoods with at least half of residents at or below 200% of FPL
- No individual income qualification necessary
- Begins with coordinating a neighborhood event along with community organizations
- Each participating home receives the following:
  - In-home, walk-through energy assessment to identify EE opportunities
  - One-on-one education on EE techniques and measures
  - Comprehensive package of energy efficient measures installed by the auditor
- The goal in 2021 was to serve 11,500 homes in NC and SC





# Income Qualified Programs in the Carolinas – Weatherization

## Weatherization and Equipment Replacement Program

- Currently offered in DEC only, but expansion into DEP is underway
- Delivered by the State agencies that administer the state's weatherization programs
- Participating homes receive a full energy audit to determine appropriate measures
- Homes may receive any or all of the following:
  - Tier 1 homes receive \$600 in weatherization measures
  - Tier 2 homes receive up to \$4,000 for insulation, duct repair and air sealing;
  - Tier 2 homes may also receive up to \$6,000 for a heating system replacement with a 15 or greater SEER heat pump
  - Any home could be eligible for refrigerator replacement with an Energy Star appliance.
- 2021 Goal was 535 Weatherization projects and 275 refrigerator replacements





# Pilot Program

## Pay for Performance Pilot

- In Buncombe County, NC (DEP territory)
- Provides incentives to local weatherization assistance providers and other non-profit organizations
- Incentive payments are based on the kWhs saved from the additional EE measures installed
- Goal is to fund more measures than the organizations would have been able to afford
- Pilot approved for 3 years with 6-month extension for EM&V; currently in year 3
- Through June 2021, the pilot has served 297 homes and incentivized 3,480 measures



## Studies Underway – Non-Energy Benefits

Goal is to identify and quantify the benefits with the greatest value to the programs

Values can be used to make TRC more accurate by including all benefits not just energy-related ones

modeling to quantify pertinent non-energy benefits (benefits beyond energy and demand savings) for customers and the utility

residential customers participating in the following programs:

- Smart \$aver EE Program (HVAC)
- My Home Energy Report (MyHER) Program
- Income-Qualified EE and Weatherization Program for Individuals
- Residential Energy Assessment Program
- Multifamily EE Program

Study expected to be complete early Q2



# Studies Underway – LMI Participation

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Aug 12 2022

Characterize LMI customer participation in Duke Energy's energy efficiency programs;

Compare LMI customer participation to that of non-LMI customers;

Measure energy burden reductions achieved through LMI customers participating in Duke Energy's programs;

Identify drivers and barriers to participation among LMI customers; and

Identify strategies to increase LMI customer participation through programmatic enhancements.

The LMI study scope includes activities such as

- participation analyses in LMI and non-LMI programs
- consumption analyses
- customer surveys to assess drivers and/or barriers to participation
- arrearage and service disconnections analyses
- provide insight into how Duke Energy can enhance programs to increase market penetration in the targeted populations and neighborhoods in the most cost- effective manner possible.

Targeted completion in August 2022

Low Income defined as up to 50% of area median income and moderate is 50-80% of area median income





# EE Collaborative Current Low-Income Program Efforts

Forest Bradley Wright  
Energy Efficiency Director  
Southern Alliance for Clean Energy

# EE Collaborative Low-Income Priorities

- Expand the scale of low-income EE spending and impact
- Serve customers with the greatest need, including hard to reach customer segments
- Deliver enough savings to meaningfully impact household finances
- Close the spending and savings gap between DEP and DEC
- Overcome program delivery barriers in South Carolina





# DEC Durham Pilot

## Lessons Learned and Next Steps

- A modified deployment of DEC Income Qualified Weatherization program
- Administered directly by North Carolina Community Action Assoc.
- Able to serve customers not receiving WAP dollars
- Qualifying customers are both low income and high energy intensity
- Increased per household spending - allowed for both HVAC replacement and comprehensive package of EE retrofits
- The pilot's added flexibility enabled DEC to spend its full program budget
- A process evaluation noted promising potential, but lacked full measurement and verification analysis needed for permanent deployment



# DEP Income Qualified Weatherization

- Built off the existing DEC Income Qualified Weatherization program
- Deeper savings and farther reach than Neighborhood Energy Saver
- Will help to close a spending, savings, and program offering gap between DEP and DEC
- Currently in stakeholder input stage
- Advocates are seeking flexibility in program design to serve non-WAP customers, allow spending limit flexibility, and accommodate future insights from upcoming pilot programs

# 2020 Duke Rate Case Settlement Overview

Settling parties: DEC/DEP, NCSEA, NCJC, NCHC, NRDC, SACE

- \$6 Million of shareholder dollars for the Helping Home Fund
- Low Income Energy Efficiency Pilot Programs
- Tariffed On-Bill EE Pilot Program





# Helping Home Fund

## 2020 Rate Case Settlement Agreement

- Added \$6 million to a pre-existing shareholder funded program
- Free of EE-only spending restrictions that apply to ratepayer funds
- May be used for health, safety, and incidental repair work that would otherwise prevent access to EE services
- 2017 analysis found significant energy and non-energy benefits
- Advocates recommending use of HHF dollars exclusively to leverage and expand beyond what Duke ratepayer funded programs cover:
  1. Health, Safety, and Incidental Repairs
  2. Additional EE improvements above existing per home limits (based on needed)
  3. Reaching low-income households who would not otherwise have been served by WAP or other Duke income-qualified EE programs



# Low-Income EE Pilot Programs

## 2020 Rate Case Settlement Agreement

### **Pilot Concept 1: Deep Retrofits for High Energy Use Income Qualified Customers**

Follows through on insights from the Durham Pilot

Also examining effect on persistent arrearages, energy burden, and winter peak

Concept to be presented to the EE Collaborative on January 27th

### **Pilot Concept 2: Comprehensive Multifamily**

Seeks to deliver deep efficiency savings to highly prevalent but hard to reach customers

Unique challenges to overcome:

- Split incentive between renters / landlords

- Improvement measures impact multiple customers

- Limited data available for analysis

Pilot concept is at an earlier stage of development, application later this year

# Tariffed On-Bill Pilot Program

## 2020 Rate Case Settlement Agreement

- Save money on utility bills while overcoming upfront cost barrier
- Pay-As-You-Save or other mutually agreed upon design
- Serve 700-1000 participants over three years
- Ultimate aim is to scale up throughout Duke's service territory in the Carolinas
- 11 issue criteria are identified in Settlement Agreement
- Intended to be accessible regardless of customer credit history
- Monthly working group meetings open to all interested parties



# The Cost Effectiveness Framework

- 0.5 Utility Cost Test (UCT) threshold for income qualified programs
- What drives up costs when serving low-income customers?
- Who gets served, who does not
- Potential implications of Non-Energy Benefits analysis (underway)
- The need for additional low-income customer resources
- Leveraging non-utility sources of funding
- Coordination of EE and non-EE services to cover the gaps



# Cross Collaborative Coordination

- Data sharing
- Recognizing needs and covering gaps
- Delegation and coordination of work efforts
- Identifying additional (non-utility) resources
- Establishing a broad base of support ahead of NCUC applications





*DSM /EE Collaborative:*

# Cross Collaborative Coordination?

INTERACTIVE



DSM/EE



CRR



LIAC

# Comprehensive Rate Review Collaborative

**Bradley Harris**  
*Duke Energy*

**Thad Culley**  
*Sunrun*



# Comprehensive Rate Review Study

Presentation for Joint CRR/LIAC/EE Collaborative Meeting



# Comprehensive Rate Review

- Overview
- Recap of various topics
  - TOU Period Review
  - Net Metering
  - EV Rate Design
- Residential Rate Design – Thad Culley
- Cross-over with LIAC

# Overview of the Comprehensive Rate Review (CRR)

## Scope

- Comprehensive: all current rate schedules + new rate structures

## Deliverables

- A comprehensive review of Duke's rate offerings: load/cost and rate schedule evaluations
- A roadmap for how Duke plans to evolve its rates over time: sequencing, timelines, additional studies, etc.

## Timing

- 12 months, ending March 31, 2022 with NCUC filing
- Quarterly Progress Reports:
  - Recently published: October 21, 2021 (Q3 2021)
  - Next: January 21, 2022 (Q4 2021)

## Process

- Facilitator: ICF
- Stakeholder Forums
  - Forum 1: August 25, 2021
  - Forum 2: November 16, 2021
  - Forum 3: February 10, 2022
- Stakeholder Working Groups (WGs)
  - WG1: Fast Track – TOU, NEM, EVs
  - WG2: Hourly Pricing & Economic Development
  - WG3: Residential
  - WG4: Non-Residential



# Overview of Stakeholder Engagement from August-November

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## Working Group 1: Fast Track Topics

### Since last forum

- Subgroup E: Review Load Forecasting Data (NDA Only) – 9/2
- Subgroup F: Bill Impact Follow-up/Final Discussion – 9/14
- Session 2: EV Rates – 9/29
- Subgroup A: Residential EV Rates 10/27
- Subgroup B: Non-Residential EV Rates 11/4
- Subgroup C: Residential EV Rates 11/10

### Upcoming

- Subgroup D: Non-Residential EV Rates 11/17

## Working Group 2: Hourly Pricing & Economic Development

### Since last forum

- Session 1: Hourly Pricing 9/15
- Subgroup A: Marginal Cost Pricing Analysis 9/21
- Subgroup B: Stakeholder Presentations 9/28
- Subgroup C: Modified Economic Development Rider, Dynamic Pricing for Large Businesses 10/12
- Subgroup D: Expanded HP rate, CBL 10/19
- Subgroup E: Reviewed HP and Econ Dev feedback to date 11/2

### Upcoming

- Session 2 - December

## Working Group 3: Residential Rates

### Since last forum

- Residential Rate Overview – 9/20
- Session 1: Existing Rates and TOU Proposal Review 9/27
- Session 2: HB 951, Tariff Availability, Schedule RT, Fixed Charges and Min Bill Analytics – 10/20
- Session 3: Analytics – 11/3

### Upcoming

- Session 4 – 12/10

## Working Group 4: Non-Residential Rates

### Since last forum

- Session 2: Load-Factor Based Rates 9/8
- Subgroup A: non-residential NEM 9/14
- Subgroup B: Load Aggregation 9/15
- Session 3: Demand Response & Interruptible/Curtailable Rates 10/13

### Upcoming

- Duke Subgroups C-G
- Session 4 – late Feb.

## Additional Activities

### Parallel efforts

- Low-Income Stakeholder Collaborative
- DSM/EE Stakeholder Collaborative
- Electric Transportation Stakeholder Working Group (presentation on CRR efforts given on 11/12)



# Rate Design Study: NCUC Order Overview

## NCUC Order Excerpts

- “The exercise...should provide the Commission with critical information regarding **load characteristics** of customers and **customer classes**, **associated costs**, and impacts to customers that could be used to inform future decisions of the Commission.”
- “The Rate Design Study should...address the **potential for new schedules** to address the changes affecting utility service [and] provide more rate design choices for customers”
- “The Rate Design Study should...include an **analysis of each existing rate schedule** to determine whether the schedule remains pertinent to current utility service”
- “The Commission concludes...rate design must evolve in order to maximize the efficiency and effectiveness of these **new technologies** and ensure usage of the electric system that is consistent with the public interest”
- “The Commission...expects...the Rate Design Study will address the costs and benefits of **customer-sited generation**.”
- “The Rate Design Study should...explore the feasibility of **consolidating** the rates offered by DEC and DEP.”
- “The Commission is persuaded that in depth **evaluation, debate, and discussion by and among stakeholders** regarding cost to serve, rate design, and making the most efficient use of the electric system is necessary to achieve results that are in the public interest”

Reflect cost causation

Avoid undue discrimination

Promote efficient use

Discourage wasteful use

Yield revenue requirement

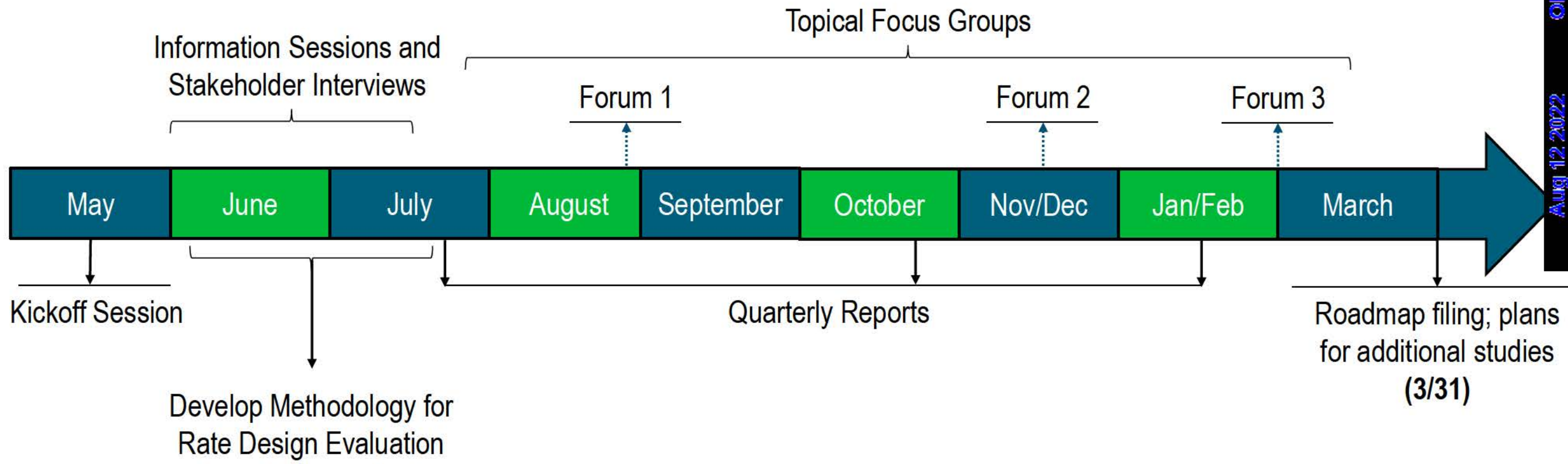
Stability and predictability

Fairness in cost apportionment

Practical – simple,  
understandable,  
feasible application



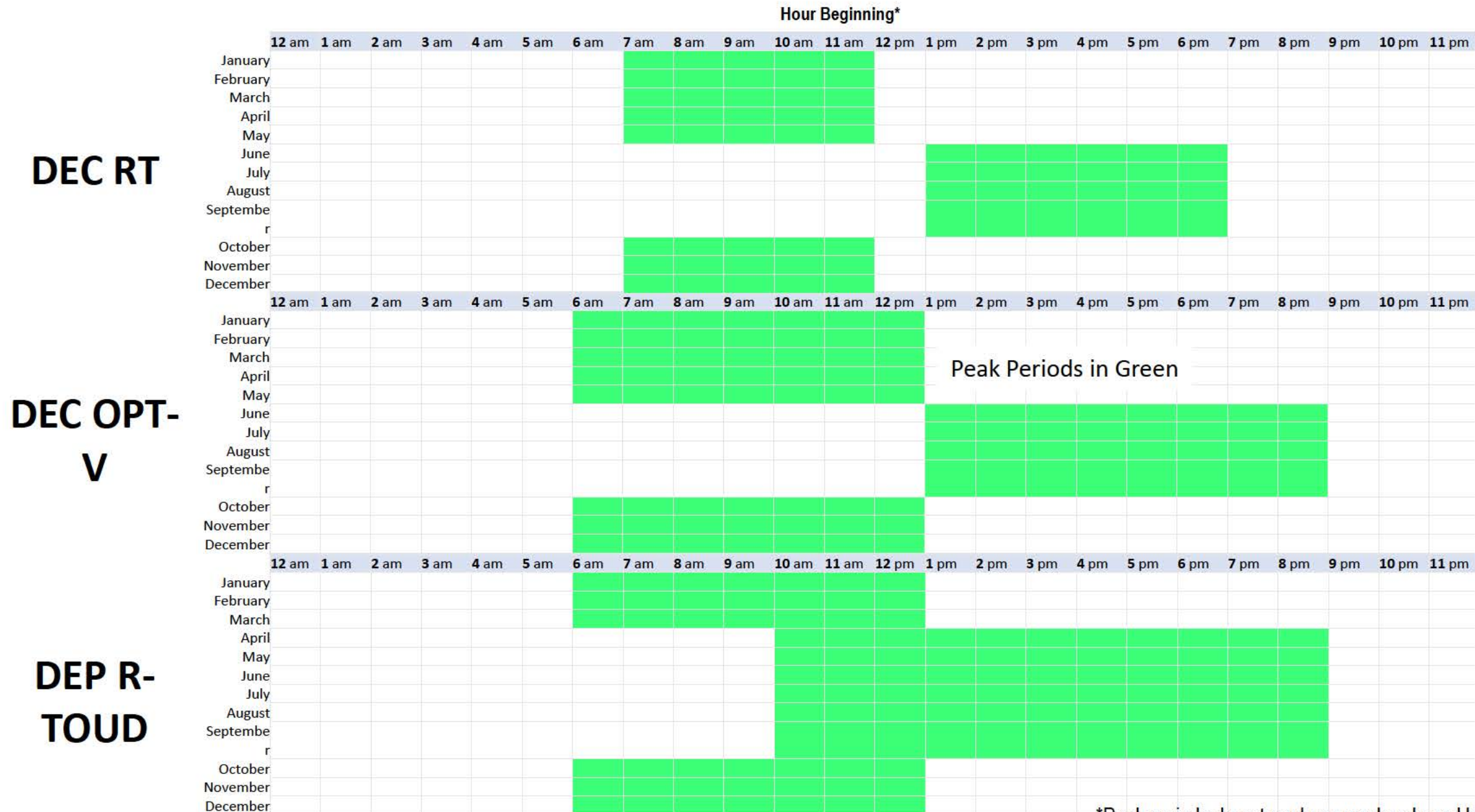
# Timeline



“Flexibility is necessary to ensure robust discussion amongst stakeholders.”



# Aligning TOU Periods between DEC/DEP and Rate Schedules



\*Peak periods do not apply on weekends and holidays

# New Time of Use Proposal





# Residential EV Rate Designs

## Activities and findings to date – EV Rates (Initial discussion session – 9/29)

- Duke presented on the scope of the EV rates discussion within the context of the CRR, as well as actions Duke has taken to date regarding EVs.
- Four stakeholders presented on EV rate designs topics & case studies, including: principles for EV rate design, effective residential EV design, residential charging in Xcel territory in Minnesota, PG&E EV subscription rate. Stakeholders provided the following feedback in response:
  - Stakeholders consistently highlighted a need to consider the interactions between EV charging and other customer-sited energy technologies such as solar, battery storage, and smart thermostats.
  - Stakeholders highlighted a desire to avoid demand charges in EV rate design, indicating a preference for TOU rates that encourage off-peak charging and charging during times when excess solar is available on the grid.
  - Stakeholders provided mixed opinions on EV subscription rates for residential customers. Some stakeholders presented in favor of exploring subscription rate options at the initial EV rates meeting, but subsequent proposals have not been broadly supported by stakeholders.
  - Stakeholders were interested in exploring managed charging options, EV-only TOU rates, and credits for charging off peak.



# Non-Residential EV Rate Designs

## Activities and findings to date – Non-Residential EV Rates (Subgroup on 11/4)

In response to stakeholder case studies and reactions to case studies, Duke presented several **Non-Residential** EV rate options:

- **TOU Rates:**
  - Duke presented how the new TOU periods could benefit EV charging by offering shorter peak periods and creating a discount TOU period.
- **Transitional Relief:**
  - Duke presented potential economic development options as a way of kickstarting the market.
- **Low-Load Factor Rates:**
  - One stakeholder indicated that LLF rates would only help in specific applications.
  - Another stakeholder expressed that there were pathways to creating permanent LLF rates.
- **Hourly Pricing Rate:**
  - One stakeholder indicated that current thresholds for participation in hourly rates should be revisited (as it has been discussed in WG #2)
  - Another stakeholder indicated that Duke might need to revisit the way that hourly pricing is included in cost-of-service studies if the rate's applicability is modified.
  - Another stakeholder indicated that this is a complex rate design
- **Critical Peak Pricing (CPP):**
  - One stakeholder was interested in learning exactly how high critical peak prices would be, so as not to discourage customers from charging in emergencies. Another stakeholder thought CPP prices should be very high, so as to encourage responsive behavior.
  - One stakeholder emphasized CPP rates should be optional. Duke indicated the rate would remain optional for EV customers.
  - One stakeholder indicated that fleets would be very willing to respond to CPP events as long as they are infrequent.



# Net Metering Discussions

## Rate Schedule Design

Design **TOU periods** that reflect system costs based on historical load, load forecasts and reliability studies

Calculate **TOU prices** that are revenue-neutral to the rate class using the Cost Duration Model and most recent approved Cost of Service Study



## Net Metering Design

Design NEM structure based on industry best practices and local experience/context

- Netting policy
- Non-bypassable charges
- Grid access fee
- Minimum bill

Refine prices to minimize embedded and marginal cross-subsidization

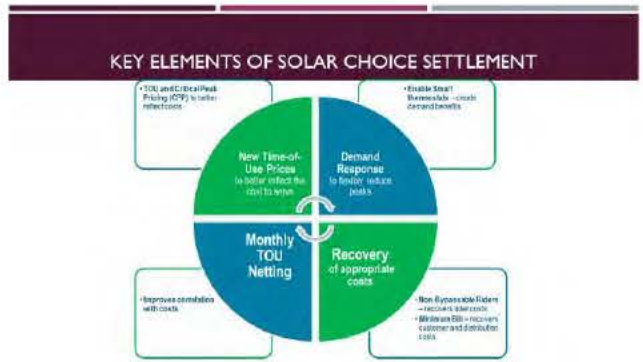


## Impact Analysis

**Customer:** Estimate bills, savings and payback period using actual customer usage and solar data

**Rate Class:** Calculate cost of service for NEM customers and compare with estimated revenue from new design

- Embedded view (rate base)
- Marginal view (incremental)



# Overview of Current Residential Offerings

## ■ DEC

- Residential Service (RS)
- Residential Service, Electric Water Heating and Space Conditioning (RE)
- Residential Service, Energy Star (ES)
- Residential Service, Time of Use (RT)
- Residential Service, Time of Use with Critical Peak Pricing (RSTC)
- Residential Service All-Electric, Time of Use with Critical Peak Pricing (RETC)

## ■ DEP

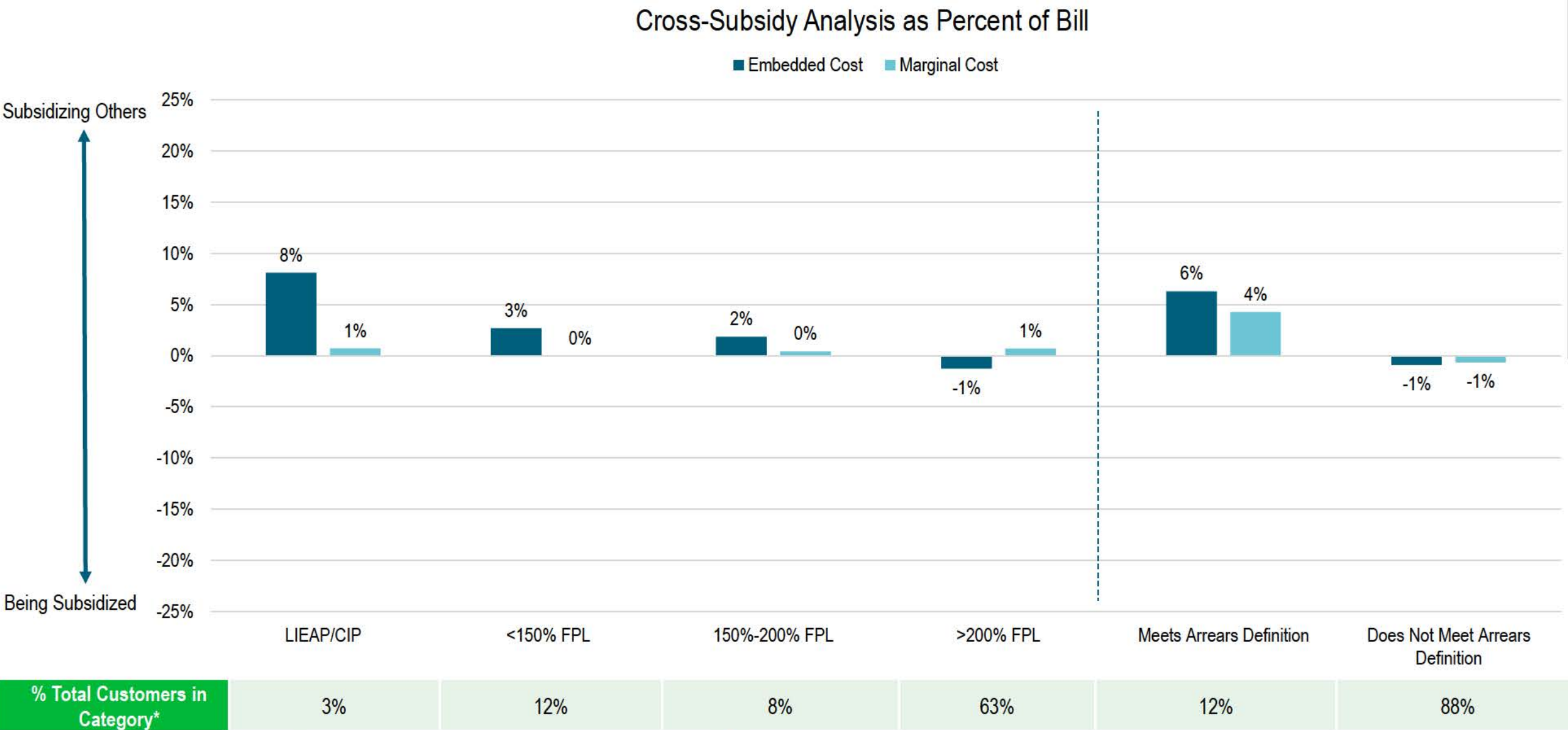
- Residential Service (RES)
- Residential Service, Time of Use (R-TOUD)
- Residential Service, Time of Use (R-TOU)
- Residential Service, Time of Use with Critical Peak Pricing (R-TOU-CPP)



# Residential Rate Design Issues Discussed

- Minimum Bill Analysis (same as shared with LIAC)
- DEC-NC RE, Declining Block Rate
- DEP-NC RES, Seasonal Price Difference
- All Electric Rate Design Option
- Demand Charge TOU Options
- Residential Rate Availability (i.e. permanent foundation language)

# Cross-Subsidy Analysis by Income and Arrears Status



\*Not all customers can be categorized, resulting in percentages not necessarily summing to 100%

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# Delineation between CRR and LIAC

## CRR

- Analysis of rate designs
- Impact of rate designs on multiple policy priorities including low-income/vulnerable customers

## LIAC

- Analysis of low-income/vulnerable customers
- Consideration of programs to aid low-income/vulnerable customers including:
  - Additions to standard rate designs to provide discounts such as the SSI discount in DEC-NC
  - Income-based designs that layer on top of the standard rate designs such as PIPP
  - Other discounts/policy changes



# Comprehensive Rate Review Study

Presentation for Joint CRR/LIAC/EE Collaborative Meeting





*Comprehensive Rate Review:*

# Competing Priorities?



INTERACTIVE



DSM/EE



CRR



LIAC

# Low Income Affordability Collaborative

**Conitsha Barnes**  
*Duke Energy*

**Rory McIlmoil**  
*Appalachian Voices*

**La'Meshia Whittington**  
*Advance Carolina*

**Detrick Clark**  
*NC Community  
Action Association*



# Low Income Affordability Collaborative (LIAC) Overview

- North Carolina Utilities Commission approved the Company's request to host a Low Income Affordability Collaborative.
- 12-month collaborative process includes evaluating a broad spectrum of regulatory programs and protections for low-income customers, ranging from affordability programs to potential new tariffs and other initiatives.
- LIAC membership represent over 30 organizations approved by the NCUC
  - Members represent government agencies, consumer advocates, low-income agencies, utilities and environmental groups

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# Low Income Affordability Collaborative Overview

	Subteam A	Subteam B	Subteam C	Subteam D
<b>Co-Leads</b>	<b>Rory McIlmoil:</b> Appalachian Voices <b>Arnie Richardson</b> Duke Energy	<b>Conitsha Barnes</b> Duke Energy <b>La'Meshia Whittington</b> Advance Carolina	<b>Detrick Clark</b> NC Community Action Association <b>Ken Szymanski</b> Apartment Association of NC	<b>Thad Culley</b> Sunrun <b>Paula Hemmer</b> NC DEQ State Weatherization
<b>Scope of Work</b>	<b>Assess Challenges:</b> Assessing current energy affordability challenges facing residential customers	<b>Define Affordability:</b> Developing suggested metrics or definitions for "affordability" in the context of the Company's provision of service in its North Carolina service territory and explore trends in affordability	<b>Assess Current State:</b> Investigating the strengths and weaknesses of existing rates, rate design, billing practices, customer assistance programs and energy efficiency programs in addressing affordability	<b>Collaborative Coordination:</b> Coordinate between the affordability collaborative and the rate study and energy efficiency stakeholder groups

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# LIAC Subteam A

## LANGUAGE FROM THE COMMISSION ORDER

Prepare an **assessment of current affordability challenges** facing residential customers.  
The assessment should:

- Provide an **analysis of demographics of residential customers**, including number of members per household, types of households (single family or multi-family), the age and racial makeup of households, household income data, and other data that would describe the types of residential customers the Company now serves. To the extent demographics vary significantly across the Company's service area, provide additional analysis of these demographic clusters.
- **Estimate the number of customers** who live in households with incomes at or less than 150% of the federal poverty guidelines (FPG), and those whose incomes are at or less than 200% of the FPG.
- For the different demographic groups identified as part of a. and b., provide an **analysis of patterns and trends** concerning energy usage, disconnections for nonpayment, payment delinquency histories, and account write-offs due to uncollectability.



# Analysis Overview

## Included in Analytics

- Insights into customers under 150% and 200% federal poverty level (FPL)
- Demographic/housing including dwelling type, heating source, renter/owner, racial makeup, age of account holder, housing value, population density, and number of people in the household
- Trends in delinquency, write-offs, disconnect non-pay (DNP), energy usage and energy intensity
- Analysis of Low-Income Energy Assistance Program and Crisis Intervention Program (LIEAP/CIP) recipients AMI Load Shapes
- Tables including relative information

## Future Iterations

- Zip code level data (pending commission approval)
- Mobile/Manufactured Homes analysis (pending quality data source)
- Electric Burden analysis
- Statistical analysis

Analysis was completed pre-covid from 3/2019-2/2020 on all NC customers who were active for the entire 12-month period

# Assessment of Customer Affordability Challenges

## Significant number of Duke Energy customers qualify as low-income

- The ability to afford basic needs and services, including energy bills, is directly related to household income
- “Low-income” = households falling under 200% of FPL
  - Only customers < 130% FPL qualify for heating/cooling and crisis assistance in NC

Category	% All Customers	No. Customers (2.37M)	No. Customers (3.07M)
LIEAP/CIP	2%	52,028	52,028
< 150% FPL	15%	360,934	460,500
150 - 200% FPL	11%	258,004	337,700
Total low-income	28%	670,966	850,228



# Assessment of Customer Affordability Challenges

## Significant number of customers meet the “arrears definition”

- “Arrears definition” means customers 1x behind on bill for 6+ months, or 2x behind for 2+ months
- Amounts to ~15% of all residential accounts, or 360,000 to 460,000 households (60% > 200% FPL)
- ~150,000\* low-income households also met arrears definition (23% of all low-income)
  - Amounts to 26% of households < 150% FPL
- Categories disproportionately meeting arrears definition:
  - low-income
  - African American and Hispanic
  - multi-family and rental
  - urban/city
  - low-value (market value of less than \$100,000)
  - all-electric
  - age of the primary account holder was 54 years old
  - single-person



# Assessment of Customer Affordability Challenges

## Energy intensity (kWh/square foot) is a driving factor

- Low-income (incl. LIEAP/CIP) and arrears struggling households have much higher energy intensity than non-low-income
  - Same with rural, younger, low-value, multi-family and rental households
- LIEAP/CIP recipients have energy intensity ~25% greater than other low-income, and 60% greater than non-low-income
- Arrears struggling households have 25-35% higher energy intensity for all customer segments
- Higher energy intensity likely (in part) related to poor housing quality and lower energy efficiency
  - Higher energy intensity results in higher usage and electric bills
  - Not causal, but supported by seasonal usage for low-income and arrears struggling households

# Assessment of Customer Affordability Challenges

## Seasonal energy intensity drives higher bills

- LIEAP/CIP:
  - Energy intensity is double that of non-low-income households in the winter, 40% higher in summer
  - 100% higher bill in winter and 70% higher in summer than non-low-income
- Low-income, not LIEAP/CIP:
  - 33% higher energy intensity than non-low-income households in winter, 14% higher in the summer
- Arrears struggling:
  - Energy intensity is 50% higher in the winter and 33% in summer than non-arrears in comparison
  - Have a ~160% higher total bill in peak winter months (133% higher in summer) than upper-income households; for LIEAP/CIP customers the bill differential is 100% and ~70% higher, respectively



# Assessment of Customer Affordability Challenges

## Disconnections for non-pay (DNP)

- *Discrepancy in DNP data being examined, assessment to be updated as necessary*
  - Duke Energy data shows 44,412 DNP's for analysis period
  - Actual residential DNP's exceeded 220,000
- Despite having received heating/cooling bill assistance, ~10% of LIEAP/CIP recipients experienced a DNP
- Low-income households 3x more likely to experience a DNP (than non-low-income)
- Arrears struggling and LIEAP/CIP recipients 9-10x more likely to experience a DNP
- In general, same categories of customers most likely to meet arrears definition also experience higher-than-average rates of DNP
- Lowest income (<150% FPL, including LIEAP/CIP) and arrears struggling customers experience higher-than-average rates of DNP across all housing, geographic, home value and racial categories



# Assessment of Customer Affordability Challenges

## Racial disparities in arrears and disconnects for non-pay

- Racial disparities clearly exist but reasons are unexplained by the present analysis
- Duke Energy applies NC Rule 12-11 consistently, regardless of racial status
- Racial makeup customer households
  - 72% White
  - 11% African American
  - 5% Hispanic
  - 2% Asian
- Percent of racial category that are low-income
  - 25% of White-identified households
  - 40% of African-American
  - 36% of Hispanic
  - 17% of Asian
- Percent of all customers in racial category that meet arrears definition
  - 12% of White-identified households
  - 32% of African-American
  - 17% of Hispanic
  - 5% of Asian
- Percent of all customers in racial category that experienced a DNP
  - 1.3% of White-identified households
  - 4.1% of African-American
  - 2.6% of Hispanic
  - 0.5% of Asian

*African-American households experience these outcomes despite using less energy and having only a slightly higher energy intensity than White households. Hispanic households use more energy and have a greater energy intensity.*

# Assessment of Customer Affordability Challenges

## Income does not explain racial disparities

Ratio of AFRICAN AMERICAN percentages (likelihood) of arrears and DNP's to other categories

Race	Low-Income	Arrears	DNP
Asian	2.3	6.5	8.4
Hispanic	1.1	1.9	1.6
White	1.6	2.6	3.1

Ratio of HISPANIC percentages (likelihood) of arrears and DNP's to other categories

Race	Low-Income	Arrears	DNP
Asian	2.1	3.4	5.3
African American	0.9	0.5	0.6
White	1.4	1.4	2.0



# LIAC Subteam B

**How we stay on our timeline and work in collaboration with the other subteams.**

- Standing weekly meeting with the stakeholders of Sub-Team B
- Collaborating with subject matter experts from within the LIAC and Sub-Team A to present relevant information to be investigated.
- Analyzing existing programs and metrics used in North Carolina and across the Nation to assess electric energy affordability for best practices and lessons learned.
  - Energy burden
  - Self sufficiency standard

**What comes next?**



Public Staff  
North Carolina Utilities Commission

Presented at the LIAC Joint Collaborative Session, January 26, 2022

## SUB-TEAM B TASKS

### October - December

Identify and compile information to be investigated.

Align on questions to be answered.

Identify expert input / opinions needed to support positions (LIAC education)

### January - February

Design internal matrix to review compiled information.

Analyze information and data.

### February - March

Suggest metrics / definition for “affordability”

Prepare and present suggestions to broader LIAC consideration



# LIAC Subteam C

## Rates & Program

Address Commission questions regarding existing rates, rate design, billing practices, customer assistance programs and energy efficiency programs

- 3.a-1) Define success criteria to be used for affordability programs
- 3.a-2) Determine metrics to be used to monitor program impact
- 3.b/c) Assess existing Duke Energy income-qualified programs (3 tasks)**
- 3.d) Develop income-qualified program alternatives (2 tasks)**
- 3.e) Assess set of Commission-identified rates and programs (5 tasks)**
- 3.f) Determine rate impact implications of assessed programs (4 tasks)**
- 3.h-1) Determine what practices and regulatory provisions related to disconnections for nonpayment should be modified or revised
- 3.i-1) Identify existing utility and external funding sources are available to address affordability
- 3.i-2) Estimate the level of resources that would be required to serve additional customers
- 3.j-1) Identify opportunities and challenges of the utilities working with other agencies and organizations to collaborate and coordinate delivery of programs that affect affordability concerns



## Subteam Outputs Needed

- 1) Recommendation regarding existing income-qualified programs
- 2) Presentation of recommendation to LIAC at large to secure endorsement or input.
- 3) Demonstration that position regarding appropriateness of Commission-identified rates and programs.
- 4) Presentation of position to LIAC at large to secure endorsement or input.

## Measures of Success

- ★ LIAC endorsed recommendation on existing programs
- ★ LIAC endorsed position on appropriateness of Commission-identified rates/programs



# Sub-Team C Mini Working Teams

## Roles/ Responsibilities

### ❑ MINI SUBTEAM LEADERSHIP

- Develop clear understanding of mini sub-team tasks/questions and all required outputs and expectations
- Communicate any resource needs and concerns with Co-leads (Detrick and Ken)
- Consider tasks and delivery timelines (factoring in interdependencies of other sub-team outputs)

### ❑ MINI SUBTEAM COMMUNICATION

- Serve as subject matter professional and advising body for mini sub-team
- Ensure relevant and timely communications are disseminated to Co-leads and other sub-team C members

### ❑ MINI SUBTEAM PRODUCTIVITY

- Develop and maintain Mini Sub-team Plan (task list and schedule) – supported by Co-leads
- Develop Mini Sub-team Report outs (communications to greater Sub-team C) – supported by Co-leads
- Track all relevant efforts in Trello (please let us know if you do not have access)

# What's happened in Sub-Team C

## October 2021 - Ken Szymanski + Detrick Clark

SUB-TEAM C MINI WORKING TEAMS										
Investigating the strengths and weaknesses of existing rates, rate design, billing practices, customer assistance programs and energy efficiency programs in addressing affordability.										
Teams	Team A	Team B	Team C	Team D	Team E	Team F	Team G	Team H	Team I	Team J
Team Task	a. What defines a "successful program" and what metrics should be monitored and presented to show impact?	b. % of res customers are eligible for each existing program and % of eligible customers take advantage?	c. Impact of existing programs on the energy burden for enrolled customers?	d. Should existing programs be maintained, replaced, or terminated? Changes/replacements to improve results?	e. Are the following programs appropriate for implementation in NC? (please refer to task list link in the welcome letter)	f. How do affordability programs affect cost-causation and allowance of costs among classes?	g. How do cost-of-service allocation affect rate design and affordability of rates?	h. What disconnections for nonpayment practices/regs should be modified or revised?	i. Existing utility and external funding sources available to address affordability? Level of resources required to serve more.	j. Coordination opportunities/challenges of the utilities working with other organizations to deliver affordability programs?
Team Members	Currently re-examine mini sub-team activities and re-evaluate mini sub-team assignments ( <i>at least 4 members per team</i> )									

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# What's happened in Sub-Team C

## November 2021 – Tim Duff

### Duke Energy Low Income Energy Efficiency Offerings in the Carolinas

- Weatherization and Equipment Replacement Program (“WERP”)
- Refrigerator Replacement Program (“RRP”)
- Neighborhood Energy Saver Program (“NES”)
- Low-Income Weatherization Pay for Performance Pilot

### Potential Program Expansion and New Pilots

- Expanding Duke Energy Carolinas Weatherization Program to Duke Energy Progress

*As Part of the Rate Case Settlement, Duke is working with SACE, NCSEA, NC Justice Center and NRDC to develop Low Income EE Pilots.*

### 3 ideas being considered:

- Energy Burden Pilot (Follows the same model as the Durham pilot)
- Heat Strip Replacement Targets winter peak and high energy intensity in mobile/manufactured homes
- Multifamily Direct Install Expansion Targets low-income multifamily housing (LIHTC, HUD, Section 8)

### Areas for Improvement to Targeted EE Offerings

# What's happened in Sub-Team C

## December 2021 – Bradley Harris

### Cost of Service 101

- Energy
- Customer
- Demand (Capacity)

### Rate Design 101

- Recognize Cost Causation (No Unjust or Undue Discrimination)
- Incent Beneficial Consumption Patterns (Efficient Price Signals)
- Recover Cost to Serve (i.e., recover revenue requirement)
- Meets Public Policy Goals (as determined by the utility commissions and state governments)

### Analysis of segmenting the residential rate class

- Theory
- Methodology
- Results from DEP

### Analysis of a minimum bill charge as an alternative to a fixed charge

- Very small impact by Income and Arrears Status
- Significant Impact by Usage on Very Low Usage
- A very high minimum bill would be needed to replace the revenue from eliminating the fixed charge





# What's happened in Sub-Team C

## January 2022 – Lisa FaJohn + John Howat

### Historical

Established through the 2020 Virginia General Assembly

- Local legislators concerned about the income to home energy cost ratio for low-income constituents
- Created with input from advocates (Virginia Poverty Law Center)
- General outline established
- Details to be set by the managing agency, utilities and advocates
- The SCC ensures the USF is reasonable and accurate.
- Based on Ohio PIPP and modified for VA
- Designed to:
  - Limit the electric utility payments
  - Based upon a percentage of income
  - For customers of DEV and APCo

### Objective

- Limits electric bill payments to 10% (electric heat), 6% for (other heat)
- Reduce electric usage through weatherization and energy conservation education
- Establish a non-bypassable Universal Service Fee (USF) to fund PIPP

### Process

- Customers apply/screened through the Department of Social Services
  - Eligibility: 150% FPL income
  - Eligible for free weatherization and conservation education
- On-time, in-full payments result in a delta credit and 1/24 credit to the arrears
- Credits along with administrative costs paid through the USF



# Next Steps for Sub-Team C

## Identify Resource Needs/Dependencies

- a) Submit official requests to Duke and Guidehouse for all third-party program evaluations, SWOT Analysis, and reports related to Sub-Team C's task
- b) Review and disseminate all interconnected info, analysis, and reports from other NC LIAC Sub-Teams to appropriate mini-teams and its members
- c) Re-examine mini sub-team activities and re-evaluate mini sub-team assignments
- d) Survey sub-team members for special meeting sessions/and the group's availability to meet more frequent

## LIAC February Workshop 5 – Thursday, February 3rd (1-4 pm)

*Sub-Team C Presenter(s) Include:*

**Lucy Edmondson** and **Jack Floyd** - statutory and regulatory challenges

**John Howat** - the history of the OH PIPP program

**Tim Duff** has asked (**Rick Mifflin**) to discuss existing EE programs w/ larger collaborative

**Bradley Harris** - DEC SSI-based program and other items

# Next Steps for Sub-Team C Cont'd

## Statistical Analysis of Customer Affordability Challenges Working Group (lead by Sub-Team A)

- **Christina Cress**, Partner, Bailey & Dixon, LLP
- **Munashe Magarira**, Staff Attorney, NC Utilities Commission
- **\*Ken Szymanski**, Executive Director (retired), Apartment Association of NC
- **\*Detrick Clark**, Director of Housing and Energy Programs, NC Community Action Association

Future Subteam C presentations and activities include, but are not limited to the following:

Topic: **Ohio PIPP Overview** (planning in progress)

Presenter(s): **Brandy Kolattukudy**, Ohio Deputy Chief of the Office of Division Support  
**John Starver**, Executive Director for Ohio Partners for Affordable Energy

Topic: **DECWX and HHF Weatherization Program Overview** (*tentative*)

Presenter(s): **Deborah Hill**, TRC (formerly Lockheed Martin)

Topic: **Sub-Team C proposal(s)/recommendations for consideration**

Presenter(s): **TBD**

Topic: **Program Design Modeling**

Presenter(s): **John Howat**

*\*Sub-Team C Co-leads*

Presented at the LIAC Joint Collaborative Session, January 26, 2022

North Carolina  
Low Income Affordability Collaborative







*Bringing It Together:*

# What *didn't* you hear?

INTERACTIVE



# BREAK

*(Resuming at 11:30 AM)*



# Group Discussion & Breakouts

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# Let's Discuss

- What we've heard
- What we've learned





# Let's Breakout!

Consider

- what you have heard today,
- what you have experienced during your Collaborative participation, and
- insights you offer from your *non-Collaborative* lives.

What are the overlaps for our groups?

What are the barriers and potential solutions?

What else should be on our radars?

# Next Steps

**How we stay abreast of and consider the ongoing work of the separate teams**

- Designated cross-collaborative liaisons representing the Utility, the Public Staff and community/industry
- Standing agenda item for sharing updates

**What comes next?**

## COLLABORATIVE LIAISONS

### EE COLLABORATIVE

Duke Energy – *Tim Duff*  
NCUC Public Staff – *Jack Floyd*  
Community/Industry – *Claire Williamson*

### CRR COLLABORATIVE

Duke Energy – *Bradley Harris*  
NCUC Public Staff – *Jack Floyd*  
Community/Industry – *Thad Culley*



# ADJOURN

# THANK YOU

*all for your  
participation*



# Contact

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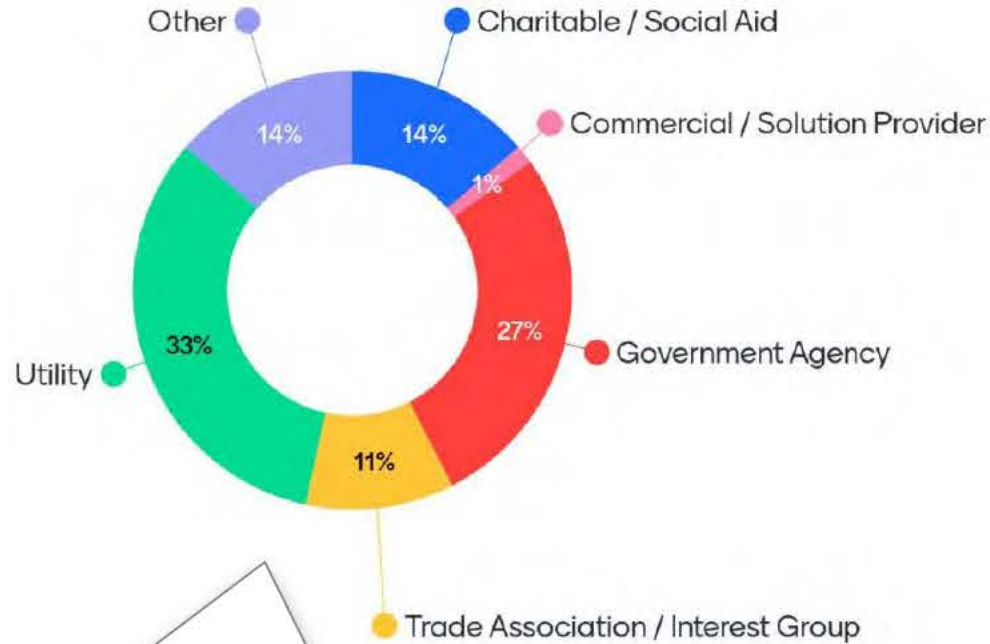
# Joint Collaborative Session Participant Input

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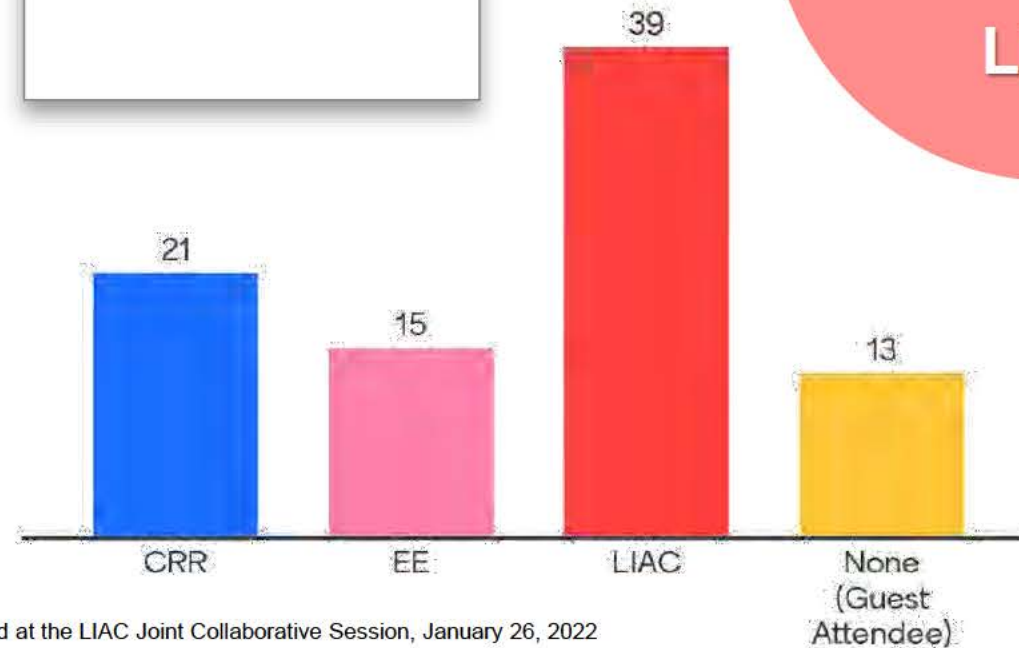
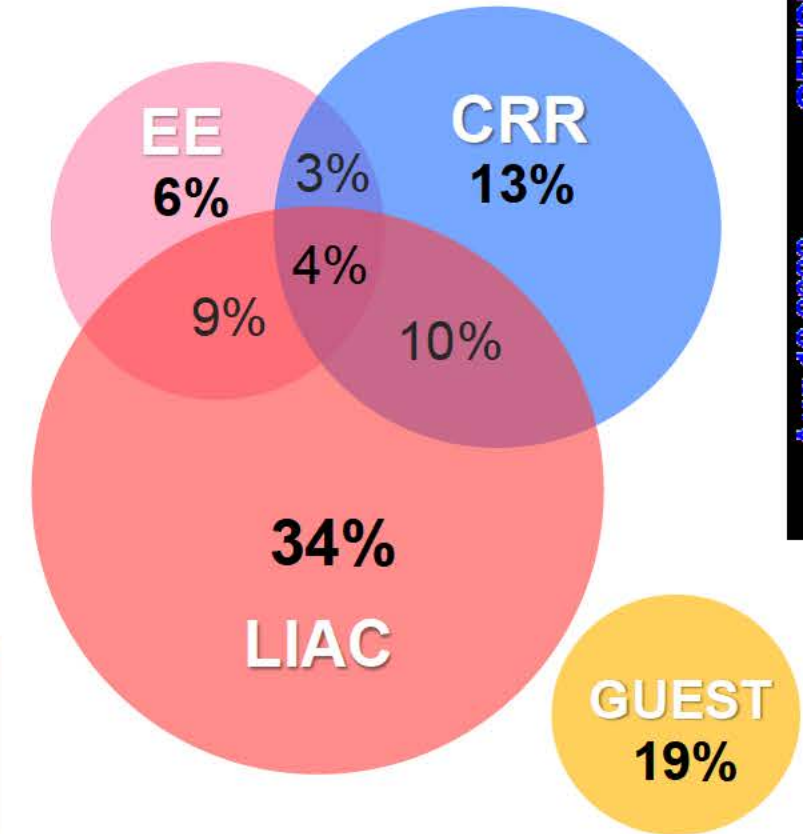
# Joint Collaborative Session | January 26, 2022

Participants in total: 147



• Representation greatest from host organization (LIAC)

- Sixty percent (60%) self-identified as a *utility* or *government agency* participant
- Some session participants noted that “**non-profit advocacy**” would have been a better description of their organizations





# Participant comments related to EE Collaborative discussion



DSM/EE

*Split incentive issue is important not only for addressing the rental problem but also from a racial equity standpoint ...*

*Non-energy repairs are an issue for DOE weatherization program funds that go out to each state, and we are working to solve that issue in conjunction with DOE*

*.... rebates for new equipment or value from the property upgrade goes to the property owner, but the energy savings are seen on the renters' bills*

*... also means the cost of the upgrade goes to the owner and benefit goes to the renter*



CRR

*Landlords won't invest in EE if the tenant pays the utility bill, because the landlord won't see any payback/savings from the investment ...*

*And they are typically not incentivized to pay for expensive improvements, even if the landlord does pay the bill, especially if they are competing in a high-demand rental market*

*We trying decarbonize by 2050, and many homes/multi-family dwellings are being built between now and then.*

*Is there a way to get at [decarbonization] through building codes for low income housing or through requiring basic EE for any landlords participating in a HUD type program?*

# Areas of Greatest Cross Collaborative Impact



Respondents indicated that the greatest impact the collaboratives could have would come from **activities that drive greater transparency:**

- 1) Timely sharing of data insights with one another.
- 2) Timely sharing of gaps identified with one another



# Participant comments related to CRR Collaborative discussion



DSM/EE

*Are marginal costs less than embedded costs? And does the marginal cost time window go long enough to capture capital costs for replacement of current generators?*



CRR

*Low-income customers pay more than the cost they (and their energy usage/demand) impose on the system .... they don't necessarily pay more in rates on average*

*I'd be curious to know what the aggregated dollar value is for how much low-income customers are subsidizing non low-income customers each year.*



LIAC

*Embedded costs are averaged over the whole year. This perspective can obscure what's happening in certain specific customer segments.*

*Why would there not be a **mid-day discount rate** during summer months?*

*Air conditioning load to counteract solar*

*During spring and fall, aren't their nuclear or other baseload plants down for planned maintenance, so that the marginal energy cost is gas, even with the solar?*

*i.e., sometimes you are paying fairly high gas power prices then because of the need to replace baseload that is down*

*Could add rate design leads to lower costs*

*There is much debate about the notion of public interest and the objectives of regulation ..*

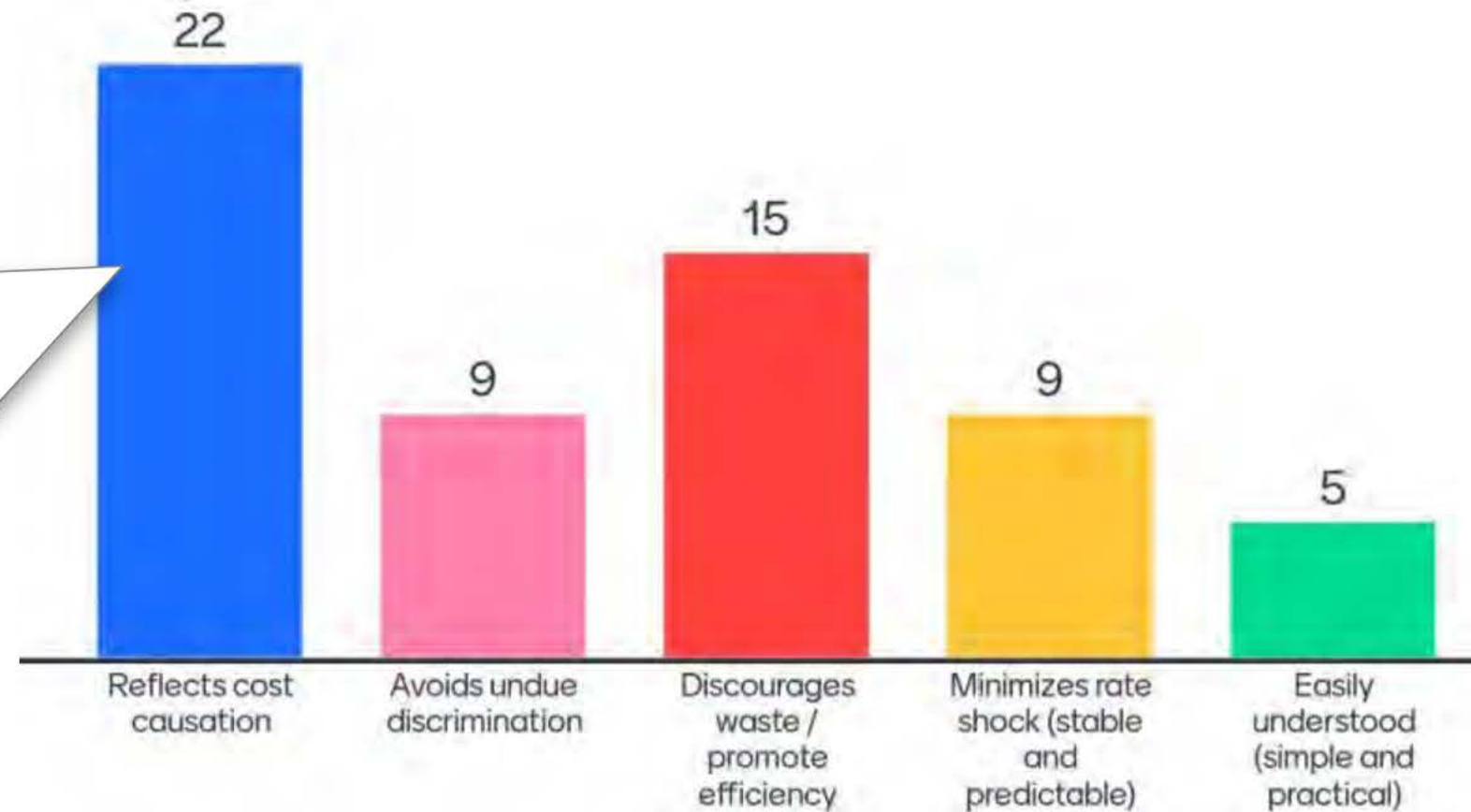
*Not saying to throw Bonbright out the window, just that there appears to be lots of interest in debate over principles outline in his treatise*



# Most Important Principles of the Competing Priorities

Respondents indicated **reflecting cost causation** as the most important of the Bonbright Principles

Session participants raised additional principles – e.g., supporting public interest,



\* Note that one-third of poll participants self-identified as utility employees

# Participant comments related to CRR Collaborative discussion



DSM/EE

*For LIAC work, "Energy Intensity" is specifically looking at electricity, rather than including gas and propane.*



CRR

*Statistical analysis is necessary for understanding WHY we are seeing the outcomes we're seeing so that we can propose/design appropriate solutions*



LIAC

*Beyond the Customer Challenges Assessment, the next phase of LIAC work focuses on identifying and proposing solutions.*

*Curious how much of the arears disparity is explained by the degree to which these various customer groups have electric heat.*

*Those with gas heat may be in arrears on their gas bills which wouldn't be reflected in the Customer Challenges data.*

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# What didn't we discuss? What gaps might we have collectively?

it seems that Tim's slide on Duke's Low-Income Energy Efficiency Study got cut. Maybe there is still a way to share it today? Also wondering what level of penetration Duke's income qualified programs have achieved, compared to total LI population?

I'm going to have to digest this before I can even assess what should have been added or things that could have been left out.

Ideas on how low income families/communities can participate/benefit from electricity transformation to a more clean/connected system. How future clean energy plan may impact all of this work

How will performance based ratemaking and future multi-year rateplans be integrated with affordability concerns?

Hind sight is 20-20, but in retrospect, in addition to income, I wish we'd carved out time to conduct analysis of household wealth to enhance our collective understanding of home energy affordability and access challenges.

Utility payment plan offerings

Because low income homes are more likely to have electric heat and electric hot water, this is a confounding variable that must be taken into account in both the analysis of low-income AND of whether customers are "overpaying" in net metering or oth

Path Forward for Renters - getting over the hump of the split incentive

Is there a way to incentivize multi-family residential owners to make energy improvements (LL pays energy bills), but also incentivizes energy efficiency by tenants if tenants can be charged for cost overages?

Fixed fees are an immovable part of a customer's bill that have an impact on costs/affordability.

I need some more time to sit down and reflect on what I've heard today. What I heard today was helpful and will inform my work going forward

time for current programs to serve the need. meaning at the current rate of program delivery it will take x years for all low income customers to be served

Fuel source and fuel switching. Split incentive. Urban/Rural metric and data differences. Multi-family vs. single family.

I may have missed it, but information on the penetration of current energy efficiency programs would be helpful. *Specifically* penetration of programs with deep retrofit measures that would yield high savings for each customer.

We did not address fixed charges (basic facilities charge) in rate design & how they have been informed by Duke's reliance on the minimum system method in its cost of service study. Keeping those low is important for affordability & efficiency

arrerage management programs

Given that low-income households have been subsidizing other households for some time, should future rate design take this into consideration - not just reduce, but reverse the subsidies?



# Breakout Summary – Collaborative Intersections

## Where can EE/LIAC work together (areas of overlap)?

### Programs & Measures

- Low-income pilots
- Low-cost, cost-effective measures
- Funding for Non-Emergency Repairs (Weatherization)
- DEP Weatherization Program
- Large household energy costs - how to change that perspective and spread out costs

### Data & Information

- Data Sharing Platform where organizations don't duplicate efforts and can prioritize investments
- Providing data from LIAC assessment and other efforts that can inform future low-income pilots
- Information about the most effective LI programs, measures, cost-effectiveness challenges, how to serve the most people the most effectively
- Penetration of EE programs especially deep retrofit programs which would have big impact on customer bills
- Penetration of Duke EE programs compared to the low income EE population

### Outreach & Education

- Combine EE with any low-income program recommended (teaching/changing behavior - voluntary measure)
- Education strategies for low-income customers on when/how to save energy (iPhone plugged in, when to run dishwashers)
- Talking to individuals about why/how this is important

## Where can CRR/LIAC work together (areas of overlap)?

### Customer Offerings

- Percentage of Income Payment Plan (PIPP) and other low-income rate designs - they really sit on top of base rate designs. "low income offering"
- Low-income customer participation in Shared Solar offering
- Fixed fees

### Rate Design Considerations

- Cross-subsidization
- Evaluation of past subsidization
- Use of shadow billing for different rate tariffs
- Understanding the impacts of multi-year rate plan (PBR) on LIAC recommendations
- TOU Load Shifting discount times (implications for low-income customers)
- Application of Bonbright Principles
- Self-explanatory rate design principles like "use less, pay less"
- "Rate design" distinct from "low income offering"
- Consistent eligibility requirement for all departments (rates/EE - components of a bill)
- Do we have a "fair and firm" income requirement or do we design in flexibility to enable it can shift depending on needs (e.g., raising LI EE program eligibility up to 200% the federal poverty level)
- Low-income offerings complex to model (ex. PIPP) - takes a long time



# Breakout Summary – Challenges & Gaps

## Customer Challenges

- Customers balancing paying their electric bill with other needs
- Total magnitude of cost per house
- Poor housing quality leading to low efficiency
- Prequalifying conditions of home as barriers to participation (e.g., hole in roof)
- Customers in crisis - have to apply for many assistance opportunities
- Seniors on Fixed income limited in ability to invest in EE measures
- Energy affordability / high energy burden experiences may be very different – "one size fits all" approach is hard

## Outreach & Education Needs

- Lack of general education, e.g., how to use less energy, what programs available, how to apply
- Lack of free time (overwhelming times); need to make it easy and quick
- No "one stop" for people applying for aid, services, assistance, etc.
- Reaching hard to reach customers (e.g., rural or remote customers, customers who are already receiving education on many different programs, etc.)
- Earning customer trust in utility programs
- Fear (scams) for those coming into homes to support vulnerable communities
- Ways to help customers ensuring legitimacy of offers

## Data & Information Needs

- Understanding program enrollment process and existing program participation
- More data on manufactured homes and multifamily related to EE

## Program Design Considerations

- Automatic Enrollment based on work supports/gov't assistance
- Understanding human behavior on EE and payments
- Energy burdened low energy use customers not currently being addressed by EE
- Multifamily and tenant sharing energy reductions/investments
- Utility process needed for interaction w/customers who apply for programs as barriers to participation (e.g., hole in roof)
- Utility Cost Test (UCT); evaluation of program effectiveness and value for customers
- Program administration barriers for utility and state; Limitations to WAP or other government funding impacting ability to service homes
- Supporting improvements for both gas and electric when limited to only electric KWH reduction for cost recovery
- Determining appropriate EE funding from the EE Rider given lack of cost effectiveness
- PIPP Payment Behavior and success rate
- Multi-year rate plan complicating our proposed solutions
- Balancing carbon reduction with affordability

## Cost & Resource Considerations

- Utility administration cost for programs
- Cost of serving the LI population scale of need
- High cost to reduce energy usage vs energy cost savings
- Utility cost recovery for new programs
- Securing a reliable funding stream to pay for something like a PIPP or discount rate
- Ensuring program longevity and funding streams
- Supply chain issues and increased cost of EE improvements
- Workforce constraints (COVID)



# Breakout Summary – Changes and Solutions

## Offerings

- Offer high usage alerts (note: Duke already provides)
- Offer a collection of programs (EE, Rates, Policies, etc.) to better serve customers
- Consider longer term solution similar to helping home funds to help with home improvements (health and safety)
- Have other avenues such as midstream program, renter payment program, on-bill program
- Create data driven solutions

## Program Administration & Tools

- Implement a "one stop" for applying for assistance and services
- Create "hotline" for customers to call and ask about their bill and programs
- Create Data Sharing Platform where organizations don't duplicate efforts and can prioritize investments; households could be referred to other programs like health and safety and then be referred back to a WAP
- Train service providers to give easy consistent information and guidance
- Leverage auto enrollment - auto enrolled based on services (ex. automating food stamps, medicaid, etc. - if you apply for one of those, the application is auto-populated for other programs)

## Engagement

- Focus on Simplicity - easy to understand, apply
- Collaborate with community stakeholders to help address lack of trust/legitimacy/scams
- Coordinate with service agencies to qualify customers
- Enlist existing participants for helping walk new/potential participants through the process

## Other

- Ensure larger properties stay affordable - landlords who own 1-5 vs large developers (tangible improvements vs "making it look nice") Create "hotline" for customers to call and ask about their bill and programs
- Seek governmental intervention to compel landlords participate in EE measures for their renters ("you have to make your properties energy efficient")
- Utility should weigh in on improving housing / building code
- Seek non-ratepayer funding for health, safety, and incidental repairs



## **APPENDIX G – LIAC**

### **LIAC PROPOSALS**

**DOCKET NOS. E-7, SUB 1213; E-7, SUB 1214;  
E-7, SUB 1187; E-2, SUB 1219 AND E-2, SUB 1193**

# North Carolina Low Income Affordability Collaborative NC LIAC Proposal Assessment Results

*July 7<sup>th</sup>, 2022*

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*Convened by*



**Public Staff**  
*North Carolina Utilities Commission*

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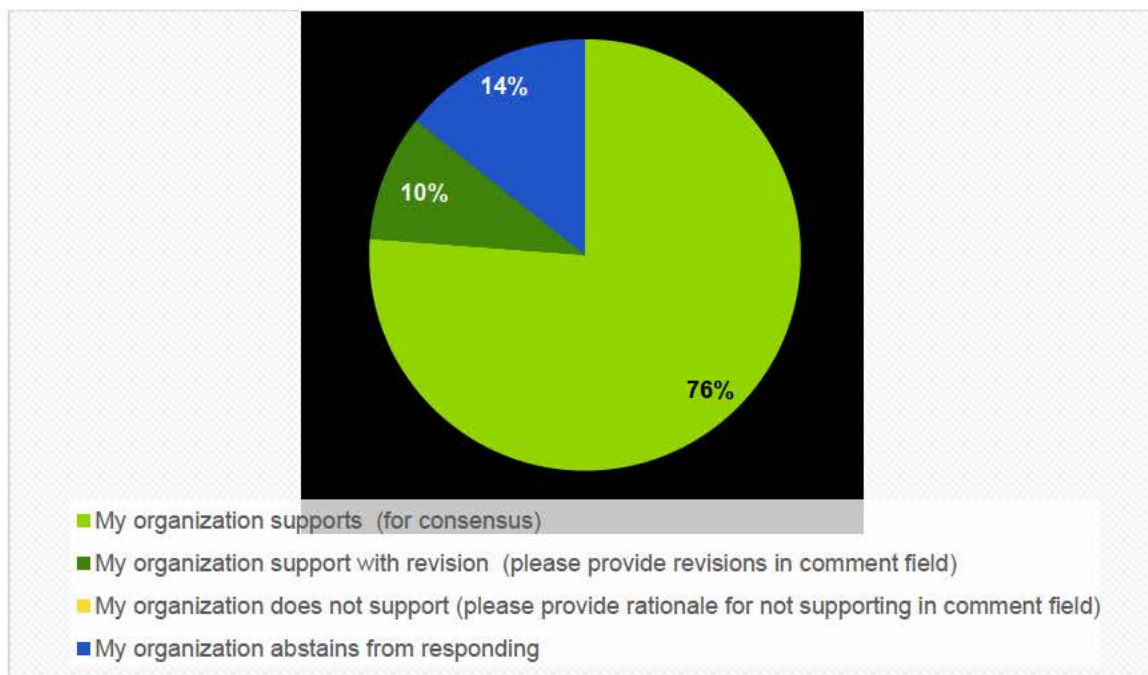
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## Proposal 01 – Closing the EE Spending and Savings Gap

## Proposal 01 – Closing the EE Spending and Savings Gap

### Assessment Results



### **Breakdown of Results:**

#### Supports:

- AARP
- Appalachian Voices
- Crisis Assistance Ministry
- Dominion
- Legal Aid of North Carolina
- National Association for the Advancement of Colored People (NAACP)
- North Carolina Dept of Health and Human Services
- North Carolina Housing Coalition
- North Carolina Justice Center
- North Carolina Sustainable Energy Association
- Rowan Helping Ministries
- Sierra Club
- Southeast Energy Efficiency Alliance (SEEA)
- Southern Alliance for Clean Energy (SACE)
- Southern Environmental Law Center (SELC)
- Vote Solar



## Proposal 01 – Closing the EE Spending and Savings Gap

### Supports with Revision:

- Duke Energy
- Public Staff of the North Carolina Utilities Commission

### Does not Support:

- None

### Abstains:

- Carolina Industrial Groups for Fair Utility Rates (CIGFUR)
- Nicholas Institute (Duke University)
- North Carolina Community Action Association

## Comments from Assessment

*“The reasons for the gap in spending should be studied and understood. There are historical differences between DEC and DEP. For instance, DEP has more Tier 1 counties compared to DEC. Additionally, pre-merger, DEP and DEC each had its own portfolio of DSM/EE programs, and there were many differences between the two portfolios. Over time post-merger, many of the programs of the two companies have been modified to be identical; however, these historical differences may account for the gap to some extent. Once the differences are understood then DEP may better target customers of need and mindfully deploy EE programs based on actual identified customer groups. The following general note should be considered included in Public Staff responses to all proposals.*

*The Public Staff has reviewed each of these proposals in isolation without any projections of costs, benefits, cost-effectiveness, participation, etc. Only with this and other pertinent information could the Public Staff make a final determination as to whether it supports or does not support a proposal. The Public Staff would also have to consider the cost and rate impact of all programs or proposals to be implemented at the same time before making a final determination as to its position. This statement applies to each proposal.” – Public Staff of the North Carolina Utilities Commission*

*“Duke Energy strives to offer programs that reasonably similar between the jurisdictions and apply learnings before expanding programs to the other jurisdiction, which is why it is filing the DEP Weatherization Program with the NCUC the week on June 7th. The addition of the Weatherization Program in DEP will immediately increase the DE Program spend and reduce the current gap in spending. However, the jurisdictional make-up of the DEC and DEP territories is different, so it’s unlikely that the low-income program spend, and energy saving will be consistently proportionate. Fundamentally, qualified customers will be the key to driving program demand and participation for each jurisdiction. Customer engagement levels difficult to predict and often changes over time as the marketplace conditions change. Duke Energy will make reasonable efforts to engage, educate and encourage participation low-income energy efficiency programs for eligible customers in both jurisdictions.*

*The weatherization programs are dependent upon the agencies working in each territory. State and federal determine the foundational funding provided for each agency to and perform*



## Proposal 01 – Closing the EE Spending and Savings Gap

*weatherization services for their assigned area of responsibility. The amount of funding provided is determined by the low-income need for each agency and the past performance in providing services for eligible applicants. The amount of funding provided to each agency or non-profit entity can vary substantially at the individual and aggregate level, so not always an apples to apples comparison.*

*In addition, the city v. rural make up of the DEC v. DEP territories is quite different and can impact the low-income opportunity for Duke Energy served customers and how applicants are prioritized for low-income services by the local agencies. Other influencing factors include, but are not limited to:*

- *The age, type and condition of the housing stock occupied by income qualified customers*
- *Health and Safety issues are customer specific which vary widely by the number and cost of improvements required to serve weatherization applicants*
- *Prioritization of applicants is conducted by the agencies using a specific scoring protocol required by the governmental funding sources*
- *Willingness and capability of each agency to incorporate Duke Energy incentives into the program funding structure*
- *Waitlist of applicants can impact which customers can be served, when they can be served and if they are served at all*
- *Not all customer deemed to be income qualified want or need to participate in the programs, so a straight-line correlation to participation may not be accurate*

*It is Duke Energy's intention and aspiration to serve as many qualified customers as possible through low-income energy efficiency programs, but a singular territory comparison of program spending and energy savings rarely tells the whole story of how well customers in need are being helped." – Duke Energy*

### Program Proposal Information:

**Name and Organization:** Al Ripley, Multi-Stakeholder Program Proposals (as submitted by NC Justice Center)

**Program Name:** Closing the income-qualified energy efficiency program spending and savings gap between DEP and DEC

**Program Description:** Proportionately, Duke Energy Carolinas has historically spent and delivered more efficiency savings than Duke Energy Progress. This recommendation is for DEP to increase its spending and savings to close this gap.

**Program Objective:** Increase the level of DEP low-income customer participation and energy / bill savings.

**Target Participants:** Customers who meet the income-qualified criteria for Duke's low-income energy efficiency programs.

**Program Administration:** DEP

## Proposal 01 – Closing the EE Spending and Savings Gap

**Eligibility Criteria:** Customers who meet the income-qualified criteria for Duke's low-income energy efficiency programs.

**Success Metrics:** Increase the level of DEP low-income customer participation and energy / bill savings.

**Program Partners:** N/A

**Additional Information:** For more information contact Forest Bradley-Wright (504) 208-7597  
forest@cleanenergy.org

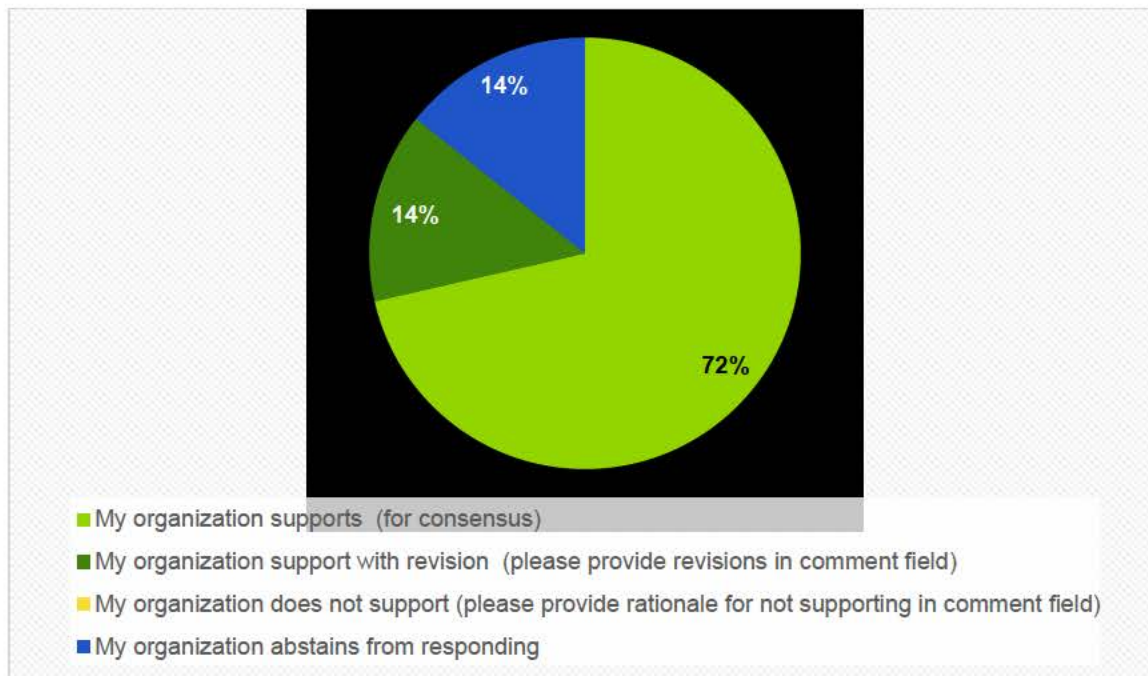
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## Proposal 02 - DEP Income Qualified Weatherization

### Proposal 02 – DEP Income Qualified Weatherization

#### Assessment Results



#### **Breakdown of Results:**

##### Supports:

- Appalachian Voices
- Crisis Assistance Ministry
- Dominion
- Legal Aid of North Carolina
- National Association for the Advancement of Colored People (NAACP)
- North Carolina Dept of Health and Human Services
- North Carolina Housing Coalition
- North Carolina Justice Center
- North Carolina Sustainable Energy Association
- Rowan Helping Ministries
- Sierra Club
- Southeast Energy Efficiency Alliance (SEEA)
- Southern Alliance for Clean Energy (SACE)
- Southern Environmental Law Center (SELC)
- Vote Solar

##### Supports with Revision:

- AARP

## Proposal 02 - DEP Income Qualified Weatherization

- Duke Energy
- Public Staff of the North Carolina Utilities Commission

### Does not Support:

- None

### Abstains:

- Carolina Industrial Groups for Fair Utility Rates (CIGFUR)
- Nicholas Institute (Duke University)
- North Carolina Community Action Association

### **Comments from Assessment:**

*"AARP looks forward to learning more about the specific ways in which this program would lower the cost barrier to energy efficiency retrofits in low-income households, and information about the cost and savings for low-income households that participate in this and other energy efficiency programs. AARP supports cost-effective measures to promote clean energy that yield affordable energy, AARP supports energy efficiency and weatherization programs including for low income customers. We urge that DOE and Federal infrastructure funds be used first to fund such a program."* – **AARP**

*"Only non-ratepayer funds should be utilized for health and safety work."* - **Public Staff of the North Carolina Utilities Commission**

*"The Company plans to file the DEP Income Weatherization Program with the NCUC within the next two weeks."* – **Duke Energy**

### **Program Proposal Information:**

**Name and Organization:** Al Ripley, Multi-Stakeholder Program Proposals (as submitted by NC Justice Center)

**Program Name:** Duke Energy Progress Income Qualified Weatherization Program

**Program Description:** Modeled off of the Duke Energy Carolinas program of the same name, the DEP IQ Wx program will incorporate the ability for Duke to fund the entire project cost for EE improvements with flexibility for in per-home spending levels (up to \$10,000) comparable to the 2019 Durham Pilot. Total program spending levels will at least match those on a per residential customer basis as the DEC program.

**Program Objective:** Deep energy efficiency retrofits to low-income households.

**Target Participants:** Customers who meet the LIAC definition of low-income including, but not limited to, customers served by Weatherization Assistance Program administrators.

**Program Administration:** Duke Energy Progress

**Eligibility Criteria:** Customers who meet the LIAC definition of low-income including, but not limited to, customers served by Weatherization Assistance Program administrators.

## Proposal 02 - DEP Income Qualified Weatherization

**Success Metrics:** Number of low-income households served, and depth of energy / bill savings for participating customers.

**Program Partners:** WAP program implementers

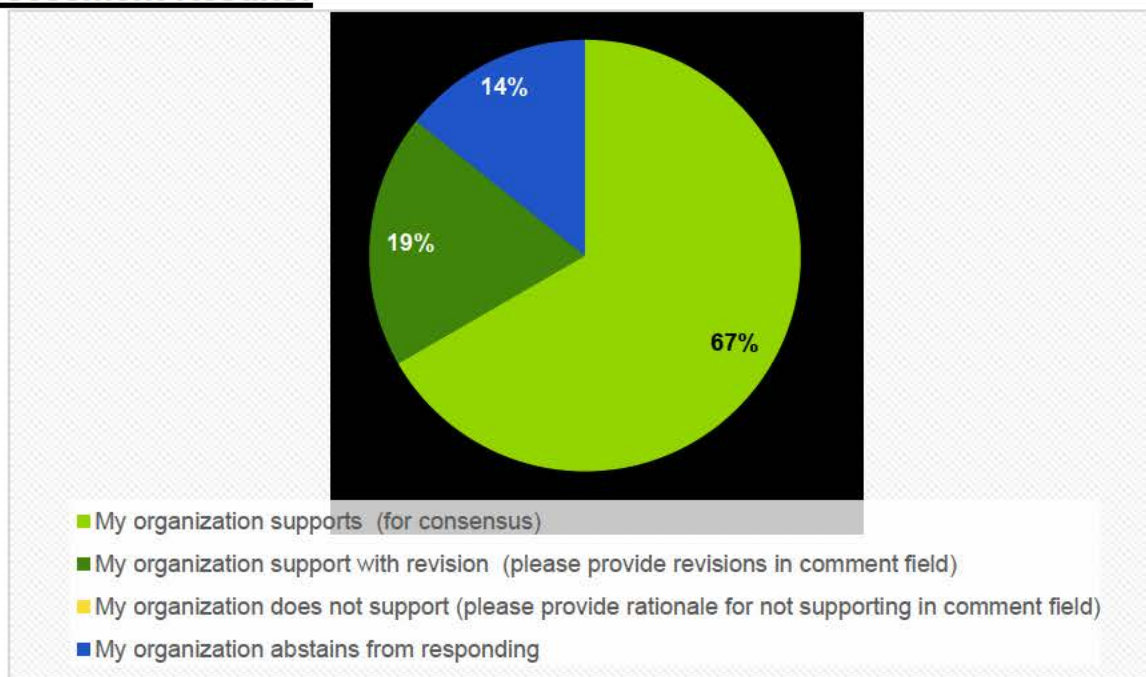
**Additional Information:** For more information contact Forest Bradley-Wright (504) 208-7597  
forest@cleanenergy.org



## Proposal 03 - Income Qualified High Energy Use

### Proposal 03 – Income Qualified High Energy Use

#### Assessment Results:



#### **Breakdown of Results:**

##### Supports:

- Appalachian Voices
- Crisis Assistance Ministry
- Dominion
- Legal Aid of North Carolina
- National Association for the Advancement of Colored People (NAACP)
- North Carolina Dept of Health and Human Services
- North Carolina Housing Coalition
- North Carolina Justice Center
- North Carolina Sustainable Energy Association
- Sierra Club
- Southeast Energy Efficiency Alliance (SEEA)
- Southern Alliance for Clean Energy (SACE)
- Southern Environmental Law Center (SELC)
- Vote Solar

##### Supports with Revision:

- AARP
- Duke Energy
- Public Staff of the North Carolina Utilities Commission
- Rowan Helping Ministries

## Proposal 03 - Income Qualified High Energy Use

### Does not Support:

- None

### Abstains:

- Carolina Industrial Groups for Fair Utility Rates (CIGFUR)
- Nicholas Institute (Duke University)
- North Carolina Community Action Association

### **Comments from Assessment:**

*"AARP supports energy efficiency programs including for low income customers. We urge that DOE and Federal infrastructure funds be used first to fund such a program. We think a pilot program might also be a good idea."* – **AARP**

*"The system impact is greatest by targeting high electric energy consumption customers. Only non-ratepayer funds should be utilized for health and safety work. If ratepayer funds are used for the energy-related portions of the program, any savings claimed by Duke must go through the EM&V process."* – **Public Staff of the North Carolina Utilities Commission**

*"Must include a component for customer education for maintenance of equipment and practical ideas to reduce energy consumption."* – **Rowan Helping Ministries**

*"In the statistical analysis, higher winter peak and summer peak usage were associated with a customer being more likely to be in arrears, receive a 24-hour notice, and be disconnected. These results would support reducing high energy use via this pilot and the resulting research could prove valuable."* - **Nicholas Institute**

*"The Companies support an income qualified high electric use pilot program with plans to file it for NCUC approval in the near future."* – **Duke Energy**

### **Program Proposal Information:**

**Name and Organization:** Al Ripley, Multi-Stakeholder Program Proposals (as submitted by NC Justice Center)

**Program Name:** Income Qualified High Energy Use

**Program Description:** This program provides deep energy retrofits at no cost to low-income customers with high energy use. The program will develop processes to incorporate additional funding for health and safety repairs from non-ratepayer sources to serve previously ineligible customers.



## Proposal 03 - Income Qualified High Energy Use

The program would be based on a proposed pilot program developed by advocates and Duke Energy out of a 2021 rate case settlement agreement and will likely be filed at the NCUC in early Summer 2022. The pilot will serve 1,000 customers in two selected test regions.

The proposed pilot is a first step to developing a full program that addresses the systemic and persistent need of high energy use low-income customers.

### Measures included:

- HVAC Replacement
- Comprehensive Air Sealing
- Insulation (Attic and Belly)
- Duct Sealing
- Heat Pump Water Heater
- Refrigerator Replacement with ENERGY STAR model
- Tier 1 Base Load Package (LED bulbs and electric hot water measures)

### Research questions of the pilot are:

- Does pairing H&S with EE result in significant savings for LI customers?
- Can work be accomplished in a reasonably cost effective to achieve a 0.5 UCT?
- Are current deemed savings estimates accurate for this segment of high energy using LI customers?
- Does this program result in lower arrearage rates and less energy insecurity for participants?
- Does sufficient 3rdparty funding exist to make this pilot a sustainable program?
- Does this design hold potential for reducing winter peak or for encouraging enrollment in DR?

**Program Objective:** The objective of the program is to deliver deep energy savings to low-income customers with high energy use. The top 50% of energy users consume at least 17,800 kwh annually.

The findings from the LIAC subgroup A show low-income customers receiving CIP or LIHEAP assistance have on average much higher energy use, and higher energy intensity compared to other customer groups. This high energy use is persistent across all demographics studied including housing type, housing location, arrearage status, heating source, race.

These high energy use customers are often not eligible for existing weatherization services, and thus cannot lower their energy use, because their home is in some state of disrepair. Currently as many as 40% of homes are turned away from state-administered weatherization programs for health and safety reasons. The objective of this program is for Duke Energy to serve an important role identifying and coordinating available health and safety funds from around the state with whole home energy efficiency projects. The data shows high energy use is an enduring trend and if we are to address energy affordability, programs must find a way to incorporate health and safety funds.



## Proposal 03 - Income Qualified High Energy Use

**Target Participants:** Low-income single-family customers not served by Weatherization Assistance Program

**Program Administration:** Duke Energy with a 3<sup>rd</sup> party program administrator

**Eligibility Criteria:**

- At or below 200% of Federal Poverty Level
- Enrollment in LIHEAP or similar state/federal
- Top 50% of energy users (minimum 17,800 kwh annually)
- Homeowners and renters

**Success Metrics:**

- As found energy savings for the customer
- Winter peak reduction
- Cost effectiveness rating – UTC
- Level of 3<sup>rd</sup> party H&S funding
- Arrearage rates as compared to non-program participants

**Program Partners:** Local governments with home repair funding

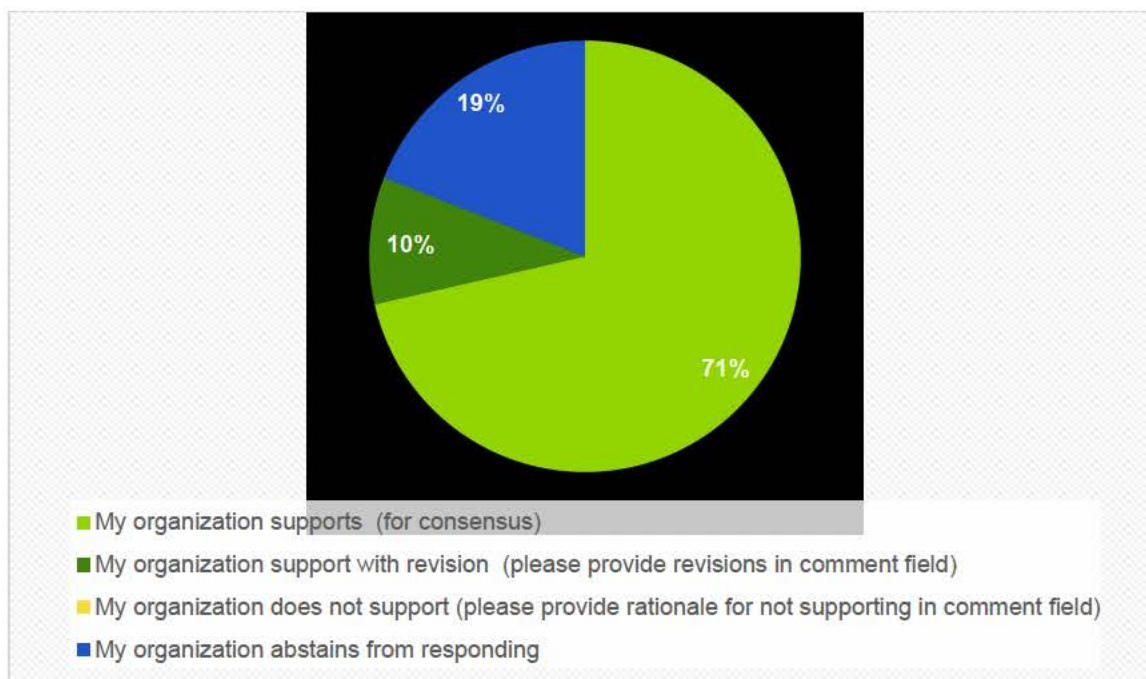
**Additional Information:** The pilot will be administered by Duke and build on Duke's Income-Qualified Weatherization pilot in Durham. The Durham pilot used a combination of Helping Home Fund and ratepayer dollars to targeted high-energy low-income customers for retrofits. The Durham Pilot lacked rigorous EM&V to adequately determine cost effectiveness for a full-scale program.

For more information contact Claire Williamson (919) 619-0315 [claire@ncjustice.org](mailto:claire@ncjustice.org)

## Proposal 04 - Residential ER and HHP Water Heater Rental

### Proposal 04 – Residential ER and HHP Water Heater Rental

#### Assessment Results:



#### **Breakdown of Results:**

##### Supports:

- Appalachian Voices
- Crisis Assistance Ministry
- Dominion
- Legal Aid of North Carolina
- National Association for the Advancement of Colored People (NAACP)
- North Carolina Dept of Health and Human Services
- North Carolina Housing Coalition
- North Carolina Justice Center
- North Carolina Sustainable Energy Association
- Rowan Helping Ministries
- Sierra Club
- Southeast Energy Efficiency Alliance (SEEA)
- Southern Alliance for Clean Energy (SACE)
- Southern Environmental Law Center (SELC)
- Vote Solar

##### Supports with Revision:

- Duke Energy



## Proposal 04 - Residential ER and HHP Water Heater Rental

- Public Staff of the North Carolina Utilities Commission

### Does not Support:

- None

### Abstains:

- AARP
- Carolina Industrial Groups for Fair Utility Rates (CIGFUR)
- Nicholas Institute (Duke University)
- North Carolina Community Action Association

### **Comments from Assessment:**

*"A waiver of the Commission disconnect rules may be needed to avoid disconnect based on non-payment of non-electric charges. The Public Staff has historically opposed disconnection for non-electric charges. More detail about the rental contracts needs to be provided before it can be determined whether it is appropriate to implement this program through a rental program. It may be more appropriate to implement this measure in a traditional EE program where the customer purchased, owned, and maintained the equipment and then qualified for a credit/discount similar to the Smart Saver program."* - **Public Staff of the North Carolina Utilities Commission**

*"The Companies are committed to evaluating a customer owned program offered via an on-tariff financing offer."* – **Duke Energy**

### **Program Proposal Information:**

**Name and Organization:** Al Ripley, Multi-Stakeholder Program Proposals (as submitted by NC Justice Center)

**Program Name:** Residential Electric Resistance Tank Water Heater (ER) and Hybrid Heat Pump Hybrid Water Heater (HHPWH) Rental Program

**Program Description:** The Residential Electric Resistance Tank Water Heater (ER) and Hybrid Heat Pump Water Heater (HHPWH) Rental Program is operated by Duke Energy DEP and DEC (Hereinafter Duke) as a service to residential rate payers.

The program will market water heater replacement services to all residential ratepayers. The service will have the following characteristics:

- 1) Duke will bulk purchase ER and HHPWH units to help lower rental costs to end uses.
- 2) Duke will incorporate any available rebate program benefits into the service
- 3) Due to the significant energy savings of HHPWHs, Duke will prioritize, HHPWH where conditions of the installation location allow (i.e.: ambient air requirements, space constraints, wiring, plumbing, and condensation requirements).
- 4) The service will include qualified plumbers that will identify best options for end users, install units, and service units as needed.



## Proposal 04 - Residential ER and HHP Water Heater Rental

- 5) All units will be DR ready CTA-2045-A compliant and have built in WI-FI components.
- 6) Duke must develop a comprehensive approach to capturing the load management opportunities provided by HHPWH through a DSM program to utilize all installed units for maximum DSM benefits including thermal storage and time of use dynamics. As appropriate, customer rental costs should be reduced to reflect the DSM benefits. Units should be installed with thermal mixing valves included so that residential users do not experience unreasonable lack of hot water.
- 7) All participants must allow Duke to utilize thermal storage, time of use, and other DSM characteristics of units.
- 8) Rental payments will be structured to not exceed the expected lifetime of the units
- 9) Rental payment amounts will be determined on the basis of installation costs, unit costs, expected average service and maintenance costs, less any applicable DSM rebates used to "buy-down" the rental costs, especially for income-eligible customers. Additional benefits to bring down rental costs should be considered as part of the program for qualified Low-income customers.
- 10) Service would include installation of pipe insulation, and low-water shower heads and faucets.

\*Note that this program could also be structured as part of a Tariff-On-Bill (TOB) program.

### Program Objective:

- 1) Overcome cost barriers to obtaining the most efficient ER and HHPWH units.
- 2) Maximize EE benefits to the residential customer and to Duke.
- 3) Maximize DSM benefits including thermal storage to the residential customer and to Duke.
- 4) Lower residential energy bills through EE and DSM utilization of units.
- 5) Lower grid impacts through EE and DSM utilization of units

**Target Participants:** All residential customers would be encouraged to use the service, however, special program designs to help low-income customers utilize the service can be considered. Through large scale adoption, the benefits of bulk purchase, EE, and DSM can be fully leveraged.

**Program Administration:** Duke Energy with 3<sup>rd</sup> party administer.

**Eligibility Criteria:** Aggressively market program benefits for replacement of inefficient existing units and for replacement when existing units fail. Use SMART meter technology and other data screens to target residential users with likely inefficient high intensity water heater units.

**Success Metrics:** Track energy savings, reduction in electric bills, DSM savings, and water consumption savings.

**Program Partners:** Partner with ER and HHPWH manufactures and plumbing companies.

### Additional Information:

A similar program has been successfully run by Energy NB Power for many years:

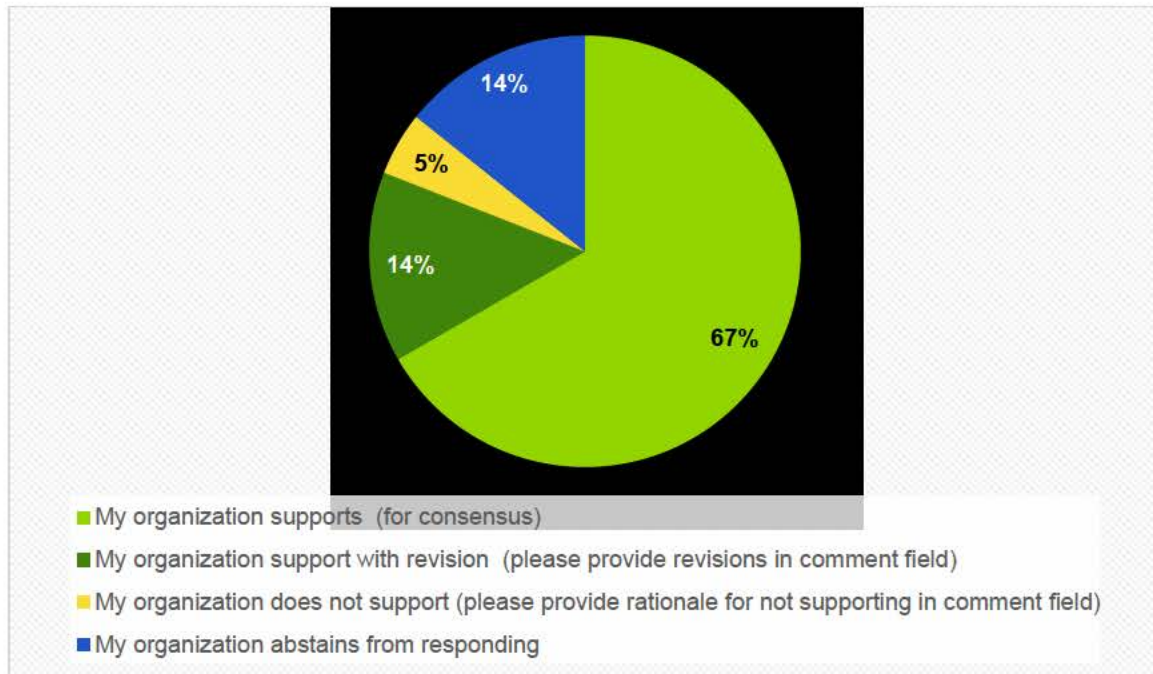
<https://www.nbpower.com/en/products-services/water-heaters>

For more information contact Al Ripley (919) 274-8245 [al@ncjustice.org](mailto:al@ncjustice.org)

## Proposal 05 - Manufactured. Homes EE Retrofit and Replacement

### Proposal 05 – Manuf. Homes EE Retrofit and Replacement

#### Assessment Results:



#### **Breakdown of Results:**

##### Supports:

- Appalachian Voices
- Crisis Assistance Ministry
- Dominion
- Legal Aid of North Carolina
- National Association for the Advancement of Colored People (NAACP)
- North Carolina Dept of Health and Human Services
- North Carolina Housing Coalition
- North Carolina Justice Center
- North Carolina Sustainable Energy Association
- Sierra Club
- Southeast Energy Efficiency Alliance (SEEA)
- Southern Alliance for Clean Energy (SACE)
- Southern Environmental Law Center (SELC)
- Vote Solar

##### Supports with Revision:

- AARP
- Duke Energy



## Proposal 05 - Manufactured Homes EE Retrofit and Replacement

- Public Staff of the North Carolina Utilities Commission

### Does not Support:

- Rowan Helping Ministries

### Abstains:

- Carolina Industrial Groups for Fair Utility Rates (CIGFUR)
- Dominion
- Nicholas Institute (Duke University)

### **Comments from Assessment:**

*"AARP in general supports energy efficiency programs including for low income customers. We would appreciate more information on this program."* – **AARP**

*"It is not appropriate to use of ratepayer funds for replacement of manufactured homes. The program should implement only cost-effective EE measures for low-income customers living in manufactured homes similar to other EE programs."* - **Public Staff of the North Carolina Utilities Commission**

*"The findings of the statistical analysis support a focus on mobile homes regardless of the tenure of the account holder (owner or renter)."* - **Nicholas Institute**

*"This seems beyond the scope of the Duke Energies corporate responsibilities. Great idea for another organization to administer."* – **Rowan Helping Ministries**

*"Yes, the Companies are committed to evaluating this proposal although it may be cost prohibitive."* – **Duke Energy**

### **Program Proposal Information:**

**Name and Organization:** Al Ripley, Multi-Stakeholder Program Proposals (as submitted by NC Justice Center)

**Program Name:** Manufactured Homes Energy Efficiency Retrofit and Replacement Program

**Program Description:** Manufactured homes on average use substantially more energy per square foot than other housing types, while residents frequently lack the financial resources to address problems of energy waste. This program aims to overcome barriers to affordability and dramatically increase the efficiency of Duke's manufactured homes through improvements to existing manufactured homes, replacement of the most outdated units, and increasing the overall efficiency performance of new manufactured homes.

**Program Objective:** Reducing high energy bills, lowering energy burden, and improving health and comfort for residents of manufactured homes.

**Target Participants:** Manufactured home residents and prospective manufactured home purchasers, with a priority on serving customers that meet LIAC-established low-income and energy burden criteria.



## Proposal 05 - Manufactured. Homes EE Retrofit and Replacement

**Program Administration:** Duke Energy Carolinas and Duke Energy Progress would administer these programs (through a third party implementer), enroll participants, validate eligibility, and track progress by contracting regular EM&V, comparable to other energy efficiency programs.

**Eligibility Criteria:** The program could be targeted only to customers who meet the low-income eligibility criteria established by the LIAC, or such customers could receive a higher level of financial support (e.g., free retrofits and larger discounts for home purchases) than customers non-income qualified customers.

**Success Metrics:**

- a) Number of customers receiving retrofits, b) participant energy / bill savings, c) number of customers acquiring high efficiency units, d) broad-based market transformation for manufactured home sales.

**Program Partners:** Manufactured home manufacturers and dealerships (to ensure supply availability).

**Additional Information:** Comparable programs have been successfully implemented in Arkansas, Oregon, TVA, and Vermont. These program concepts have been proposed to Duke through the Energy Efficiency Collaborative and preliminary analysis has been conducted.

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