Session Date: 12/18/2023

Jan 04 2024

PLACE: Dobbs Building, Raleigh, North Carolina

DATE: Monday, December 18, 2023

TIME: 1:05 p.m. - 4:46 p.m.

DOCKETS: E-2, Sub 931

E-7, Sub 1032

E-100, Sub 179

BEFORE: Commissioner Jeffrey A. Hughes, Presiding

Chair Charlotte A. Mitchell

Commissioner Kimberly W. Duffley

Commissioner Floyd B. McKissick, Jr.

Commissioner William M. Brawley

Commissioner Tommy Tucker

## IN THE MATTER OF:

Technical Conference

E-2, Sub 931 - Carolina Power & Light, d/b/a Progress

Energy Carolinas, Inc;

E-7, Sub 1032 - Duke Energy Carolinas, LLC; and E-100, Sub 179 - Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC.



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**Technical Conference** 

Session Date: 12/18/2023

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	Page 6
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Page 7

Session Date: 12/18/2023

## PROCEEDINGS

2 COMMISSIONER HUGHES: Good afternoon.

Let's go on the record, please.

I'm Jeff Hughes, Commissioner of the North Carolina Utilities Commission.

And with me this afternoon are Chair Charlotte Mitchell, Commissioners Kimberly W. Duffley, Floyd B. McKissick, Bill Brawley and Tommy Tucker.

In compliance with the requirements of the State Government Ethics Act, I remind all members of the Commission of their responsibility to avoid conflicts of interest, and I inquire whether any member of the Commission has a conflict of interest with respect to this matter before us.

(Brief pause.)

Let the record reflect that I have no such conflict and that my fellow Commissioners have not identified any such conflict.

This technical conference is being held in Dockets Number E-2, Sub 931, which is titled," Application by Carolina Power and Water (sic), doing business as Project -- Progress Energy

Session Date: 12/18/2023

Carolinas, for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider Pursuant to General Statute § 62-133.9 and Commission Rule R8-69.

Also, Docket E-7, Sub 1032, Application by Duke Energy Carolinas, for Approval of New Cost Recovery Mechanism and Portfolio of Demand-Side Management and Energy Efficiency Programs.

And Docket E-100, Sub 179, Duke Energy Progress and Duke Energy Carolinas 20- -- 2022 Biennial Integrated Resource Plans and Carbon Plan.

On October 20, 2020, in Docket Numbers E-2, Sub 931 and E-7, Sub 1032, the Commission issued the Order Approving Revisions to the Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms, which approved the current version of the Demand-Side Management, which I'll refer to as DSM, and Energy Efficiency, which I will refer to as EE, Cost Recovery and Incentive Mechanisms, referred to as Duke's, or the Company's Mechanisms.

The Commission directed the Public

2.3

Technical Conference

Page 9

Session Date: 12/18/2023

Staff to initiate a comprehensive review of the mechanisms no later than May 1, 2024.

On May 16, 2022, Duke filed its proposed Carbon Plan in Docket E-100, Sub 179, which included a request that the Commission adopt measures that Duke stated would enable it to implement new EE and DSM programs more quickly and would broaden the potential reach, and, therefore, the energy savings of its EE and DSM programs.

These proposed measures, which Duke called enablers, included the following:
Updating the inputs underlying the cost-benefit test in the Company's mechanisms, using an as-found baseline for EE measures, broadening the definition of low-income customers, and developing guidelines for expedited regulatory approval of DSM/EE programs.

On December 30, 2022, in Dockets Number E-100, Sub 179, the Commission issued its Order adopting the initial carbon plan and providing direction for future planning.

The Order stated that it was persuaded by the Public Staff that the enablers related to

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Page 10

Session Date: 12/18/2023

DSM/EE mechanism should be discussed within the context of a full DSM/EE mechanism review and directed Duke to initiate a review of Duke's DSM/EE mechanisms within 120 days of the issuance of the Order.

On April 27, 2023, Duke filed a letter initiating the Commission directed review of the mechanisms.

On May 11, 2023, the Public Staff filed a statement of position, and on September 7, 2023, the Public Staff filed a motion for procedural relief.

Both seeking clarification from the Commission about the scope of the mechanisms review, specifically whether it was limited to the enablers, or whether the Commission sought a comprehensive review.

On September 14, 2023, Duke filed a response in support of Public Staff's motion and request for further relief.

On September 15, 2023, CIGFUR filed a response to Public Staff's motion and request for further relief.

On September 20, 2023, Duke filed

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Page 11

Session Date: 12/18/2023

supplemental response in support of Public Staff's motion and request for further relief.

On September 26, 2023, Public Staff filed a letter in response to Duke's supplemental response.

On September 27, 2023, the Commission granted Public Staff's motion for procedural relief, clarifying that the review of the mechanisms should be comprehensive, including all of the issues the Public Staff had identified, and scheduled a technical conference for Monday, December 18, 2023, starting at 1:00.

On December 6, 2023, the Commission issued its Order, notifying the parties that the Commission had arranged with the Lawrence Berkeley National Laboratory under a Department of Energy funded program to provide the Commission with a presentation by their contractor, the Regulatory Assistance Project.

On December 12, 2023, Duke, the Public Staff, the North Carolina Attorney General's Office, CIGFUR, the Carolina Utilities Customers Association, the Southern Environmental Law Center, and Walmart, Incorporated, filed

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Page 12

Session Date: 12/18/2023

jointly-prepared pre-filed materials.

On December 14, 2023, the presentation materials of the Regulatory Assistance Project and CIGFUR were each filed in the Docket, which brings us to today.

The purpose of this technical conference is for the parties to provide information through oral presentations on the existing mechanisms and the work of the DSM/EE mechanism review stakeholder process.

The Commission understands that the parties are still engaged in the stakeholder process and that comments on revising the mechanism are not yet due.

The Commission does not expect the parties to have developed their substantial positions at this juncture.

The Commission will have the opportunity to ask questions of the presenters, but the parties will not be given an opportunity to question one another or Mr. Enterline, the Regulatory Assistance Project presenter.

The technical conference this afternoon is being transcribed, and the transcript will be

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Session Date: 12/18/2023

1   filed in the Docket as soon as it is availa
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The parties have provided a proposed agenda for this technical conference, and we will follow that agenda.

Before we begin, I would like the parties to identify themselves for the purpose of the record.

MS. TOON: Good afternoon,

Commissioners, Chair Mitchell, Presiding
Commissioner Hughes, Ladawn Toon, Associate
General Counsel on behalf of Duke Energy Progress
and Duke Energy Carolinas, each an L.L.C.

Also appearing on behalf of the Companies is my colleague, Kathleen Richard. Thank you.

COMMISSIONER HUGHES: Thank you very much.

MS. KEYWORTH: Good afternoon. Anne Keyworth, on behalf of the Using and Consuming Public, with the Public Staff.

MS. GRUNDMANN: Good morning. Carrie Grundmann, with the Law Firm of Spilman Thomas & Battle, here today on behalf of Walmart, Inc.

MR. NEAL: Good afternoon. David Neal,

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Page 14

Session Date: 12/18/2023

with the Southern Environmental Law Center,
appearing today on behalf of the Southern
Alliance for Clean Energy, the Natural Resources
Defense Council, the Sierra Club, and the South
Carolina Coastal Conservation League.

MS. CRESS: Good afternoon. Christina Cress, with the Law Firm of Bailey & Dixon, appearing on behalf of CIGFUR II and CIGFUR III this afternoon. Thank you.

MR. TRATHEN: Good afternoon. Trathen, of the Law Firm of Brooks Pierce in Raleigh, appearing on behalf of CUCA.

MR. SOMELOFSKE: Good afternoon. Justin Somelofske, appearing on behalf of the North Carolina Sustainable Energy Association.

MR. MERTZ: Good afternoon. Derrick Mertz, appearing on behalf of the North Carolina Attorney General's Office. With me is Tirrill Moore.

COMMISSIONER HUGHES: Okay. Well, I will now turn the conference over to Duke, as the first presenter, to provide its presentation.

MS. TOON: Thank you, Commissioner Hughes. The Company would call Mr. Lon Huber, as

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Page 15

Session Date: 12/18/2023

well as Mr. Tim Duff.

Please be careful to -- our subject matter experts have prepared a joint presentation for the Commission, and you have some materials that are right sitting in front of you.

I'll start in the opposite Order. Tab four contains pre-filed materials that the parties worked on, submitted on December 12, and then there is a cross-reference that is intended to complement the presentation today.

As well an example in tab three of R8-68, which Mr. Duff will speak to in the second portion of today's presentation.

And, with that, I will turn it over to the panelists to introduce themselves.

MR. HUBER: Great. Lon Huber, Senior Vice President at Duke Energy. I'm tasked with creating compelling products and services for customers and designing them in a way that maximizes the benefits of the grid, as -- as well as the participating customer.

MR. DUFF: And I'm Tim Duff. I'm the General Manager of Customer Solutions, Regulatory Enablement.

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Page 16

Session Date: 12/18/2023

I've had the pleasure of working with EE and DSM for over the last decade here in the Carolinas and across Duke's other jurisdictions, and I've been involved in numerous of these mechanism reviews.

MS. TOON: Mr. Duff and Mr. Huber, if you could just speak into the mic a little bit -- bring it closer to you, that would be great.

MR. HUBER: Just let me know.

MS. TOON: The panelists are available, Commission, to begin and answer any questions you-all might have. Thank you.

MR. HUBER: Great. Well, good afternoon, Presiding Commissioner, Chair Mitchell and Commissioners. It's a pleasure to be here and kicking off this technical conference.

Before diving into the content, I want to just provide a little bit of a roadmap of what we're going to cover today.

It'll dovetail nicely with the jointly written filings submitted December 12, but feel free to, you know, ask questions, any clarification. There's a lot of acronyms, and,

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Page 17

Session Date: 12/18/2023

you know, with energy -- with EE, you know, energy efficiency, DSMs, demand-side management, which focuses more on peak-demand reduction, so compensating behaviors and devices that -- that target the -- the most stressful times of the That's DSM. arid.

So there's -- feel free to -- to jump in as we go through this, but -- but my task is really to -- to cover some of the trends that are impacting the customer offerings out there, and then hit on the -- the Company's track record of success and then a high-level overview of the regulatory framework that we have, which we affectionately call the mechanism.

So you'll be hearing mechanism a lot through this. Then I'll turn over to my colleague, Mr. Duff, who will dive into the history of that mechanism, and it's a long one.

It spans multiple legislatures, commissions. It's -- it's had a lot of investment from -- from everybody in this room, stakeholders, the Company and the like, to build what we have today.

So there's a whole history behind it, I

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Page 18

Session Date: 12/18/2023

think, that will be fascinating. And then the indiv- -- individual components, how they interact, how they work together. And then an overview of the stakeholder process, and really what got us here in the first place, the genesis of all of this, which was Duke working with stakeholders to try to figure out what are ways to enable more energy efficiency, more demand-side management.

And that process culminated into -- in the carbon plan, where the Company filed some enablers and eventually led to -- to this Docket. So that -- Mr. Duff will cover some of the -- the origin of -- of why we're here today and what we're -- we're focusing on.

And then I think we'll -- we'll hand it off to the Public Staff, and then they'll take it from there.

So, to -- to dive in, it's -- it's really no secret that our programs are very popular with customers, and we've had a lot of success in driving adoption of energy efficiency and -- and DSM.

In fact, since 2009 we've been able to

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Page 19

Session Date: 12/18/2023

drive the equivalent of 3.4 gigawatts of energy -- of solar energy within our EE program. So that's -- that's trying to put it, you know, on a basis to compare. So significant amounts of energy efficiency.

And then in terms of peak-demand reduction, we've -- since 2009 we've gotten just -- just over four gigawatts. So a huge amount of capacity as well.

You can think that's like 40 hundred megawatt CTs, and they're not exactly the same, but that's the best way to -- to sort of think about it.

So substantial amounts of -- of -- of program adoption out there, but a little bit of a victim of our own success, in the sense that a lot of the low-hanging fruit has been taken with these programs.

We're starting to see saturation for certain technologies. And so we have to continue to think creatively. How do we offer new products and services? How do we knock down certain barriers for customers?

And -- and then at the same time we

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Page 20

Session Date: 12/18/2023

have the federal government that moves the goalpost a bit by setting baselines for -- for certain, say, appliances.

And so every time a baseline is set, is ratcheted up, it's harder and harder to get that incremental amount of savings to the next -- the next level of efficiency for a particular measure or appliance.

So we have -- we have that to contend with. And then just general inflation as well. As we know, labor has gotten more expensive. takes -- it takes a lot of people to implement these things, to install these measures. And then the hardware costs have also gone up.

And then we know customer preferences aren't static as well. So we have to continue to -- to stay ahead of that, meet customers where they are, think about how they want to be engaged, what type of technologies they're interested in adopting.

It could be battery storage. It could be smart thermostats. Making sure that we have programs to -- to leverage natural customer trends out there.

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Page 21

Session Date: 12/18/2023

And so the framework that we have today is responsive. It's adaptive to those changes. The -- the Company has what it needs to attract talent, to be -- to think innovatively, to form partnerships, trade allies to accomplish these programs and -- and address those needs and not just for the wealthiest households, but also for -- for households that are struggling to make ends meet to make sure that they can participate in these programs as well.

And -- and, again, it's -- it's underpinned by the -- this regulatory contract, again, that I think we should all be proud of, with the results and the structure of it. And it's enabled us to become a regional and industry leader.

And so words are cheap. Let's see in the data to -- to -- to back that claim up.

Here's some stats. Now, these -- a lot of the energy-saving stats, what you see here, these have been independently verified by -- by experts that we hire, also Public Staff hires them, to look into program measurement, evaluation, verification.

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Page 22

Session Date: 12/18/2023

And you can see we've had significant energy savings in the past five years. Equates about two -- 225,000 homes of -- of energy. And they're incredibly cost-effective programs, yielding 2.8 billion in net present value of -of system benefits.

And for every dollar invested, it returns to -- to general customers \$2.69. So very cost effective.

But does this make us a leader? Well, if you look at the chart on the left, this is comparing us to regional companies. And you can see there's a bottom line there, and that's the regional average.

And you can see that we are far ahead of that. We're on the left. The Duke Energy companies, we're on the left. We do more than all the other utilities combined.

So we're definitely a regional leader, but what about the United States? Well, the top line is the U.S. average, and you can see we're still above that. But -- but how much, and -and that's what we're going to get to next.

It really exposes the weakness of this

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Page 23

Session Date: 12/18/2023

one statistic. So the chart on the left focuses on a percentage of savings compared to retail sales.

Well, this inherently puts the Southeast at a disadvantage, because the Southeast has more electric heat, has warmer summers. So more A/C use, right, compared to, say, New England states.

They -- they might have 600 kilowatt hours a month in usage. We have 1,200. So if you have a measure that saves, say, 100 kilowatt hours, and you deploy that measure in the Southeast versus New England, they are going to have a much higher percentage of savings than the Southeast, even though it's the same measure.

So a more accurate look at this, and this is from the EIA, is savings per residential customer. And you can see here that when Duke Energy is compared to the top-ranked utilities for energy efficiency, we're third and fourth in the country.

Again, this is something to be really proud of. It took everybody to get there. And, you know, all the work with Commission staff, I

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Page 24

Session Date: 12/18/2023

think since -- in the past three years, Duke has filed 18 different new offerings.

Some are pilots. Some are new programs. They're sort of leading-edge things. Again, you know, filings take people's time. takes bandwidth, and we appreciate Public Staff, Commission staff, and Commissioners and -- and looking at those and giving those proper attention and fast approval to keep ahead of these trends.

And -- and so third and fourth in the country, again, you know, shows the -- the power of these programs and how much we're able to accomplish now.

We're also somewhat conservative in what we count towards energy efficiency. different states count different things. instance, Texas counts rooftop solar behind the meter as energy efficiency.

So there's -- there's things that -that other states count that we don't. important to note in -- in these statistics.

The -- the stage is set. You Okay. know, what makes it so successful? It's the

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Page 25

Session Date: 12/18/2023

regulatory framework. And there's three core pieces to the regulatory framework.

Before I get into that, it's worth probably taking a step back and just thinking about the traditional utility business model and why you need these -- these core -- these three core components.

The traditional utility business model is one where we raise capital to build infrastructure to power our communities. We have to allow investors return on that capital, and we get to that level by looking at how much we sell, and then backtracking into how much we need to recover.

So it's based on the volume of sales typically. And so if all of a sudden new technologies come along, energy efficiency, DSM technologies mature, that cuts into those -those volumes.

And so when you think about, like a -a simple analogy, and this is overly simple, but if you've got a lemonade stand, and you've got \$20 of fixed costs that you've got to recover, and, you know, you sell ten cups. Well, you've got

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Page 26

Session Date: 12/18/2023

to charge \$2 for each cup.

Well, all of a sudden these technologies come around, and you're only selling eight cups. You've got a shortfall; right? And so the first piece of this three-legged stool, the net lost revenue recovery, that is there to help replenish in that gap between eight and ten in -- in that analogy.

But then there's -- there's other pieces, which is, what about the growth rate? Growth is incredibly important to investors to get to track low-cost capital to get out that -to get that infrastructure.

Well, these technologies reduce future-growth prospects. So say you wanted to open a lemonade stand in the next neighborhood. Well, that wipes away that opportunity. And so the utility financial incentive is there to help lower that opportunity cost.

And then, finally, you have the program cost recovery. As you are funding programs and getting them implemented, you want to have speedy recovery to minimize lag and costs as well.

So those are the -- the three core legs

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Page 27

Session Date: 12/18/2023

to the stool, and we'll get into more details with Mr. Duff. And -- and -- and Mr. Duff will also, again, talk about how -- you know, the focus is on, how do we enable more?

How do we build off of the success that we've had? And then how does this framework interact with new enablers? He'll touch on -- on some of that.

So, without further ado, unless there's any questions, I'll hand it over to you.

MR. DUFF: Okay. Thank you.

Good afternoon. It's -- excuse me.

Can everyone hear me?

COMMISSIONER HUGHES: Uh-huh.

MR. DUFF: Good afternoon. It's great to be here. I appreciate it, Commissioners.

I'm going to start off really kind -on building on the constructive regulatory mechanism that Mr. Huber just talked about, and really go into kind of what the purpose of the mechanism is.

And I'm not take -- I'm not making up this definition. This came out of a recent Commission Order in one of the Duke Energy

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24

Session Date: 12/18/2023

Carolinas Rider for annual D- -- EE/DSM Rider 1 2 filings.

> They laid out four overall -- four components of the overall purpose. First, to allow the timely recovery of reasonable and prudent costs that the Company incurs in the offering of EE and DSM programs to establish certain requirements in addition to those that the Commission's R- -- Rule R8-68 spell out regarding approval, monitoring and management of the EE/DSM programs.

So how do -- the programs that are eligible for cost recovery, how do they get approved and managed and reported on?

Establishing the terms and conditions of the net lost revenue recovery that Mr. Huber just discussed, as well as a financial incentive or portfolio performance incentive as it is currently defined in the Company's mechanism. And then to provide an additional incentive to further encourage kilowatt hour, kWh, saving achievements.

So those are kind of the four main purposes of the mechanism as laid out in that

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Page 29

Session Date: 12/18/2023

And so now I want to get into the history of the mechanism and how it has tried to fulfill those purposes.

So if you look at energy efficiency and demand -- in DSM landscape in North Carolina, it really began in the 2008 timeframe, with the passage of Senate Bill 3, which established the new renewable energy and energy efficiency portfolio standard, or REPS, as it's often called.

And it really required utilities to do a certain amount of renewable energy and energy efficiency, and really capped the amount of energy efficiency that could be done to cost effectively meet those REPS rules in -- in 25 percent for, I believe, the first eight years. And then it went up to 40 percent of that annual renewable energy -- energy and energy-efficiency portfolio standard, but really laid out the legislative need for utility energy efficiency.

The Commission then took action in putting together its -- its Commission Rules, R8-68 and R8-69. These are the -- this is kind of the enactment of those energy-efficiency laws

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Page 30

Session Date: 12/18/2023

relating to program cost recovery, incentive, lost revenues and other administrative functions associated with the programs.

And then both Duke Energy Carolina and Progress, who were two separate companies at the time, took those Rules, and worked with stakeholders, the Public Staff and ultimately got Commission approval for EE/DSM mechanisms to actually -- that actually contained the detailed process, procedures and details of how each of those components of the Rules would be instituted.

Now, you're saying, well, in 2021 HB 951 was passed, which established a carbon plan, performance base rates and really the need for a clean energy transition in North Carolina.

But while there are a number of components that would cause the need for energy efficiency, when you look at the language of HB 951, it is very clear that the -- it says that existing law shall apply with respect to energy efficiency and demand-side management.

So what it was really doing is just guiding to say, use the existing guidance under

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Page 31

Session Date: 12/18/2023

SB 3 and the Commission's Rules to try and make sure that you're helping to facilitate the least cost clean energy transition that was envisioned in HB 951.

So next I want to kind of walk through a little bit of the history. As I said before, I have been working with the EE/DSM mechanisms since 2010.

So right after the initial versions of each of the mechanisms were put forth Duke Energy Carolinas had a four-year pilot called Save-a-Watt that was very complex, and I would say lacked transparency and clarity for stakeholders and parties, and it was very hard to implement.

Duke Energy Progress, at the time I believe it was Progress Energy Corp, had another mechanism that was approved in 2009 via settlement with stakeholders, and it was a little bit more similar to today's mechanism, but it had a -- a unique component to it, in that it allowed for the amortization of costs and the utility incentive.

Both of those mechanisms were working

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Page 32

Session Date: 12/18/2023

1 well, but, as I -- as I said, they were kind of 2 the initial forays.

> In 2013, when that four year Save-a-Watt pilot ended, the Company moved to a more simple and easy to understand and more transparent mechanism that it got a lot of feedback from the Public Staff and stakeholders on that -- on that initial pilot and incorporated those.

> And it featured -- continued to feature net lost revenue recovery, but now featured a PPI, which was much more similar to what's in the mechanism today that was being discussed.

In 2015 after Duke Energy and Progress Energy merged, there was an effort to kind of ali- -- start aligning the Duke Energy Progress mechanism with the Duke Energy Carolinas mechanism.

And so some changes were made to it in 2015. But then in 2017 another mechanism review occurred, and we really for the first time started to try and align the mechanisms much, much more.

Obviously, there are certain

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Page 33

Session Date: 12/18/2023

fundamental components, like an amortization versus non-amortization approach that created issues that couldn't be resolved and completely reconciled, but you started to see mo- -- movement together, in terms of the alignment of the incentive structures, featuring same -- similar percentages of shared savings and really trying to move things forward.

And then in 2020, as mentioned earlier, the most recent review occurred, and it, again, tried to move those mechanisms closer together. Considered things like looking at shorter amortization periods for DEP and featured something that was kind of --

The one big change that was new to both was it -- it changed the PPI percentage, but added something called the program return incentive, which was a -- a really novel attempt and approval by the Commission to appro- -appropriately incentivize the utilities to aggressively pursue those programs that were non-cost effective and targeted low-income customers.

And so because the traditional

Session Date: 12/18/2023

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incentive really was a penalty to offer non-cost effective energy efficiency structures, as I'll talk about a little bit in the future.

So, I guess, just looking back at this long history, mechanism reviews are not something that are new. There's a long process that has existed, in terms of working with stakeholders to have the mechanism kind of evolve and modernize as the market and the State has changed, but it's something that we've successfully worked -- worked with our stakeholders, the Public Staff and the Commission to have it evolve constructively as we move forward, which has led to this continued success that we've demonstrated to date.

So now I want to get into the real details of what's in the mechanism, just to kind of let everyone know, when we say, "the mechanism," what does -- what does this mean?

I'm sure you-all have copies of it. It's quite voluminous for both utilities, but there's really four main components to the mechanism.

There's definitions, which define

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Page 35

Session Date: 12/18/2023

different terms and processes that are utilized throughout the mechanism. And this is really done to make sure that everybody is on the same There isn't a confusion about what does -page. what does a net/net savings mean versus gross savings?

And so it's technical, in that they're terms that the stakeholders and subject matter experts know, but it ensures that -- and tries to eliminate potential disagreements about how the other components of the mechanism work.

The -- the second component is the program component. This really goes into those Commission Rules about the R8-68 and how the programs are administered, reviewed, evaluated and measured, as well as even gets -- and gets into things such as expedited approval for modifications that don't have significant changes associated with them.

The third component is the financial component. This is the finan- -- this is the details of the cost recovery for Duke Energy Progress. It details amortizations -amortization periods.

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Page 36

Session Date: 12/18/2023

Because both utilities operate across state boundaries, it deals with the cost allocation methodologies, and then it gets into the specifics around the net lost revenue recovery, the portfolio performance incentive, the program return incentive, the other incentive that I talked about earlier, and then financial reporting requirements that are needed to be around what's recovered through the EE/DSM mechanism.

And then there's a procedural section. And so the procedural section is really there to just kind of delineate things like how long the mechanism will be in place, when it will be reviewed again.

So it was brought up that the mechanism was to be reviewed comprehensively in 2023. Originally the mechanism had said that that was to occur in -- at the end of 2024.

The mechanism has been -- is usually kept in place for a four year period, so that there's some certainty and ability to actually have it work before you're making changes to see if the modifications have had the intended

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Page 37

Session Date: 12/18/2023

effect.

And then, finally, it -- the mechanism spells out that it's a non-presidential mechanism. So now I really want to talk about the program section of the mechanism.

The program of the -- section of the mechanism is one that's really well depicted by the circle you see here, because it's very -it's very much a circular process and a do-loop, if you will, associated with feedback and implementation.

So if you start with stakeholder feedback, as you probably know, we have a very robust EE and DSM stakeholder collaborative, a meeting that meets every other month. actually defined in the mechanism.

But that stakeholder group, we oftentimes will get input, as well as sharing program performance. But in that input, we'll take it and utilize it with some of our internal program management and experts to design and potentially propose modifications to existing programs.

Once we have those, and they've kind of

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Page 38

Session Date: 12/18/2023

been modeled and created, we will then share those with stakeholders again through the collaborative, and then they're filed for approval with the Commission.

If the Commission approves the -- the very robust and detailed exhibits that are included in the program application, the Company will then implement the program. Once it's implemented, again, well, there's ongoing performance tracking and reporting with the collaborative, but once we have enough participation to do statistically-significant measurement, the independent third-party evaluation measurement and verification, or EM&V, is done to really find out what the program is saving, what it's achieving.

And then those feedback are again shared with the collaborative, filed in the annual EE/DSM riders and used to improve programs based off of how we've seen the -- the programs actually work.

So really a real constructive, transparent and stakeholder-based process that has a lot of visibility, both for external

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Page 39

Session Date: 12/18/2023

stakeholders, as well as the Commission.

One of the things that we talked about earlier was the R8-68. It's the Commission Rules that really govern what has to be included in the filing. It's very, very long and detailed. And the Company's filings for approval include all of the necessary information in a template.

In addition to kind of this information, if you will look at tab three in the -- in the binder that was provided, you will see a very comprehensive template of information that is included with every single program filing.

This template has been utilized for numerous years. It includes a one-year look and up to five years of incremental and cumulative views of the program energy savings, the costs associated with the program, the estimated energy and capacity savings, and, very importantly, the cost effectiveness of the programs.

And then we also will regularly give initial EM&V plans to let stakeholders and the Commission know how the measurement and verification will occur, so that we are complying

Page 40

Session Date: 12/18/2023

with the Commission's Rules and they understand the validity of the savings and the process.

Which piggybacks very well into the next area I wanted to touch on, which is cost effectiveness. Cost effectiveness is -- is probably a term that's used more with EE and DSM than any other term, because what it does is it is the measure of the benefits that a program generates versus the cost to administer it.

It's done -- it's usually reported in a ratio, where the benefits are on top, and the costs are on the bottom. So you want that ratio to be a positive -- a positive score above one.

There are four primary tests that are reported on in all of those templates that you'll see, and these are industry -- industry-accepted tests that give different perspectives on the benefits and costs that are being incurred by -- by the utility, by the participant and by the utility system in general.

These tests, while all giving important insights into the different perspectives of the tests, ultimately in the mechanism are governed by the utility cost test.

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Page 41

Session Date: 12/18/2023

The reason the utility cost test is used is because it looks at it most consistently with a traditional utility investment. comparing the system benefits from avoided energy capacity and transmission and distribution costs with the benefits of the program.

So really you're saying, what is this energy efficiency and demand-side management's benefit compared to the cost to do it?

So, in general, if the -- if it has a utility cost test score of, say, 2.0, that would mean that the benefits across energy, capacity and T&D are double the benefit -- or the cost for the utility to administer the program.

It's important to point out that, not only is this used to determine the screen or the approval of the program as being cost effective or not, but it also aligns with the calculation of the Company's portfolio performance incentive. Meaning that the incentive is tied to cost effectively offering energy efficiency.

I just want to hit on one thing that's really important to emphasize that you see in the blue blocks on this slide. One of the big

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Page 42

Session Date: 12/18/2023

enablers that was discussed, in fact, the primary enabler that was discussed in the CPIRP was the need to update the system benefits.

And that's because the benefits that were in a clean energy transition world are no longer consistent with what we had historically looked at in the Company's position, and it had talked about that with stakeholders.

And so it wanted to update these benefits and the inputs to calculating these benefits, so that it could facilitate more cost-effective energy efficiency.

So next I want to kind of -- that talks about how the benefits are derived, but I want to give a level of confidence that Mr. Hubert talked about with respect to the savings that are used to determine those benefits.

The savings that the Utility uses are all based off of evaluation measurement and verification. And this is done for every program by an independent third-party that's hired by the Company to go out and use industry-accepted practices that are -- they're called the Ener- -the Uniform Methods Protocol, and were put out by

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Page 43

Session Date: 12/18/2023

the Department of Energy.

These protocols have industry -- are industry-best practices that are really tailored to specific programs and measures, so that there is an agreement on how the appropriate way to measure them is.

These processes are used, and they use things like primary research, secondary research, surveys, metering, statistical studies, bill analysis, and in some cases even usage loggers that are put -- put in customers' homes.

Now, all of this is then done to yield a savings number that is measured and verified versus either a number that's currently achieve- -- achieved in the market and may be out of date or a number that was based off of an initial engineering estimate -- estimate before we had participation.

But the robust process is then, as I mentioned before, shared with the collaborative. It's filed with the Commission. And, even at another level of competence, the Public Staff hires their own independent third-party evaluator to review the results of the independent

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Page 44

Session Date: 12/18/2023

third-parties that are used by the Company to determine if they agree with the approach that was used.

So it's a -- yet another level of validation in the savings. So when the com- -when Mr. Huber is talking about all of these achievements, we have a great deal of competence in the rigor that's put in to determine the actual level of savings that's being claimed credit and is being -- and is having cost recovery associated with it.

Which piggybacks -- backs great into kind of a little bit more of a -- a backwards track to what Mr. Huber had talked about with respect to the constructive mechanism, and really going into kind of those three legs and how they're dealt with in the mechanism.

So the mechanism just specifies what costs are eligible for cost recovery. Capital costs, including the cost of capital depreciation, administration co- -- administrative costs, other implementation.

When I say, "implementation," that could be the -- the actual physical installation

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Page 45

Session Date: 12/18/2023

of a measure, such as in- -- insulation. It can be -- and then you have things like advertising, customer awareness, anything that's necessary to get the customer to participate and undertake the energy-efficiency program.

The largest category cost that the Company incurs and seeks cost recovery for is the customer incentive in payment or rebates. This is the financial consideration, or in some cases physical assets, that are given in consideration to get customers to become more energy efficient.

It could be -- historically, it could've been in a high-efficiency LED, or it could be a financial incentive associated with installing a high-efficiency air conditioner.

We also get recovery of the EM&V costs, and we net any -- any federal grants or other outside funding that would reduce the cost of administering the programs, so that customers don't have to pay for those costs.

But I want to make sure that, out of all of those costs that are included, when I talk about the incentives, over 60 percent of the total costs that the Company seeks to recover associated

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Page 46

Session Date: 12/18/2023

with its EE/DSM programs comes in the form of that customer incentive.

So these dollars are really going to our customers, which we're really proud about, because that's what empowers them to become more efficient.

Net lost revenues. As Mr. Hubert talked about, the -- there's a -- the reason the Company requests approv- -- and has been fortunate to have the recovery of net lost revenues in its EE/DSM cost recovery mechanism is because of the under recovery of fixed costs that comes with volume metric rates.

When an efficiency measure is installed, a customer will use less. And while there is a variable piece that the utility system will not incur, which is passed -- those savings are passed on to all customers, there is that fixed piece, which the volume metric charge will cause the utility to under recover.

Net lost revenues is just designed to give us that fixed cost piece and make us whole, so we don't have a financial disincentive associated with offering energy efficiency.

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Page 47

Session Date: 12/18/2023

One of the unique things about North Carolina is the term net lost revenue. states have a lost revenue adjustment mechanism. The Commission's Rules spelled out that the Company was entitled to net lost revenues, which meant we needed to credit back or acknowledge that there are things that the Company does that can cause an increase in sales, which would then cause you to not lose as many of the fixed -- the fixed -- your recovery of fixed costs.

So the Company worked with stakeholders to figure out exactly what the Commission's Rules And this is a great example of how the mechanism has evolved and how stakeholders have helped the mechanism to evolve.

The Commission's Rules just spelled out net lost revenues and found revenues. And when I say, "found revenue," that's a revenue that -again, it's an action the Company took that increases volume metric sales outside of EE and DSM.

It worked with a -- for a great -- a great deal of time to come up with this decision tree into what activities would be counted as a

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Page 48

Session Date: 12/18/2023

found revenue.

This has actually been included in Commission approval for inclusion in the DEC rider, and it is now an exhibit in both of the mechanisms moving forward.

So it was a vague area that was molded and modified to accommodate what stakeholders felt the Commission's Rules were trying to tell it to do, and it created a process to do so that the Commission ultimately approved and has avoided any future disagreements about found revenues and the calculation of net lost revenues.

One of the other things that you saw on Mr. Huber's slide at the beginning was the breaking down of net lost revenues and -- or decoupling.

And revenue decoupling is another way that eliminates that volume metric tie. However, with the passage of HB 951 and the creation of revenue to -- of revenue decoupling, as a part of performance based ratemaking, and the recent approval of DEP and DEC's rate cases, you saw the establishment of a residential decoupling rider.

2.2

2.3

Page 49

Session Date: 12/18/2023

This rider basically ensures that the Company is going to recover its allowed or expected revenue per customer. However, the Company has proposed in order to maintain transparency around exactly what the true cost of these measured and verified energy-efficiency savings are with respect to net lost revenues, that it will continue to recover those residential net lost revenues through its EE/DSM rider filing.

However, as you'll see in the example on the other side of this slide, it will -- it will credit back dollar for dollar those net lost revenues that it's collecting through its annual EE/DSM rider.

So in the example on the slide, you'll see, well, the Company was expect -- was targeting to collect \$150, and it ended up collecting 100. You would say that it saw a decrease in what it should be collecting by \$50, an under-collection of \$50.

However, because the Company has collected the net lost revenues through the annual EE/DSM rider, it would then credit that

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Page 50

Session Date: 12/18/2023

back, so that the net decoupling under collection is only \$35.

This creates a great deal of transparency and clarity on the cost of residential net lost revenues, and 100 percent eliminates the need or concern associated with any double recovery of net lost revenues.

And this -- the Company feels like this is a great way to really demonstrate how strong the mechanism is working, because we've been able to make a proposal to adjust a new rider and still utilize all the transparency and verification that's in the annual EE/DSM rider, so people understand what the true net lost revenues associated with residential -residential customers is moving forward.

And, finally, I'd -- I'd like to go back to the incentives, the utility incentives that Mr. Huber referenced earlier. And I talked about it in cost effectiveness, but this slide is designed to really just kind of simplify the portfolio performance incentive.

And I think it's really important that you look at the name of that, because it is a

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Page 51

Session Date: 12/18/2023

performance incentive. The performance incentive is designed to motivate one thing, which is to get as much net benefit for the utility system through EE and DSM programs as you possibly can.

Now, there's two levers to get there. Both align exceedingly well the Company's interest and its customers' interests, because that net benefit is shared with 89.4 percent going to customers and 10.6 percent going to the utility in the form of its PPI.

But the two things that it motivates you to -- to do as a utility are to get as many KW and kWh savings as possible through your program, and, two, to do it as cost effectively possible, because those are the two levers to maximize the net benefit, which maximizes customer benefit, and it maximizes the utility financial incentive.

So as well as the PPI worked, we did create the PRI, which I'm going to touch on just, again, real briefly, because I think it's a -- a real example of the leadership that the Commission and our stakeholders have taken. Stakeholders are working to develop it, but the

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Page 52

Session Date: 12/18/2023

Commission improving it.

Low-income, energy-efficiency programs, because generally there's no out-of-pocket costs for customers, and the Comp- -- and the Company's programs take on all the financial burden. Generally they have a negative net benefit. Meaning the costs are greater than the sy- -utility system benefits.

Well, if you're trying to maximize net benefit, having a negative program will actually penalize the utility for offering a low-income program.

So we developed an incentive structure that doesn't look at the net benefit for low income. It only looks at the benefit side and gets 10.6 percent of the benefit.

It's important you think about that, though, because -- because it's a ratio, what that means is essentially the benefit is less than the cost. So your 10.6 percent is being applied to the smaller number, not the large number in the equation.

Finally, the last piece of incentive was something that was added in that -- first in

2.

Technical Conference

Session Date: 12/18/2023

Page 53

that 2017 update to the mechanism, which is another incentive.

This other incentive was worked on with stakeholders around an aspirational target to hit 1 percent of total retail sales as a saving.

If the Company hit that -- hits that annual savings number in any year, it would be entitled to an additional \$500,000 incentive.

So this -- this in -- this additional incentive was really put there because our stakeholders wanted to tie to that total retail sales number, and the Company worked with other stakeholders and got Commission approval to create -- create that incentive structure as an additional incentive tied to a specific performance level.

But that's on top of the PPI, which has always motivated the Utility to get as much efficiency and do it as cost effectively as possible.

Finally, I just want to leave you with some quick takeaways on the mechanism. I think, looking at the numbers that Mr. Huber talked about earlier, it would be hard to argue that

2.3

Technical Conference

Page 54

Session Date: 12/18/2023

basically the last decade of operating under some level of this cost-recovery mechanism that we're currently operating under hasn't been exceedingly successful.

If you look at other utilities in our jurisdiction and across the nation, we'll stack our results and our innovative programs and the benefits customers have received up against anyone.

Secondly, while HB 951 is a new piece of law, it preserves SB 3 statutory authority regarding EE/DSM that was initially established by the General Assembly and the Commission wrote its Rules on and that originally established the cost-recovery mechanisms.

A cost recovery -- a constructive cost recovery framework is really critical. As somebody who has operated in all of Duke's jurisdictions, it is the number one determinant of whether or not you see effective, both from an energy savings, as well as from a low cost and cost-effective portfolio standpoint.

It is the number one driver. We have operated in states that have mandated numbers,

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Page 55

Session Date: 12/18/2023

and we've seen those states have to eliminate those mandates and do all sorts of crazy legislative things to try and hit mandated numbers.

A utility framework that aligns customer interests with -- with company interests is the best way to motivate and get high levels of customer-efficiency savings, which lead to those utility system benefits.

And then last, but not least, I just wanted to talk really quickly about the formal stakeholder process that we've been going through.

So, it is true, the Company initiated the review of the mechanism originally at the end of April, and we have been working to reach out to stakeholders and have had a number of meetings, but really it ramped up kind of after we got through the rate cases, to be honest, this fall.

And we have had a very, very deliberate and packed schedule, where we're meeting almost every week, but no less than every other week to go through specific components of the mechanism.

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Page 56

Session Date: 12/18/2023

And what I could say is that we have found a lot of consensus on modifications to the mechanism. We have been able to reach agreement on verbiage related to three of the four enablers that were identified, and the Company continues to want to work with stakeholders until the comment period in its end desire to get a -somewhat of a consensus mechanism filed in lieu of comments, because we're -- we think that there's that much alignment with the majority of stakeholders on the mechanism.

And the last thing I -- I want to touch on is we think it's important to move this along as quickly as possible, because if the mech- -- if the mechanism is not improve- -- approved and then appropriately treated in future reconciliations, we can't initiate the enablers out until 2026 at the soonest.

And we want to get these enablers out there, because they are so necessary to achieve the long-term modeling assumptions that are in the CPIRP.

> That's all I have. Thank you. COMMISSIONER HUGHES: Thank you very

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Page 57

Session Date: 12/18/2023

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Let's turn to the Commission and see if anyone has questions.

Chair Mitchell?

CHAIR MITCHELL: Just -- just one question on that last point. You said the Commission needs to get an Order out, so that you can implement the enablers. What -- what is that date?

MR. DUFF: Well, so the -- the Company originally laid out that if the mech- -- new mechanism can get approved, hopefully by late second quarter, we would be able to do the modeling around what the rates would be.

Because of the schedule of the annual rider filings, the projected piece for 2025 will be made in late February for DEC and in June for DEP.

So we know that we can't get the new mechanism approved in time for those projections, which is why when we ask for additional relief and receive support from other stakeholders for we ask for a one-time reconciliation.

Ordinarily in the true-up and

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Page 58

Session Date: 12/18/2023

reconciliation component of the rider we don't update the system benefits from what was in the projection, but we can't increase costs associated with higher incentives without recognizing the benefits at the same time.

So we felt like if we can get an Order by the end of the second quarter, we can model what the -- what the projected impact of the mechanism changes would be, which are necessary to communicate for DEC customers by October, so they understand what the -- what the rate that would be effective would be, not the rate that was projected, because our customers have the -our DEC customers have the ability to opt out in the November, December timeframe.

So we would want to be able to give them an estimate of what the rate would be after the new mechanism changes went in, and then we'd be able to have all of the mechanism changes be effective in 2025.

And that's one of the things we're working on stakeholders on, is that reconciliation process as a component of the mechanism.

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Page 59
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                   CHAIR MITCHELL: Okay. Thank you.
2
                   And then one more question in this,
3
         under tab three.
4
                   MR. DUFF: Yeah.
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                   CHAIR MITCHELL: On the second page, I
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         thought I heard you say that all of the tests
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         were -- were on the spreadsheets, and I don't see
         the PCT test. And can you explain why -- remind
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9
         me why that's not here.
                   MR. DUFF: So the PCT is the
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        participant cost test.
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                   CHAIR MITCHELL: Right.
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                   MR. DUFF: So -- so it is --
                   CHAIR MITCHELL: I -- I understand that
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         a lot of those don't, but 10 and 11 might.
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                   MR. DUFF: I -- I -- the -- maybe
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        you --
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                   CHAIR MITCHELL: Because it's the
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        participant cost test; right?
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                   MR. DUFF: Right.
                   CHAIR MITCHELL: So the -- the cost
21
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         benefits for participants.
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                   MR. DUFF: Right.
24
                   CHAIR MITCHELL: And I understand that,
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	Page 60
1	obviously, avoided T&D is not going to work for
2	them, but then ten and 11 talk about the
3	participant cost.
4	So that's just the participant cost for
5	the utility?
6	MR. DUFF: I'm I'm sorry. I'm not
7	sure which page of the are you looking at the
8	cost effectiveness table?
9	CHAIR MITCHELL: I'm on I'm on the
LO	second page.
L1	MR. DUFF: Yeah.
L2	CHAIR MITCHELL: And maybe I'm
L3	answering my own question, but what what page
L4	were you saying that you analyze all four tests?
L5	MR. DUFF: So all four test results,
L6	the benefits and and the costs are shown
L7	CHAIR MITCHELL: Oh, I'm sorry. The
L8	participant is probably the PCT.
L9	MR. DUFF: Yes, yeah.
20	CHAIR MITCHELL: Thank you.
21	MR. DUFF: Yeah. Sorry about sorry
22	about the confusion on that.
23	CHAIR MITCHELL: All me. Thank you.
24	COMMISSIONER HUGHES: Okay.

**Technical Conference** 

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Page 61

Session Date: 12/18/2023

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COMMISSIONER McKISSICK: Just one or two questions.

First, you indicated that -- you know, I'm -- I'm glad to see all of the stakeholder meetings, and it sounds like they're going well.

You indicated that you thought there was consensus on three of the four enablers; is that right?

MR. DUFF: Yes. I -- I think we -- we haven't gotten final legal approval, but we have drafted language associated with the accelerated approval of pilots for EE/DSM, the as-found section, as well as dealt with the broadening of the definition for low income.

We're still working on the system benefits update, which, obviously, is a -- is a large piece, an important piece, but, those three, we feel like we are -- we have a consensus on the language in -- in the modified mechanism. Yes.

COMMISSIONER McKISSICK: And in the one that you haven't quite reached consensus yet, does it look like that's promising, based upon

Session Date: 12/18/2023

	Page 62
1	the dialogue that's taking place amongst
2	stakeholders, or are you not
3	MR. DUFF: I'll say
4	COMMISSIONER McKISSICK: at liberty
5	to say?
6	MR. DUFF: I will say we're having a
7	lot of active dialogue. There's definitely a lot
8	of it's it's by far the more technical and
9	detailed section than than the other sections,
10	and we have had a lot of robust discussion on it.
11	I think we're starting to make some
12	appro improve improvements, in terms of
13	understanding, and some progress, in terms of
14	potential modifications to the Company's
15	proposal, but I can't say we're we'll be there
16	by January with all parties.
17	I think some parties we may be able to
18	get there, but I do think we're starting to make
19	significant progress.
20	COMMISSIONER McKISSICK: That sounds
21	very encouraging. Is there anything we could do
22	to implement the enabler sooner than the
23	projected timeline you put out there?
24	MR. DUFF: I I really I'd I'd

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Page 63

Session Date: 12/18/2023

love to come up with something, but I think one of the things that's a real challenge is we've even been trying to be responsive to -- to some discovery requests about sections of the mechanism and things like amortization shortening, and we've had to say without understanding how the overall mechanism is changing, it's really hard to project what a change to amortization will mean from a rate standpoint, because the mechanism changes could drive different costs and incentives for -- for customers, which is a big driver of the amortization.

> COMMISSIONER McKISSICK: I understand.

And with the performance incentives, does it roughly equate to the returns you'd receive on a centralized-generation investment? MR. HUBER: I can probably take that

So there's -- excuse me. There's still opportunity costs, Commissioner McKissick. think if you try to put it on a level playing field, our average lifespan, say, is 12 years for -- for these types of resources.

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Session Date: 12/18/2023

So you compare that to a traditional rate base investment, we would earn about double on a traditional asset versus these performance incentives.

So there's still a significant opportunity cost there, and that's why you see other states innovating in this regard. You know, Kansas has a higher -- they have 15 percent. Some states go up to 30 percent for certain activities or for certain incremental -- incremental targets.

So, yeah, there's -- there's still -- there's still a gap there.

COMMISSIONER McKISSICK: Well, I am encouraged by your presentation and remarks today, and, I guess, hope we can move this thing along expeditiously for the reasons you've articulated. Thank you.

MR. HUBER: Thank you.

COMMISSIONER HUGHES: Commissioner?

COMMISSIONER TUCKER: Thank you,

Commissioner Hughes. Just one question for

Mr. Huber.

On page number 4, you've highlighted

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Page 65

Session Date: 12/18/2023

customer savings, but what relationship does the \$2.8 billion in system benefits and the savings of \$2.69 in savings for every dollar invested, what does that equate to, and how are those dollars used?

Are they reallocated in fixed costs, or how will the consumer -- and it's -- the heading is, "Customer savings." How will the consumer realize that they have received this?

Thank you.

MR. HUBER: Yeah, great question. And, Mr. Duff, feel free to reinforce this.

So savings are -- they're multifaceted. Some are realized right away, and you can see reductions in purchased fuel right away. You know, very -- very close to the time that the savings hit.

Other savings are more -- are longer term, because they're related to infrastructure. And so you're pushing out or -- or eliminating the need for certain infrastructure items, whether that could be within the distribution system or it could be a generation asset.

So those savings are realized just

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Page 66

Session Date: 12/18/2023

in -- in lower overall rates over certain time horizons, and so that's -- that's how those -those get -- those get realized to all customers.

So it's -- there's -- there's some timing gaps, and then there's different categories, like fuel, that just right away you can realize.

> Do you have anything to add? MR. DUFF: Yeah.

I would just -- I would add, Lon made a great point on that. It's the net present value, because we look at -- we look at it kind of in the -- in the year it was installed.

So if something is going to deliver savings over ten years, we discount those savings back, but it is looking at what the system -what investments aren't having to be made over time.

And so you are -- you're seeing a -- a little bit of a blend of kind of more variable costs on the energy side and then more physical capital investment on the capacity and T&D side.

> COMMISSIONER HUGHES: Okay.

COMMISSIONER TUCKER: Well, either one

Session Date: 12/18/2023

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Page 67

of you gentlemen can answer this.

So between the years 2017 and '22, which are in this slide, was there a rate reduction to the consumer because of these savings?

MR. DUFF: So the -- I won't say there was necessarily a rate reduction.

COMMISSIONER TUCKER: The answer is no? MR. DUFF: Well, there was no rate reduction, in terms of a base-rate reduction. However, things like fuel riders, those were lower, because of efficiency.

COMMISSIONER TUCKER: So the answer is no?

MR. HUBER: Maybe I can rephrase it as -- as if -- if we were starting out at ten cents a kilowatt hour, costs could have been, say, 10.4, but because of these programs, they're 10.3.

And so technically it wasn't a decrease from the baseline of ten cents at your starting year, just because generally things are going up; right? But it has put that downward pressure on rates.

Page 68

Session Date: 12/18/2023

1 COMMISSIONER TUCKER: Okay. So the 2 answer is still no? The consumer did not receive a rate 3 4 reduction? No? Other costs maybe, but, no, they 5 did not receive a rate reduction as -- since you 6 invested -- what? 2.8 billion and got \$2.69 in 7 dollar savings? I don't know how you compute that, but 8 I'm just asking. If you do the multiplier on 9 that, that's big money, and there's no rate 10 11 reduction. But the reduction of fuel cost and the 12 allocation of fixed cost, et cetera, I quess that 13 14 you guys have that there would not be a rate reduction passed along to the consumer; right? 15 16 MR. DUFF: There was no direct rate 17 reduction. That's correct. 18 COMMISSIONER TUCKER: Thank you, sir. 19 Thank you. 20 COMMISSIONER HUGHES: Okay. I -- I 21 just have -- I have a couple of quick questions. 22 So presumably the -- the -- the 23 incentives, which you said are the largest 24 cost -- cost item that you-all incur, the cons --

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Page 69

Session Date: 12/18/2023

the consumer customer incentives, how -- how do they interplay with nonutility-funded incentives, like the -- the IRA?

Is that -- you know, is that being analyzed in the review mechanism?

So -- so in other -- in other words, presumably an incentive was set, so that it would encourage a company -- it would encourage a customer to do something they wouldn't otherwise do.

Now, with the federal incentives in many cases customers will be incentivized much more. So do you expect the number of customers that decide to move -- move forward with different measures are going to increase quite a bit or --

I'm just -- from an economic stand- -standpoint, I'm just really curious, because customers are going to receive now a lot more incentive over the next ten years for things like -- for tax -- tax incentives, rebates.

The state is going to have its own appliance rebate program, if I understand correctly, from the IRA.

MR. DUFF: So, yeah, Presiding

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Page 70

Session Date: 12/18/2023

Commissioner Hughes, how I would answer that is we have increased our energy efficiency forecast over the period of the IRA dollars, which is supposed to end in the 2032 period.

That being said, there is still a lot of gray and uncertainty around how the states are actually going to implement them.

We have been actively working with our state energy offices, so that we can help customers participate in those programs, as well as our programs.

Our modeling assumption, we assume that we would get about 60 percent of customers that ultimately would take the IRA to participate through utility programs.

There's a modeling requirement and measurement verification associated with those -with those state programs in -- in a lot of cases, and so we feel like we can be an intake for customers and make them aware of those -- of those programs that are out there at the State level.

Because one of the things that you see is just because there are federal dollars that

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Page 71

Session Date: 12/18/2023

are thrown at states does not necessarily mean that they're spent, and it doesn't necessarily mean that they're delivering efficiency.

So we're trying to tailor our programs to coordinate and cooperate with them, so that we're maximizing the -- the total dollars that the State is being able to get its -- its consumers, as well as trying to make sure that our programs are still driving them to participate if -- if, in fact, the State incentives weren't enough to get them to participate.

But the measurement and verification requirements for our programs will continue, and we'll be able to look at those savings. However, if a customer does not choose to participate in our programs, we're not going to be able to measure and understand the savings that a customer who installs a high-efficiency heat pump is -- what they're going to get if they haven't participated in our program, because we're not including them in our measure and verification work.

COMMISSIONER HUGHES: Okay. Well, I

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Page 72

Session Date: 12/18/2023

think you -- I think you answered the question right in the beginning about -- about your -your projections moving forward are increased, because of -- because of the inflow of -- of funds.

As far as the -- the process of going through the review, could you just tell me a little bit more about any kind of quantitative analysis that's occurring with the review mechanism?

Are you looking at different types of incentives and how they will impact riders moving forward?

Just -- it seems like there's a lot of math and formula and assumptions that go into calculating the riders, and just are -- is one of the processes of the review looking at impacts of different approaches, different types of incentives, different assumptions, and, you know, does that make sense?

MR. DUFF: Yeah. I -- so what I would say is in terms of the incentive -- the incentive levels, well, we're really kind of waiting a little bit on understanding what the system

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Page 73

Session Date: 12/18/2023

benefits are, because that, if you will, is the currency to determine what type of incentives could be paid to customers.

So once -- I think once we get through that key enabler, I think then you'll start to -we'll start to be able to understand what can change with customer incentives and what that could do with overall participation and overall costs of the rider.

But to date we're still -- as I said, that's -- that's one of the areas we're still having a lot of discussions around.

COMMISSIONER HUGHES: Well, I did something I vowed I -- I wouldn't do is, is confused customer incentives versus utility incentives. I vowed to always put the word customer incentive or utility incentive, because it's so confusing.

What I was referring to, and I didn't qualify this, is modeling different utility incentives, because that's -- that's how -that's what drives what the rider -- how the rider is calculated.

And from what I understand, I think

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Page 74

Session Date: 12/18/2023

we'll hear a little bit later about it from the Public Staff and others. There's just a lot of different formula options that go into incentive calculation -- utility incentive calculations.

And I just wonder, is that -- is that quantitative analysis being done, where if -- if a utility incentive was calculated based on this approach or this formula, the rider is going to end up being this, and the savings will be this, and the benefits will be this, but if we go in this option, it will look like that.

So does that -- that kind of analysis is what I --

MR. DUFF: Yeah. So what -- first, I would say that the utility financial incentive is the smallest component of the rider. So I don't think it's going to make as nearly the swing that you're talking about, regardless of -- of the mechanism that's -- that's done out there from a -- from a percentage of the overall EE/DSM rider.

But, again, I'm going to caveat the fact that we still need to do the analysis of the system benefits to start understanding how it

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Page 75

Session Date: 12/18/2023

could swing things, because you need to understand the participation, the costs and the benefits in order to then model what different incentive structures could look like.

So I think it would be a little bit premature right now to do so. I think that that work will definitely get done, but we need to understand -- as I said before, the beauty of the current construct is that it motivates you to get as much kWh and kW as cost effectively as possible, which means you have to know the system benefits to understand what you can do to your program cost, the customer incentives and what kind of participation you will have, which are ultimately the variables that will lead to the amount of the financial incentive.

COMMISSIONER HUGHES: Not to -- not to copy Mr. Tucker, but the answer -- the answer is no or -- or yes, that -- that that kind of analysis, where, you know, if it -- if it goes --I mean, I -- from what I understand, there's incentives that are based on -- on net lost revenue.

There are incentives based on

Session Date: 12/18/2023

Page 76 perform- -- percentage of cost. There are -- are 1 2 incentives based on capitalization. different options will not be studied as part of 3 the review, or will they be? 4 5 MR. DUFF: No. I -- I didn't say that. 6 We have -- what I said was we haven't gotten to 7 the point where we can model what those would look like under the new mechanism framework. 8 Otherwise, you'd be taking old -- old, 9 existing mechanism results and trying to apply it 10 to different constructs. And we have not done 11 12 that yet. I don't know if any of the other 13 parties have done that. 14 We have just recently started really digging into the utility incentive component, but 15 I would -- I would assume that those analyses 16 17 will be done as we get further down the path. 18 COMMISSIONER HUGHES: Okay. Okay. I 19 think that's all, and I know we're running late. 20 That's all for now, but thank -- thank you very 21 much for coming. MR. HUBER: 22 Sure. 23 COMMISSIONER HUGHES: Any last 24 questions?

	Page 77
1	(No audible response.)
2	COMMISSIONER HUGHES: All right. Well,
3	thanks again.
4	MS. KEYWORTH: Presiding Commissioner
5	Hughes, are you ready for the Public Staff to
6	call its
7	COMMISSIONER HUGHES: Yes. I'm sorry.
8	Next next presentation. I'm sorry.
9	MS. KEYWORTH: I just wanted to make
10	sure.
11	The Public Staff calls David
12	Williamson, Michelle Boswell, and Hemanth Meda.
13	And, before they get started, just to
14	be clear, we indicated in our pre-filing letter
15	that should the Commission have questions on
16	certain discrete topics, we also have James
17	McLawhorn and Jeffrey Thomas, who are sitting in
18	the audience today.
19	And they can answer questions on to
20	the extent the Commission has any, on system
21	benefits and Save-A-Watt times.
22	COMMISSIONER HUGHES: Okay. Thank you
23	very much.
24	Gentlemen and Ms. Boswell?

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Session Date: 12/18/2023

MR.	WILLIAMSON:	Thanks	for	having	us
here today.					

My name is David Williamson. We have Hemanth Meda and then Michelle Boswell, both with the Accounting Division, and I'm with the Public Staff's Energy Division.

I figured I'd start with that,

considering we didn't add a slide that kind of

said our names, but I'll try to -- assuming that

this is -- where should I point this?

MR. MEDA: It should work.

MR. WILLIAMSON: There we go. Got it.

Okay. So the point of the presentation today is to give the Commission an overview from the Public Staff's perspective, kind of the achievements that the rider and the EE mechanism have accumulated over the last few years, as well as a discussion of the changing landscape that we're seeing in the Carolinas, North Carolina.

And then a relatively brief discu- -- discussion on the objectives and the review that the Public Staff is having on this mechanism review. Followed up with another brief discussion of the stakeholder engagement that's

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Page 79

Session Date: 12/18/2023

been going on over the course of the last few months.

So the achievements to date, just to keep similar with what the Company provided, kind of -- we kind of kept the timeframe from 2017 to 2022.

And over this time, as of the most recent rider filings, Duke Energy Carolinas's has about 14 different DSM and EE programs; nine for residential, five for nonresidential. And then Duke Energy Progress has about 17 programs approved, with 11 being residential and six being nonresidential.

And then the -- for residential programs, they're essentially targeting any type of residential dwelling that could -- could be possible.

There's single-family homes, multifamily homes, low-income homes and even new construction homes. And they're achieving those savings through the rebates and behavioral and -behavioral and educational, as well as load management type programs.

And then for the -- for the non-res,

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Page 80

Session Date: 12/18/2023

there's more custom and prescrip -prescriptive-type rebates that are applied, as well as a little bit heavier focus on the load

management type programs.

So in this slide, this is just a list of all of the -- all of those active programs for residential for both DEC and DEP, covering all of those topics that I just brought up.

And then the same thing for the non-res for both DEC and DEP. And I do want to clarify that it does look like there are a lot more programs within DEC, but probably half of those programs are kind of rolled up into a portfolio program, the Smart Saver.

I think it's the Assessments and the Products program. So there's about five or six of those little sub bullets that fall within that.

All right. So the Company in their presentation provided a more higher-up viewpoint of the savings that have been achieved over the last few years.

What I've -- what we put together here is a graphic more on a Vintage Year basis from

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Page 81

Session Date: 12/18/2023

2017 to 2022. And this is the system annual kilowatt hour reductions. And so, "system," meaning North Carolina and South Carolina achievements.

And it's broken up into both residential and nonresidential. Blue being residential. Orange being non. And then the gray bar is the combination of the two.

And so, as you can see, for system kilowatt hour reductions, pretty consistent. can see more clearly around DEC, particularly in 2020, where COVID actually took effect.

And you can see the reduction in savings that were achieved during that year, because of the inability to go into the home and make those personal interactions.

And so this slide here and the next slide -- so this one is titled, "The System Summer kW Reductions."

And then on the following slide, it's, "The System Winter kW Reductions." And, similarly to the previous slide, it's a -- it's a presentation of the amount of kW capability for each year for both residential and

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Page 82

Session Date: 12/18/2023

nonresidential, as well as the combined.

So I guess for specifically talking about DEP here for a second, that is the total capability for non-res customer -- non-res customer DSM. And it's -- it looks -- it looks a little weird, I have to admit, but it's the --DEC, DEP is the disconnect with how the rider is actually represented, where the rider is more incremental in the -- for DEP. And then the -in this instance this is just looking at the total capability for that year.

And then, again, for the -- for the winter aspects. And there was a little bit more of a focus on winter programs as of a couple of years ago, because that's where you start to see the jump for some of the -- some of the utilities in 2021.

And then this chart, it's getting -moving away from system and more towards North Carolina, because this is based off the North Carolina net lost revenues, which is a function of the North Carolina rates that are in effect.

And so this is just a graphic of -- on a Vintage Year. So 2017 through 2022 Vintage

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Page 83

Session Date: 12/18/2023

Years, the amount of net lost revenue contributions that were accumulated during those years.

And then similarly for the PPI and PRI for 2017 to 2022. I will say that the PRI, the low-income incentive, it didn't really take effect until 2022. So the majority of the graph is -- is the PPI contributions.

All right. We had a question in the previous panel about the rates that were going into effect. This slide and the next slide is actually a history of the actual rates that customers were charged from the beginning.

So, as you can see, going all the way back to about 2010, 2011, all the way through 2024. So the most recently approved DEC rider.

And in my little notes, I'm not sure if you can see the little bottom piece, but for the vintage 2024 it's a rate of .3775, which on an average residential bill, it's \$3.78 per 1,000 kilowatt hours used.

And so, just for residential, and then similarly for Duke Energy Progress.

Unfortunately, we don't have a -- an Order yet

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Page 84

Session Date: 12/18/2023

for the Duke Energy Progress case, but as proposed by the Company, it's .629, which translates into \$6.29 per 1,000 for Duke Energy Progress customers.

All right. So the changing energy landscape here in North Carolina. So Senate Bill 3 was signed back in 2007, and that was some pretty landmark legislation here in North Carolina, where we generally moved away from acknowledging renewables and energy efficiency to actually wanting to encourage and promote the two here in North Carolina.

And so Senate Bill 3 started this whole process, similar to how Duke had just characterized. And it's been working -- working pretty well over the last 14 years or 15 years or so, in order to make DSM and EE more available to customers.

And then now here recently we had House Bill 951 get passed, and this placed a new focus in our opinions on the energy landscape, where we're moving away from simply just encouraging and promoting renewables in efficiency to now we are trying to -- or the law requires a plan to

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Page 85

Session Date: 12/18/2023

reduce carbon emissions through the least-cost path.

And so, not only did 951 introduce some carbon-reduction requirements, it also introduced some new performance based ratemaking capabilities, as well as some decoupling -- some residential revenue decoupling mechanisms.

And so the energy landscape and how we deal with the -- the structure of the utility space has become more intricate. And so the -the -- the law that -- the objective -- kind of the objective -- objective of this whole process is trying to see, okay. The -- the law has brought us to a new level of practice.

And so some parts of this review is to try and see where that new level of practice could or should bring us to in this space.

So May of 2022 Duke Energy Carolinas and Duke Energy Progress both filed a -- their carbon plan as a result of 951, and within that the Grid Edge Panel, which is -- encapsulates more than just DSM and EE. It's rates and electric vehicles and renewables.

But within the Grid Edge Panel they

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Page 86

Session Date: 12/18/2023

actually placed -- they made -- they made several statements on how efficiency is the first pillar in achieving the energy transition with 951.

And so it -- there was a -- a new emphasis being placed on efficiency in order to achieve those -- those targets.

And then also in their -- in their testimony there was a self-imposed 1 percent eligible retail sales. And I know that's a mouthful, but it's prior year eligible retail sales.

And eligible sales are just total sales, removing the opt-out customers that are allowed to -- that are allowed to opt out from law.

And then shortly later that year the Commission put out their Order, agreeing with the 1 percent target and additionally adding in a new achieve -- was it -- a new aspirational goal of one and a half percent as a -- as a modeling target.

And so those -- those two points are kind of feeding into the conversations that we're having today on -- with regards to the carbon

Page 87

Session Date: 12/18/2023

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All right. So the Public Staff's objectives for this review, now that we're kind of caught up on, you know, what's brought us to this point, is that we're trying to figure out, you know, how do we better -- how do we provide better alignment with the EE rider and the new aspects and functionalities of 951; the new carbon plan targets, the -- or requirements, the new performance based ratemaking struc- -structures that are in North Carolina.

How do we streamline the rider calculation process, because sometimes it can be a little challenging -- doable, but challenging to calculate.

We're also trying to clarify some terminology. And then, similarly to what was said in the Duke presentation, trying to find some uniformity between the two as we start to see them become more and more of the same utility and potentially merge in the next few years. know those conversations have been discussed.

And then also discussions of the proposed enablers and how -- how we actually can

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Page 88

Session Date: 12/18/2023

bring them into the conversation and if it is worthwhile and reasonable to pursue those.

So in the last mechanism review in 2020 there were several directives that the Commission added to its Order, asking parties to review, and several of those are still in the process of being reviewed, but we should be able to by the January filing date provide a -- a good update for the Commission on those matters.

Okay. Kind of in agreement with Duke, one of the primary objectives for this case for this review is the determination of avoided costs and kind of how -- how we end up evaluating the benefits that are going to be applied to these DSM and EE measures.

And the -- the big thing is that they're -- they're titled avoided costs, because it's the amount of energy and capacity that is not needed to be produced from the Company.

And so the points in question is that we are currently deriving those rates from the avoided cost proceeding, but the proposal is to change that to the CPIRP proceeding.

And so it's -- the avoided costs are --

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Page 89

Session Date: 12/18/2023

they're not explicitly determined in either one of those proceedings. However, those proceedings are establishing the baseline for the assumptions and the inputs that would feed into how DSM and EE avoided costs would be determined.

And so that's why it's -- that's why it's so critical to -- to characterize those -that path appropriately.

Okay. And then for the -- the PPI structure, I had mentioned it earlier. We are still in the process of going through the PPI structure. Currently, it's just the net present value of the avoided costs, minus the total costs of the program, and then that's multiplied by a fixed percentage, which is highlighted in the mechanism, and for both utilities right now it's 10.6 percent.

And for -- part of the objective of this review is to try and figure out how and should it be kind of combined with the activities that are going on in other regulatory proceedings on trying to tie the performance to the -- the carbon plan of 1 percent or one and a half percent and if that's reasonable or if we should pursue

Page 90

Session Date: 12/18/2023

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So those are the types of structural reviews that the Public Staff and other intervenors are kind of looking through and evaluating.

Do you guys --

MS. BOSWELL: No.

MR. WILLIAMSON: Sure. Okay.

So net lost revenues -- so this -- this is not one of the proposed enablers that the Company has put -- put forward in their proposal.

However, the Public Staff is looking into it, specifically because of the impacts from the recent rate case decisions, where revenue decoupling was introduced for the residential class.

And so, similar to the example that I think Mr. Duff was going through, it's just trying to make sure that net lost revenues, how they're characterizing the rider, are translating over to the revenue decoupling mechanism appropriately, and that there's not a disconnect in the timelines, because currently the revenue decoupling mechanism will have a fixed time

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Page 91

Session Date: 12/18/2023

period where it's trued up.

Whereas, net lost revenues has the potential to be trued up after EM&V and customer counts are updated. And so that net lost revenues number may -- may change, and it might not be in alignment with when the decoupling mechanism is actually being decided on.

So those -- those are the types of things for net lost revenues that are being -being applied, and it's just trying to figure out is the current process still appropriate, and does anything potentially need to change within that.

MR. MEDA: Good afternoon. This is Hemanth Meda from the Accounting Division of the Public Staff.

As part of the collaborative process the Public Staff had discussions with the Company on some of the account --

COMMISSIONER HUGHES: Excuse me. Could you speak a little closer into the mic?

MR. MEDA: Sure. This is Okay. Hemanth Meda, with the Public Staff Accounting Division.

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Page 92

Session Date: 12/18/2023

As part of the collaborative process the Public Staff had discussions with the Company on some of the accounting issues that is streamlining of the rider calculation, firstly, to reduce errors, and also to make any corrections which have been identified in the current year to be made an adjustment in the same year and splitting those corrections into multiple years. That's one of the main things.

And the second thing is that, like, right now the true-ups for the riders or any of those calculations, it can go back to, like, seven, eight, nine years. So we don't have any definitive time period right now.

So kind of -- this is also one of the topics we had discussion with the Company to see if -- to see if we can have a conversation on that to see, like, if we can hold off, like, how many years we can go back to make any of those corrections, five years or something like that.

So -- so that. Like it is simple and clean and neat, and -- so it's -- it reduces the burden for the Company and for everybody to do some of those things.

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Page 93

Session Date: 12/18/2023

And one of the final ones is, like, a --DEP currently, as you have heard, amortizes its O&M expenses and admin and general expenses. Currently these expenses are amortized over three years' time period, except on MyHER program.

So as part of the Commission's Order last year and the last mechanism has asked, look into this. So we kind of -- Public Staff has preliminarily done some analysis to see what the rate impacts would be, if that has -- if the -if the amortization period has been changed from three years to two years and all to one year.

And kind of a -- it -- it's going to be a little increase in the -- in the first years, but it's going to -- the rate change is offset by the decreases in the coming years.

So that is something we have looked into and we have asked the Commission -- sorry -we have asked the Company to look into -- provide a detailed analysis, so that we can see how -which way it goes.

We only looked at that one thing. It's -- at this point of time, just changing the amortization cost over three or -- two or one

Page 94

Session Date: 12/18/2023

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There are the components of them, like NLRs and PPIs. So those are all, like, kind of -- we are still working on those items. So that's something we kind of are still in the process.

So that's one of the things I wanted to give an update on.

MR. WILLIAMSON: And then to kind of round off the whole presentation, just talking about the stakeholder involvement.

So the -- Duke Energy has facilitated a Carolinas's EE collaborative since about 2009, and I personally have been involved in it since 2015 whenever I first started with the Staff.

And I kind of echo what Tim had mentioned about how it's a place for discussion and forum and just highlights on what challenges are going -- excuse me -- what challenges are being experienced by the programs. You know, what hurdles are being -- are -- you know, are being experienced, and then some of the new program designs that are being discussed.

But it's also a place for the

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Page 95

Session Date: 12/18/2023

intervenors and other stakeholder members to kind of get together and say, you know, well, I've seen this in Virginia, or, I've seen this in You know, is -- is that something that, Texas. you know, can be done here?

And, unfortunately, we can't do a total analysis in one collaborative meeting. You know, that's why we -- we have to push things out to different meetings, because, you know, the Company has to be able to go back and say, well, we looked into that, and either, you know, this is something that we're going to pursue further or it's -- it -- unfortunately, here's the hurdles -- here -- here's the problems we see with that proposal here in North Carolina.

So it's a good place to have a dialogue on program development and kind of the practice that's going on for the different programs.

And then, lastly, the Affordability Stakeholder Group. It's a relatively new group. It's kind of an -- an expansion of the recent low income and affordability collaborative from the 2019 Duke Energy rate cases.

And this group talks a little bit --

Session Date: 12/18/2023

	Page 9
1	talks more broadly on low income and
2	affordability issues that just include much more
3	than just DSM and EE activities, but it's
4	I'm excited to see what the
5	Affordability Stakeholder Group is going to come
6	up with in this next kind of reiteration of
7	the of the stakeholder process to see what
8	what what's going to happen and what's going
9	to be proposed for low income and affordability
LO	initiatives, specifically in DSM and EE, but in
L1	general too.
L2	And I believe that is that is all we
L3	have. So trying to focus more on the questions
L4	that you guys have for us.
L5	COMMISSIONER HUGHES: Very good.
L6	Well, let me turn turn to my
L7	colleagues. Chair Mitchell?
L8	(No audible response.)
L9	COMMISSIONER HUGHES: Commissioner
20	McKissick?
21	COMMISSIONER McKISSICK: As it as it
22	relates to the net lost revenues, it's not one of
23	the enablers, but to the extent to which there's
24	been dialogue and discussion, does it look as if

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Page 97

Session Date: 12/18/2023

issues related to net lost revenues would be something where the consensus might be reached in light of -- it seems to be one of those areas of distinction of opinion.

MR. WILLIAMSON: So net lost revenues as -- as part of the stakeholder engagement piece, we actually have -- we've talked very briefly on that matter, because we have -it's -- every -- every single one of these topics is going to have its own specific meeting where we're going to address different things.

And, unfortunately, for net lost revenues, it's -- it's actually in early January that we're going to have that meeting. So, unfortunately -- I hope that there's some good agreement and conversation that comes from those discussions, but, unfortunately, I don't -- we don't have an update for you on that.

COMMISSIONER McKISSICK: That's fair enough.

And -- and, of course, I heard from the Duke panel that it looks like of the enablers, there's consensus being reached or merging among three of them. Would you concur? Would that be

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Page 98

Session Date: 12/18/2023

your assessment as well?

MR. WILLIAMSON: Yes. The -- the definition of the different aspects, how they interplay with other areas, like how net lost revenues is impacted and how PPI is impacted, that might still have some further conversations.

But as far as, like, how we define low income and as-found baseline and the -- the prototyping piece, I think generally those structures are -- we're in pretty close agreement with.

COMMISSIONER McKISSICK: And in terms of avoided cost, I mean, has that been one of the sessions you have held yet or --

MR. WILLIAMSON: We -- we have had many sessions on the avoided costs and how that's going to flow in. It -- we -- and we're going to have many more sessions on that as well.

It's -- so, like I was saying earlier, the avoided cost proceeding and the CPIRP proceeding are -- are, you know, kind of where this space is kind of being derived from, and currently those Dockets are open right now. And so there's a little bit of a --

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Page 99

Session Date: 12/18/2023

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Τ	COM	MISSIONER .	MCKISS	TCF	(: I s	see.
2	MR.	WILLIAMSO:	N:	a	little	e bit

3 review going all across the board.

> If you do have any particular questions, like on the avoided costs or specifically the -- this whole process, I know Jeff Thomas in the back with the Public Staff, he's been kind of our chair for this topic in particular, and he can answer any questions you might have.

COMMISSIONER McKISSICK: I think for purposes of this meeting, technical conference, I think you adequately addressed it at this time. Thank you.

COMMISSIONER HUGHES: And I have -- I have a couple. One is from staff that just wanted to make sure that we put the review of spillover effects on the table.

Evidently, in one of the past mechanism reviews, it specifically laid out analyzing spillover effects. So I just kind of want to know if that's part of the review.

MR. WILLIAMSON: Yes. So one of the beauties of having a mechanism review every so

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Page 100

Session Date: 12/18/2023

often is that whenever a mechanism is approved, it's kind of approved based off of the issues that is known at that time, but, you know, as --In between mechanisms, you know,

there's new kind of gaps that may -- may come up to everyone and new clarifications that need to be made.

So that kind of rolls into the clarifications on -- that I -- I discussed earlier that, you know, we're trying to work towards, and definitely the recent rider proceedings is something that's of interest in the Public Staff's mind during -- for these conversations.

> COMMISSIONER HUGHES: Okay. Thank you.

Now, I want to just make sure I'm looking at this correctly as we're talking about the existing mechanism. I think Duke presented four components, and there was a financial.

That financial really interests me. From what I understand, there's been a lot of historic decisions that developed the formulas that are used in that financial component.

And we've been talking about riders,

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Page 101

Session Date: 12/18/2023

and I know the -- the calculation to go to riders from revenue requirements is -- is somewhat complex and has -- it goes over different years.

And I think I heard that you are looking at that and trying to simplify that, but let- -- let's step back from the rider and just talk about the revenue requirements.

You submitted -- Public Staff submitted an analysis of -- of things that were occurring in other states, and I was struck by look -looking at that, the formulas for calculating incentives that are driving revenue requirements across the country seem to be very, very different.

So it's the same inputs, the same savings, the same environmental benefits, but it goes into a long formula that then calculates the revenue requirements that customers are going to have to pay.

So my question earlier to Duke really revolved around all of those formulas. And it's -- there's not that many, but -- but the formulas that actually calculate revenue requirements, which, from my understanding, when

Session Date: 12/18/2023

a mechanism gets approved, we're locking in that formula and the revenue requirements for years to come.

So -- so I'm just curious. I heard that you are looking at some differences by different years of amortization. So you're actually running those through.

Is there any -- any effort to run through some of the other options that could go into calculating revenue requirements?

I mean, from what I understand, you know, we now have revenue requirements equals cost, plus a number of different performance incentives, plus net lost revenue.

MR. WILLIAMSON: Yes.

COMMISSIONER HUGHES: Is there any -is any -- any analysis going to look at, well, if
we calculated incentives differently, this would
result in a different revenue requirement for
customers?

MR. MEDA: Sorry. Yes. We -- the

Public Staff is looking into that analysis to

see -- working on the formulas differently to see

which numbers -- like, how the numbers change

	Page 103
1	with the way the formulas are laid out, like the
2	tier systems and things like that. So kind of
3	we started looking into that.
4	COMMISSIONER HUGHES: Okay. Great.
5	Great.
6	I think I know we're running running
7	late on time. That's good for now.
8	Any other questions?
9	(No audible response.)
10	COMMISSIONER HUGHES: Okay. We're
11	going to we're going to take a a ten minute
12	break now and come back at 3:05, and we'll pick
13	up where with the next presenter. Thank you
14	very much.
15	(At this time, a recess was taken from
16	2:53 p.m. until 3:06 p.m.)
17	COMMISSIONER HUGHES: Go back on the
18	record.
19	I have on the agenda that was provided
20	that we're going to hear a presentation by SELC,
21	representing a number of parties. So
22	MR. NEAL: Yes.
23	COMMISSIONER HUGHES: I'll turn it
24	over to you.

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Session Date: 12/18/2023

Page	104

1	MR.	. NEAL:	Thank	you,	Presiding
2	Commissioner	Hughes.	Good	afte	rnoon,
3	Commissioner	Comm.	ission.		

We are calling Jim Grevatt, and he's there. So his bio was presented to the Commission, along with -- and we -- his presentation is here. You're welcome to ask questions as he goes, but, otherwise, I think he's ready to proceed.

COMMISSIONER HUGHES: Please, sir.

MR. GREVATT: Thank you, sir.

Good afternoon. My name is Jim I'm with Energy Futures Group. It's a Grevatt. small consulting firm based in New England.

I've been in the industry for about -so long, thirty-two years. I started in 1991, crawling under trailers; in the Low Income Weatherization Program; doing energy audits; going in attics.

Worked at a gas utility for a dozen years. I worked at Efficiency in Vermont, directing residential programs, and I've been a consultant for about ten years, providing expert witness testimony a lot in the last five;

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Page 105

Session Date: 12/18/2023

Virginia, West Virginia, North Carolina, South Carolina, Kentucky, Pennsylvania, Maryland, all over the place.

And so I have some perspective on how things are done in other jurisdictions related to EE/DSM, and I want to share some of that experience with you, if it's -- and hope that it's helpful.

So, starting out with really the -- the most basic premise, well, why do we do this stuff in the first place? DSM/EE is an integral tool for utilities to comply with their least-cost service delivery obligation.

Least cost is a critical component of what utilities are supposed to do, what they're supposed to provide, how they're supposed to provide safe and reliable energy. And, of course, that's why you-all are here, is to regulate them to make sure that they actually do that.

And we know, and Mr. Huber and Mr. Duff have spoken about this a little bit, that the utility model, the traditional utility model for electric utilities, you build a bunch of poles

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Page 106

Session Date: 12/18/2023

and wires, you build some generation, and you amortize it over a lot of years at an authorized rate of return, and the shareholders make money. And that's how the model works.

And that's fine. It's good, but when there is a tool that can be used to reduce the costs that customers would otherwise pay, it's competing with the -- the kinds of returns that shareholders make.

It's -- it's -- an experience nationally is that it's not enough to say, yeah, but you have a least-cost obligation. Therefore, don't do this stuff; do DSM/EE instead.

There are other tools that may need to come into play to help make that case to the utilities. Not just make the case, but make them do it.

A strong direction is -- is essential, but it's not necessarily enough on its own. a -- there's an imbalance in the financial reward. Mr. Huber said it's about double. You may earn about double what they -- from traditional investments as they would earn from EE/DSM.

Session Date: 12/18/2023

That's a big difference if you're a utility shareholder. So -- so we have a mechanism that provides some tools to even the score a little bit.

And I -- I want to talk a little bit about some of the other tools that are used in regulation to support more cost-effective EE/DSM.

And certainly one is an energy efficiency resource standard, often in law, sometimes in regulation that says, utilities must achieve a certain percent savings every year.

That's typically how they're framed.

There's a -- a loading Order in

California that says, no approval for any new
generation unless the utilities can demonstrate
that there's not a way for energy efficiency and
demand response to remove the need for the
generation in the first place.

They have to demonstrate that in order to get an approval to build something. The -- there are threshold conditions. Virginia in the Clean Economy Act, for example, says that if the utility does not meet its statutory energy efficiency obligation, they cannot get approval

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Page 108

Session Date: 12/18/2023

for a new fossil generator.

And in statute, in fact, in North Carolina, I have been advised by counsel, precludes approval of new coal or nuclear generation that could have been avoided by EE/DSM.

So these are tools that are not really related to the mechanism, but they're tools that regulators use to help even the score for the earnings that utilities would otherwise achieve, and --

And, also, we -- we spoke earlier --Mr. Duff and Mr. Huber spoke about EM&V, evaluation measurement and verification, to verify that the savings are legitimate. They're real. This is actually reducing the loads in the way that we need to reduce them in order to not have to build the new plant.

And other things that are not necessarily part of the mechanism, when there are -- if a utility has an obligation to meet a certain savings requirement, it's very helpful when a Commission will approve the plans and the programs that they need to have approved in order

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Page 109

Session Date: 12/18/2023

to meet the obligation.

And that's part of what the mechanism is talking about here. Higher savings goals, we need to make these adjustments. This is the case that Duke is making and that we're all talking about in the stakeholder process.

But one example I want to suggest is very relevant here is the Tariff On-Bill Financing approval that the Commission authorized in the recent past, which should open up financing for many customers to make investments in energy efficiency that they wouldn't otherwise have been able to make, because they couldn't overcome that first cost.

So having the approval of tools like that can really support more EE/DSM in North Carolina.

And then there are other things that are specific to the mech- -- mechanism; comprehensive cost-benefit analysis to verify that the EE/DSM savings are worth it, that they're going to achieve more than they cost. It's really important.

And how the utility recovers their

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Page 110

Session Date: 12/18/2023

program costs. Decoupling lost revenue was spoken about a little bit earlier, and performance incentives and/or penalties.

And cost-benefit analysis is so important, because every jurisdiction I go in is concerned about the costs of EE/DSM, and rightly so. As regulators it is your responsibility to make sure that utilities are not investing in costs -- program costs that are not going to serve the customers.

But I also in every jurisdiction I go into hear much more talk about the costs and the rate impacts than about the benefits. And I think, you know, it's understandable to me why that is, because the benefits are a little harder to get your hands on, but the costs are pretty concrete.

If we had a -- a model that said utility would come in and say, well, we can do this amount of EE/DSM, and this is what it's going to cost, or we could build a couple new substations and -- and a new transmission line, and this is what it's going to cost. Which is a better deal for the ratepayers?

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Page 111

Session Date: 12/18/2023

And that's effectively what they're doing by devel -- developing these avoided cost estimates, but they're just a little less concrete than that.

I think it's so important to talk about the benefits in addition to the costs. And I appreciate really you letting me make this point. The costs that we would face without DSM, poles and wires, new generation, fuel cost. understand that the -- the impact of fuel costs last year was something like 8.7 percent increase for -- in the Carolinas.

That's a -- that's a big rate increase. If we can use less fuel, there's less demand, the price per unit may come down, because the demand is less, and those savings are passed on to the ratepayers.

I think it's also really important to emphasize -- and this is one of the reasons that I got involved in energy efficiency in the first place, because it's absolutely part of least cost service, delivery, makes economic sense for ratepayers.

This is great. It -- look at the

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Page 112

Session Date: 12/18/2023

utility cost test and -- and the balance there and make that determination. But there are all of these other benefits that come along with the EE/DSM that are not necessarily captured in the utility cost test.

They may be captured in some of the other cost tests, but, you know, I speak to my experience from the low-income weatherization program, from the gas utility, energy efficiency programs, and seeing how customers' lives are changed from their homes being more efficient.

When we talk especially about low-income customers, who are severely or highly energy burdened, paying more than 6 percent or 10 percent of their income just for their utility bills. And if you can cut that by 20 or 30 or 40 percent, that's real money for that household.

And at the same time you're improving comfort and very often addressing health and safety issues to make it a safer home for the -that household. These are huge benefits that are not captured in the utility cost test at all.

Another one, let's highlight outage resiliency, because that has certainly been a

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Page 113

Session Date: 12/18/2023

topic in the last couple of years with the more severe weather that we're experiencing in so many places.

A well-insulated, tight home will weather an outage better than a drafty home. Ιf it's winter, and the power goes out, the house is going to hold the temperature longer if it's well-insulated, than if it -- than if it isn't.

And that's -- there are all kinds of benefits for that for the people who are living there. It's -- it can reduce associated health impacts. It can certainly reduce stress, worrying about if, you know, the pipes are going to freeze. That's often not captured in any cost test, but it's a real benefit.

And air quality, environmental justice. If we can build fewer generators, if we can shut down dirty generators, many of which may be located in disadvantaged communities, if that polluting source of energy is shut down, there's an environmental justice benefit for that community.

It's nontrivial stuff, but it's often not captured in these tests. So, again, this is

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Page 114

Session Date: 12/18/2023

why I love this stuff so much. It's because the benefits are huge, and it makes economic sense.

When we look at how the utilities earn from EE/DSM compared to the traditional investments, we've talked about amortization and performance incentives, and that's mostly how they can earn from -- from doing these things.

And the mechanism, I can focus on You know, what can provide guidance to the utility for what they should achieve. So it can look at overall level of savings and even set a bar. This is what the minimum that you achieve should be.

It can focus on, are we talking about annual savings, first year savings, or are we talking about savings that are going to last for ten or 15 years?

And there's opportunities in the language of the mechanism to prioritize those longer-lived savings.

And we're seeing in some jurisdictions -- New York recently issued an Order saying that they are not going to approve programs that have an estimated measure life of

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Page 115

Session Date: 12/18/2023

less than six years, because what they're focusing on there is the long-term decarbonization of the grid.

And their -- their belief is that if we focus on longer-lived savings, those are going to provide more reliable savings into the future as we decarbonize.

I'm not suggesting that you should do that here. It's just the kind of tools that regulators are looking at, and the mechanism is a place to -- to consider them.

We also see regulation about how much -- or what kind of energy efficiency should be provided to low-income households, underserved communities. In some places they call those communities income qualified, because if you make more than a certain amount of income, you're not qualified to participate in the low-income programs.

But -- but the -- the -- so I -- the point I'm trying to make is that the mechanism, how it's framed, what the incentives, what the requirements are, will shape the kind of savings that the Company achieves. And so it's an

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Page 116

Session Date: 12/18/2023

important opportunity.

And I want to provide, if it's okay, a couple of examples of some other jurisdictions and how they're approaching incentives and penalties and -- and other requirements.

So this is the Public Service Company of Colorado, Xcel. Xcel Energy. Xcel Energy, they do what they call a strategic-issues proceeding, where it's -- it's kind of like the mechanism review, but maybe even in a bigger scale.

This last time the case concluded in the summer, they looked at beneficial electrification programs, energy efficiency, demand response, and gas energy efficiency, as well and performance incentives for these different It was a big case. aspects.

But what they decided on the performance incentive for electric energy efficiency is they tied it -- the Company can earn a percent of the net benefits, but it's scaled.

So at 100 percent of goal they earn 10 percent of the net benefits. At 80 percent

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Page 117

Session Date: 12/18/2023

of goal they earn only 8 percent of the net benefits. And if they get less than 80 percent of the goal, they don't get any net benefits, because their thinking was, why should we provide an incentive for a company that's effectively doing less than 80 percent of what they're required to do?

But it increases above 100 percent. at 110 percent, they would get 11 percent of the net benefits. And while -- in this particular chart you can't quite see it, but -- so the orange bar is the customer share of the net benefits, and it decreases, but it's the customer share.

So when we look at it this way, as the goal achievement increases, the overall pool of net benefits increases. And while the Company gets a little bigger share of that, the more -the more they achieve, the customers still overall get more than they would have at a lower achievement.

So basically the Company is earning Customers are earning more, and it more. benefits everyone involved.

And I just don't want to even go into

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Page 118

Session Date: 12/18/2023

this really, but they -- they did also look at a demand response performance incentive, and basically the Commission in Colorado said, we need more information, but we want to make sure that it's tied to net benefits and callability, so that you're not developing a demand response resource that doesn't get called and that can't be called. And so it's great on paper, but it doesn't actually do anything for customers.

Another example, Michigan. A statute in 2016 -- and I want to apologize, because I know that there was another bill that was being considered recently, and I have no idea if there may be a new bill on the books already. I don't know.

But in 2016, they set these savings 1 percent annual savings, you get either 15 percent of the program cost as a performance incentive or 25 percent of the net benefits based on the utility cost test. Whichever is greater.

And, again, the utility incentive scales up with greater savings on the assumption that the net benefits increase, customer benefits increase, and that everybody wins.

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Page 119

Session Date: 12/18/2023

Interestingly -- so that's what the statute established. Here's the earning thresholds. But the Commission said, well, within those earning thresholds that are defined by the statute we want to put some more boundaries on it.

So they can earn, let's say, 100 percent of the goal for getting the 1 percent savings. within that 1 percent savings, they also have to -three-quarters of what they can earn is tied to how long those savings are going to last.

And they also said when you have to demonstrate that 10 percent of your spending is -is on income-qualified programs, or that's going to reduce a portion of the performance incentive that you could otherwise achieve.

And within that income-qualified spend, there's some quantities of heating-and-air conditioning system, heat pumps probably, and weatherization measures to push the Company in the direction of doing those comprehensive savings for customers, rather than short-lived savings.

And, again, so it's all -- so it's --

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Page 120

Session Date: 12/18/2023

it's multiple components to performance incentive. All tied to the statutory savings opportunity.

Similarly, in Illinois, there's scaled earnings, depending on where they achieve goal. So at -- and they are allowed to amortize program costs in Illinois.

I believe -- I'm not sure. I couldn't verify this, but at the rate of return that they would earn for other capital investments. If they do more than goal, more than 100 percent, they get an increase in basis points. They get a higher return.

And if they do under 100 percent, they get a lower return. So, again, not necessarily going to have a profound impact on what the utility earns, but directionally it makes it more attractive to the shareholders to earn more.

And, anecdotally, in both Michigan and Illinois, what my colleagues who work in those states say is that the utilities are proposing more savings in their plans as a result of this legislation.

And, the last thing, I just want to

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Page 121

Session Date: 12/18/2023

look at a couple of examples of how goals for serving low-income households are in some places addressed in statute or regulation.

So we know -- there's a lot of evidence that low-income households have very high energy burdens. And, of course, that only makes sense, because they have so much less income to work with that if they have the same energy bills as everybody else does, they have to pay a lot more of their income towards those bills.

So what do we do about -- about that? Because the customers -- in most jurisdictions low-income customers are paying the same rates as everybody else, all the other residential customers, but they often can't afford to participate in programs, because if it's -- let's say it's a heat pump, and the Company is offering a \$500 incentive or something like that, that household has to come up with the rest of the cost, and low-income households generally can't do it.

So I believe it was Mr. Duff, it might have been Mr. Huber, but I think it was Mr. Duff, who said that, you know, the low-income programs

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Page 122

Session Date: 12/18/2023

that Duke puts on the street tend to pay 100 percent of the program cost, and that's normal.

But that means the program cost is higher, and so there's pressure to not do as much of it, because it drives up the rates. So -but, as I said earlier, the benefits are huge.

So in Pennsylvania, for example, where Act 129 provides the -- the guidance for utility energy efficiency, electric utility energy efficiency, the Commission -- the way that process works, they do a market potential study every cycle, which is about five years.

And they look at -- and the potential study looks at what the potential savings from the low-income sector would be, and then they tie -- the Commission makes a determination on how much of the overall portfolio savings have to come from that low-income sector.

And in the last proceeding they said 5.8 percent of the total portfolio savings have to come from low-income households. And they further said, and you can't comply with that by saying, well, 30 percent of the customers are low income, then we're going to say 30 percent of our

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Page 123

Session Date: 12/18/2023

residential savings are low income.

They actually have to come from programs that are targeted specifically to low-income households to serve their specific needs.

And in Nevada, there's a bill that's on -- that passed on spending. Again, this may have been updated since -- since I did any work in Nevada, but it had been set at -- 5 percent of the program spending had to go towards low-income households.

It was increased to 10 percent of the program spending had to go to low-income households as a way to kind of overcome the inherent disincentive to spend more money to get those savings from -- from households who most need the savings.

And Maryland just passed in the last session HB 169. And this was after a multiyear process at the Commission and with work groups, trying to come to some consensus about how much of the program savings should come from low-income households, and that -- there wasn't consensus.

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Page 124

Session Date: 12/18/2023

And so some folks took it to the statehouse, and the General Assembly came up with a bill. And it requires the utilities over the next three years to ramp up to 1 percent of sales to the low-income sector. So savings equal to 1 percent of sales to the low-income sector.

So Duke gets about 1 percent of sales overall to eligible customers. And this would say that same level of savings just to the low-income customers based on their sales.

And, in closing, I just want to say I think if you want the Company to maximize the use of cost effective EE and DSM, which in my view would be consistent with their least-cost obligation, it takes carrots and sticks.

It takes clear direction to say, this is what we expect of you. We want you to do And some -- overcoming some of the this. disincentives for them to do it, either through amortization or performance incentives, can be very helpful.

And in the same way with low-income programs, to ensure that there's a sufficient investment in -- in those programs for -- for

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Page 125

Session Date: 12/18/2023

households who need them the most.

2 And I'd be happy to answer any 3 questions.

> COMMISSIONER HUGHES: Thank you very much.

> > Chair Mitchell?

net benefits are calculated?

CHAIR MITCHELL: Just one question. The PSCO example, can you help me understand how

THE WITNESS: In a very simple way they're -- they look at the program costs. The -- the net present value of the program costs, and compare them with the net present value of the benefits. And it's just a simple subtraction.

Benefits are greater, hopefully, if they're cost effective. Subtract out the costs. That's the net benefit that's left, and -- and the Company earns a percent of that.

But, importantly, it is the net present value of -- of the full stream of benefits, because many of these measures are going to last more than a year. Many of them are going to last ten, 12, 15 years.

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Page 126

Session Date: 12/18/2023

And it wouldn't make sense to calculate those benefits, you know, 2023 dollars, because the savings then are going to be worth less now depending on the discount rate and so forth.

CHAIR MITCHELL: Okay. Just one -just one followup there. How are the benefits calculated?

MR. GREVATT: The benefits are calculated based on the -- now, I'm -- I'm actually not entirely positive how they calculate the benefits in Colorado, but it would be depending on the test they're using.

And in Colorado, unlike in North Carolina, to determine whether a program is cost effective, they use either a TRC test or what they call a modified TRC test that recognizes some nonenergy benefits, some of those benefits that I had on the slide, that aren't quantified necessarily.

CHAIR MITCHELL: So does that mean the benefits are greater in Colorado if they're using -- well, help me understand the implication from what's going on in Colorado.

MR. GREVATT: Well -- well, they're

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Page 127

Session Date: 12/18/2023

really different tests. So the utility cost test is a -- I think -- I consider it a baseline test.

Generally, it doesn't make sense for a utility to be investing in things that don't pass the utility cost test, because it says there would be a cheaper way to achieve the same thing with ratepayer dollars.

A TRC, or the modified TRC says, well, let's look at all the costs, not just at the utility costs. So if a -- if a heat pump costs \$5,000, and the utility is giving a \$500 rebate, in the utility cost test, they would only consider the \$500 rebate. In the TRC they would consider the \$5,000 cost.

But in the utility cost test they would only look at the avoided energy and capacity, the avoided fuel costs, this direct specific cost that the utility avoids.

In the TRC they look at the -- the environmental benefits potentially in the modified TRC. They look at bill savings and -and other impacts to the customer, not just the utility cost test.

CHAIR MITCHELL: Okay. Okay. And then

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Page 128

Session Date: 12/18/2023

I was going to -- I had a question about the CJA. So the benefit for the Illinois program is just for modification of the authorized return? that how the -- the incentive is structured? MR. GREVATT: I think so. I mean, that

was -- that was the part of it that I was looking at in particular.

So there may be other aspects of it, but -- and, importantly, I can't tell you what they are, but the -- the savings targets are established by statute.

CHAIR MITCHELL: Got it. Okay. Okay. Thank you.

MR. GREVATT: Pleasure.

COMMISSIONER HUGHES: Okay. Just following up on the question about amortization, do you know for Illinois, is it the life of the measure that -- or is it a set amortization period for total program costs?

MR. GREVATT: I believe it is life of measure, but I'd be happy to follow up and confirm that, and -- and -- if that would be helpful.

> COMMISSIONER HUGHES: Yeah. No. I --

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Page 129

Session Date: 12/18/2023

I would be curious.

And then, you know, you talked a lot about short-term savings versus long-term savings. A lot of North Carolinas's success is -- is based on a really successful short-term behavioral program. I think -- I think more than half of our savings is just that one year measure.

Are there other states that we could look at that have that similar kind of focus on short-term measures?

Have you come across -- have you come across anyone with that kind of percentage of savings due to a short-term measure?

MR. GREVATT: Honestly, Maryland, the utilities recently filed their 24 to 26 plans. The Commission hasn't ruled on them yet.

And there's the -- the regulation is focused on -- the statute is focused on first year savings, which drives the utility to maximize first year savings at the least cost.

So they -- I think BGE's total portfolio savings that they propose -- proposed for the '24 to '26 period is about 40 percent

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Page 130

Session Date: 12/18/2023

behavior.

Now, the -- the -- some parties have argued that that is too high and that they should shift that.

COMMISSIONER HUGHES: So for -- is there a metric that has been used or that -- that looks at this lifetime cost? I know you started off by saying it would be easy if we just had costs from a traditional facility or costs from a -- a package of EE improvements, but, you know, we -- we are focused, our performance measure, in our carbon plan, and -- and one of the main performance incentives for -- for the current mechanism is percentage of retail sales.

Is there a performance indicator out there that actually looks at lifetime costs, you know, in -- in a way that you described, and --

MR. GREVATT: Lifetime costs or lifetime savings?

COMMISSIONER HUGHES: So that -- that would look at -- would look at the -- the cost for the utility and for the customer to generate a kilowatt hour of savings.

Whereas, I think for some of these

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Page 131

Session Date: 12/18/2023

long-term measures it would seem like you would invest the same amount as a short-term measure, but you would have a lot more kilowatt hour savings over time.

MR. GREVATT: Sure. There -- there is a metric, and it's called the levelized cost of saved energy, LCSE. And it -- it does -effectively it does part of the net benefits calculation.

It looks at the -- the -- whatever the program -- or whichever perspective you're looking at it from. It says, what are the costs? How long are the savings going to last?

And if we take the net present value of those -- of the cost over that full period, how much -- how much is it?

And, you know -- and it's a very dramatic -- a very dramatically different answer than if you're only looking at the cost for first year of savings.

And, interestingly, I'll -- I'll say, the Maryland Commission in the direction they provided to the utilities for this current plan that's under consideration, required them to

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Session Date: 12/18/2023

provide the levelized cost of saved energy for all of the programs in the plan.

COMMISSIONER HUGHES: Okay.

Interesting.

For the -- for the states that you talked about, where they had -- you focused on the incentive. Do those states also have a -- do you know, a net lost revenue recovery component?

MR. GREVATT: It varies by state.

COMMISSIONER HUGHES: Well, Illinois,

Maryland. I think some of the states that --

MR. GREVATT: Yeah.

COMMISSIONER HUGHES: -- you've been talking about.

MR. GREVATT: Colorado had -- in the last proceeding they had what's called -- what they called the disincentive offset, which was -- wasn't net lost revenue exactly, but it was, to try to make up for some of that, to -- again, to remove the disincentive to invest in energy efficiency.

And then the Company in their proposal for this plan said, you know, we don't need that anymore.

Page 133

Session Date: 12/18/2023

I'm not sure about net lost revenue in 1 Illinois and Michigan. Again, I'd be happy to 2 follow up. I'm -- my -- well, I'm just not going 3 to say, because I would be guessing. 4 5 COMMISSIONER HUGHES: Okay. Yeah, 6 that's all my questions. I -- I have [sic] any 7 questions. All right. Well, thank you very much. 8 9 MR. GREVATT: Thank you. COMMISSIONER HUGHES: Very informative. 10 11 MS. CRESS: Thank you, Presiding 12 Commissioner Hughes. After conferring with my 13 colleagues, Mr. Trathen and Ms. Grundmann, I'm 14 going to go ahead and introduce the entire large customer panel in the order in which they will be 15 16 providing introductory remarks to the Commission. 17 COMMISSIONER HUGHES: Great. Thank 18 you. 19 MS. CRESS: Thank you. Beginning with 20 Dr. Stephen Terry, the Technical Director for 21 CUC -- CUCA, providing CUCA's perspectives. 22 Followed by Steve Chriss, the Senior 23 Director for Utility Partnerships for Walmart,

providing Walmart's perspective.

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Page 134

Session Date: 12/18/2023

And P.J. Klein, the Business Continuity 1 2 Program Manager and Assistant Division Energy Manager for Corning, providing perspectives on 3 behalf of CIGFUR II and CIGFUR III. Thank you. 4 5 COMMISSIONER HUGHES: Okay. Welcome, 6 gentlemen. Thanks for coming. 7 MR. CHRISS: Thank you. Thank you very much. 8 9 MR. KLEIN: Okay. I think -- I think we're going to go with the CUCA presentation 10 Industrial DSM perspectives. 11 first. 12 COMMISSIONER HUGHES: And while we're 13 pulling this up, I'll take the opportunity to --14 if you haven't filed your presentation that you've made today, could all of the parties 15 16 please file it? I think some of it came via 17 email. So please -- please file it in the Dockets. 18 19 MR. TERRY: Ready? Okay. Well, I'd 20 like -- thank you very much for having us here. 21 I'd like to just talk a little bit about my 22 background. 23 I'm currently the technical director 24 for Carolina Utility Customers Association.

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Page 135

Session Date: 12/18/2023

my past life, I was a Professor of Mechanical and Aerospace Engineering at NC State University, where I helped run the Industrial Assessment Center for about 30 years, the North Carolina Energy Management Program through the State Energy Office, various DOE programs.

I've performed 700 energy assessments around the State and the region. So I have a -a large variety of customers to -- to speak with and to learn from. And that's what I want to share with you today, their thoughts, especially with the EE rider.

So the DSM and EE riders are distinct, but related purposes. In contrast to other customer classes, industrial customers are highly specialized.

They have highly specialized needs and equipment. The typical home is kind of the standard thing. Industrial plants are anything but.

The ability to -- to opt out allows the cust -- the industrial plant to -- to be able to tailor their own programs within their -- with their own money and their own needs.

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Page 136

Session Date: 12/18/2023

They're highly incentivized by market If you can save money by implementing energy-efficiency measures, then you can produce a product with lower costs, and you can, therefore, obtain higher profits and returns to your shareholders.

And then the trade secret, confidentiality, is also a very big issue with industrial facilities.

I want to talk a little bit about some of the size and -- and the numbers here. So we talk about -- we talk about the cost of the program. To participate with the DEP program, it's about four-tenths of a cent per kilowatt hour. To participate with DEC it's about six-tenths of a kilowatt hour.

So when I do numbers, I'm going to kind of use an average in the middle. For a residential customer, this represents maybe \$50 a year and \$5 a month or thereabouts. And that's not a significant amount of money for most customers.

But for an industrial customer, this represents a very large amount of money. For a

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Page 137

Session Date: 12/18/2023

small manufacturing plant that may have a demand in the 500 kilowatt range, two million kilowatt hours, it represents between ten and \$14,000 paid into to opt into this rider.

A medium-sized manufacturing plant with about two megawatts, 2,000 kilowatts, it's about \$50,000 to opt into this program.

And for our large customers, say, 20 megawatts, and -- and there are customers that are much larger than that, those costs can be three-quarters of a million dollars and up.

Some of our members, if they were to opt in to the EE program, would be looking at three million dollars in costs to opt into the program.

And so, of course, opting in to the program requires that a manufacturer be able to get a return on that. And so the game, if you will, as a manufacturing plant, is to try to collect as much in -- in rebates and -- and incentives as you pay into the program.

Looking at the typical incentives from SmartSaver website, single-fixture lights, something on the order of \$20 per fixture, \$82

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Page 138

Session Date: 12/18/2023

per horsepower for variable-frequency drive air compressors.

These are common things that -- that industrial plants would submit incentive rebates for. Pumping systems, \$40 of horsepower. And it doesn't take long to see that it takes a lot of light bulbs to get your money back.

Even for a medium-sized manufacturing plant, you're talking about a couple of thousand light bulbs or -- or light fixtures that you upgrade in order to recover your money.

And to do that one year, that -- that's possible. But to do it over a long period of time is -- is very, very difficult.

I also want to make the point that manufacturing plants are already doing energy-efficiency recommendations and measures. They're not being captured, obviously, by Duke Energy or the Commission towards REPS requirements, but they are certainly doing that.

When I was with the Industrial Assessment Center, we had to follow up with the plan about a year after. And we calculated that most plants were saving 30 to \$40,000 a year as a

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Page 139

Session Date: 12/18/2023

result of our assessment.

I can tell you that 30 years ago energy assessments were a lot easier for us to do, because there were -- plants weren't looking at that.

Today it's very hard to do energy assessments. Most of the low-hanging fruit that's covered by these incentives has already been taken.

Most manufacturing plants are doing the things that they need to do just to stay competitive. And I think that's an important thing.

Current incentive programs cover major energy users in residential and commercial, but they really don't cover the major energy users and industrial plants. Those industrial machines aren't generally covered with a regular prescribed rebate.

Now, there are custom rebates, but those are a little more difficult. And all of these incentives require that the plant spend a tremendous amount of capital to -- to do this.

So it's nice to get a \$10,000

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Session Date: 12/18/2023

incentive, but you'd have to spend maybe 30, 40, \$50,000 to get that. And so that capital is not always available every year.

And so let me go back and say that I think the program works well for some manufacturers, particularly the small manufacturers, and also some manufacturers that are -- are really carefully looking at their energy and create and craft a program where they can opt in for a period of time, collect the rebates, make some changes, and then probably opt out, because it's un -- unsustainable for long periods of time to be opted in for most manufacturing facilities.

And those are my comments.

COMMISSIONER HUGHES: Okay. I think we'll hold off on questions until the three of you go. So, please, proceed.

MR. CHRISS: Terrific.

Presiding Commissioner Hughes, Chair Mitchell and Commissioners. Steve Chriss, Senior Director of Utility Partnerships at Walmart.

Just a little bit of background. I've been with the Company since 2007. I've been

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Page 141

Session Date: 12/18/2023

involved in utility regulation for that entire time, and I was on staff at the Oregon Commission prior to coming to Walmart.

But over that time I've added basically the entire utility management process within Walmart to -- to my portfolio. So if you want to talk about propane outages, I'm here for you.

But, yeah, let's not.

So Walmart in North Carolina, we have 214 retail units, six distribution centers, one fulfillment center. We have over 62,000 associates in the State.

We also have broader economic impact through the suppliers from whom we buy products and services, and that's 14 point one billion spent with North Carolina-based suppliers in the last fiscal year, and that supports about 86,000 supplier jobs.

So we have a big, you know, just footprint ourselves, as well as the footprint that we impact.

And then just a couple numbers for back of mind. Under the Dukes in North Carolina, we have about 144 stores and four distribution

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Page 142

Session Date: 12/18/2023

centers. And that'll be more relevant when we get a little bit later in the comments.

And I apologize. I'm reading my own handwriting so there's -- it could be a challenge at times.

And so I think Dr. Kelly brought up a really important point about bringing up the opt out. And certainly the opt out is statutorily mandated.

Our sites that are eligible do opt out. But I think, you know, to the point of the competitive nature of our business and where, you know, running efficient buildings is really good practice, went back and just looked at Duke Energy Carolinas.

I went back to 2007, because, you know, when I started was the beginning of time, and -and so it's -- actually, it's more about our billing system.

But in 2007, we had 54 retail sites in one distribution center, and used about 251,000 megawatt hours in that year; 2022, we had 79 retail sites, three distribution centers under Duke Carolinas, and used about 271,000 megawatt

Page 143

Session Date: 12/18/2023

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And so in that 15 or so years we increased our store footprint 46 percent, we tripled our distribution center footprint, and our energy usage went up about 8 percent.

And that is entirely because of the energy-efficiency deployments that we've done. Most recently indoor and outdoor LEDs.

And, actually, I looked back. mid-20-teens, pre-LED, we were up well over 300,000 megawatt hours per year. So it's just good business to do this stuff.

And this was all done outside of any utility programs, totally done without any cost support from other customers of the Utility.

So, you know, it's -- it's -- it's not simply, oh, I don't want to pay that charge. It's, we are doing this. And, also, it's -- you know, it's being able to -- instead of paying an operational expense, put -- move that money over to capital expenditure, do the energy efficiency and bring those benefits to our bills, as well as the whole system.

And so, you know, when we're -- one of

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Page 144

Session Date: 12/18/2023

the big things that we do want to talk about today is demand-side management. So Dr. Kelly did say they're -- they're different things.

So energy efficiency is a longer term structural change. You know, we're changing the equipment in our building.

We're changing how our building operates everyday, whether it's HVAC or refrigeration or lighting. Whereas, demand response is -- or demand-side management is really targeted at grid-specific circumstances.

So, you know, there's a power shortage or -- you know, for whatever reason, there's a need for customers to change when they use power to benefit the grid.

And this is something that we do all over the country. Were actively engaged in DSM, ISO New England, New York ISO, PGM, ERCOT, MISO, California ISO, as well as a number of utility programs that are out there, as well as emergency requests.

So we get a lot of requests where -- we had a lot of this out in the west, where both California market, as well as the broader west

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Page 145

Session Date: 12/18/2023

both had hot days on the same day.

So we had to curtail in both places to help out the utilities. And those weren't programmatic. It was just what we had to do, and -- and, you know, we want to be a good citizen on the grid, so we do that.

But when we look at the programs themselves -- and I know that, you know, the Dukes do have various programs, and they don't -a couple of things have to happen for that engagement to really work. So, first, the program needs to be economically viable.

You know, the -- the programs sort of start off a foot or two back, just because to be in the program you have to pay to be in the program, because there's a DSM charge that would be assessed if you're not opted out of it to be in the program.

And so when you look at the potential opportunity in that program, you have to look at the cost and then basically say, can I actually make this back or more and really have that opportunity there?

Because, you know, one of the things

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Page 146

Session Date: 12/18/2023

that's really important, you know, when we look at, especially building controls responses, so that's where we change something within the operations of the building to respond to that program, all of a sudden we're dealing with the customer environment, the shopping environment.

And so to the extent that we're making customers or associates uncomfortable or -- or doing something that impacts the shopping experience negatively, we have to be very -- we have to consider that as part of it.

And then for behind-the-meter asset-backed solutions, so we had a backup generation or solar, plus storage, or some -- you know, a technology option, it's how does that program play against the fixed and variable costs that we would incur.

So it's just -- it's simple economics really. And then the other thing that we have to think about is can we actually physically respond to the program?

So the Power Share program, the mandatory curtailment, if I read the tariff right, is up to ten hours. There's no way with

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Page 147

Session Date: 12/18/2023

building controls we can sustain a ten hour event, you know.

So basically what we would do is we'd get the call. We would adjust the set -- the set points on our HVAC. So, say, we're running the store at 75, we'd move it up to 77.

Well, at some point the temperature in the store would get up to 77, and then the HV would kick back on. Whether or not that happens, you know, after two hours or four hours or five hours depends on a lot of factors. Many of which are not in our control.

So -- so it's difficult. Four hours is sort of the rule of thumb number that we tell utilities and commissions as we talk about this.

If the -- if the required response is longer than four hours, we can't do it with a building control solution. And then -- and then --

We can do that with generation, though, but that's, you know, a separate thing. Not all programs look for that.

So one of the things that -- when we go out to the market, especially in the RTOs, we

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Page 148

Session Date: 12/18/2023

work with aggregators. And so what they do is they sign up a lot of customers, and they diver -- so it's basically a diverse portfolio of responses that they can draw from.

So -- so if we have a store that can't do four hours, but can do -- we have lots of stores that can do two hours, they could take all of those stores, put those together, and create a four hour response amongst that portfolio.

And so, you know, certainly that's something that Duke could do. I mentioned earlier that we have over 140 stores between the two utilities here in North Carolina.

So, you know, how can the utilities be enabled to be creative and offer, you know, those aggregation-esque opportunities, so that customers who can't do this, but can do a lot of this, can help participate and really help the grid?

So -- and I will -- we are short on time, so I will close with that. But any additional questions that you have, feel free, and thank you for the opportunity to be here today.

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Page 149

Session Date: 12/18/2023

MR. KLEIN: I'll get started with my introduction real quick, and then we'll get into the presentation while it's being pulled up here.

So, as Christina mentioned, P.J. Klein, with Corning. I'm the business continuity program manager and assistant division energy manager based here in -- in North Carolina.

All right. Okay. All right. Just a little bit about Corning. In 2023, we were named partner of the year through Energy Star through the U.S. EPA for 10 years.

So we're one of a handful of companies in the -- in the United States that have a dozen or more years -- or ten or more years as Energy Star partner of the year.

In 2006, we started our global energy management program that looks at our energy usage across the world. Not just in North Carolina, but all of our operations. And it started out as energy, but has recently expanded to water, as well as renewables and -- and also waste.

And just a few years ago we just announced that our global operations -- we have 12 facilities in our cable -- our optical fiber

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Page 150

Session Date: 12/18/2023

cable operations. Six of which are based here in North Carolina. We have cut our energy intensity in half. And so that was a public announcement we recently just made about 2018.

Go on to the next slide.

Here you can see the strategies that we have in order to accomplish our global energy management mission. I'm not going to read through each one of these bullets, but you can see on the third one here it talks about engaging employees, suppliers with energy, water and natural resource management.

And so we -- that is how we engage with Duke Energy. They are a huge supplier for us.

Moving forward to CIGFUR's perspective. So energy cost is a top three cost for manufacturers and industrial customers. And so with this EE and DSM program, our ability to opt out, we're able to take that money, and we're able to invest it ourselves, and it's not a burden to the cost -- that -- that cost is not a burden to the ratepayers.

We're able to do it more efficiently than we feel the Utility would. Steve talked

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Page 151

Session Date: 12/18/2023

about the amount of money we would have to opt in -- or -- I'm sorry. Dr. Terry talked about the amount of money we would have to opt in. much -- how many programs we'd have to do.

So we feel like we do that as a -- more efficiently than currently we would have to -- we would be able to do it if we were to opt in.

You've heard quite a few of the presentations today talk about Senate Bill 3 and how industrial customers have the right to opt out.

We believe that the program is working as it was intended in the bill. No different today than it was in 2007. There are changes that need to be made, and I'll talk about that in the next slide.

You can see here that we talk -- talk about a lot of the industrial customers we don't have flexible load. Steve talked about, with Walmart, industrial customers have the same concerns about flexibility of load; safety reasons, revenue requirements.

Some of our assets that if we -- if we do shut them down -- and I'm not talking

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Page 152

Session Date: 12/18/2023

specifically Corning. I'm talking about CIGFUR members in general.

If those assets are shut down over an extended period of time, they have to be rebuilt. It's a huge cost burden, and so they cannot afford to go down for these callout windows that are given.

Looking at item number four here, we talk about the cost recovery mechanisms. those who do have flexible load, we need to be able to better incentivize Duke Energy to allow for us to -- to opt in.

We need -- there needs to be some convincing to customers who are opted out of being able to opt in, and part of that needs to be incentivized.

And then item number five here is we talk about how all of our CIGFUR members are different. Not every single one of our customers or every -- every one of our members have the same load profile, have the same ability to shift load.

Some, as I talked about with safety, cannot, and some -- some can. And so it needs to

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Page 153

Session Date: 12/18/2023

be -- we need to -- we have -- they need to be very tailored and flexible programs that allow industrial customers to opt in.

So what changes do we believe that need to be made to -- to DSM specifically that would entice customers to want to opt in? First, we believe that there needs to be an emphasis on -on load sharing, not only load shedding.

There are a lot of assets that sit out in most of these industrial facilities that are used for emergency situations that are untapped resources.

There's cost that would be incurred in order to make those assets utilized in emergency situations and nonemergency situations, and that's a burden that the -- that the customer shouldn't have to burden.

The net benefit to being able to utilize those assets is that it would be a rate -- it would be a ratepayer savings across all rate classes.

The number two thing we believe is that the EE and DSM cost-recovery mechanisms need to be changed to enable Duke to offer a tiered bill

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Page 154

Session Date: 12/18/2023

credit.

And so we believe there's a tiered approach, as -- as Steve talked about with Walmart. He may have stores that can only go for two hours. Some of our members have the same situations.

So the ability -- not only the amount of time that a facility can be out, but also how fast do they have to respond? So that's two components that need to be taken into consideration; response, as well as duration.

And then, lastly, the item number three here is we believe there needs to be separation between the emergency and nonemergency demand response programs, which would allow customers to either participate in both or either.

And, lastly, some -- some key takeaways. We've heard a lot of people talk about least cost today. House Bill 951, we believe EE and DSM are important critical components to achieving the -- the carbon dioxide emission reduction goals that were set out by -by House Bill 951.

We believe there needs to be some

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Page 155

Session Date: 12/18/2023

alignment between the incentives Duke Energy receives and the policy goals by the State in order to suf -- sufficiently motivate the utility to design and offer the -- offer attractive EE and DSM programs.

We believe both programs are high priorities in order to help achieve reliable, adequate power. And then we also believe that the Commission needs to take action as soon as possible to make sure that this could be implemented in 2025.

You did hear Duke Energy mention earlier today that there -- there's a lot of things that have to go in place to be done by 2026. We believe 2025 is achievable, but it does require some urgency.

And, lastly, CIGFUR looks forward to continuing to participate, not only in the mecha -- the mechanism review process, but also in the collaborative.

And, with that, I will turn it back to you for questions.

COMMISSIONER HUGHES: First, let me see. Chair Mitchell?

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Session Date: 12/18/2023

CHAIR MITCHELL:	I'll start a
question about sort of the	the this you
make you make the point	about Duke's incenting
customers to opt in.	

What does this mean -- what do you mean by that specifically? I mean, what action do you-all want to see Duke take?

MR. KLEIN: Well, it'd have to be higher bill credits. I mean, the -- the amount of money we would pay into the program right now is -- is -- is too great.

That the rewards you get when you are called on, especially in DSM, the -- when you get called upon, it would have -- you'd have to have multiple events over a period of years in order for it to offset that cost.

CHAIR MITCHELL: Okay. So are -- what about -- what about -- I mean, you -- you -- you may -- you gave the specific example of a Load Share program.

MR. KLEIN: Uh-huh.

CHAIR MITCHELL: Is that not what the Power Share Program is?

MR. KLEIN: So it does talk about

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Page 157

Session Date: 12/18/2023

generators in -- in -- in the tariff, but what it doesn't allow is it doesn't allow the customer -the customer, as an example, would have to pay costs in order to make their system adequate in order to be utilized on Duke's grid.

So there's studies. There's -- there's equipment upgrades that have to take place in order for those assets to be utilized in parallel with -- with the grid --

CHAIR MITCHELL: Oh, so you're --

MR. KLEIN: -- in emergency situations.

CHAIR MITCHELL: What you're

envisioning is Duke's using your generating asset for purposes of serving the system? necessarily Duke saying, you go off our system for the moment while we're in an emergency, rely on your own generation?

MR. KLEIN: Right. So, if you remember, I talked about safety and an inability to be flexible.

> CHAIR MITCHELL: Uh-huh.

MR. KLEIN: That would allow us to -to not shift load internally, but allow us to offset the load that we're using by utilizing

Session Date: 12/18/2023

It doesn't need to be generators. Some of these facilities, not Corning specifically, but they have -- they'll have onsite turbines that they'll use in emergency situations for a -- for a zero-bulk scenario.

CHAIR MITCHELL: Okay. But just make sure I understand that.

MR. KLEIN: Yeah.

CHAIR MITCHELL: Does that mean that if -- if you go into a situation where you're sort of operating in parallel --

MR. KLEIN: Uh-huh.

CHAIR MITCHELL: -- is the customer no longer pulling off Duke's grid, or is the customer pulling off Duke's grid, and the generator is putting onto Duke's grid?

MR. KLEIN: Yeah. So a very simple example, if -- if a facility was a 20 megawatt site and had five megawatts of backup power, we would -- that site would only be pulling off 15 megs from Duke Energy, and the other five would be --

CHAIR MITCHELL: Okay.

Session Date: 12/18/2023

	Page 159
1	MR. KLEIN: made up by the
2	generators.
3	CHAIR MITCHELL: Got it. Okay.
4	Okay. That's all. Thank you.
5	COMMISSIONER HUGHES: Commissioner
6	Duffley?
7	COMMISSIONER DUFFLEY: So, Mr. Chriss,
8	I'd like to ask you about you were talking
9	about aggregation of demand-side management, and
10	that's where you were actually going off
11	you're not using your own generators, but am I
12	correct in that statement?
13	MR. CHRISS: Yeah. So typically when
14	we participate through a program where we're
15	being aggregated, that is to manage responses
16	that are done through building controls.
17	So at present there's a couple of
18	situations where we would do generation
19	responses. So an example would be Duke in
20	Florida has an interruptable tariff that most of
21	our stores are on.
22	Those stores have generators that
23	rec and they receive a capacity credit through
24	being on that tariff. And so if the utility

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Page 160

Session Date: 12/18/2023

calls them to run, they can run, but then they -they're also there for resilience, because, you know, the program, the capacity credit levels are enough to where it also supports maintenance of the resources, resilience resources.

So if we're doing that, it's going to be the utility that calls. And it -- aggregation really kind of addresses the -- the -- the duration piece of -- of the puzzle that we've been talking about, just because -- you know, if you have a generator, as long as you have fuel, you can kind of run it as long as you need to run it.

But on a building control, that's where we have those limitations. And so that's where being part of a broader portfolio brings that advantage to bear.

And so, instead of not having stores be in the program at all, we can have all of our stores go in and be able to contribute something.

COMMISSIONER DUFFLEY: Right. And I --I did want to follow up with that. So, taking your example, you know, you can only maybe do four or five hours versus ten hours, because of,

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Page 161

Session Date: 12/18/2023

you know, 74 -- you're at 74, and a couple of hours later you're going to be at 77. automatically going to kick on.

MR. CHRISS: Uh-huh.

COMMISSIONER DUFFLEY: So are you saying that, instead of having each store have its own kind of tariff or deal, that you'd aggregate in the same area four stores? Can -can you explain that a bit more?

THE WITNESS: Yeah. So -- so, say, we wanted to bring, just for round numbers sake, you know, 100 kW of response to the table, and -- and if the utility wanted 100 kW for four hours, we may not be able to provide that with one store, but if we bring two stores or we bring four stores, and the first two can bring 100 for a half hour, and the second two can bring 100 for a half hour, just -- you know, or -- you know, enter times in there. That's how we would do it.

So it's more of a checker-boarded approach.

> Uh-huh. COMMISSIONER DUFFLEY:

MR. CHRISS: And more managed, so that you're ensuring that every store, while it's

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Page 162

Session Date: 12/18/2023

participating, is giving you the full response, and you're not having to worry about, you know, the HVAC kicking back on, and then -- and the energy levels going back on -- up during a response.

> COMMISSIONER DUFFLEY: Okay. Thank

And then at the beginning of your statement you were talking about how you're participating in demand-side management programs through RTOs.

MR. CHRISS: Uh-huh.

COMMISSIONER DUFFLEY: But you also mentioned and -- as well as utility programs, are those vertically integrated utility programs, and which ones are those?

MR. CHRISS: So the ones that come to mind -- I know we've done the Evergy Program up in Missouri, and then the rest of the list I'm going to have to get you, because I'm blanking, but we've --

> COMMISSIONER DUFFLEY: Okay.

MR. CHRISS: We've done several.

COMMISSIONER DUFFLEY: Yeah.

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Session Date: 12/18/2023

Page 163

just was wondering about examples of non-RTO utility programs that -- that you have had success with in your mind.

MR. CHRISS: Yeah. And that's -again, the Evergy one is the one I could think I mean, ultimately it kind of comes down to it's the -- sort of the same premise that we're talking about here, where, you know, in states where --

Like, I don't want to advocate for anybody to force us into a program, but if we're in the program, you know, it certainly makes it -- it takes one decision out of the process.

And so, you know, states where participation is mandatory, you know, we're going to look at the -- the participation there. But I can get you the list, and we can provide that through counsel.

COMMISSIONER DUFFLEY: Okay. Thank you.

MR. CHRISS: You're welcome.

22 COMMISSIONER HUGHES: Commissioner

23 McKissick?

24 COMMISSIONER McKISSICK: Just by way of

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Page 164

Session Date: 12/18/2023

example, I mean, can you identify a couple of states that have a good tiered bill credit program that really seems to work effectively, since you suggested that's a way that things could be approached?

I mean, conceptually it makes sense, but by way of real-world-case example, you know, this is a state, this is a place where it's taking place, and we feel that it's being handled in a reasonable, responsible way, where there's a higher level of buy-in?

MR. CHRISS: So I think tiered bill credit was actually a concept you had brought up.

> COMMISSIONER McKISSICK: It was.

MR. KLEIN: One --

COMMISSIONER McKISSICK: You spoke to it. Yeah.

MR. KLEIN: One of our CIGFUR members brought it up in California, but we'll have to --Corning specifically, my responsibility is just in North Carolina in the United States.

So I only know about Duke Energy Carolinas and Duke Energy Progress. So -- well, we could follow up in writing of other programs.

Dago	165

Session Date: 12/18/2023

	Page 165
1	COMMISSIONER McKISSICK: Oh, if you
2	could. I think it would be helpful and
3	potentially insightful. Thank you.
4	COMMISSIONER HUGHES: Okay.
5	Commissioner Tucker?
6	COMMISSIONER TUCKER: Thank you,
7	Mr. Hughes.
8	Mr. Chriss, you've got generator backup
9	in all of your stores; right?
10	MR. CHRISS: So we do not. We are
11	we do have a program that's ongoing, where
12	they're doing a couple hundred generators a year.
13	It started so right now, like, most
14	of the State of Florida is covered, and we do
15	have some municipal utilities within the State of
16	North Carolina that do have backup generation.
17	So DSM programs can support that in
18	part by having, you know, capacity payments or
19	different value streams that can be used to
20	offset some of the cost of that. So by having
21	them participate in the programs.
22	So to the extent that that program
23	capability grows within the State, that's
24	certainly something that we can look at as an

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Page 166

Session Date: 12/18/2023

additional value, but, yeah, def -- you know, the -- the Carolinas, in particular, are an area where, you know, we've got to focus on figuring out how we get more gens deployed.

COMMISSIONER TUCKER: Yeah, I can -- in some of your stores you have groceries. understand the re -- refrigeration requirements and not being able to have that 10-hour lead time that -- that you need.

Let me ask you one question on all of your stores, and, I mean, you're -- Walmart is kind of the biggest employer in the world, last time I read. Do you have solar generation on these stores that can be used in an emergency situation, or, no?

So that's a good question. MR. CHRISS: For the sites that have solar at this point, if they only have solar on them, typically we have to shut down the system if there's an outage.

First, we'll -- you know, I mean, we'd have to disconnect from the grid otherwise. if we -- you know, for instance, if we have a backup generator on the site, when that generator turns on, we are auto disconnected from the grid.

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Page 167

Session Date: 12/18/2023

COMMISSIONER TUCKER: Okay.

MR. CHRISS: Safety is a huge issue for utilities, as well as for us. And if we have the generator operating in parallel during an outage, we could -- you know, we don't -- we don't want to hurt any linemen who are out there working to restore the system. So that gets cut off.

And, again, if we put a mobile generator on there, we're also disconnecting from the grid before we ever power up a generator.

So the solar systems, you know, one of the challenges there is that a solar system on its own isn't going to be able to meet the full load of the store, especially if the outage happens at night.

We are beginning to look at deployment of solar, plus storage, which will provide more flexibility in -- in that context, but we're not at the point where we can say that it -- you know, it can do X, Y or Z, in terms of capabilities, but, you know, certainly it can do more than -- than solar on its own for resilience.

> COMMISSIONER TUCKER: Okay. Okay.

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Page 168

Session Date: 12/18/2023

And -- and, I guess, you -- a big box store, most of them have packaged rooftops, and you're in constant rotation.

I mean, you know, there's a change coming from the feds on refrigerant, and you're going to have to start rotating those units out and go to a higher efficiency.

To me, if Duke wanted to incentivize both the residential and the commercial customers, they would have more bill credits, as Mr. Klein mentioned, for upgrading to higher efficiency rooftops or -- and/or residential equipment, because they're going to be telling customers that, you know, the refi- -- refrigerant they're using now, the 410A is going away, and you're going to have to get new refrigerant. And that gives them opportunity to change the units now, as well as rooftops for commercial.

Mr. Klein, you mentioned that there is little or no separation between emergency and nonemergency designation by Duke. Were you looking for time or a decision to be able to make a decision on whether to go offline to help Duke, or there's no delineation between the two?

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Page 169

Session Date: 12/18/2023

to assume that in your statement?

MR. KLEIN: There's not two programs.

They're not two separate programs. When you --

when you opt in, you -- you basically -- or

when -- when you opt in, you are man -- you're in

6 a mandatory program. There's no separation

7 between the two programs on emergency and

8 nonemergency usage.

COMMISSIONER TUCKER: Okay.

MR. KLEIN: So the -- if you have two 10

different tariffs or two different riders that 11

12 allows you to have those separations, that will

13 allow customers to pick and choose which one they

14 would opt into --

15 COMMISSIONER TUCKER: Okay.

16 MR. KLEIN: -- or you could opt into

17 both.

COMMISSIONER TUCKER: So -- but -- but 18

19 you're also saying that higher bill credits would

20 incentivize you certainly to recover some of your

21 cost to be able to help Duke out in higher bill

credits down the road as we endeavor to look at 22

23 Demand-Side Management, right?

24 MR. KLEIN: Yes.

Session Date: 12/18/2023

	Page 170
1	COMMISSIONER TUCKER: Okay. Thank you,
2	Mr Commissioner. That's all I have.
3	COMMISSIONER HUGHES: I think we have
4	some follow-up questions. Chair Mitchell?
5	CHAIR MITCHELL: Mr. Chriss, on the
6	the Florida Interruptible Load Program you
7	mentioned, is that is is you you
8	mentioned I think I heard you say resilience
9	asset or something like that. Is that what you
10	said?
11	And and help me understand what that
12	means.
13	MR. CHRISS: Oh, so, I mean, it just
14	means that we have a backup generator onsite for
15	resilience purposes.
16	CHAIR MITCHELL: And is that as a is
17	that just a a corporate decision made by your
18	employer, or is it as a result of some aspect of
19	state law or regulation?
20	MR. CHRISS: So that's a decision made
21	by Walmart. So we look at, you know, sort of
22	what the what risks are inherent in the
23	operations in that area, you know, and any
24	hurricane zone is going to have those sorts of

Session Date: 12/18/2023

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And then just looking at the broader economics of -- of installation, what the right -- right technology is, that sort of thing.

So that particular program, where -- so it's an interruptable class. So, instead of taking general service, large demand, or whatever the standard tariff would be, were actually on an interruptable service tariff.

And so there's -- it's different rates, plus there's a capacity credit for the generator that goes to those economics.

CHAIR MITCHELL: Got it. Okay. Thank you.

MR. CHRISS: You're welcome.

COMMISSIONER HUGHES: Commissioner

Duffley?

COMMISSIONER DUFFLEY: Just a clarifying question about, are there any runtime constraints with respect to any Company's backup generators?

22 MR. KLEIN: It's a -- it's a fuel 23 constraint.

COMMISSIONER DUFFLEY: Fuel constraint.

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Page 172

Session Date: 12/18/2023

MR. KLEIN: Yeah. Most -- speaking specifically about the -- the asset protections or the generator systems that -- that I -- I oversee, some of them are natural gas.

So as long as natural gas is flowing, they will continue to operate. Most of them are diesel. The -- the larger units are diesel.

Most of those have anywhere between 16 to 30 hours worth of fuel. So as long as natural gas is available, they'll keep running -- or I'm sorry -- as long as diesel is available, they'll keep running.

COMMISSIONER DUFFLEY: Okay. Thank you.

MR. KLEIN: You're welcome.

COMMISSIONER HUGHES: So I had a question just for you-all to -- to look into the future with some of the IRA -- some of the IRA tax benefits.

You know, we talked a lot about the residential impact, but I understand there's also some industrial and commercial benefits. Is that something that is going to change the economics of -- and, similar to what you're talking about,

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Page 173

Session Date: 12/18/2023

you know, things like, you know, the -- the tax credit for storage, for example, that we didn't have before.

You know, are we going to see -- is the Utility actually going to see changes in your facilities as these things get rolled out? MR. CHRISS: I guess, I can -- I can

jump in first. Yeah. I mean, those -- those tax credits do get factored into the economics when, you know, they're looking to -- you know, when

looking at solar, plus storage. The tax credits 12

are definitely a factor in there. 13

> And then to the extent that, you know, they're impacting the economics of any other technology deployment, it will be something that's factored in.

I mean, I think the -- in the -- in terms of the things that the Utility should be looking out for, you know, in terms of taking load off the grid, you know, behind-the-meter technology deployment is going to grow, whether it's for resilience, whether it's for sustainability or some combination thereof.

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Session Date: 12/18/2023

But then on the load-add side, you

2 know, one of the things that we're working on 3 right now is beneficial electrification and, you know, electrifying heat. So that's something 4

5 that's going to come. There's going to be

6 impacts to that.

> We are looking at electrifying transportation. And then back to the -- you know, the point on refrigeration. That's another area of technology change that, you know, may not change how our electric footprint looks, but it certainly, you know, changes our carbon footprint.

> And so, you know, as you're thinking through what are you trying to incentivize, is it merely just saving kilowatt hours, or are you looking at carbon impact as well?

> Because refrigeration would be one or even, you know, electric transportation or, you know, electric heat is one where you're not necessarily -- you know, you may be going the wrong way on kilowatt hours, but you're going the right way on carbon.

> > So what's the goal with the program?

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Page 175

Session Date: 12/18/2023

And that may be something to consider over the next few years.

MR. KLEIN: Generically speaking, the -- the cost-benefit analysis, when -- when stuff like IRA comes out, programs that have been shelved or coming forward, that is one of the things that most companies, if not all companies, are going to look at, is what is -- what is that cost-benefit analysis? And the benefit incentives is part of that.

COMMISSIONER HUGHES: All right. So no predict -- do you have projects on the shelf now that are just waiting -- you know, we're waiting around for these kind of incentives, and -- and they're going to --

MR. KLEIN: Well, there's typically -typically a threshold, where if it doesn't meet this financial requirement, it won't get done, and it'll be put on the shelf. And then as technology improves or incentives come out it lowers that cost. Then the benefit may come up.

Or, as we've seen in North Carolina, as -- as rates continue to creep up, that also would be a factor, because now -- now -- now the

Session Date: 12/18/2023

	Page 176
1	benefit is better.
2	MR. TERRY: And I'll say that CU
3	CUCA is compiling a list of those projects within
4	our members for submission and potential
5	consideration for the IRA when that happens.
6	So, yes, I would say that they're
7	definitely looking at that.
8	COMMISSIONER HUGHES: Okay. That's all
9	I have.
10	Any more questions?
11	(No audible response.)
12	COMMISSIONER HUGHES: Thank thank
13	you very much for a very informative panel.
14	MR. KLEIN: Thank you.
15	MS. LUHR: Commissioner Hughes, I know
16	that the witnesses aren't under oath, because
17	this is a technical conference, but Mr. Chriss
18	and other members of this panel may have
19	transportation to catch.
20	And so I just wanted to let you know
21	would sort of request that it be okay that they
22	be excused?
23	COMMISSIONER HUGHES: Yes, yes.
2.4	Every and they're excused Yes

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Session Date: 12/18/2023

MS. LUHR: Just in the event that you ever were like, we need to call Mr. Chriss back, he has a flight to catch to New York.

COMMISSIONER HUGHES: Yeah.

MS. LUHR: Everybody would like to have meetings this week before Christmas, so he's got, like, four utilities to be in front of. So --

COMMISSIONER HUGHES: Yeah. And we don't have the tether of swearing in that occurred. So we're --

All right. I think we're going to proceed to the Regulatory Assistance Project.

All right. And since -- since a party is not sponsoring you, if you want to give -give a brief introduction of -- of -- of your background when you start that -- I'd appreciate that.

MR. ENTERLINE: Thank you for Sure. having me here this afternoon. My name is Shawn Enterline. I'm a Senior Associate with the Regulatory Assistance Project.

I am an economist by training. I got a Master's degree in resource economics from Penn

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Page 178

Session Date: 12/18/2023

State, and I've spent about two-thirds of my career working for investor-owned and municipal utilities primarily as a resource planner. looking out multiple decades to figure out the mix of resources to serve the load.

The other third of my career has been spent in efficiency and renewables consulting for Vermont Energy Investment Corporation, Dunsky Consults -- excuse me -- Consulting, in Montreal, and -- and more recently with the Regulatory Assistance Project.

I think it's important to mention that we also want to thank the Lawrence Berkeley Labs for making it possible to be here today.

I'm impressed by the caliber of -- of information that's been conveyed today, and so I -- I have a short list of about half a dozen slides that maybe fill in a -- a few gaps, but, more importantly, just reemphasize a few points that I think have already been made well by others.

This first slide is just meant to convey that we've got a task to try and create some symmetry, some equal treatment to put

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Page 179

Session Date: 12/18/2023

demand-side investments on par or equal footing with supply-side resources.

And at a high level we can do that just by looking at how it's been done on the supply side for so many decades and so successfully by picking the objective, reliability, two very shared and transparent performance metrics that measure it, and also a very longstanding recovery mechanism in our traditional cost of service rate recovery.

That's -- that's what we're trying to measure up to and -- and create a balance with when we look at the demand-side of the equation.

And so we don't have to make it up. think the objectives on the demand-side are similar, but -- but not exactly the same.

Reliability, as you know, can be served with demand-side investments, but it's more often my experience that low cost and affordability is -- is the primary objective being sought.

Once you answer that question or questions, what are the objectives, then a series of performance metrics can fall out of it rather naturally.

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Page 180

Session Date: 12/18/2023

And we have both the luxury and the challenge at this day and age of having a lot of choice and a lot of different performance metrics.

And I'll end this presentation with just one example or two from Missouri and Vermont, I think, is where we might end on what they're thinking with respect to performance metrics specifically, because it doesn't take a lot of imagination to know what their objectives are once you see those metrics.

And then, lastly, the recovery mechanism itself is -- is shared. I love the GDS report that the people -- the Public Staff made available, because it shows how much we have in common across different jurisdictions in the U.S.

I'll give you a specific example. Tariff riders and surcharges are by far the most common mechanism to recover these costs for DSM and EE programs.

You still do see examples where traditional cost recovery methods are being used, but they've really been supplanted by tariff

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Page 181

Session Date: 12/18/2023

rider mechanisms.

And, lastly, once we've done this matching game -- I've got a later slide that just has a puzzle piece icon on it to reemphasize the point that we're just drawing a common thread through objectives, through performance metrics, to recovery mechanism.

And then the challenge is to stand back and ask, does this balance? Does the mechanism reward performance in proportion to the value or the benefits that those programs are providing?

The rationale is also common across our jurisdictions. The throughput incentive almost goes without saying, as does the emphasis on capital investment.

It's also common to see a desire for longer-term results over shorter-term results, but frequently you see both. You'll see an example of that later on with Missouri, where they very explicitly called out at a 10-year mark -- marker that they want both.

And so I wouldn't characterize it that you can have your cake and eat it too, but you can certainly pursue a balance of long- and

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Page 182

Session Date: 12/18/2023

short-term investment on both sides of these supply-side, demand-side equations.

This is just a picture that tries to give a sense of how things have evolved over the decades. Prior to retail competition in the '90s, traditional cost of service rates of return mechanisms were used to recover DSM and EE program costs.

As we move forward in time, it's become more common to rec- -- recover them through riders, as -- as I mentioned, and to tie the cost recovery and the incentives that are associated with them to certain thresholds.

They break down into two categories; volume thresholds or kilowatt hours and dollar thresholds, most commonly shared net benefits.

And, as the GDS report also makes very clear, multifactor combinations of these objectives are becoming common. And I think that also speaks to something else we have in common across our states.

It's rare that a statute -- an enabling statute is singular in its charge. There are usually more than one objective of play, and it

Session Date: 12/18/2023

1 2 becomes a balancing act to -- to achieve them all simultaneously.

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So this is just an example of -- of some of the categories of choices. A lot of attention has been paid to volume type objectives.

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And when you choose, for example, first year savings as your volume metric, you can expect shorter-term results.

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On the other hand, lifetime savings, measuring the savings over the course of a piece of equipment's life, you could expect to get much longer-term results.

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And, of course, the middle. This was illuminated in some work in Michigan about ten years ago, is to kind of look at accumulated savings over a multiyear period and try and seek balance that way.

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Net benefits. You're familiar with that, obviously, here in North Carolina. I really should have added another box here, because percent of program costs themselves are -- is very much a coequal measuring stick with respect to dollar measures.

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Page 184

Session Date: 12/18/2023

And then, lastly, hybrids multifactor is at play here as well.

So here's the puzzle piece slide, and we've talked through all of this already. So I want to emphasize a puzzle piece that I probably should have put here and did not.

When you've got an incentive mechanism, you've got a -- a few choices in how you implement it. Far and away the most common is this tiered or sliding-scale approach. You reward more performance, greater performance with greater reward. You have that structure here in North Carolina.

To put a boundary case on it you have all-or-nothing-incentive structures. I'm not aware of any. If you met a threshold, you get all of the money. If you don't, you don't.

But you do see examples of dead bands, where, rather than picking a -- a point estimate for performance, you grab a range, and no money is exchanged within that range. So the dead band is common.

And the last feature is -- is actually more interesting to me, at least, and it concerns

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Page 185

Session Date: 12/18/2023

the symmetry of -- of the performance-incentive mechanism.

Do you use both a carrot and a stick? And if you do, what are their relative sizes and magnitudes? As you'll see in a moment, the -the answer to that balance, at least with respect to this small set of jurisdictions I'm bringing forth today, is -- is that it is asymmetric.

We're more often using carrots to incentivize performance, and that they're -they're larger than the -- the sticks.

Forgive me. That's a busy slide, if I It makes the point that these jurisdictions actually have a lot more in common than they do differences.

Most of them are using tariff riders. The term of their recovery is one year contemporaneous, with the exception of Michigan, which is on a -- kind of an IRP planning cycle.

And cost allocation is typically the program level. That opened my eyes. I was expecting to find more examples of portfolio level cost allocation, but did not.

So, performance metrics, I would

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Page 186

Session Date: 12/18/2023

characterize all these jurisdictions as multifactor, and the incentives are as well. going to the very bottom row, there's a few examples of the structures and how they work.

And the percentages start to speak, not strongly, but they start to speak to the size of the carrot. Somewhere between zero and 20 percent of program cost seems to be the range in these five examples, and they compare pretty favorably, with the exception of Vermont, which is just structurally different.

They have a nonprofit third-party administrator who's earning those -- those performance incentives. Whereas, the other four are investor-owned utilities, and they have -- to get them on par with the supply side you really need to get up around, in my opinion, about whatever the regulated rate of return is on capital, roughly 10 percent.

So I just want to go forward quickly to Arizona, because this is an example of a state that's expressed its mechanism rather simply in that table.

They do have a resource standard there.

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Page 187

Session Date: 12/18/2023

And as -- as the utility reaches closer and closer and then exceeds that threshold, they're giving more and more of a share of the net benefits to the utility subject to a cap, which is listed in the third column.

Missouri is interesting to me. This is Ameren, Missouri's current program. They're in the fifth year of -- of a six year performance period.

And I think we'll probably just end here, because the top four are all program-level metrics. And the first two speak to low-income participants specifically, but a particular aspect, which is depth of savings.

They're basically saying when a building is coming into the program that has low income eligible residents in it, we want to get as much savings during that engagement as we can and not wait till some future year.

So these first two objectives are -are unique, in the sense they're targeting that. That's what they want to have.

The next two are maybe more traditional, in the sense that they're just

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Page 188

Session Date: 12/18/2023

looking at the volume of energy savings for two specific programs; the Home Energy Report and the Residential Lighting Program.

And then we transition to the second half, where you've got portfolio incentives and number five starting to kick in, and then, coincident peak demand savings.

That's speaking to the reliability benefits, in my mind, at least at a high level that these programs can provide.

And I want to point out that 10-year break point. They want those savings for both measures that are short lived and much longer lived.

So it's an example of a jurisdiction that, like North Carolina, has a similar market structure. It's not retail competitive, investor owned, but it's chosen to refine their look and objectives as they design their program.

And I'll just end on -- on a very high-level slide. This is analogous to Duke's portrayal of -- of the three-legged stool. left-hand side of this are those three legs, stated somewhat differently.

Page 189

Session Date: 12/18/2023

	Page 109
1	And the right-hand side, as practiced
2	in North Carolina, as I understand it, is
3	primarily looking at the utility benefits, but
4	there are other benefits that are accruing.
5	Whether or not we choose to measure
6	them is a different issue. And, of course, you
7	want to tip that scale always to the right.
8	Thank you.
9	COMMISSIONER HUGHES: Thank you very
10	much. Let me see if there's any questions.
11	Commissioner McKissick?
12	COMMISSIONER McKISSICK: Yeah, I was
13	intrigued by Missouri's approach. Now, to what
14	extent has have you had a chance to observe
15	how it has actually operationally worked?
16	I think you said it's been in operation
17	for about five years. Is that what you
18	indicated? Or how how long has it been?
19	Maybe I should start my question there.
20	MR. ENTERLINE: The performance period,
21	if I recall, is 2018 to 2024. So
22	COMMISSIONER McKISSICK: Okay.
23	MR. ENTERLINE: That's the we're in
24	the fifth of five years.

Page 190

Session Date: 12/18/2023

1	COMMISSIONER McKISSICK: And have you	
2	observed it or looked at it closely to examine	
3	its effectiveness, how it functions, how it's	
4	operated?	
5	I mean, I see the metrics there, and	
6	they they're interesting. They intrigued me.	
7	You know, and the way they're established, and	
8	and, likewise, you know, if you sit here, you	
9	look at the potential for about 20 percent of	
LO	program budget for meeting eight of the	
L1	performance metrics.	
L2	I mean, of course, that's eight of	
L3	them. That's an awful lot, but but what have	
L4	you seen? Could you share more insight about	
L5	that Missouri approach?	
L6	MR. ENTERLINE: I wish I'd asked the	
L7	direct question of the staff person I was	
L8	speaking to, because I I did not ask	
L9	specifically	
20	COMMISSIONER McKISSICK: Okay.	
21	MR. ENTERLINE: how those	
22	performance metrics are going.	

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If I may, a colleague of mine just published a wonderful paper this past month on a

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Page 191

Session Date: 12/18/2023

more broad topic of performance-incentive mechanisms, and had a mixed but positive message to deliver on this topic.

So the mixed message is the performance-incentive mechanisms at the PBR level, the whole performance-based ratemaking universe hasn't been well evaluated, and it's hard to draw strong conclusions on to how effective they are.

But the other half of the message was -- was more optimistic, and it was targeted at energy efficiency and DSM programs. Within that frame --

> COMMISSIONER McKISSICK: Yes.

MR. ENTERLINE: -- utilities do meet their performance metrics most of the time. So I could forward that paper along to you to give you the general conclusion, and, of course, follow up with Missouri with the specific, if you would like.

COMMISSIONER McKISSICK: If you could provide more information --

MR. ENTERLINE: Okay.

COMMISSIONER McKISSICK: -- more

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Page 192

Session Date: 12/18/2023

specific, that would be helpful.

Thank you. That's about it.

COMMISSIONER HUGHES: Okay. On that -just one -- one question. On that last slide you had societal benefits. That's come up in North Carolina, you know, and we -- we refer to it as nonenergy -- nonenergy benefits.

Have you come across a state that's been able to kind of wrangle that into, you know, formulas and -- and things that people can agree on?

Because, you know, that to me seems the challenge, of when they're nonmonetary, you know, how do you -- how -- you know, do have to go through a whole -- with your economics background, do you have to go through a whole economic effort to figure out what these are, or, you know, are there any states that we can look at that is wrapped into their incentives?

MR. ENTERLINE: Yeah, I'm most familiar with New England's. And so the answer is that region, those six states, Commission avoided -and avoided cost study every three years.

So the states kick in collectively.

Session Date: 12/18/2023

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They hire an independent group of consultants, and they not only look at the avoided cost of energy and capacity and ancillary services, but they get right into the societal cost of carbon and put estimates on that.

So every three years you're getting a refresh on that value in that region. And they -- they go even deeper into the non-energy benefits. I believe health is in there.

So, yeah, it's hard work and quantitative in its results, but informed by judgment and experience during the process. It's challenging.

COMMISSIONER HUGHES: Well, thank you for that example.

Any other questions?

(No audible response.)

COMMISSIONER HUGHES: Well, thank you very much for -- for coming out, and I really appreciate it.

Okay. I think that brings us to our last presentation for the day. NCSEA, you get to do cleanup.

MR. SOMELOFSKE: Thank you,

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Page 194

Session Date: 12/18/2023

Commissioner	Hughes.
COMMITTER	1100-1100

2 At this time NC -- NCSEA will present 3 Daniel Pate.

> THE COURT REPORTER: Sir, could I have your name?

MR. SOMELOFSKE: Oh, sorry. Justin Somelofske, with NCSEA.

COMMISSIONER HUGHES: Thank you very much.

The floor is yours.

MR. PATE: Hello, Commissioners. name is Daniel Pate. I am the Director of Data and Research at NCSEA, the North Carolina Sustainable Energy Association, and I'm going to talk a little bit briefly about previous stakeholder engagements with Duke Energy.

I don't have slides. I'm just going to use notes here. And, also, these details are in the filing that we did earlier today.

I've been involved previously with the Duke Energy Energy Efficiency/Demand-Side Management collaborative, which I know was mentioned earlier by Mr. Duff and others.

So this is a key venue, as you-all may

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Page 195

Session Date: 12/18/2023

know, for collaboration between utilities and stakeholders, where the objective is to work towards implementing customer programs that achieve significant energy savings, and also the stakeholders are very interested in addressing energy burden.

So this is a group where the stakeholders are comprised of nonprofit advocates, local governments, and other organizations.

These are bimonthly calls. Duke Energy sets up this platform, where there's two-way communications, and they present -- they -- we discuss new ideas.

Also, we review current programs, and then we also review evaluation, measurement and verification, EM&V. And, also, there are program managers there to answer questions from the stakeholders.

I also led the -- I was the liaison for the Tariffed OnBill Working Group that took place from May 2021 to September 2022. Also, I was briefly involved with the low-income affordability collaborative, and then I was also

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Page 196

Session Date: 12/18/2023

part of the residential income qualified high energy use pilot, where that comprised of a subset of the collaborative that worked directly with Duke to design that pilot that was approved recently.

So I'm just going to provide some -some key takeaways from my experience in the -in the stakeholder collaboration process that I feel like are -- they're helpful for looking at the stakeholder process moving forward.

And I think this is really what was key to getting a lot out of the stakeholder engagement processes.

So historically, what's really been the linchpin for effective collaboration between Duke Energy and the stakeholders is when Duke Energy demonstrates the commitment to working closely with the stakeholders, they support the ideation process.

We talk out new ideas, and then we also work towards deliverables outcomes that meet as many of the common objectives as possible. we've seen this to be the case the most when it is an initiative that is ordered by the

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Page 197

Session Date: 12/18/2023

Commission.

And, also, it helps when the Commission provides some details on the -- on the requirements, on how the group should work together and also what the outcomes are.

It's also been really helpful to have these relationships have been established in the collaborative, which have been developed over the years.

This goes both ways. I think Duke Energy has learned about the issues that have really been significant to the stakeholders. Particularly energy equity focus issues and trying to help those who really face high energy burden throughout the State.

And then, also, I think stakeholders have learned a lot about the -- a utility business model and also about building science practices and other technical practices, so that when stakeholders come to the Utility or to the Commission with an idea, they know that it's a pretty sound idea, and it's something to work with upfront.

And then, also, I'll just add, in terms

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Page 198

Session Date: 12/18/2023

of the initiatives that are focused on a specific program, such as the Tariffed OnBill Working Group, and also the high-energy pilot.

I feel like it's been really helpful to designate a -- a liaison, who is from the stakeholder group, not from the Utility, but there's someone who -- who understands the interest of both parties and also they have a good grasp of the fundamentals of the utility program that's being designed.

I feel like this is really helped with aligning the strategies of the respective groups. Also, the liaison is able to vet ideas from the respective groups before there's a -- a pitch to the full group.

And there's -- the liaison can kind of serve as some input on how the other group may accept that idea or -- or discuss that idea. then, also, this liaison ideally would be able to provide kind of a project management approach.

Like they would be helping with leading facilitating of the meetings. They would be organizing the -- the central folder. They would be just handling a lot of the administrative

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Session Date: 12/18/2023

aspects of the working group process, so that everything is just generally more organized.

So I think that's the gist of what I wanted to talk with you about today. And I am open to answering any questions that -- that any of you have.

COMMISSIONER HUGHES: Thank you very much.

> Questions? Questions? (No audible response.)

COMMISSIONER HUGHES: So maybe you can explain just really briefly the -- the difference mechanically how -- how the -- the collaborative is working versus the stakeholder process.

Are you seeing a lot of new faces? there -- you know, is it -- just -- just briefly.

MR. PATE: Yeah. And I think you're asking to make a tie between the collaborative and -- and the mechanism review stakeholder process.

COMMISSIONER HUGHES:

MR. PATE: So I haven't been that involved with the -- the mechanism review process. I've heard from my cohorts that a lot

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Page 200

Session Date: 12/18/2023

of those same practices that are being done in the collaborative, because they have worked well, they're also being done in the mechanism review stakeholder process.

So what I'm reporting on these processes, I feel like, is what has worked well and what I have been involved with and recommend those processes and the stakeholder groups moving forward, including the mechanism review stakeholder process.

COMMISSIONER HUGHES: Okay. And then, just to clarify, when you were talking about how helpful this sort of intermediary was, are you talking about someone nominated from the group, or are you talking about, like, a third-party consultant or somebody that's -- that's brought in that's outside of -- of the --

MR. PATE: Yeah.

COMMISSIONER HUGHES: -- of the organization?

MR. PATE: Ideally part of the stakeholder group. So I was liaison for the Tariffed OnBill, and, just hearing from others, I think that they said that it helped them to have

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Page 201

Session Date: 12/18/2023

someone who knew about Tariffed OnBill and also had the relationships with Duke Energy and could go back and forth among the -- the two groups.

So, you know, not to say an outsider or third-party wouldn't work, but I think it's very helpful to have someone who had that knowledge of the stakeholder interest and also to -- to have a familiarity with how the business model at Duke Energy worked generally.

COMMISSIONER HUGHES: Okay. Thanks for -- for clarifying that.

Okay. I think -- I think you're off the hook. Thank -- thank you very much.

And that -- that actually brings us to the last presentation of the day. I think we can give you back a little bit of time for your day.

Just a -- a few followups. We did have some offers today to provide additional information to the Commissioners.

If there was a very specific question -- we're not looking for tangential information, but if there's a very specific question that a Commissioner asked, and you do have more information on that -- on that

Page 202

question, please, feel free to submit that into the -- into the Docket as a -- as just a followup to a question.

Recognizing that we also have a deadline coming up for verified comments so, obviously, that's where we expect you to cover more of the material and more of your positions.

So I think, with that, I'll call this technical conference adjourned. Thank you so much.

(The hearing adjourned at 4:46 p.m. on Monday, December 18, 2023.)

Session Date: 12/18/2023

Page 203 1 CERTIFICATE OF REPORTER 2 3 STATE OF NORTH CAROLINA 4 COUNTY OF DURHAM 5 6 I, Lisa A. DeGroat, RPR, the officer before whom 7 the foregoing proceedings were taken, do hereby 8 certify that the proceedings were taken by me to the best of my ability and thereafter reduced to 9 typewriting under my direction; that I am neither 10 counsel for, related to, nor employed by any of the 11 parties to the action in which these proceedings were 12 13 taken, and further that I am not a relative or 14 employee of any attorney or counsel employed by the 15 parties thereto, nor financially or otherwise interested in the outcome of the action. 16 17 This the 31st day of December, 2023. 18 19 20

> LISA A. DeGROAT, RPR Notary Public #19952760001

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