

Jarvis, Lynn

From: BH_NCUC18@mailbox255.com
Sent: Friday, August 10, 2018 3:26 PM
To: Jarvis, Lynn
Cc: Tim.Dodge@PSNCUC.NC.gov; Lucy.Edmondson@PSNCUC.gov; 'Andrew McAfee'; BH_NCUC18@mailbox255.com
Subject: NCUC: Duke: SmartMeter Opt-Out: Statement Of Position + Exhibits...
Attachments: NCUC_Duke_SmartMeters_StmtOfPosition+Exhibits_FromWmHarper_20180810.pdf
Importance: High

Ms. M. Lynn Jarvis
Chief Clerk
North Carolina Utilities Commission
<mailto:LJarvis@NCUC.net>
919-733-0839

Dear Ms. Jarvis:

Attached, you will find my detailed "Statement of Position" regarding DOCKET NO. E-7, SUB 1115 that is before the Commission in the Matter of Application of Duke Energy Carolinas, LLC, ("DEC") for Approval of Advanced Metering Infrastructure Opt-Out Tariff.

While this respectfully was drafted for the Commission's review and consideration, it also was prepared for the DEC "customer class" where I wanted it to be completely "self-contained" to simplify the review for interested consumers without them having to retrieve previously filed documents.

As such, it is long. However, pages 1-7 contain the substance of this Statement while the rest of this document contains the supporting exhibits, most of which the Commission and Public Staff are quite familiar with.

Again, your assistance posting this to the public record and everyone's patience with this delayed filing, truly is appreciated. Thank you so much!

Sincerely,

Bill Harper
Petitioner

Greensboro, NC
BH_NCUC18@mailbox255.com
336-202-8082

<<NCUC_Duke_SmartMeters_StmtOfPosition+Exhibits_FromWmHarper_20180810.pdf>>

OFFICIAL COPY

Aug 10 2018

From The Desk Of:

William Harper

Greensboro, North Carolina
BH_NCUC18@mailbox255.com
336-202-8082

VIA ELECTRONIC FILING

AUGUST 10, 2018

PUBLIC STAFF

Christopher J. Ayers, Executive Director
919-733-2435

David. T. Drooz, Chief Counsel

Tim R. Dodge, Staff Attorney
Tim.Dodge@PSNCUC.NC.gov
919-733-0881

Lucy Edmondson, Staff Attorney
Lucy.Edmondson@PSNCUC.gov

4326 Mail Service Center
Raleigh, North Carolina 27699-4300
Main Phone: 919-733-6110

NORTH CAROLINA UTILITIES COMMISSION

Edward S. Finley, Jr., Chairman
finley@ncuc.net

M. Lynn Jarvis, Chief Clerk
LJarvis@NCUC.net
919-733-0839

4325 Mail Service Center
Raleigh, NC 27699-4300

Commission-side:
866-380-9816 or 919-733-4249

RE: Docket #: E-7 Sub 1115: Duke Energy Carolinas, LLC's, Request for Approval of Advanced Metering Infrastructure ("AMI") Opt-Out Tariff and its "Waiver Letter" "Program" Enclosed Supporting Exhibits 1 Through 5

NOW COMES WILLIAM HARPER ("Petitioner") and Duke Energy Carolina ("DEC") customer of 17+ years, to respectfully submit this **Consumer Statement of Position** ("CSP") in strenuous objection with two critically vital issues in DEC's proposed responses to the June 22, 2018 North Carolina Utilities Commission (the "Commission") Order in Docket Number E-7 Sub 1115 ("E-7 Sub 1115") **not** stipulated as such and evidenced by supporting Exhibits herewith; **specifically: 1)** DEC's August 2, 2018 proposed and non-compliant **[non-]"Medical Release Form and Physician Verification"** filing **now** requiring customers **to release** their personal medical records to DEC; and, **2)** DEC's July 24, 2018 proposed and unapproved "Compliance and Implementation" filing **now** requiring an **"Annual Renewal"** for their "one-year term", Opt-out, Manually Read Meter Rider ("Rider MRM") **[non-]"Medical Waiver Letter"**.

If the Commission approves those DEC proposed responses as-is, the original understanding of the "spirit", intent and "letter of the law" of the Smart Meter **[non-]"Medical Waiver" "Program" for all "Opt-out" North Carolina DEC customers** will not be honored, nor aligned, with the June 22nd E-7 Sub 1115 Order nor the written and oral representations made to Petitioner by various DEC Customer Service Staff as supported by the attached Exhibits and Petitioner's personal, real-time, "phone notes".

PETITIONER'S INTENT, CREDENTIALS and PLEA TO DEC CUSTOMERS:

It is the sincere intention ~ for the "greater good" of all North Carolina DEC customers ~ of Petitioner advocating against mandated Smart Meters to remain professional, respectful, factual, objective, fair, reasonable and explicitly clear, to the best of his ability, while drawing upon his formal education in engineering and 30+ years in corporate executive / staff consulting (financial justification, risk management, workflow systems, software architect {CRM, ERP, GAAP Standard accounting}, HR team-building, HR leadership training) and "contract law" in order to maintain a "common-sense" perspective on this matter. As such, DEC's filings noted above are taken **literally** per the "**letter of their proposed contracts**". While not an attorney, Petitioner was "pre-law" prior to choosing engineering and has a **15+ year "paralegal", layman background in "contract law"** with a broad understanding of the usual and customary "elements" in valid legal contracts. Petitioner received this informal education and training from James J. Branagan, Senior Counsel of TRW, Inc., Petitioner's corporate attorney for his small S-Corp business during said 15-year time period (evidence available upon legitimate request). As such, Petitioner has researched, drafted and submitted numerous "legal briefs" and private "petitions" to opposing counsel and to city / county courts presiding over various business and personal matters.

It is hoped fellow NC DEC customers will gain a clarifying understanding of the issues at hand from this "self-contained" document in order to feel confident contributing their shared opinions on this matter as the "Stop Smart Meter" cause needs as much support as possible from all NC DEC customers. Truly!

EXHIBITS:

- #1: DEC's August 2, 2018 Filing: "Duke Energy Carolinas, LLC Proposed Medical Release Form and Physician Verification Docket No. E-7, Sub 1115"
- #2: DEC's "Meter Deployment Project Team's" July 27, 2018 2:34 PM Email to Petitioner from Ms. Jean Veatch, Supervisor
- #3: Petitioner Andrew McAfee's June 26, 2018 Comments on the Commission's June 22nd Order
- #4: DEC's July 24, 2018 Filing: "Duke Energy Carolinas, LLC's Compliance Filing Docket No. E-7, Sub 1115"
- #5: The Commission's June 22, 2018 Docket Number E-7, Sub 1115, in its entirety: "Order Approving Manually Read Meter Rider With Modifications And Requesting Meter-Related Information"

DISCUSSION POINTS:

Objection #1: DEC's August 2nd proposed and non-compliant, [non-]"Medical Release Form and Physician Verification" filing **now** requiring customers to "**release**" their personal medical records to DEC over the notarized signature of their physician **not** stipulated in the June 22nd Order:

Point #1 (a): The Commission, to date, has not addressed, stipulated nor approved DEC's legal right to request the "release" of specific personal medical information of its customers to justify granting the Rider MRM waiver on DEC's \$150 setup fee and \$11.75 monthly manual meter reading

fee as was confirmed by Commission Attorney Len Green during the July 17, 2018 phone conversation with Petitioner. **(Exhibit #5)**

Point #1 (b): However, DEC's proposed August 2nd **[non-]Medical "Waiver Form Letter"** **now** includes an unexpected **"Medical Release"** provision on page one requiring DEC customers to sign-off legally to *"release all medical information necessary to complete the Physician's Verification form...to process...the Smart Meter [non-]Medical Opt-out"* request. That does **not** align with the June 22nd Order nor the July 27th Email from DEC's Meter Deployment Project Team as **no** medical information is required. If that was not DEC's intended purpose for this **new "Medical Release"** form, then DEC needs to correct and resubmit their **[non-]Medical "Waiver Form Letter"** with explicit language per the June 22nd Order so that it "stands on its own" **without** oral interpretations from DEC Customer Service Reps or referencing other related documents as it should contain **all** appropriate and related elements pertinent to it. **(Exhibits #1, #2 and #5)**

Point #1 (c): DEC's Ms. Jean Veatch, Supervisor, Meter Deployment Project Team, AMI Help Line, Duke Energy Grid Solutions, clearly, explicitly and unequivocally states in her July 27, 2018 2:34 PM Email to Petitioner one hour after the *"very productive conversation...The medical waiver form must come from Duke Energy and will not require release of medical history. Duke Energy will have the medical waiver forms available after October 1, 2018"*. **(Exhibit #2)**

Yet, during the subsequent August 8th phone conversation with Ms. Veatch and Petitioner, that clearly written statement was "couched in" [paraphrased] "all of this is fluid and subject to change in the weeks ahead". She explained the **"Medical Release"** really was not authorizing the release of customer medical records, which was not clearly understood where Petitioner stated said form, as written and on its own, gives DEC the right to request customer's medical records from the MD. Discussion continued but this **Point #1 (c)** issue remains open. No problem as **Ms. Veatch is helpful, respectful and understanding** doing the best she can with what the "DEC Regulation Team" [Petitioner's term] tells her. It only seems to suggest (Petitioner's theory) DEC is struggling with their "Smart Meter Waiver Program" rollout as discussed in **Point #3 (d)** below.

Point #1 (d): Having worked on and being directly involved with this matter for 4+ years, Petitioner Andrew McAfee's interpretive summary comments on the Commission's June 22nd Order concur: **no DEC customer medical information needs to be provided... "There is nothing said that requires any particular diagnosis or any explanation of why this particular individual needs to avoid exposure to RF emissions."** **(Exhibit #3)** Based on Mr. McAfee's sample letter in Exhibit #3, why is DEC making a simple **[non-]Medical "Waiver Form Letter"** so "complicated"? Ms. Veatch essentially "confirmed" Petitioner's "theory" during the August 8th phone conversation **(Point #3 (d))**.

Objection #2: DEC's July 24th proposed and unapproved "Compliance and Implementation" filing **now** requires an "Annual Renewal" for their "one-year term", Opt-out Rider MRM Waiver:

Point #2 (a): The Commission, to date, has not addressed, stipulated nor approved DEC's legal right to set a "one-year term" on the Opt-out Rider MRM as was confirmed by Commission Attorney Len Green during the August 1st phone conversation with Petitioner. (**Exhibit #5**)

Point #2 (b): Petitioner always has understood from DEC the Smart Meter [non-]Medical "Waiver Form Letter" would be a **one-time filing** for all customers **until such time** as the customer moves to a new residence, which is recalled being discussed during the July 27th phone conversation with DEC's Ms. Jean Veatch, Supervisor, Meter Deployment Project Team (**Exhibit #2**) along with other DEC AMI Service Reps.

Point #2 (c): Yet, DEC's proposed July 24th "Compliance Filing" for "Implementing the Rider MRM" **now** requires a "one-year term" limit on their Rider MRM (**Exhibit #4**) thereby forcing DEC customers to endure the onerous task and added expense of securing a notarized signature from a licensed NC MD each year where said MDs typically charge \$150 to \$200+ for their office visit in order to be "legally compliant" with the NC Medical Board.

Point #2 (d): **Additionally**, most customers likely will have "mobile notary" service fees for meeting at the MD's office since the MD likely will **not** go off-site; **plus** possible transportation costs for out-of-town physicians, **plus** expending the time to make these arrangements with all parties involved in order to complete these tasks to submit the [non-]Medical "Waiver Form Letter"... Each and every year. Is that fair and reasonable based on the June 22nd Order for the NC customer class?

Point #2 (e): As such and if the Commission approves this proposal as-is, **it would seem far more prudent (financially and time-wise)** for customers simply to **acquiesce to DEC's monthly Manually Read Meter fees; but that clearly is not the understanding of the intent with the June 22nd Order.** With Petitioner having just endured many of those time-consuming tasks (four straight weeks addressing all the details and procedural elements with his very busy, out-of-town MD via numerous Emails) to secure the MD appointment to then submit the Smart Meter waiver letter in October, he knows, first hand, **requiring an annual renewal of the Rider MRM Waiver would negate the entire benefit**, intent and spirit of securing DEC's [non-]Medical "Waiver Form Letter" due to the horrendous time required and higher associated annual expense:

MD: \$150 per year plus the related expenses and customer's time noted above?... Or,

DEC: \$150 once plus the \$141 annual DEC meter reading fee **without** "lost" time and/or other possible annual "consequential" hassles, problems and expenses? Quite a difference.

Point #2 (f): Side-Note: Moreover, at least one MD was fearful of being deposed or sued as related to this controversial, contentious and emotional situation; as evidenced by various national media news stories and YouTube videos. As such, it is fair and reasonable to understand that finding willing NC MDs to sign off on DEC's notarized Smart Meter waiver letter may be a challenging task, as Petitioner has learned and experienced.

Objections #1 and #2: COMBINED:

Point #3 (a): Background Information: There are two DEC customer "medical" programs that appear to be [and are] getting "cross-linked": DEC's well-established **Medical Alert Program** ("MAP" *) that requires customers to provide their medical information annually via their MD signing a standard DEC non-notarized statement attesting to the customer's serious health condition where, when power goes down, said customer then will receive priority repair service **AND** this new DEC **Smart Meter Waiver Letter Opt-out Program** ("SMP" *) that does not require customers to provide any medical information to DEC at any time per the June 22nd Order. **Yet, does require** an NC MD to sign a standard DEC **notarized [non-]Medical "Waiver Form Letter"** (**not yet finalized per this CSP**) attesting to the MD's "learned opinion" based on having a doctor-patient relationship per the NC Medical Board with said customer that the individual *"must avoid exposure to RF emissions to the extent possible to protect their health"*. **(Exhibit #5)**

* Petitioner's acronyms used for this CSP.

Seeing the glaring inconsistencies with DEC's filings (**Exhibits #1 and #4**) in relationship to the June 22nd Order, Petitioner spoke with two DEC MAP Service Reps on August 2, 2018 to inquire on and learn about the MAP. Based on that new information just above, the only reasonable conclusion one can make is: **these two DEC "programs" are not "consistently the same"** as noted to the contrary in DEC's July 24th "Compliance Filing" (**Exhibit #4**) since MAP **truly is** "medically-based" while SMP is not since no customer medical information is required. (**Exhibits #2 and #5**)

Point #3 (b): Nevertheless, DEC's proposed July 24th "Compliance Filing" for "Implementing the Rider MRM" (**Exhibit #4**) is, in fact, categorizing their SMP **[non-]Medical "Waiver Form Letter"** Rider MRM Opt-out letter that does **not** require DEC customers to provide any personal medical history nor justification for said Rider MRM (see Objection #1 Discussion above), as a "waiver category" *"consistent with current processes for the 'Medical Alert program'"*.

Respectfully, DEC is **flat-out incorrect** on that. Attempting to propose both the MAP and SMP to be *"consistently the same"* is preposterous based on this Discussion and included Exhibits.

Please forgive the redundancy. This seems to be a key point. The Commission and Public Staff truly need to "see" this apparent "cross-link" with MAP in DEC's proposed SMP "Implementation" filings.

Point #3 (c): While DEC's proposed and unapproved July 24th "Compliance Filing" for "Implementing the Rider MRM" (**Exhibit #4**) now requires a **"one-year term"** limit on said Rider, DEC's contracts in both Filings (**Exhibits #1 and #4**) are not explicit nor "self-contained" where even Customer Service was providing oral interpretations in their best effort to help Petitioner with his valid confusion and concerns with DEC's proposed contracts. (**Point #1 (c)**)

Since DEC added the proposed **new, non-compliant, "one-year term"** limit to the SMP in their July 24th "Compliance" Filing categorizing incorrectly that SMP is *"consistently the same"* as the MAP, why didn't DEC include said term limit in the contracts with their **subsequent** August 2nd Filing, "Proposed Medical Release Form and Physician Verification"?

From all that Petitioner learned from Attorney Branagan (Petitioner's Credentials above), it is standard practice to include a clearly defined time-period Term in all contracts ~ unless it is not needed or where the contract "automatically 'renews'" per the Term provisions section. Nevertheless, said "one-year term" is **not** addressed, stipulated nor approved in the June 22nd Order! (**Exhibit #5**)

Respectfully, that therefore makes these legal contracts (**Exhibits #1 and #4**) inconsistent as the new **"one-year term"** requirement language was **omitted** from the [non-]"Medical Release Form" and the "Physician Verification" thereby not "tying-out" with DEC's Compliance Filing contracts. Thus, this seemingly demonstrates DEC's failure to exercise appropriate care and diligence in drafting its legal contracts for this critically important matter impacting thousands of DEC customers.

However, based on Petitioner's credentials, it is respectfully suspected DEC may be dealing with internal, fundamental issues in implementing the SMP based on its inconsistencies, apparent errors and omissions and its over-reaching proposals as noted in the supporting Exhibits to the contrary.

Point #3 (d): Petitioner's Humble Theory On DEC's Inconsistencies: After 30+ years of "corporate" consulting where the actual internal general operations have been observed and experienced, it has been Petitioner's theory (where it is Ok to be wrong) DEC used the existing MAP forms, documents and policies as a **"template"** for their new SMP; **two entirely dissimilar** Programs that clearly are **not** "consistently the same" as discussed above. During the subsequent August 8th phone conversation with Ms. Veatch (**Point #1 (c)**), Petitioner's theory essentially was validated. Ms. Veatch's initial response was about DEC, like many corporations, follows policies and procedures to keep their documents as consistent as possible while minimizing internal resources.

Petitioner replied, "no problem, but DEC's proposed contracts are **not** consistent". (**Exhibits #1 and #4**) Keep in mind Petitioner's customer-vendor relationship with Ms. Veatch is first-rate (professional and **not** adversarial) due to the excellent rapport that was established. (**Exhibit #2**)


In the end, Ms. Veatch essentially validated Petitioner's "theory" on DEC "short-cutting" the process of rolling out the SMP forms saying DEC "did not have sufficient time to prepare the SMP contracts due to the Commission's time-limited deadlines to 'respond to the Order'". Ms. Veatch even offered, and Petitioner accepted, to have someone (manager) from their "Regulation Team" call to discuss this. To date, that has not occurred.

Nevertheless, not knowing the details behind the Commission's time constraints on their DEC response deadlines, that seemed like an honest, fair and reasonable reply... One that may be a good starting point for new conversations between the Commission and DEC with the goal of having DEC revise their contracts to align with the June 22nd Order and all reasonably valid Discussion Points in this CSP that might improve and simplify the implementation and administration of DEC's SMP.

SUMMARY:

Respectfully, based on this CSP and its supporting Exhibits, DEC needs to delete both the "**one-year term**" and the "**Medical Release**" requirements from its proposed Rider MRM [**non-]**"Medical Waiver Form Letter" to then resubmit for the Commission's review and approval. Therefore, it is prayed the Commission will uphold the original intent and its Order of the "**non-medical**" "Opt-out" Rider MRM "administrative filing" so that DEC customers will not have to pay the \$150 setup fee and \$11.75 monthly manual meter reading fee or the Annual Renewal MD fees as Ms. Veatch assured Petitioner was the intent and spirit of the SMP - Smart Meter Program.

Respectfully Submitted:

By: 

WILLIAM HARPER, Petitioner
Sr. Consultant of 33 years -- Engineer
Business -- Mechanical and Software

Greensboro, NC
BH_NCUC18@mailbox255.com
336-202-8082

Dated: August 10, 2018

DOCKET NO. E-7, SUB 1115
BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Duke Energy Carolinas, LLC, ("DEC") for
Approval of Advanced Metering Infrastructure Opt-Out Tariff
"The Pending Smart Meter Opt-Out Waiver Form Letter"

PETITIONER'S OBJECTIONS AGAINST
DEC'S PROPOSALS DATED JULY 24, 2018 AND AUGUST 02, 2018

EXHIBIT #1

**DEC's August 2, 2018 Filing: "Duke Energy Carolinas, LLC
Proposed Medical Release Form and Physician Verification Docket No. E-7, Sub 1115"**



Lawrence B. Somers
Deputy General Counsel

Mailing Address:
NCRH 20 / P.O. Box 1551
Raleigh, NC 27602

o: 919.546.6722
f: 919.546.2694

bo.somers@duke-energy.com

August 2, 2018

VIA ELECTRONIC FILING

Ms. M. Lynn Jarvis
Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Carolinas, LLC Proposed Medical Release Form and
Physician Verification
Docket No. E-7, Sub 1115**

Dear Ms. Jarvis:

On July 24, 2018, Duke Energy Carolinas, LLC ("DEC") filed its proposed plan and schedule for implementing its Rider MRM in connection with the referenced matter. As referenced in DEC's proposed plan, I enclose for filing DEC's proposed medical release form and physician verification for use by customers who wish to qualify for the medical opt-out provisions of Rider MRM.

Thank you for your attention to this matter. If you have any questions, please let me know.

Sincerely,

Lawrence B. Somers

Enclosure

cc: Parties of Record

OFFICIAL COPY

AUG 02 2018
Aug 10 2018

New Medical Form

Medical Release Form

I certify that I am a member of the household at the customer address shown below and hereby authorize my Physician (as identified below) to release all medical information necessary to complete the Physician's Verification form to process the request to Duke Energy and its authorized representatives to consider the Customer's Account for the Smart Meter Medical Opt-Out.

Full Name of Patient _____

Patient Date of Birth _____

Signature of Patient or
Legal Guardian _____

Physician Name _____

Physician Office Address _____

City _____ State _____ Zip Code _____

Physician
Phone Number () _____ Physician
Fax Number () _____

Duke Energy
Customer Name _____

Customer Account # _____

Customer Address _____

City _____ State _____ Zip Code _____

Customer Phone _____

Customer Email _____

I, as the Customer of record understand that (1) I am obligated to pay my monthly electric bill by the date shown on the monthly bill, (2) failure to make timely payments or suitable payment arrangements may result in disconnection of service.

I acknowledge that I have read and understand the above conditions for receiving the Medical Opt-Out program on my electric service account.

Duke Energy
Customer Signature _____

OFFICIAL COPY

AUG 02 2018
Aug 10 2018

Physician's Verification

Customer Name: _____
Duke Energy Account Number: _____

Please have a medical physician licensed by the North Carolina Medical Board complete this form, execute it in the presence of a Notary Public, and return to Duke Energy by XX/XX/XXXX. Failure to complete this form in its entirety may result in disqualification for waiver of fees under the Manually Read Meter Rider (Rider MRM).

Patient Name: _____

Patient Address: _____

I, _____, affirm that I am a medical physician licensed by the North Carolina Medical Board. I further affirm that the above-named patient must avoid exposure to radio frequency (RF) emissions to the extent possible to protect his or her health.

STATE OF NORTH CAROLINA

COUNTY OF _____

Subscribed and sworn to before me this the

_____ day of _____, 20_____

Notary Public for North Carolina

My Commission Expires: _____

Physician's signature

Physician's name (please print)

Physician's License Number

Physician's daytime phone number(s)

Physician Office Address

City

State

Zip Code

PLEASE RETURN THE COMPLETED AND NOTARIZED PHYSICIAN'S VERIFICATION TO:

Email: DEForms@duke-energy.com
Fax: 800-219-9276
Mail: Duke Energy
Attn: DT01X
9700 David Taylor Dr.
Charlotte, NC 28262

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC's Proposed Medical Release Form and Physician Verification, in Docket No. E-7, Sub 1115, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to the following parties:

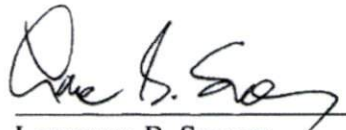
David Drooz
Tim Dodge
Public Staff
North Carolina Utilities Commission
4326 Mail Service Center
Raleigh, NC 27699-4326
david.drooz@psncuc.nc.gov
tim.dodge@psncuc.nc.gov

Brett Breitschwerdt
McGuireWoods, LLP
434 Fayetteville St., Suite 2600
Raleigh, NC 27601
bbreitschwerdt@mcguirewoods.com

Horace P. Payne, Jr.
Mark O. Webb
Dominion Resources
PO Box 26532
Richmond, VA 23261
horace.p.payne@dom.com
mark.webb@dom.com

Peter H. Ledford
NC Sustainable Energy Association
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
peter@energync.org

This the 2nd day of August, 2018.



Lawrence B. Somers
Deputy General Counsel
Duke Energy Corporation
P. O. Box 1551 / NCRH 20
Raleigh, NC 27602
Telephone: 919.546.6722
bo.somers@duke-energy.com

DOCKET NO. E-7, SUB 1115
BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Duke Energy Carolinas, LLC, ("DEC") for
Approval of Advanced Metering Infrastructure Opt-Out Tariff
"The Pending Smart Meter Opt-Out Waiver Form Letter"

PETITIONER'S OBJECTIONS AGAINST
DEC'S PROPOSALS DATED JULY 24, 2018 AND AUGUST 02, 2018

EXHIBIT #2

**DEC's "Meter Deployment Project Team's" July 27, 2018 2:34 PM Email
to Petitioner from Ms. Jean Veatch, Supervisor**

-----Original Message-----

From: Veatch, Jean K [mailto:Jean.Veatch@duke-energy.com]

Sent: Friday, July 27, 2018 2:34 PM

To: BH [REDACTED]

Cc: Carolinas AMI Helpline@duke-energy.com

Subject: DEC NC OPT OUT INFORMATION REQUEST FOR - [REDACTED]

Mr. William Harper
[REDACTED]

GREENSBORO, NC [REDACTED]

SERVICE ADDRESS: [REDACTED]

Dear Bill:

Thank you for a very productive conversation. To highlight some discussion items:

- * All meters are being upgraded as part of Duke Energy's smart grid investment - Customers cannot keep the current meter on their premise.
- * Customers in DEC North Carolina have a choice- the smart meter or the alternate meter which is a new digital meter with the radio disabled.
- * You are on the DEC North Carolina By-Pass List. After October 1, 2018, we will send a letter or email describing options and timetable of the Manually Read Meter program (MRM).
- * Customers will need to enroll in either the MRM Program or the MRM with Medical Waiver if they do not want a smart meter installed.
- * Customers who do not enroll in the MRM Program will receive a smart meter.

Duke Energy Carolinas is in the process of installing advanced metering infrastructure ("AMI") meters also known as "smart meters" in the Carolinas. The smart meter replaces an Automated Meter Reading ("AMR") meter that is either a digital meter with a built-in radio or an analog meter retrofitted with a radio transmitter (collectively "AMR Meter"). Smart meters use radio frequency communications to transmit energy usage data and operate on the same 900 MHz radio frequency signal as AMR Meters. Your AMR meter was installed in 2003.

The Company's smart metering hardware complies with all applicable safety and regulatory requirements. No customer-identifying information, such as names or addresses, is stored in the meters or transmitted across the network. Smart meters collect the amount of energy used just like the previous meter. The difference is that the customer's hourly energy usage is transmitted to the company daily. As with all meters, access to this information is restricted to authorized utility personnel. The privacy of electricity usage data gathered by smart meters is protected in the same manner as the protections in place for the previous meters.

All AMI and AMR meters are tested to confirm that they are in compliance with Federal Communications Commission ("FCC") rules and guidelines which sets exposure limits for all types of devices that emit radio frequencies. The FCC standards for intentional and unintentional radio emissions and safety related to RF exposure, Parts 1 and 2 of the FCC's Rules and Regulations (47 C.F.R. 1.1307(b), 1.1310, 2.1091, 2.1093) govern the certification and design of communicating meters and other devices such as cordless phones, remote control toys, personal computers, televisions, vacuum cleaners, among others.

Duke Energy has complied with N.C. Service Regulations Leaf D, Section VII which outlines that the Company will furnish all necessary meters. Further, per Commission Rule R8-9 section (d), the customer shall provide a suitable and convenient place for the location of meters, where they will be readily accessible at any reasonable hour for the purpose of reading, testing, repairing, etc., and such other appliances owned by the utility and placed on the premises of the consumer shall be so placed as to be readily accessible at such times as are necessary, and the authorized agent of the utility shall have authority to visit such meters and appurtenances at such times as are necessary in the conduct of the business of the utility.

The Company understands some customers have concerns about smart meters. In order to respond to these limited customer concerns, the Company requested an opt-out option which was filed with the North Carolina Utility Commission on July 29, 2016, in Docket No. E-7 Sub 1115. On June 22, 2018, the NCUC approved the opt-out tariff, called Manually Read Meter Rider (MRM). As proposed by the Company, customers who participate in the MRM Rider will have a meter manually read by a meter reader visiting the premises. The meter to be read manually is a new digital meter with the radio frequency communication capability disabled. (refer to NCUC DOCKET NO. E-7, SUB 1115, DOCKET NO. E-100, SUB 147, DOCKET NO. E-100, SUB 153)

Customers who request to enroll in the MRM program are required to pay a one-time setup fee of \$150 per account. This fee is associated with enrollment costs, installation of the manually read meter, establishing manual meter reading

routes and updating billing systems. Participating customers are also billed a monthly fee of \$11.75 per account for costs associated with manually reading the meter. Additionally, customers can make payment arrangements, proposing \$25 per month for six months. Customers participating in the MRM program will be unable to participate in any product or services enabled by smart meter technology.

Additionally, Duke Energy will remove the customer charges for those customers who provide a notarized statement (form provided by Duke) from a medical physician licensed by the North Carolina Medical Board that the customer must avoid exposure to RF emissions to protect their health. The medical waiver form must come from Duke Energy and will not require release of medical history. Duke Energy will have the medical waiver forms available after October 1, 2018.

Duke Energy will begin sending letters or emails to customers on the By-Pass list after October 1, 2018 informing him/her of the opt out process. Customers will be given 60-days to enroll in the MRM program or complete the medical waiver process if they do not want a smart meter installed. Customers are encouraged to indicate their interest in the medical waiver so they can be connected to the group which processes medical waivers.

If you have any questions, you can contact me directly at 704-382-2766. Or you can call or email the Carolinas AMI Help Line at 704-382-5009 or CarolinasAMHelpline@duke-energy.com.

Sincerely,
Jean

Jean Veatch
[704-382-2766]
Carolinas AMI Help Line
[Supervisor, Meter Deployment Project Team]
Duke Energy Grid Solutions

OFFICIAL COPY

Aug 10 2018

DOCKET NO. E-7, SUB 1115
BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Duke Energy Carolinas, LLC, ("DEC") for
Approval of Advanced Metering Infrastructure Opt-Out Tariff
"The Pending Smart Meter Opt-Out Waiver Form Letter"

**PETITIONER'S OBJECTIONS AGAINST
DEC'S PROPOSALS DATED JULY 24, 2018 AND AUGUST 02, 2018**

EXHIBIT #3

**Petitioner Mr. Andrew McAfee's June 26, 2018
Comments on the Commission's June 22nd Order**

Landmark NCUC Decision

On June 22, 2018 the North Carolina Utilities Commission issued an "ORDER APPROVING MANUALLY READ METER RIDER WITH MODIFICATIONS..." stating those with a notarized statement from a medical physician can opt-out of using a DEC (Duke Energy Carolinas) radio frequency emitting meter without penalty, either a one time or monthly charge.

"While DEC's smart meter technology meets current FCC standards, the Commission believes it is inappropriate to require customers who maintain that they need to avoid exposure to RF emissions to the extent possible to protect their health to pay DEC's proposed smart meter opt-out charges. Therefore, the Commission will require DEC to amend its Rider MRM to remove the customer charges for those customers who provide the Company with a notarized statement from a medical physician licensed by the North Carolina Medical Board that the customer must avoid exposure to RF emissions to the extent possible to protect their health. Upon receipt of such statement, the Company shall waive both the one-time and the monthly fees under Rider MRM."¹ Pg. 14

Other highlights include measures to protect privacy:

"Commission will require DEC (Duke Energy Carolinas) to annually file in its Smart Grid Technology Plan filing a verified statement by an officer of the Company providing a comprehensive list of all the ways DEC is using customer-related smart meter data, and the procedures DEC uses to keep that data secure and to protect customer privacy." Pg. 15

The Utilities Commission order shows they took all of the various points raised by consumers seriously: that there are health concerns (thus the no opt-out fee for health reasons), that there are privacy concerns (thus Duke has to certify how it is using the information), that there may be fire risks or other physical hazards (thus Duke has to document and report every such instance), etc. Most importantly, the NCUC order recognizes our medical doctor's proper role in determining what is healthy, not the FCC.

Here is all that the MD statement would need to say:

"I am a medical physician licensed by the North Carolina Medical Board.
_____(Name of Duke Energy Customer) must avoid exposure to RF emissions to the extent possible to protect ____ (his or her) health."

Then it needs to be signed and notarized. The patient can coordinate that action.

¹ <http://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=412f8225-7c72-4917-9364-25a8a4da9e12>

There is nothing said that requires any particular diagnosis or any explanation of why this particular individual needs to avoid exposure to RF emissions.

The removal of Duke's opt-out fees stops that added insult to injury for many who suffer debilitating electrosensitivity (ES) conditions and their associated health costs. Also, having Duke report to the NCUC how they are using our personal usage data is an important step towards protecting our privacy.

Also:

Duke has to publicly acknowledge that an opt out is possible on its website, with instructions.

The required doctor's note for the waiver of the opt-out fee does not require any explanation of why the particular person needs to limit exposure, so Duke does not get any health information. Further, the order does not require a particular diagnosis.

The Utilities Commission subtly called into question whether the FCC guidelines are out of date and unreliable.

After working for about 4 years on this, I am pleased with the NCUC order although failing to convince them to keep available the safe and secure, tried and true, mechanical analog meter for sensitive populations."

Andrew McAfee June 26, 2018

Here are other NCUC order highlights:

[http://starw1.ncuc.net/NCUC/ViewFile.aspx?
Id=412f8225-7c72-4917-9364-25a8a4da9e12](http://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=412f8225-7c72-4917-9364-25a8a4da9e12)

Pg. 1) Under DEC's proposal, opt-out customers would receive a smart meter with its communications disabled, and DEC would read the meter manually by visiting the customers' premises. DEC proposed that, under its opt-out tariff, participating customers would be charged an initial set-up fee of \$150, and a monthly fee of \$11.75.

Pg. 2) The spreadsheet also indicated that the State of Vermont had passed legislation forbidding opt-out fees, while the State of Pennsylvania had passed legislation requiring the installation of smart meters and precluding opt outs altogether.

Pg. 4) Similarly, DEC has a Remote Meter Reading and Usage Data Service tariff via which consumers can have their meter read remotely via a telephone line. This involves a monthly charge of \$45 for a dedicated land-line. However, DEC stated that it is working to discontinue this tariff due to the declining inventory of land-line meters.

Pg. 7) DEC stated that, "Continuing to offer an older meter technology for a few customers would unduly burden the Company with respect to having to maintain, test and continue to support unique meters for only a few customers."

Pg. 10) The vast majority of commenters stated that it is not fair to charge a fee for opting out of a technology when that technology poses a threat to the customer's health, safety, and/or privacy.

The Commission received a statement from David Carpenter, MD, who is Director of the Institute for Health and the Environment at the University at Albany in Rensselaer, New York. The letter was co-signed by four other scientists and doctors, and was cited by many public commenters as providing proof that smart meters are a risk to human health.

Pg. 13) Therefore, the Commission concludes that customers should be able to opt out.

Pg. 14) The Commission is aware that the FCC's exposure guidelines were last updated in 1996 and that the FCC has had an open docket on the question of biological impacts from exposure to those radio frequency waves that fall in the range of 300 Hz to 100 GHz since 2013.¹ DEC's smart meters operate within that range, at 900 MHz; thus, the Company's decision to deploy smart meters was made in the context of this uncertain regulatory environment.

Pg. 14) While DEC's smart meter technology meets current FCC standards, the Commission believes it is inappropriate to require customers who maintain that they need to avoid exposure to RF emissions to the extent possible to protect their health to pay DEC's proposed smart meter opt-out charges. Therefore, the Commission will require DEC to amend its Rider MRM to remove the customer charges for those customers who provide the Company with a notarized statement from a medical physician licensed by the North Carolina Medical Board that the customer must avoid exposure to RF emissions to the extent possible to protect their health. Upon receipt of such statement, the Company shall waive both the one-time and the monthly fees under Rider MRM.

Pg. 15) Some commenters expressed a desire to be served via an analog meter, but DEC is not required to offer any and every metering option that some customers might prefer.

Pg. 15) Some commenters state that smart meters represent an invasion of their privacy, with some going so far as to assert that the technology would constitute surveillance. In order to address this concern, the Commission will require DEC to annually file in its Smart Grid Technology Plan filing a verified statement by an officer of the Company providing a comprehensive list of all the ways DEC is using customer-related smart meter data, and the procedures DEC uses to keep that data secure and to protect customer privacy.

Pg. 15) Several public commenters asserted that DEC had installed a smart meter without prior notification. DEC should investigate those specific situations and report back to the Commission as soon as practicable, but no later than August 1, 2018.

Pg. 16) IT IS, THEREFORE, ORDERED as follows:

1. That DEC shall re-file its proposed Rider MRM consistent with this Order on or before July 23, 2018, along with a proposed plan and schedule for implementing the Rider;
2. That DEC shall update the smart meter portion of its website to include information about Rider MRM;
3. That DEC shall report on the status of efforts to address problems with its smart meters relative to TOU tariff implementation on or before August 1, 2018;
4. That DEC shall include in its annual Smart Grid Technology Plan filing details of smart meter malfunctions or problems, data on the number of customers on Rider MRM, and a verified statement about its smart meter data privacy procedures, as discussed in this Order;
5. That DEC shall investigate public comments in this docket that state that the Company installed a smart meter without prior notification to the resident. The Company shall report back to the Commission as soon as practicable, but no later than August 1, 2018;

DOCKET NO. E-7, SUB 1115
BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Duke Energy Carolinas, LLC, ("DEC") for
Approval of Advanced Metering Infrastructure Opt-Out Tariff
"The Pending Smart Meter Opt-Out Waiver Form Letter"

**PETITIONER'S OBJECTIONS AGAINST
DEC'S PROPOSALS DATED JULY 24, 2018 AND AUGUST 02, 2018**

EXHIBIT #4

**DEC's July 24, 2018 Filing: "Duke Energy Carolinas, LLC's
Compliance Filing Docket No. E-7, Sub 1115"**



Lawrence B. Somers
Deputy General Counsel

Mailing Address:
NCRH 20 / P.O. Box 1551
Raleigh, NC 27602

o: 919.546.6722
f: 919.546.2694

bo.somers@duke-energy.com

July 24, 2018

VIA ELECTRONIC FILING

M. Lynn Jarvis, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Carolinas, LLC's Compliance Filing
Docket No. E-7, Sub 1115**

Dear Ms. Jarvis:

Pursuant to the Commission's June 22, 2018 *Order Approving Manually Read Meter Rider with Modifications and Requesting Meter-Related Information* and the July 23, 2018 *Order Granting One-Day Extension of Time to Make Compliance Filing*, I enclose Duke Energy Carolinas, LLC's revised Rider MRM, along with a proposed plan and schedule for implementing the Rider, for filing in connection with the referenced matter.

Thank you for your attention to this matter. If you have any questions, please let me know.

Sincerely,

Lawrence B. Somers

Enclosures

cc: Parties of Record

OFFICIAL COPY

JUL 24 2018
AUG 10 2018

RIDER MRM (NC)
MANUALLY READ METER RIDER

AVAILABILITY (North Carolina Only)

Applicable to residential and small general service customers who request a meter that either does not utilize communications to transmit data, or is otherwise required to be read manually, provided that such a meter is available for use by the Company. At the Company's option, meters to be read manually may be either an advanced meter with the communication capability disabled or other non-communicating meter.

GENERAL PROVISIONS

For residential service, the customer must be served on a standard rate schedule.

For nonresidential service, the customer must be served on Schedule SGS without a demand meter, using less than 3000 kilowatt hours per month and with an estimated demand of less than 15 kW.

This Rider is not available to customers taking service under a net metering rider.

Customers choosing this option will not be eligible for any current or future services or offerings that require the use of a smart or other communicating meter.

The Company may refuse to provide service under this Rider under any of the following conditions.

- If the customer has a history of metering tampering or unauthorized use of electricity at the current or any prior location.
- If such service creates a safety hazard to consumers of their premises, the public or the electric utility's personnel or facilities.
- If the customer does not provide the Company satisfactory access to its facilities for the purpose of obtaining meter readings or maintaining its equipment.

Upon request, the one-time Initial Set-up Fee may be paid in six equal installments included as a part of the Customer's first six monthly electric service bills following installation of the manually read meter.

The Initial Set-up Fee and Monthly Rate shall be waived and not apply for customers providing a notarized statement from a medical physician fully licensed by the North Carolina Medical Board stating that the customer must avoid exposure to radio frequency emissions, to the extent possible, to protect their health. All such statements shall be retained in Company records on a secure and confidential basis. Customers enrolled in Rider MRM with fees waived will need to be re-verified annually. The Company will provide the customer with a medical waiver form to be verified. The Customer will be notified and must provide, within thirty (30) days, the form to remain on the fee waiver program. If the customer does not provide the form in the allotted time span, the Customer will be subject to the monthly Rider MRM fees. The customer will retain his or her opt-out meter and be responsible for monthly Rider MRM fees until the Company can verify a renewed fee waiver form.

RATE

Initial Set-Up Fee	\$ 150.00
Rate per month	11.75

CONTRACT

The original term of this contract is one year and thereafter until terminated by either party on thirty days' written notice. The Company reserves the right to terminate the Customer's contract under this Rider at any time upon notice to the Customer for violation of any of the terms or conditions of the applicable schedule or this Rider. If within the first year, the Customer wishes to discontinue service under this Rider, the customer will pay a \$50.00 service charge.

DEC North Carolina MRM Implementation Plan and Schedule

Pursuant to the Commission's June 22, 2018 *Order Approving Manually Read Meter Rider with Modifications and Requesting Meter-related Information* in Docket No. E-7, Sub 1115; Docket No. E-100, Sub 147; and Docket No. E-100, Sub 153, following is Duke Energy Carolinas, LLC's ("DEC" or the "Company") proposed plan and schedule for implementing the Rider.

Rider MRM Processes

Standard Process

The effective date for the revised Rider MRM is October 1, 2018. On that date, customers will be able to sign up for Rider MRM on a paid basis or provide the required paperwork to enroll in Rider MRM with fees waived due to health reasons ("medical fee waiver"). Customers interested in signing up for Rider MRM who do not want to seek the medical fee waiver will be able to contact the Company to enroll at their discretion. Upon enrollment, the Rider MRM flag will be applied to the customer account, fees will initiate, and the Company will replace the customer's existing meter with an opt-out meter, which will be an Advanced Metering Infrastructure ("AMI") meter or smart meter with all communications disabled. The one-time setup fee for Rider MRM is eligible for a payment arrangement which will extend payment for the one-time fee over six billing cycles at \$25 per month in addition to the approved monthly rate. Because the payment arrangement and medical fee waiver processes were not anticipated in the Company's original tariff filing, the Company is implementing additional IT changes to ensure proper handling of those requirements. The processes needed to comply with those requirements may need to be handled manually starting October 1 if the IT system changes have not been implemented by that date.

Medical Fee Waiver Process

On October 1, 2018, customers interested in signing up for Rider MRM who want to seek the medical fee waiver will be able to contact the Company to pursue that process. The Company will provide interested customers with a form to complete in order to have the Rider MRM fees waived due to health reasons. Customers will need to complete the Company-provided form, which will include a notarized statement from a medical physician licensed by the North Carolina Medical Board that the customer must avoid exposure to radio-frequency emissions to the extent possible to protect their health. While the verification process is pending, the customer will retain the existing meter. If the customer is currently enrolled in paid opt-out and decides to pursue the Rider MRM medical fee waiver process, the Company will waive fees for Rider MRM going forward, once the customer's forms are verified and the account is enrolled in the Rider MRM medical fee waiver program. The customer's opt-out meter will remain in place. Fees paid prior to verification will not be credited. Once the Company verifies the customer's medical waiver form, the team processing those forms will apply a Rider MRM medical fee waiver flag to the customer's account, will ensure that Rider MRM fees do not apply, will inform the customer that their form has been verified, and the Company will replace the customer's existing meter with an opt-out meter or leave an opt-out meter in place, if the customer was previously

enrolled in paid Rider MRM service. If the Company cannot verify the customer's medical waiver form, the team processing those forms will inform the customer why the request was denied.

Consistent with current processes for the Medical Alert program, customers enrolled in Rider MRM with fees waived will need to be re-verified annually. The Company will provide the customer with a medical waiver form to again be verified and notify the customer that he or she has 30 days to provide the form to remain on the fee waiver program. If the customer does not provide the form in the allotted time span, the Company will remove the Rider MRM fee waiver flag, apply monthly fees for Rider MRM, and inform the customer that they missed the deadline for annual re-verification. The customer will retain his or her opt-out meter and be responsible for monthly Rider MRM fees until the Company can verify a renewed fee waiver form. The one-time setup fee will not be applied when the customer is removed from the fee waiver program. If the renewed fee waiver form is verified, Rider MRM fees will be waived going forward, but the customer will be responsible for any fees incurred during the lapse in verification.

Communications Plan

Customers on Temporary Bypass List

Once the tariff is in effect, the Company will begin informing customers on the temporary bypass list that Rider MRM is available through a staggered rollout. The Company will break the list into smaller segments to provide a customer-focused experience in notifying customers on the bypass list. If a customer has not enrolled in paid opt-out or provided Rider MRM medical fee waiver forms to the Company within 60 days, the Company will install a smart meter.

Company Website

The customer-facing Duke Energy website will be updated to include information about Rider MRM, including the availability of payment arrangements and the medical fee waiver program.

Communications by Phone

During the AMI deployment, the dedicated AMI Help Line will be able to provide information about Rider MRM and options available to customers. The AMI Help Line will connect customers to the Customer Care Organization if they want to sign up for Rider MRM.

Rider MRM Costs

In its Order, the Commission also stated, "DEC should explore the feasibility and cost of identifying opt-out customers early and providing them manually-read meters during the AMI deployment, and report back to the Commission as to whether the initial set-up fee could be reduced in those situations." The Company has considered this and finds that all the same costs would apply for a customer who enrolls in Rider MRM during deployment as a customer who enrolls after the deployment is complete. In either scenario, the customer will need to contact DEC to request service through Rider MRM, so the three minutes of customer service applies. Subsequently, DEC's metering department will need to spend the five minutes to create work orders to program the AMI meter into "opt-out mode," schedule a meter exchange, and incorporate the customer into an appropriate manual meter reading route. All DEC customers are starting with an AMR or AMI meter, which will have to be replaced with an opt-out meter. Programming and exchanging the meter is still estimated to take 75 minutes total, with 45 minutes of that time needed for the exchange alone. DEC employees perform those opt-out meter exchanges, rather than the deployment contractors, in part since the Company wants to ensure that a fully informed employee is on site to address any questions that customers might have when an opt-out meter is installed. Additionally, DEC's meter deployment contractors do not have work flows directed from the IT system functionality that routes meter exchange orders when customers enroll in Rider MRM. The manual meter reading route analysis is still estimated to last 30 minutes. Finally, the IT system costs recovered through the one-time fee apply for all customers participating in Rider MRM, regardless of when they inform the Company that they intend to take service under that rider.

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC's Compliance Filing, in Docket No. E-7, Sub 1115, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to the following parties:

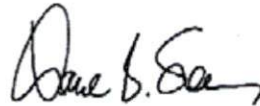
David Drooz
Tim Dodge
Public Staff
North Carolina Utilities Commission
4326 Mail Service Center
Raleigh, NC 27699-4326
david.drooz@psncuc.nc.gov
tim.dodge@psncuc.nc.gov

Brett Breitschwerdt
McGuireWoods, LLP
434 Fayetteville St., Suite 2600
Raleigh, NC 27601
bbreitschwerdt@mcguirewoods.com

Horace P. Payne, Jr.
Mark O. Webb
Dominion Resources
PO Box 26532
Richmond, VA 23261
horace.p.payne@dom.com
mark.webb@dom.com

Peter H. Ledford
NC Sustainable Energy Association
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
peter@energync.org

This the 24th day of July, 2018.



Lawrence B. Somers
Deputy General Counsel
Duke Energy Corporation
P. O. Box 1551 / NCRH 20
Raleigh, NC 27602
Telephone: 919.546.6722
bo.somers@duke-energy.com

OFFICIAL COPY

JUL 24 2018
Aug 10 2018

DOCKET NO. E-7, SUB 1115
BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Duke Energy Carolinas, LLC, ("DEC") for
Approval of Advanced Metering Infrastructure Opt-Out Tariff
"The Pending Smart Meter Opt-Out Waiver Form Letter"

**PETITIONER'S OBJECTIONS AGAINST
DEC'S PROPOSALS DATED JULY 24, 2018 AND AUGUST 02, 2018**

EXHIBIT #5

**The Commission's June 22, 2018 Docket Number E-7, Sub 1115, in its entirety:
"Order Approving Manually Read Meter Rider
With Modifications And Requesting Meter-Related Information"**

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1115
DOCKET NO. E-100, SUB 147
DOCKET NO. E-100, SUB 153

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1115)	
)	
In the Matter of)	
Application of Duke Energy Carolinas, LLC,)	
for Approval of Advanced Metering)	
Infrastructure Opt-Out Tariff)	
)	ORDER APPROVING MANUALLY
DOCKET NO. E-100, SUB 147)	READ METER RIDER WITH
)	MODIFICATIONS AND
In the Matter of)	REQUESTING METER-RELATED
2016 Biennial Integrated Resource Plans and)	INFORMATION
Related 2016 REPS Compliance Plans)	
)	
DOCKET NO. E-100, SUB 153)	
)	
In the Matter of)	
Commission Rules Related to Electric)	
Metering)	

BY THE COMMISSION: On July 29, 2016, Duke Energy Carolinas, LLC (DEC or the Company), filed an application for approval of charges to be paid by DEC customers who choose not to have DEC install Advanced Metering Infrastructure meters (AMI or smart meters) to measure their electric service. At that time, DEC stated that it had deployed smart meters to about 25% of its customers in North Carolina and South Carolina and was engaged in ongoing projects to install smart meters to serve more customers. DEC noted that some customers had expressed concerns about having a smart meter installed at their premises. DEC stated that it was filing its Manually Read Meter Rider (Rider MRM or Smart Meter Opt-Out Tariff) in an attempt to respond to those concerns. Under DEC's proposal, opt-out customers would receive a smart meter with its communications disabled, and DEC would read the meter manually by visiting the customers' premises. DEC proposed that, under its opt-out tariff, participating customers would be charged an initial set-up fee of \$150, and a monthly fee of \$11.75.

On August 11, 2016, the Commission issued an Order Requesting Comments and Additional Information Regarding Proposed Smart Meter Opt-Out Charges. That Order required DEC to provide verified responses to questions about DEC's proposed tariff, its

smart meter deployment plans, and the loss of meter functionality when time-of-use customers are served via a smart meter. That Order also established a schedule for the filing of reply comments.

On August 23, 2016, the North Carolina Sustainable Energy Association (NCSEA) filed a petition to intervene, which petition the Commission granted by order dated August 25, 2016.

August 11, 2016 Order – DEC's Response

On September 19, 2016, DEC filed public and confidential verified responses to the questions posed in the Commission's August 11, 2016 Order. On September 22, 2016, DEC filed a revised response correcting administrative errors in its September 19, 2016 submittal. In its response, DEC reiterated that the tariff charges it proposes are "cost-based and represent the incremental costs identified that should be assigned to participating customers...." In response to the question of whether DEC would consider spreading some or all of the costs of smart meter opt-outs among all residential customers, DEC stated:

No, the costs to offer a smart meter opt-out should be assigned to those customers choosing to participate. By choosing to opt-out of a smart meter, many of the cost savings opportunities from smart meters are not recognized, and additional costs are incurred. All residential customers should not have to pay for the very small minority of customers choosing to opt-out.

The Commission asked DEC to provide a comparison of how DEC's proposed opt-out tariff charges compare to those that have been approved for use by utilities in other states. DEC provided a spreadsheet showing the opt-out charges of 33 utilities. They showed up-front charges ranging from \$20 to \$167, and monthly fees ranging from \$5 to \$45. The spreadsheet also indicated that the State of Vermont had passed legislation forbidding opt-out fees, while the State of Pennsylvania had passed legislation requiring the installation of smart meters and precluding opt outs altogether.

The Commission requested that DEC respond to the concerns expressed by some members of the public regarding the Company's smart meter installations. DEC stated that the primary concerns were with the health impacts of radio frequency (RF) emissions and the privacy aspects of the smart meter's ability to capture granular usage data. DEC stated that its metering hardware complies with all applicable Federal Communications Commission (FCC) rules and guidelines, and that "nearly every household device that is powered by electricity emits RF electromagnetic frequencies in some amount."

Smart meters emit a fraction of the types of RF emissions that come from cellular phones, microwave ovens, and many other household devices in use today. The drive-by meters that have been installed for over a decade in DEC territory also transmit using radios on the same frequency with a similar powered radio as the smart meters.

In terms of consumer concerns with privacy, DEC stated:

The Company abides by very strict standards of data privacy, and the only thing that has changed is the amount of data coming from the smart meters. DEC does not intend to force all customers onto time-of-use rates, nor does it intend to release any customer usage data without their specific written consent.

...

In response to all of these concerns, DEC is offering the Manually Read Meter option [the proposed Smart Meter Opt-Out Tariff] whereby energy usage would not be communicated via RF, and the meter provided to the customer would be manually read by a meter reader visiting the premises.

The Commission required DEC to respond to concerns expressed by time-of-use customers who asserted that they had lost functionality or ease of access to meter data when DEC changed them to a smart meter. DEC responded that through the AMI deployment DEC had delivered the capability for customers to view all of the relevant usage data through an online customer web portal. DEC stated further that it planned to remove meter displays that are not used in determining the customer's bill "so as not to display conflicting information."

The Commission asked DEC how many customers the Company had allowed to opt out of smart meters, and DEC responded that it had not allowed any customers to opt out. Rather, it had "temporarily bypassed" 549 customers who had unresolved concerns with the meter deployment.

The Commission also inquired of DEC whether it would be feasible to place a smart meter opt-out customer on DEC's Equal Payment Plan (EPP) with an annual true up and have the meter read manually once or twice a year. DEC responded that this option would be problematic for a variety of reasons. DEC stated:

[T]here would be no way for customers or DEC to identify if there are equipment malfunctions [T]he rate designed from some schedules have blocks and seasonal differentials, so it would be nearly impossible to ensure that the customer would be billed appropriately if the meter was only read every six months. ... Additionally, there would be implications for the delinquency process. ... Finally, the Company has attempted to offer self-reading options in the past that were unsuccessful. Customers would forget to submit readings, which would generate estimated bills and field work orders to read the meters.

In summary, DEC would have to create an entirely new EPP to attempt to address the issues outlined above, which would easily surpass the proposed tariff costs in IT work for the Customer Billing System alone.

DEC concurred that it is feasible to relocate a customer's meter to a different location on their property and stated that the Company has offered this option to customers who are concerned about smart meters. In this case, the customer must hire an electrician to relocate the meter base. DEC places the smart meter on the relocated meter base, and the customer's electrician then attaches the wiring from the meter base to the premise. Similarly, DEC has a Remote Meter Reading and Usage Data Service tariff via which consumers can have their meter read remotely via a telephone line. This involves a monthly charge of \$45 for a dedicated land-line. However, DEC stated that it is working to discontinue this tariff due to the declining inventory of land-line meters.

As required by the Commission, DEC provided copies of the communications materials that it gives to customers during its AMI deployment. DEC stated that once Rider MRM is approved by the Commission, DEC will contact all of the customers who were previously by-passed and inform them of the opt-out option. Going forward, DEC will inform customers who have not yet received smart meters of the manually-read meter option. DEC reiterated that it is transitioning to the smart meter as the standard meter across the Carolinas, and that for customers who are concerned about RF emissions, "the only way to adequately address these RF concerns is to provide customers with a non-communicating manually-read meter." DEC stated that the smart meter hardware it is deploying has a useful life of about 15 years.

Intervenors' Comments

On October 24, 2016, NCSEA filed comments in which it stated that it does not challenge DEC's proposed fees for tariff participants. NCSEA stated further that it is interested in AMI due to the energy efficiency options that it enables. NCSEA posed a variety of questions about DEC's potential obligation to provide customers with usage data from AMI meters, and concluded with the following statement:

As the Commission considers the costs and benefits of AMI in this and other dockets, NCSEA respectfully requests that the Commission also consider whether its current Rules enable the full potential of the benefits that can be afforded by AMI.

The Public Staff also filed comments on October 24, 2016. The Public Staff stated that it supports the availability of an AMI opt-out policy and believes that it is appropriate for DEC to recover the incremental costs of implementing such a policy through a one-time enrollment fee and an ongoing monthly fee. The Public Staff stated that it generally agreed that DEC's proposed fees are cost-based and accurate, but that it would be appropriate to revisit those costs, as well as DEC's estimated opt-out participation rate of 0.1%, in DEC's next general rate case or within five years. The Public Staff also recommended that DEC be required to file quarterly reports of the number of customers who receive an AMI meter and the number who opt out.

The Public Staff recommended that DEC's proposed tariff be modified so that:

- (1) An opt-out customer who starts service at a premise where the previous customer had also opted out would not have to incur the one-time setup fee;
- (2) Opt-out customers can make payment arrangements, over time, for the tariff's one-time set up fee; and
- (3) Customers who have had an AMI meter installed, but then were charged \$50 to have it removed, should have that \$50 credited toward the one-time set up fee.

The Public Staff stated that DEC's proposed tariff would only be available to those small general service customers who use fewer than 3,000 kilowatt-hours per month and have a maximum demand of less than 15 kilowatts. The Public Staff stated that it would be more appropriate to eliminate the energy and demand thresholds and limit the rider to customers who take service under a rate schedule that does not require a demand meter or differentiate energy charged between on- and off-peak periods.

The Commission had inquired as to whether the DEC Equal Payment Plan, self-reading options, or dedicated phone lines could address some of the concerns that consumers had raised with DEC's proposal. The Public Staff generally concurred with DEC that these options could be impractical and could result in additional costs. The Public Staff recommended that DEC update the metering portion of its website to provide information about the tariff and easy access to DEC staff who can address customer concerns with smart meters.

The Public Staff stated that it did not agree with DEC's proposed solution to the loss of functionality or ease of access to usage data that had been experienced by time-of-use (TOU) customers when they were transitioned to an AMI meter. The Public Staff recommended that the Commission require DEC to take steps to ensure that each installed AMI meter displays basic real-time information consistent with the customer's rate schedule.

The Public Staff noted that the question of cost recovery for DEC's AMI deployment had not yet been brought before the Commission in a general rate case, and that the Public Staff's comments in this tariff proceeding "are not necessarily reflective of what will be the Public Staff's position in a future proceeding when the issue of [whether] DEC's AMI deployment is reasonable, prudent, and cost-effective is ripe for adjudication."

The Public Staff stated that it supports a generic proceeding where the rules associated with metering and billing for electric service can be reviewed and revised, stating that current rules predate many of today's metering and billing technologies:

The current rules do not reflect the current metering paradigm, nor do they adequately address the engineering and design standards that are used to build, test, and deploy electric meters.

Finally, the Public Staff recognized the health concerns raised by numerous consumers in this docket, as well as in Docket No. E-100, Sub 141. The Public Staff stated that it "believes that these types of concerns are more appropriately regulated through the Federal Communications Commission (FCC) DEC's metering hardware complies with all applicable FCC requirements and its RF emissions are a fraction of the types of RF that are emitted by many other household devices in use today."

In addition, the Public Staff notes that the majority of the customers who have been bypassed have been served for over a decade with an AMR [automated meter reading] or "drive-by" meter, which uses RF transmission similar to that used by AMI meters. The Public Staff is not aware of complaints from DEC customers regarding concerns or health-related issues as a result of their AMR or drive-by meters.

Reply Comments

On November 28, 2016, DEC filed reply comments in which it responded to the Public Staff's concerns. DEC stated that it does not object to revisiting its proposed opt-out charges within five years or in a future rate case. DEC said it would prefer to include opt-out statistics in its annual Smart Grid Technology Plan filing, rather than filing separate quarterly reports as the Public Staff had suggested. As to the Public Staff's suggestion that an opt-out customer who starts service at a premise where the previous customer had also opted out should not have to incur the one-time setup fee, DEC disagreed and stated that this approach would cause DEC to incur additional costs (unless the new customer elected the opt-out tariff prior to the final billing of the previous customer). DEC stated that it does not object to working with customers on a case-by-case basis to set up payment arrangements for the Rider's one-time set-up fee. DEC agreed to provide updated information about smart meters on its website, including information about the Rider, once it is finalized.

As to the Public Staff's suggestion to limit application of Rider MRM to customers who are under a rate schedule that does not require a demand meter or differentiate energy charges between on- and off-peak periods, DEC stated that it does not object to this change, but that it would limit participation to a smaller group of customers.

For by-passed customers who were charged \$50 to revert to an AMR meter, DEC disagreed with the Public Staff and stated that crediting that \$50 fee toward the one-time setup fee under Rider MRM would result in a subsidy from other customers. Similarly,

DEC opposed the Public Staff's recommendation that DEC allow customers who were by-passed to continue to receive service using their current meter for the remainder of the meter's useful life. DEC stated that, "Continuing to offer an older meter technology for a few customers would unduly burden the Company with respect to having to maintain, test and continue to support unique meters for only a few customers."

DEC stated that for customers who were by-passed where the majority of meters in their area have already been exchanged with an AMI meter, the Company will require those customers to either receive a communicating AMI meter, or elect to participate in Rider MRM with a non-communicating meter, once the tariff is approved.

In terms of the loss of meter data, DEC clarified that this is "only an issue for customers on a TOU rate or other non-kilowatt-hour based rate schedule who choose to read their billing determinants from the meter instead of via the customer web portal." DEC agreed to investigate a comprehensive solution and report to the Public Staff by the end of April 2017. DEC stated further that the Company had identified a potential manual workaround, but that it might require impacted customers to change to a common billing cycle.

DEC stated that it does not object to a separate proceeding where the Commission's rules for metering and billing electric service could be revised to accommodate industry changes.

April 28, 2017 Order – DEC's Related Filings

On April 28, 2017, the Commission issued an Order Requiring Further Study and Additional Information in which it:

- (1) Held in abeyance a decision on Rider MRM until DEC informed the Commission, as required by the Smart Grid Technology Plan Order it had issued on March 29, 2017, in Docket No. E-100, Sub 147, that DEC intended to move forward with the deployment of smart meters;
- (2) Required DEC to work with the Public Staff to design three alternatives to Rider MRM and report back to the Commission by July 1, 2017;
- (3) Required DEC to respond to additional questions by July 1, 2017; and
- (4) Required DEC within 30 days to file a report detailing the real-time electric usage information that was available at the meter and thermostat to TOU customers using AMR meters compared to the real-time electric usage information that is available at the meter and thermostat to TOU customers using a smart meter.

On May 5, 2017, DEC filed Supplemental Information for its 2016 Smart Grid Technology Plan in Docket No. E-100, Sub 147. In that submittal, DEC stated that the

Company had completed its AMI deployment evaluation and had made the decision in late 2016 to begin a full-scale smart meter deployment in North Carolina. The Company stated that it had begun implementing that deployment in early 2017. DEC supplemented its 2016 Smart Grid Technology Plan consistent with those decisions.

On May 30, 2017, DEC filed the required information about real-time electric usage information that is available to TOU customers. In addition, DEC stated that when TOU customers initially received an AMI meter, they did not see holidays accurately reflected on the meter as being off-peak days, and the on-peak demand register was not re-set with each billing cycle. In addition, DEC stated that, for a subset of TOU customers, the rate indicator stopped flashing during on-peak periods. DEC stated that, due to concerns from TOU customers, the Company had taken steps to ensure that all billing determinants are updated at the beginning of each season. The Company also implemented a manual process to ensure that each TOU meter's on-peak demand register is reset following each billing cycle. DEC stated that it plans to automate this demand reset effort in late 2017.

On June 30, 2017, DEC filed the additional information required by the Commission's April 28, 2017 Order. Among other things, DEC filed information about the health impacts of the RF energy produced by smart meters. This included information from the Smart Grid Consumer Collaborative, which stated:

In-depth review of the scientific literature by the World Health Organization (WHO) revealed that the small amount of radio frequency (RF) energy produced by smart meters is not harmful to human health.

...

RF emitted by smart meters is well below the limits set by [the] Federal Communications Commission and it is below levels produced by other common household devices like cell phones, baby monitors, satellite TVs and microwaves. In fact, you would have to be exposed to the RF from a smart meter for 375 years to get a dose equivalent to that of one year of 15-minutes-per-day cell phone use.

...

In fact, an Electric Power Research Institute (EPRI) analysis of 47,000 smart meters installed in southern California found that 99.5% of the meters were transmitting for approximately three minutes or less daily.

DEC also submitted an August 24, 2015 report entitled Health Impacts of Advanced Metering Systems (Smart Meters) by the N.C. Department of Health and Human Services,

Division of Public Health, Occupational and Environmental Epidemiology Branch (DHHS Report). That report concluded:

There are few studies available on the health effects of RF exposures from smart meters. However, the potential health effects associated with RF exposures from cellphone use have been studied extensively. The [four-member review] team concluded the current Federal Communication Commission (FCC) guidelines protect the public from the thermal health effects related to RF exposure.... Non-thermal health concerns evaluated included cancer, reproductive effects, cellular effects, neurological behavioral effects, and electromagnetic sensitivity. There is insufficient evidence to link RF exposures to adverse health outcomes.

To support its findings, the DHHS Report included statements and citations from Lawrence Berkeley National Laboratory, the American Cancer Society, the Centers for Disease Control and Prevention, the FCC, the Food and Drug Administration, the International Agency for Research on Cancer Working Group, and the National Institute of Environmental Health Sciences. The DHHS Report included a 2013 National Cancer Institute list of ongoing research on the health impacts from RF, as well as a list of "study limitations," to explain why it is difficult for scientists to definitively address the question of biological impacts of RF exposure.

August 21, 2017 Order – DEC's and Public Staff's Related Filings

On August 21, 2017, the Commission issued an Order Requiring Smart Meter Plan Presentation By Duke Energy Carolinas, LLC, in Docket No. E-100, Sub 147. That Order required DEC to appear before the Commission and address specific questions about DEC's decision to deploy AMI meters. Also on August 21, 2017, the Commission issued an Order Requiring Additional Information in Docket No. E-7, Sub 1115 based on its review of the information DEC had filed on June 30, 2017.

On September 8, 2017, the Company filed the information required by the Commission's August 21, 2017 Order. On September 28, 2017, the Public Staff filed comments in response to the Company's September 8, 2017 submittal. In summary, the Public Staff stated that it believes that the Company's proposal to provide opt-out customers a smart meter, with its communication capabilities fully disabled, remains the "most practical and reasonable" means of addressing the concerns of those customers who wish to opt out of a smart meter.

On October 6, 2017, DEC submitted written responses to the Commission's questions in Docket No. E-100, Sub 147, and on October 10, 2017, DEC appeared before the Commission as requested.

November 20, 2017 Order – DEC's Related Filings

On November 20, 2017, the Commission issued an Order Requiring Additional Information in which it required DEC to provide verified responses to questions that were prompted by DEC's October 10, 2017 presentation. DEC filed those responses on December 15, 2017. As requested, DEC provided additional information about the "cellular direct connect meter" option that it is using in rural areas where it is not feasible or economical to install AMI using the RF mesh technology. DEC stated that when its AMI deployment is complete, an estimated 45,371 customers will be served via the cellular direct connect meter option. DEC filed confidential information confirming that these meters cost more than a standard AMI meter, and stated that "DEC is not proposing separate fees to charge customers served by a cellular direct connect meter due to the RF mesh not being available at a customer location."

On December 20, 2017, DEC filed a supplemental report regarding real-time electric usage information for AMR and smart meters in order to update the Commission as to the status of issues affecting TOU customers who had been given smart meters. DEC stated that it had completed and released into production new functionality to automatically reset the demand on these meters once a month. DEC stated that there remains another outstanding issue where the rate indicator light stops flashing on the meter display during on-peak periods. DEC stated that it had been working with the meter vendor, but that testing in the vendor's lab had not yet led to a technical fix. DEC stated that additional tests are planned for January of 2018 in order to confirm the root cause of the problem and develop a solution.

Customer Statements of Position on Proposed Rider MRM

The Commission received about 130 customer statements of position in Docket No. E-7, Sub 1115. Nine of the statements appeared to be from Duke Energy customers who reside in other states.

All but one of the commenters opposed DEC's proposed smart meter opt-out rider and/or DEC's smart meter deployment in its totality. The vast majority of commenters stated that it is not fair to charge a fee for opting out of a technology when that technology poses a threat to the customer's health, safety, and/or privacy. More than half of the commenters stated that AMI meters emit RF radiation that is dangerous to human health, and harmful to plants and animals as well. (Several expressed similar concerns with AMR meters.) About a third of the commenters cited scientific experts, and many provided articles, citations, and website links, ostensibly demonstrating the potential harm being caused by RF emissions. For example, many people stated that the World Health Organization has classified smart meters as a "class 2b carcinogen." About a dozen people stated that the FCC's safety standards are inadequate to address RF emission risks because the standards only address the thermal, not the biological, impacts of RF emissions. Given the increasing number of RF emission sources in our environment, they state that the FCC's standards are inadequate and obsolete. More than a dozen individuals, including a physician, stated that they have personally experienced debilitating health impacts from the

cumulative impact of RF emissions from technologies including wi-fi (wireless local area networking) systems, cell phones, and smart meters. They described a condition called electro-hypersensitivity, in which certain individuals experience a myriad of symptoms due to exposure to RF emissions. Commenters who said they suffer from this affliction described the steps they have taken to limit their exposure to RF emissions, including avoiding cell phones and wi-fi systems. A few went so far as to assert that RF emissions from smart meters contribute to violence and homicides. Many commenters stated that the Commission has a duty to protect the health of DEC's customers, and, thus, the Commission should deny DEC's request to charge customers who want to opt out of a smart meter.

The Commission received a statement from David Carpenter, MD, who is Director of the Institute for Health and the Environment at the University at Albany in Rensselaer, New York. The letter was co-signed by four other scientists and doctors, and was cited by many public commenters as providing proof that smart meters are a risk to human health. Among other things, Dr. Carpenter's letter stated:

The majority of the scientific literature related to RFR [radiofrequency radiation] stems from cell phone studies.

...

Smart meters and cell phones occupy similar frequency bands of the electromagnetic spectrum, meaning that cell phone research can apply to smart meter RFR.

...

While the strongest evidence for hazards coming from RFR is for cancer, there is a growing body of evidence that some people develop a condition called electrohypersensitivity (EHS). These individuals respond to being in the presence of RFR with a variety of symptoms, including headache, fatigue, memory loss, ringing in the ears.... Some reports indicate that up to three percent of the population may develop these symptoms, and that exposure to smart meters is a trigger for development of EHS.

About a dozen people stated that DEC is not communicating the truth to its customers about health risks posed by smart meters. Several commenters were aware of the 2015 DHHS Report submitted by DEC and alleged that the report was biased, that it was prepared by people who lack the required expertise, and that its drafters were inappropriately influenced by DEC. Several commenters noted that in March of 2018, scientists reviewing a study by the National Toxicology Program (for the U.S. Food and Drug Administration) found that RF waves can be decisively linked to cancer in rats.

Many people referenced DEC's handling of coal ash as indicating that the Company cannot be trusted, stating that the Company is focused on saving money rather

than on protecting its customers. About a dozen people expressed concern that smart meters present a risk of fires, interfere with pacemakers, present national security risks, and have the potential to cause power outages. Some stated that smart meters are poorly designed, making them vulnerable to lightning strikes and likely to cause power quality problems for customers. Several people asserted that smart meters could not meet Underwriters Laboratories, Inc. (UL), standards, which necessitated the establishment of a special certification for smart meters.

Several commenters were aware that DEC had received federal grants to partially cover the cost of the Company's smart meter deployments. They stated that it was unfair that they should have to subsidize these meters multiple times, first via their taxes, second via their utility bills, and finally to have to pay the proposed opt-out fee to avoid having a smart meter installed at their home.

About a third of the commenters opposed smart meters because of privacy concerns. Some stated that, in their opinions, the meters constitute a form of trespass or surveillance that requires informed consent (which consent they refuse to grant). Several people expressed concern that smart meters would allow DEC to control their appliances, to monitor their behavior, and to sell their personal data. Several others opposed smart meters due to cyber security concerns. Some people expressed concern that smart meters have a much shorter useful life than analog meters, and that they contain batteries and modems that must be replaced. About a dozen stated a strong preference for analog meters, with a phone line for communication, as the only option that is accurate and safe. Several commenters mistakenly believe that DEC still uses analog meters, and they expressed a strong desire to retain their analog meter.

One commenter said that DEC is using its smart meter deployment as a partial explanation for its need to increase rates, but that DEC's rate request fails to mention the \$1 billion in benefits the Company will receive. Several people stated that there is no proof that smart meters will save money for customers. Another noted that DEC charges all customers for its internet billing service, even though that service only benefits those customers who choose to participate. They asserted that the costs of opting out of a smart meter are excessive and should similarly be spread to all customers.

About a dozen commenters argued that the Energy Policy Act of 2005 does not require the installation of smart meters. Several individuals stated that DEC had installed smart meters at their homes without prior communication or permission, sometimes when the customer was not at home.

One commenter expressed concern that, due to his home's rural location, DEC might want to install a cellular direct connect meter at his home. He sought clarification as to whether that would still be a digital meter, which he opposed. One commenter opposed DEC's proposed opt-out solution, saying it would not be possible to know for sure that DEC had disabled the meter's communications.

One commenter asked that the Commission hold a public hearing on DEC's opt-out proposal, and also asked the Commission to consider the public testimony and comments about smart meters from Docket No. E-100, Sub 141 (the 2015 Integrated Resource Planning docket).

One DEC customer who is on a TOU rate wrote multiple times to express concerns with his smart meter installation. He described numerous problems that he was experiencing including inaccurate displays and false data.

Several customers stated that their electric bills had increased markedly since receiving a smart meter. One stated that he had researched the issue and confirmed that, "Smart Meters record the spikes in usage and result in readings that are higher than with the previously used analog meters." This customer stated that DEC would thus collect more revenues than is appropriate unless the Commission adjusts DEC's rates.

One customer opposed DEC's opt-out proposal because it would require a DEC employee or contractor to enter the customer's home in order to read the meter. The customer's meter is located indoors, and the customer is concerned about home security.

Several commenters cited a recent decision by the New Mexico Public Regulation Commission which denied a local utility's application to install smart meters, which order purportedly stated that the utility's smart meter deployment plan "does not provide a net public benefit."

One customer stated that he had had a positive experience with his DEC smart meter. He related that for many years he had believed that his power bills were too high. With the hourly usage data provided by his new meter, he was able to identify the cause and take action to reduce his electricity consumption.

Discussion and Conclusions

After careful consideration, the Commission finds good cause to approve DEC's Rider MRM with modifications, as discussed below. As a preliminary matter, the Commission notes that DEC sought to recover costs associated with its smart meter deployment in its most recent general rate case, Docket No. E-7, Sub 1146, and the questions of whether DEC's smart meter deployment is prudent and necessary for serving customers and whether DEC should be allowed to recover its smart meter deployment costs from customers have been addressed in that case. However, the Commission believes it has enough information without holding a public hearing, as some commenters requested, to decide the questions before it in Docket No. E-7, Sub 1115: Whether DEC customers should be able to opt out of having a smart meter installed, and if so, under what terms.

No participant in this proceeding, including DEC, has asserted that customers should be precluded from opting out of having a smart meter installed. Therefore, the Commission concludes that customers should be able to opt out.

DEC asserted, and the Public Staff agreed, that those customers who opt out should pay the incremental cost of that decision. DEC demonstrated that its proposed charges of a one-time fee of \$150 followed by \$11.75 per month were based on reasonable estimates of its actual incremental costs. However, the Commission is not convinced that DEC's proposal for recovering those costs would be fair to those consumers who maintain that they must avoid to the extent possible exposure to RF emissions due to impacts on their health. DEC and the Public Staff correctly stated that the FCC, not the Commission, is the appropriate regulatory body to address the health impacts of RF emissions. The Commission is aware that the FCC's exposure guidelines were last updated in 1996 and that the FCC has had an open docket on the question of biological impacts from exposure to those radio frequency waves that fall in the range of 300 Hz to 100 GHz since 2013.¹ DEC's smart meters operate within that range, at 900 MHz; thus, the Company's decision to deploy smart meters was made in the context of this uncertain regulatory environment.

While DEC's smart meter technology meets current FCC standards, the Commission believes it is inappropriate to require customers who maintain that they need to avoid exposure to RF emissions to the extent possible to protect their health to pay DEC's proposed smart meter opt-out charges. Therefore, the Commission will require DEC to amend its Rider MRM to remove the customer charges for those customers who provide the Company with a notarized statement from a medical physician licensed by the North Carolina Medical Board that the customer must avoid exposure to RF emissions to the extent possible to protect their health. Upon receipt of such statement, the Company shall waive both the one-time and the monthly fees under Rider MRM. The Commission further requires that such medical statements must be handled and processed by the Company in a secure and confidential manner to protect customer privacy.

As proposed, DEC's \$150 one-time fee for initial set up includes costs for the meter exchange, route analysis, IT, and account and billing set up. The Public Staff reviewed DEC's cost estimate and found it to be reasonable. Nonetheless, the Commission believes it might be possible for this one-time charge to be reduced for customers located in areas where DEC has not yet begun its AMI deployment. DEC should explore the feasibility and cost of identifying opt-out customers early and providing them manually-read meters during the AMI deployment, and report back to the Commission as to whether the initial set-up fee could be reduced in those situations.

Regardless of whether it is possible to reduce the initial set-up fee, the Public Staff recommended, and DEC agreed, that the Company will work with customers on a case-by-case basis to establish payment arrangements for the initial set-up fee. The Commission will require DEC to modify its Rider MRM to explicitly state that such payment arrangements are available. For the reasons cited by DEC, however, the Commission will decline to adopt the other tariff modifications that the Public Staff proposed.

¹ See the FCC's website at <https://www.fcc.gov/general/radio-frequency-safety-0> for more information.

Finally, as regards both the initial set-up fee and the ongoing monthly charges, DEC shall file an analysis of the appropriateness of those charges by June 1, 2022, or in its next general rate case, whichever occurs first.

DEC's proposal to use smart meters with their communications disabled for those customers who want to opt out of having a smart meter is a reasonable one. It appropriately balances DEC's need for efficiency with some customers' desires to avoid being served via a communicating meter. Some commenters expressed a desire to be served via an analog meter, but DEC is not required to offer any and every metering option that some customers might prefer.

Some commenters state that smart meters represent an invasion of their privacy, with some going so far as to assert that the technology would constitute surveillance. In order to address this concern, the Commission will require DEC to annually file in its Smart Grid Technology Plan filing a verified statement by an officer of the Company providing a comprehensive list of all the ways DEC is using customer-related smart meter data, and the procedures DEC uses to keep that data secure and to protect customer privacy. The Commission requests that the Public Staff audit and provide comments on the Company's submittal.

Some commenters expressed concerns that smart meters have caused fires, power outages, interference with devices such as pacemakers, and inaccurate bills. Others stated that smart meters pose cyber security risks. While these concerns appear to be anecdotal, the Commission will require DEC to include in its annual Smart Grid Technology Plan filing a report detailing any such occurrences involving their model(s) of smart meters, and how the occurrences were resolved. This report should include information about cyber incidents, at DEC or elsewhere, involving its model(s) of smart meters. As suggested by the Public Staff and agreed to by DEC, the Company should also include in its annual Smart Grid Technology Plan filing information about the number of customers who choose to opt out of having a smart meter, with separate data for those who opt out for health reasons and for those who opt out for any other reason.

As stated earlier, one DEC customer commented that his smart meter offered less functionality and accuracy than his previous meter in the context of his service on a TOU tariff. Based on submittals from the Company, it is the Commission's understanding that DEC has largely resolved these problems. Nonetheless, DEC is to report on the status of these efforts by August 1, 2018.

Because it would limit availability of the opt-out rider to a smaller group of customers, the Commission rejects the Public Staff's recommendation to restrict the opt-out rider to customers who take service under a rate schedule that does not require a demand meter or differentiate energy charged between on- and off-peak periods.

Several public commenters asserted that DEC had installed a smart meter without prior notification. DEC should investigate those specific situations and report back to the Commission as soon as practicable, but no later than August 1, 2018.

In its August 21, 2017 Order Initiating Rulemaking Proceeding in Docket No. E-100, Sub 153, the Commission stated that there is good reason to believe its rules for the location, testing facilities, average error calculations, and accuracy of electric meters are no longer adequate and meaningful, given the migration away from mechanical meters to digital meters. The Commission, therefore, initiated a proceeding to review and revise its rules. However, at the request of the Public Staff, the Commission issued an Order on October 24, 2017, suspending the procedural schedule and holding the rulemaking docket in abeyance. In order to move this important work ahead, the Commission will require DEC to research the following questions and submit verified responses to the Commission by September 1, 2018, in Docket No. E-100, Sub 153:

- (1) For all States in which Duke Energy operates that have updated their meter accuracy and testing rules to accommodate AMI and/or AMR meters, provide copies of those regulations.
- (2) What protocols or processes does DEC currently use, before and after installation, to assure the accuracy of its smart meters at the time of installation and over time?
- (3) What protocols or processes have been recommended by the meter manufacturer in order to assure accuracy at the time of installation and over time?
- (4) What portions of the Commission's current metering rules are no longer relevant or should otherwise be revised?

The Commission will review the information submitted by DEC and then establish a further procedural schedule in that docket to update its meter-related rules.

IT IS, THEREFORE, ORDERED as follows:

1. That DEC shall re-file its proposed Rider MRM consistent with this Order on or before July 23, 2018, along with a proposed plan and schedule for implementing the Rider;
2. That DEC shall update the smart meter portion of its website to include information about Rider MRM;
3. That DEC shall report on the status of efforts to address problems with its smart meters relative to TOU tariff implementation on or before August 1, 2018;
4. That DEC shall include in its annual Smart Grid Technology Plan filing details of smart meter malfunctions or problems, data on the number of customers on Rider MRM, and a verified statement about its smart meter data privacy procedures, as discussed in this Order;

5. That DEC shall investigate public comments in this docket that state that the Company installed a smart meter without prior notification to the resident. The Company shall report back to the Commission as soon as practicable, but no later than August 1, 2018;

6. That DEC shall file in Docket No. E-100, Sub 153 the information in items (1)–(4) described herein on or before September 4, 2018; and

7. That DEC shall file an analysis of its Rider MRM charges on or before June 1, 2022, or in its next general rate case, whichever occurs first.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of June, 2018.

NORTH CAROLINA UTILITIES COMMISSION



Linnetta Threatt, Deputy Clerk

Commissioners Daniel G. Clodfelter and Charlotte A. Mitchell did not participate in this decision.