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April 15, 2024

Via Electronic Filing
Ms. A. Shonta Dunston
Chief Clerk
North Carolina Utilities Commission 4325 Mail Service Center
Raleigh, North Carolina 27699-4300

Re: Docket Nos. E-100, Sub 179; E-2, Sub 931; and E-7, Sub 1032
Review of Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC's EE/DSM Mechanisms

Dear Ms. Dunston:

On behalf of the Carolina Industrial Group for Fair Utility Rates II ("CIGFUR II") and the Carolina Industrial Group for Fair Utility Rates III ("CIGFUR III") (together with CIGFUR II, "CIGFUR"), please accept this letter as confirmation that the undersigned will appear on behalf of CIGFUR and make herself available for questions the Commission may have during the Technical Conference scheduled in the above-referenced dockets to occur on April 22, 2024.

In addition, this letter provides information responsive to the Commission's April 5, 2024 *Order Scheduling Technical Conference* ("April 5, 2024 Order"). More specifically, this letter provides information responsive to the Commission's directive that parties representing non-residential customers' interests "should make a presentation on [whether, and if so, how, to what extent, and under what timeframe are the Proposed Mechanisms expected to reduce the number of non-residential DSM opt-outs moving forward]."[1]

By way of background, the Commission issued an order October 20, 2020, approving the demand-side management ("DSM") and energy efficiency ("EE") mechanisms ("Mechanisms") currently in effect for Duke Energy Progress, LLC ("DEP") and Duke Energy Carolinas, LLC ("DEC") (together with DEP, "Duke Energy" or the "Companies").

Throughout 2021, Duke Energy facilitated its Comprehensive Rate Design Study ("CRDS"), during which non-residential customers and customer groups expressed significant interest in new, expanded demand response program offerings for non-residential customers. For example, on October 12, 2021, CIGFUR, together with a representative of one of its member companies, presented to the CRDS' Non-Residential Working Group on Southern California Edison's Time-of-Use Base Interruptible Program and related Emergency Load Reduction Program. The slide deck jointly presented on

[1] April 5, 2024 Order at Ordering Paras. 3 and 1(b).

behalf of CIGFUR and Messer Americas is attached hereto and identified as Attachment A.

Throughout 2022, Duke Energy's initial proposed Carbon Plan was litigated in Docket No. E-100, Sub 179. During that proceeding, CIGFUR advocated to strengthen and expand Duke Energy's suite of non-residential demand response programs, providing concrete suggestions for new and improved demand response offerings and asserting that the Companies' demand response programs are an under-utilized resource because Duke Energy to date has not developed demand response programs attractive enough to incent participation by non-residential customers who are presently opted out of DSM/EE Program participation and the corresponding cost recovery riders. For example, CIGFUR filed Comments in Docket No. E-100, Sub 179, once again advocating in support of a demand response program mirroring Southern California Edison's Time-of-Use Base Interruptible Program and related Emergency Load Reduction Program.[2] In addition, CIGFUR sponsored the testimony of Michael P. Gorman in Docket No. E-100, Sub 179, in which witness Gorman testified, among other things, that "without an emergency demand response program similar to that offered by Southern California Edison through its Base Interruptible Program ('BIP') and corresponding Emergency Load Reduction Program ('ELRP'), flexible industrial load will continue to be an under-leveraged demand-side resource."[3]

The 2022 Carbon Plan litigation culminated in the Commission's December 30, 2022 *Order Adopting Initial Carbon Plan Providing Direction for Future Planning* ("Carbon Plan Order") issued in Docket No. E-100, Sub 179. In the Carbon Plan Order, the Commission expressly directed Duke "to focus on expanding the pool for [DSM/EE] savings by developing programs aimed at reducing the number of DSM/EE opt outs."[4] Elsewhere in the Carbon Plan Order, the Commission ordered the Companies "to explore avenues to increase load reduction by implementing new DSM/EE programs, implementing EE and load reduction programs for wholesale customers, and reducing the number of non-residential customers that [] have opted out of the DSM/EE program."[5]

On September 15, 2023, CIGFUR filed in these dockets a 14-page Response to the Public Staff's Motion and Request for Further Relief ("Response"). In that Response, CIGFUR informed the Commission that, among other things, "[t]o date, the Companies have not proposed new DSM/EE programs and/or modifications to existing DSM/EE programs consistent with CIGFUR's feedback to potentially enable additional EE/DSM program participation by non-residential customers."[6] Interestingly, on October 9, 2023—a little over three weeks after CIGFUR's September 15, 2023 Response filing in these dockets—

[2] *See, e.g.*, Comments of CIGFUR II and III, at Para. VI.a., Docket No. E-100, Sub 179 (July 15, 2022) (internal citations omitted).

[3] Pre-Filed Direct Testimony of Michael P. Gorman on behalf of CIGFUR II & III, Docket No. E-100, Sub 179 (Sep. 2, 2022).

[4] Carbon Plan Order, at 110.

[5] *Id.* at Ordering Para. 28.

[6] CIGFUR's Response In Support of Public Staff's Motion for Procedural Relief and Request for Further Relief, at 5, Docket No. E-7, Sub 1032; Docket No. E-2, Sub 931; Docket No. E-100, Sub 179 (Sep. 15, 2023).

DEC filed proposed modifications to the PowerShare® Nonresidential Load Curtailment Program in Docket No. E-7, Sub 1032. The undersigned was neither provided an opportunity to review the proposed revisions, nor to provide feedback regarding same in advance of DEC's October 9, 2023 filing proposing modifications to the PowerShare® Program.

On November 17, 2023, CIGFUR III filed comments in Docket No. E-7, Sub 1032, noting in pertinent part that

> While CIGFUR III appreciates that the Company was receptive to some of its feedback [provided to Duke Energy through the Comprehensive Rate Design Study and various other stakeholder processes and channels], CIGFUR III notes that it would have been helpful if the Company had provided CIGFUR III an opportunity to review these proposed program modifications and provide feedback in advance of filing these modifications for Commission approval in this docket. In the future, CIGFUR III hopes the Company will discuss proposed new or modified non-residential demand response programs with CIGFUR III and its member companies before filing same for Commission approval.[7]

CIGFUR III further reiterated program modification suggestions for which it has been advocating for over three years now, including primarily that Powershare® should be modified to incorporate (1) a tiered structure with a value differential in the bill credits reflecting the relative benefits provided to the system at different notice intervals; and (2) for the economic (i.e., non-emergency) curtailment option to function independently from the Mandatory Curtailment Option in order to enable non-residential customers with different load profiles and usage needs to participate in either or both program options, thus maximizing potential participation. Without these two important modifications, CIGFUR indicated in its November 17, 2023 Comments filed in Docket No. E-7, Sub 1032 that it did not support DEC's proposed Powershare® Program changes as filed.

On December 11, 2023, DEC filed reply comments, insinuating that CIGFUR was "aware" of the proposed Powershare® Program modifications before filing because they had purportedly been discussed conceptually as a possible future program modification during conversations between DEC and CIGFUR that occurred over 15 months prior, in August 2022, and because such concepts were discussed during the EE/DSM Collaborative in meetings held in July and September 2023.[8] DEC also stated in its Dec. 11, 2023 Reply Comments that the Company considered—but ultimately rejected—CIGFUR III's requested program modifications related to tiering and value differential of bill credits relative to the notice intervals selected by the customer as the timeframe within which a customer can safely and operationally shed load, which will of course be highly variable as between any two non-residential customers. **Importantly, DEC then stated**

[7] Comments of CIGFUR III, at 2, Docket No. E-7, Sub 1032 (Nov. 17, 2023).

[8] *See, e.g.*, Duke Energy Carolinas, LLC's Reply Comments, Docket No. E-7, Sub 1032 (Dec. 11, 2023).

> However, **once the DSM/EE Mechanism review is complete,** the Company will revisit CIGFUR III's recommendation to determine whether a tiered program structure would achieve cost-effectiveness under the updated DSM/EE Mechanism. The Company will share the results of the review with CIGFUR III and more broadly with stakeholders in a future Collaborative meeting.[9]

As CIGFUR's counsel has noted on multiple occasions, attorneys are not permitted to participate in the Collaborative, thereby preventing CIGFUR's chief advocate—its counsel—from advocating on its behalf. As the Commission is aware, the Proposed Mechanisms in these dockets would alter the language applicable to the Stakeholder Collaborative process. CIGFUR hopes these changes will be sufficient to enable more meaningful participation by non-residential customers and/or their advocates in future EE/DSM Collaborative sessions. However, should there continue to be a lack of interest by non-residential customers in the participation of future iterations or existing and/or new demand response programs should the Proposed EE/DSM Mechanisms be approved as proposed, the Commission may want to consider additional modifications to the Stakeholder Collaborative process in the future; namely, that (1) the Collaborative hold bifurcated meetings, with one set pertaining to residential customers and the other pertaining to non-residential customers; and (2) attorneys be permitted to participate in any such non-residential Collaborative that may be initiated.

More broadly, CIGFUR stresses that its support (or abstention, depending on the issue) to proposed modifications to the DSM/EE Mechanisms is provided in large part because the Companies have indicated that the programmatic modifications/expansions to the demand response suite of non-residential programs CIGFUR has been seeking for over three years at this point are not possible **without first obtaining changes to the DSM/EE Mechanisms**. In other words, the Companies have portrayed the Mechanism changes as a condition precedent, a prerequisite that must first be achieved before the Companies will be able to propose new and modified demand response programs that will hopefully be attractive enough to incent non-residential customers' participation in the DSM Rider. For this reason, CIGFUR encouraged fast-tracking this issue in the overall Mechanisms review process because it understood the Mechanisms review process to be a hurdle that must be overcome ***before*** the existing program modification and/or new program development/design stage can finally begin, at least according to Duke.

Upon information and belief, DEC's proposed Powershare® modifications remain pending before the Commission in Docket No. E-7, Sub 1032. Because such modifications have already been filed and are pending before the Commission, CIGFUR respectfully requests that the Commission direct Duke to engage non-residential customers and their advocates, including attorneys, in meetings held separate and apart from, and in addition to, the DSM/EE Collaborative for the purpose of designing and proposing new and modified demand response programs that CIGFUR hopes will be attractive to non-residential customers who are currently opted out from participating in utility-administered DSM/EE

[9] *Id.* at 4-5 (emphasis added).

programs.

CIGFUR trusts that the Companies have been engaging in good faith when they have repeatedly represented to CIGFUR and other parties that the Mechanism changes are a necessary first step before Duke Energy is willing/able to implement the existing demand response program modifications and/or new demand response programs CIGFUR has been requesting for over three years. To that end, CIGFUR is cautiously optimistic that the Companies will act expeditiously upon receiving Commission approval of the Proposed Mechanisms to evaluate, develop, and implement new/modified DSM programs for non-residential customers. However, increased participation is only achievable if Duke Energy develops and implements programs attractive to non-residential customers. CIGFUR looks forward to engaging constructively with Duke Energy in the coming months with this end goal in mind, and hopes Duke Energy will work as quickly as possible to expand and improve its suite of non-residential demand response programs.

CIGFUR appreciates the opportunity to participate in this docket and its counsel will be available to answer any questions the Commission may have at the upcoming Technical Conference. CIGFUR likewise appreciated the opportunity to present during the previous Technical Conference held in December 2023 regarding these dockets, and incorporates its slide deck by reference hereto with respect to suggestions for developing demand response programs attractive to non-residential customers.

Please contact me directly should you have any questions.

Best regards,

/s/ Electronically Submitted
Christina D. Cress
Counsel for CIGFUR

cc: Parties of Record

CERTIFICATE OF SERVICE

The undersigned hereby certifies that she caused the foregoing letter to be served upon counsel of record for all parties to this proceeding, consistent with the Service List maintained by the NCUC Chief Clerk's office, by electronic mail.

This the 15th day of April, 2024.

/s/ Electronically Submitted
Christina D. Cress

SOUTHERN CALIFORNIA EDISON'S TIME-OF-USE BASE INTERRUPTIBLE PROGRAM (TOU-BIP)

STEVE CASTRACANE, CEP, MANAGER – ENERGY & REGULATORY AFFAIRS, MESSER AMERICAS

CHRISTINA CRESS, COUNSEL TO CIGFUR

NICK PHILLIPS, PRINCIPAL, BRUBAKER & ASSOCIATES (CIGFUR)

DUKE ENERGY RATE DESIGN STUDY – NON-RESIDENTIAL WORKING GROUP SESSION 3

OCTOBER 12, 2021

CASE STUDY: MESSER AMERICAS
STEVE CASTRACANE
MANAGER – ENERGY & REGULATORY AFFAIRS

Who we are:

- Messer is the largest privately held specialty gas manufacturer
- Some of the primary gases we produce include oxygen, nitrogen, argon, helium, and hydrogen
- We are based in Germany operating worldwide with plants across the United States
- Our products are used in Hospitals, Healthcare, Chemical, Pulp & Paper, Metals, Electronics, Environmental, Food & Beverage, and Energy

Introduction to Messer Americas (YouTube)

BIP PROGRAM OVERVIEW – KEY BENEFITS

- An important Interruptible Power Curtailment DR program used by the utility and ISO to keep power flowing to our communities, lowering costs across all ratepayers, and reaching state-wide carbon reduction initiatives
- Participating large power customers agree to remain under a predetermined load level when called upon – Firm Service Level (FSL)
- Integral part of the State's resources to maintain grid reliability and meet Resource Adequacy
- Provides grid system relief during times of either or both Supply and T&D constraints
  - Proven success in reducing rotating outages for other customers during critical times
  - Compliments economic programs and price trigger structures such as HP, RTP, TOU
- Critical role to support variable output from growing mix of renewable power
  - Growing value as fossil fuel plants retire and cost of fuel increases for marginal units and wholesale supply
- Provides cost savings for all customers across all rate classes regardless of participation
  - helping avoid need for additional off system purchases, utility investments in generation, substations, transmission, distribution, and infrastructure
- Avoids added GHG emissions from mitigating need for peaking units
- Customers are issued a monthly bill credit in exchange for giving the utility the call-option for this quick load reduction resource under predefined system triggers regardless on events called
  - Credit is commensurate with response time (i.e. 15 minute and 30 minute options)

SCE'S TOU-BIP PROGRAM OVERVIEW

- A TOU-BIP interruption event may occur when:
  - SCE receives a request from CAISO to reduce load for emergency purposes
  - SCE is responding to a local system emergency
  - Program testing or evaluation (usually one test TOU-BIP event per year)

- TOU-BIP interruption events can occur at any time, 24/7/365, subject to the following limitations:
  - One TOU-BIP event per day (up to 6 hours in duration)
  - 10 TOU-BIP events per calendar month
  - 180 hours per calendar year

WHAT HAPPENS WHEN A TOU-BIP EVENT OCCURS?

- Periods of extremely high demand or emergency circumstances may strain the electrical system and cause energy costs to rise.

- When energy supplies are expected to run low, SCE can call the load of customers who have opted in to its TOU-BIP program, providing relief to the electrical system.

- In exchange for temporarily reducing energy usage, participating customers have the potential to earn monthly bill credits.

CUSTOMER'S OBLIGATIONS & POTENTIAL PENALTY

- When a TOU-BIP interruption event occurs, the customer is notified that it has 15 or 30 minutes (based on the option selected by the customer at time of enrollment) to reduce its electrical usage to the customer's Firm Service Level (FSL), which is an amount selected by the customer.

- If the customer exceeds its FSL during a TOU-BIP interruption event, it will incur Excess Energy Charges, which vary based on the customer's voltage level and whether the 15- or 30-minute participation option was selected at time of enrollment.

ENROLLING & UNENROLLING

- Eligible customers may enroll at anytime.
- Participating customers may unenroll during the annual adjustment windows.
- Participating customers may also change their Firm Service Level (FSL) during the annual adjustment windows.

CUSTOMER / PARTICIPATION ELIGIBILITY CRITERIA

- Current SCE customer with monthly demands ≥ 200 kW
- On a TOU or RTP rate schedule
- Ability to reduce ≥ 15% of maximum demand (≥ 100 kW) during each interruption event
- Have an interval meter for billing and monitoring purposes (SCE will pay for such meter for eligible customers)
- Select an FSL
- Select a 15- or 30-minute notice window for interruption events
- Submit a contract for interruptible service

HOW TOU-BIP CREDITS ARE CALCULATED

- Participating customers receive monthly bill credits based on the difference between the customer's average peak period kW demand for each month and the customer's FSL.
- Credits vary depending on season, time of day (on-peak or mid-peak), voltage level, and other factors.
- Credits apply whether or not TOU-BIP interruption events are called in a given month.
- Excess energy charges apply only when TOU-BIP Customers fail to reduce load to their designated FSL (as set and selected by the customer)

TOU PERIODS UNDER TOU-BIP

TOU Period	Weekdays		Weekends and Holidays	
	Summer	Winter	Summer	Winter
On-Peak	4 p.m. - 9 p.m.	N/A	N/A	N/A
Mid-Peak	N/A	4 p.m. - 9 p.m.	4 p.m. - 9 p.m.	4 p.m. - 9 p.m.
Off-Peak	All other hours	9 p.m. - 8 a.m.	All other hours	9 p.m. - 8 a.m.
Super-Off-Peak	N/A	8 a.m. - 4 p.m.	N/A	8 a.m. - 4 p.m.

CASE STUDY: MESSER'S EXPERIENCE PARTICIPATING IN TOU-BIP DEMAND RESPONSE PROGRAMS

- Overall Messer has had a great experience participating in SCE's TOU-BIP demand response programs
- "No Free Lunch"
  - Participating in these programs requires more proactive and sophisticated operational planning and emergency response preparedness at our facilities on a 24/7/365 basis, in addition to added shut-down costs to Messer's facilities
  - Penalties to ensure that participating customers show up when called upon to provide load reduction in times of strain on the grid
  - Nevertheless, Messer is glad to play an important role in the resource adequacy mix for SCE's service territory, helping to improve system reliability and lower costs for all ratepayers (by lowering the planning peak and reserve margins).

CASE STUDY: MESSER'S EXPERIENCE WITH TOU-BIP, CON'T.

- SCE's Demand Response program offerings (through TOU-BIP specifically) are high incentive, but also high penalty to ensure that participating customers can be relied upon to reduce load in times of need

- The amount of flexibility in the TOU-BIP program (annual adjustment windows) seems just right to Messer
  - We understand that if the utility offers too much flexibility in these sorts of programs, there will be fewer or no reliability or resource adequacy benefits to the system.

CASE STUDY: MESSER'S EXPERIENCE WITH TOU-BIP, CON'T.

- Using 2020 as an example, Messer's load was called 5 times last summer due to lower than forecasted renewable generation output, wildfires, down transmission lines, etc.

- As we move forward with the Energy Transition away from fossil fuel and towards cleaner energy sources, industrial customers have an important role to play in resource adequacy and demand response.

- Messer would like to see Duke Energy offer demand response programs much like the TOU-BIP program offered by SCE.

Questions?

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