STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 18-E-0067 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Electric Service.

CASE 18-G-0068 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Gas Service.

MOTION TO ADMIT THE TESTIMONY OF DR. TIMOTHY SCHOECHLE AND DR. DAVID O. CARPENTER AND OTHER EXHIBITS

I. New Developments regarding smart meters have transpired including some in July 2018 which necessitate letting in new testimony: these recent developments include the following:

- ***The release of the British Infrastructure Group's "Not So Smart" Report signed by 93 Members of Parliament that reinforces the claim that smart meters are not saving consumers very much money, aren't working properly and aren't saving measurable amounts of electricity (July 2018)***
- ***The publication of a Telegraph UK article that discusses the Not So Smart Report as well as the fact that the former UK Minister of State for Energy at the Department of Energy and Climate Change got rid of his smart meter since he did not find it useful in reducing his use of electricity (July 29, 1018)***
- ***The publication of a Wall Street Journal article documenting that Homeland Security found that Russian hackers can penetrate utility control rooms triggering four upcoming hearings, (July 23, 2018)***
- ***The imminent written publication of Re-Inventing Wires: The Future of Landlines and Networks that has similar findings to the British government; that smart meters and concomitant wireless systems are costly, obsolete, subject to hacking and need a new design to have on-premises control that does not require manual intervention. (June-August 2018)***
- ***The publication of an article in the scientific journal Electrical Pollution, "Thermal and non-thermal health effects of low intensity non-ionizing radiation: An international perspective" which is the first paper demonstrating agreement among multiple international experts on the biological effects of electromagnetic radiation that certain specific empirical evidence exists that contradicts claims by O&R that the existence of intolerance to so-called electromagnetic fields in statistically significant numbers is "speculative" and the failure of the DPS to officially acknowledge this reality or take it into consideration in its decision-making. (July 2018)***
- ***The recent filing of a class-action lawsuit against Central Maine Power for smart meter overbilling. (July 19, 2018)***

These developments should be considered to address the issue of costs of the AMI program which the DPS sought to be reviewed during this rate hearing, and especially since O&R will not disclose which AMI assets are in rate base and what costs sought to be recovered pertain to AMI, and the rate base is the <u>sine qua non</u> for a rate hike.

A number of publications have come out in July that suggest that a closer review of O&R's accounting and claimed costs regarding smart meters need further review by the intervenors in 18-E-0067/18-G-0068, including whether certain assets belong in rate base, pursuant to the DPS' ruling in 17-M-0178, which states:

> Further, to ensure that the benefits of AMI deployment materialize, we are implementing a cap on the capital expenditures associated with the AMI project. The capital expenditures will be capped at the Company's estimated AMI project cost of $98.5 million. *In addition, all costs associated with this project are subject to further review in O&R's next base rate proceeding.*
>
> (Emphasis Added)

In administrative hearings, Judges have found that additional testimony is necessary to bolster the record; e.g. EMPLOYER: PACTIV 2004 WL 1535031 (N.Y.Work.Comp.Bd.):

> The Board Panel has reviewed the entire record and finds that additional testimony and evidence is required.

See also: EMPLOYER: NEW YORK TRANSIT AUTHORITY 1997 WL 608969 (N.Y.Work.Comp.Bd.) and EMPLOYER: ITS INSTR CORP: 1998 WL 112911 (N.Y.Work.Comp.Bd.),:

> …the Board Panel finds that the record requires further development.

The DPS has a recent ruling in *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Suez Water New York Inc. for Water Service*, Case 16-W-0130; August 17, 2016 in which the Judge found that new

> …new testimony and exhibits likely will be needed

In a Financial Industry Regulatory Authority, Inc. (FINRA) case, *In the Matter of the Arbitration between: Claimant, Gary G. Harris, v. Respondents, Wells Fargo Advisors, LLC Wells Fargo Bank,* 2017 WL 1684311 (FINRA), though the Judge ultimately found that the claims went beyond FINRA's jurisdiction, he wrote,

> Claimant Harris was permitted unlimited time, without interruption, to present his arguments. He was given fair and unrestricted opportunity to present any claims, *based on new information, testimony or evidence, which would be produced in*

the evidentiary hearing if the Motion to Dismiss was denied and the case was allowed to proceed.

(Emphasis added)

In other words, there is public policy in New York State for an agency presumption that if new evidence corroborates claims and/or sheds light on the issues under review (here, the costs of the Advanced Metering Infrastructure ("AMI") program pursuant to the DPS' own November ruling as well as claims that it creates value to the consumer), new evidence and testimony will be let in for review. This is especially important in light of the fact *that O&R has not identified how much of the AMI program is in rate base, how much of the AMI program that was approved between rates cases with the "further rollout" is in rate base, and what the total expenditures for the AMI program are (both pre and post "further rollout" for which O&R is seeking a rate increase*. If the costs do not produce the benefits advertised, they are ultimately higher than have been accounted for. The costs are effectively obscured as O&R refuses to respond to interrogatories on this issue, which sought amplification of statements made in O&R's testimony.

Recent evidence reinforces the notion that these claimed benefits, reduced bills and electricity use by ratepayers are not manifesting as claimed by O&R, and the buzzword, "consumer control" promulgated by O&R has now been proven in yet another jurisdiction (the UK) to not be resulting in meaningful savings to the consumer, reduction in electricity use, or changes in behavior making such so-called consumer control largely illusory. The testimony of Dr. Schoechle about the British Infrastructure Group's "Not So Smart" report (signed by 93 Members of Parliament) (Schoechle- Exhibit 1, which is a sub-exhibit to Exhibit 2 herein) suggests that the systems are already obsolete[1] and also contain privacy issues; while the costs of

[1] This obsolescence relates to the functionality overall and goes beyond the issue I had previously raised that the meters used in other jurisdictions have had a high failure rate and need replacing (and concomitant increased

the smart meter program are being put in the rate base by O&R, they should only be put in the rate base *if the stated benefits are accruing to the ratepayers*; furthermore, costs should not be recovered if the program is not benefitting the ratepayers, and rates should not be increased on the basis of having AMI infrastructure in the rate base. (Rates should not be increased at all when the company refuses to acknowledge how much AMI is in rate base and how much is being expensed: See O&R's non-answers to interrogatories in Exhibit 24 –Kopald- 45 to 53 and Kopald- 55 to 57). The UK government suggested marginally lower bills- £11/annum- (previous evidence in the US suggests bills have actually gone up), but even pitifully marginally lower bills raise the issue about claims regarding AMI systems- whether they provide financial benefits to the consumer or whether O&R concealed information that was known to them from the DPS at the time they requested further rollout and raises questions about the true costs of the program.

While the problems in the UK government smart meter program do not necessarily have 100% overlap with the problems in various US smart meter programs, the consistent feature recently demonstrated is that the meters are not creating long-term behavior changes as this information is not passed on directly to the appliances, but to a human for manual intervention, and so-called " time-of-use" largely results in inflated bills; in many respects, with their busy lives, people cannot do their wash for example at certain low, peak times for example and are not willing to do it at 3 a.m. when rates might be cheapest and interrupt their sleep and there is no indication that they will do so; also they are not really shifting their behavioral practices measurably even to turn things off during marginally less inconvenient times when rates are cheaper. Furthermore, Dr. Schoechle states that the concept that the existing meters can

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depreciation charges upfront). (See. Exhibit 15: Data Request 2.12, Docket # E-01345A-16-0036 before the Arizona Corporation Commission.)

be retrofitted to automate such behavior changes is a fallacy and that other solutions should be pursued to get the results the AMI program was supposed to, but cannot deliver.

In some respects, the new testimony suggests paying for the AMI program is akin to asking ratepayers to pay increased rates for the use of a Rube Goldberg machine. The task performed is mostly informational and the method of the transfer of the information is not resulting in a major change in electricity use-age; people who wish to save electricity shut things off of their own volition that they aren't using and this activity takes place without smart meters; a system that provides information about rates, but still requires human intervention does not achieve a measurably different result as it is still dependent upon the normal way of conserving electricity, having human intervention to shut off systems when not needed. That is what the British report demonstrates. Dr. Schoechle explains this general concept in his new report, "Re-Inventing Wires: The Future of Landlines and Networks" which is going to written publication this month (Schoechle-Exhibit 2 (sub-exhibit to Exhibit 2 herein) and which was published online in June 2018. While the AMI system is an *overly complex* method to *invoice* the consumer; at the same time it is too simplistic a mechanism to substantially reduce electricity use-age and the software in it is not robust enough to do more complicated tasks like relay information directly to devices. The microcontroller system in the meter is not passing rate information directly into any home devices for automatic shut off or able to do more complex activities like load balancing and according to Dr. Schoechle cannot be retrofitted directly to do so. The system also sends use-age data about the amounts of electricity being consumed to the utilities, which according to the July 23, 2018 Wall Street Journal article ("Russian Hackers Reach U.S. Utility Control Rooms, Homeland Security Officials Say") (Schoechle-Exhibit 4), have a problem securing data, thus triggering *four* upcoming Department of Homeland Security ("DHS") hearings. These concerns corroborate privacy issues hypothesized by Dr. Schoechle in

an earlier paper about privacy that had been produced internally for the University of Colorado, Boulder (See: Schoechle-Exhibit 5).

According to Dr. Schoechle, the recent report from members of Parliament is the latest piece of evidence that so-called smart meter systems are an overpriced boondoggle that do not perform as advertised, do not create savings to the consumer and involve systems that are in fact obsolete pursuant to his own report, Re-inventing Wires, the Future of Landlines and Networks, which is headed to print this month. (Schoechle-Exhibit 2). The problem presented by the new testimony and evidence and recent developments is that customers are being asked to bear increased rates to pay for costs (without O&R being transparent about these costs: See again: Exhibit 24), with much less benefit to them than claimed and possibly minimal to no financial benefit, and if the Central Maine Power class action overbilling lawsuit claims discussed further in point II below ultimately are a harbinger of what is to occur with O&R, as I claimed in 17-M-0178, it will actually become a net financial loss[2][3] to ratepayers on top of the increased costs they are being made to bear for the infrastructure. Dr. Schoechle testimony suggests that O&R misleads the DPS and the public with claims that the AMI program will have other consumer benefits by collecting data on when customers are expending electricity, which raises questions about what this data is going to be used for, and which suggests that vigorous cross-examination of O&R is necessary prior to any approval of a rate hike with (unknown) AMI assets in rate base.

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[2] The 12/5/17 Citizens for Fair Rates and the Environment's Brief in Case No. 15-00312-UT (New Mexico Public Regulation Commission) which was used by the Commission to reject a smart meter rollout suggests that the system presents a net cost to consumers (for various reasons including no savings to the Consumer, no measurable reduced electricity, creating a fire and explosion risk and being unsafe due to electromagnetic radiation emissions (namely; pulse-modulated microwave radiofrequency radiation, aka PM MW RFR). Concomitant with new evidence that the smart meter systems are already obsolete, this brief points out that no scenarios have been offered where the AMI system lasts 20 years; they also asserted that evidence existed at the time of the utility's application regarding obsolescence. The Brief is in Exhibit 14 herein.

[3] This theory, which has been proven time and again and most recently by the UK Members of Parliament) was first postulated by Dr. Schoechle in his 2012 Report, "Getting Smarter About the Smart Grid" (See: Exhibit 23)

Dr. Carpenter's paper, "Thermal and non-thermal health effects of low intensity non-ionizing radiation: An international perspective." (Carpenter Exhibit-1, which is a sub-exhibit of Exhibit 1 herein) which is discussed in point II below, provides evidence of another serious cost to the ratepayers of the AMI program, and it would be imprudent not to discuss the ramifications of the findings in this paper on the costs of the AMI program, which has not been set up by O&R in such a way as to eliminate the problem documented by him and his international colleagues. The paper also suggests the exposure is part of a serious public health problem and affects people in other negative ways other than inducing electro-hypersensitivity or creating symptoms in those who already have electro-hypersensitivity, and this issue should be revisited. "Reinventing Wires" also discusses this problem and cites it as another rationale to turn the focus to more robust and safe hard-wired systems.

The AMI program was recently rejected by the New Mexico Public Service Commission; in regard to O&R, a further rollout was permissioned with no evidence and no justification of savings to the Consumer, but with an order to review the costs of the program in this rate hearing. At this juncture, O&R *is not even able to say what portion of AMI is in rate base and in expenses*. This information is necessary for the intervenors to properly conduct a review of costs as ordered by the DPS in 17-M-0178. This information must also be analyzed in the context of the new findings. If AMI comprises a large amount of rate base, which it may, and it isn't providing benefits, then it shouldn't be in there.

II. An evidentiary hearing is supposed to consist of a full and fair hearing of the issues that are under consideration and review and this includes letting in new information, testimony or evidence. This would include claims about the veracity of statements about costs about AMI that are supposed to be reviewed in this proceeding; this would also include benefits, because if they do not materialize or we know they are not going to materialize, and the system is already obsolete, extra accounting charges should be taken now and/or certain items should not even be in rate base if they are not benefiting consumers. The right to due process involves not merely being "heard", but to have hearing examiners who have not made

> ***conclusory determinations about what an examination and cross-examination of those giving testimony about new evidence can possibly show even if and especially if this information runs counter to ongoing claims and desired outcomes of the DPS and especially if this information provides answers to questions that O&R refused to provide in response to certain interrogatories about the AMI program.***

Exhibit 5 is an affidavit that includes my contemporaneous notes from a conversation regarding hearing accommodations with one of the Administrative Law Judges. The issue brought to the fore is that I pointed out that Courts have accommodated those who allege electromagnetic sensitivities; while the Department of Service ("DPS") is the place of public accommodation that is supposed to facilitate access, one of the Administrative Law Judges evinced an expectation of being able to access information from the cloud during the hearing; the cloud operates on Wi-Fi, so the implication would be that Wi-Fi is preferred to be on (Wi-Fi is an irritant for those alleging electromagnetic sensitivities and is not recommended for use by the National Institute for Building Sciences ("NIBS") and the United States Access Board ("Access Board")[4]; it also was not permissioned for use in federal courtrooms by the General Services Administration ("GSA") according to the Office of the Chief Architect). Also, many courts order cell phones shut down completely. The DPS is ultimately responsible for the accessibility conditions of the Courtroom and providing appropriate technology for the Hearing Examiners. Being functionally barred from the Courtroom affects my ability to ask a question (among other questions) about the costs resulting from people being functionally barred from certain locations that have smart meters, (which the DPS has already decided are safe or safe enough). The over-arching issue is the conflict between peoples' rights and the technology being used.

The issue is that this is not merely a question of the DPS, an agency which had to be threatened with a lawsuit when the FOIL officer first refused to release Assemblywoman

[4] United States Access Board/National Institute of Building Sciences Indoor Environmental Quality Report, 2005 http://web.archive.org/web/20060714175343/ieq.nibs.org/ieq_project.pdf, pages 8, 87-88. (See: Exhibit 16 herein)

Schimmel's 2015 letter (Exhibit 4) (this letter was written in response to multiple requests for the DPS to make public hearings available to those with electromagnetic sensitivities after DPS Consumer Advocate Michael Corso stated that the DPS did not want to accommodate people who are overtly sickened by publicly allowable levels of electromagnetic radiation because it would represent an acknowledgment that the problem exists and call into question the safety of any wireless technology the DPS was promoting), deciding what is reasonable accommodation so that my first amendment rights to petition for grievance and 5th and 14th Amendment rights to due process are respected; it is also a question of the Hearing Examiners having to address my claim that new evidence contradicts the DPS' belief that electromagnetic hyper-sensitivity is either rare or cannot be proven (and therefore that they don't need to deal with it in decision-making) and shows that certain electromagnetic radiation-emitting equipment which is desired to be used by the utility is in direct conflict with fundamental rights (and thus creates other unacknowledged costs to the ratepayer) right after being confronted with essentially *the very same issue*- that certain electromagnetic radiation-emitting equipment that is desired to be used in the hearing is in direct conflict with fundamental rights, too.[5][6]

Here, where the same issue with which I am in direct conflict with the DPS is one of the many issues being raised in my request for the consideration of new testimony, I am asking for the testimony of Dr. David O. Carpenter (former head of Wadsworth Laboratories for the State of New York, Executive Secretary of the court-ordered New York Powerlines Project and

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[5] While the DPS is a place of public accommodation, there is also a related issue because a Courtroom is located on the DPS premises. *Tennessee v Lane.* 541 U.S. 509 (2004) which cites to a Congressional report showing that an appalling number of Americans are being denied Courtroom access, and right now, I assert that the DPS failure to provide full accommodation to me means that I am one of those people in that statistic, when the hearing examination room at the DPS headquarters is being used as a Courtroom.

[6] When I pointed this out to the New York Assembly; namely, that not shutting off the Wi-Fi when I want to lobby about EMF issues… bars me from lobbying about EMF issues and therefore assists the opposition in their faux claim that the technology is safe or "safe enough" and/or in their attempts to obscure the extent of the problem from public view by rendering those afflicted invisible and unable to advocate for themselves in person, their counsel's office made an arrangement to shut off Wi-Fi on demand for me when I need to do office visits in the Legislative Office Building and people I meet with shut off their phones and/or move them out of range.

member of the President's Cancer Panel) to be let in, based on his newly published co-authored scientific paper in *Environmental Pollution,* "Thermal and non-thermal health effects of low intensity non-ionizing radiation: An international perspective" which, on information and belief represents the first paper in which multiple international experts are simultaneously asserting the validity of specific empirical evidence demonstrating that a statistically significant[7] number of people are imminently and overtly sickened by electromagnetic radiation and that the condition of electromagnetic hypersensitivity exists. Furthermore, and more damning, they are opining that up to 10% of the population may be so afflicted. If so, this reinforces the claim that a very serious public health problem is occurring and suggests that an unacknowledged cost, one that O&R had called "speculative" exists for the AMI program and that the need to account for lawsuit risk, concomitant with Lloyd's of London's refusal to re-insure any risk from electromagnetic fields, is real, as well as the need to consider that if the AMI program isn't providing financial benefits, may overall be creating financial costs and is physically harming the ratepayers, it does not belong in rate base. (The paper also discusses the agreement among various international experts regarding other health consequences of electromagnetic field exposure to the population at large which reinforces Dr. Carpenter's long-held opinion that smart meters should be banned in all jurisdictions.) This also would support an ongoing request that a settlement of this rate case should not occur absent the provision of analog meters on demand (as NYSEG provides) to those requiring them for medical purposes, as a wired digital meter is not as

[7] The EU declared that this population was increasing exponentially in their 3/12/12 Written Declaration on the recognition of chemical and electrical sensitivity. (Exhibit 8). The link between development of electro-hypersensitivity and exposure to smart reports had been reported in Lamech F. Self-Reporting of Symptom Development from Exposure to Wireless Smart Meters' Radiofrequency Fields in Victoria, Australia: A Case Series. *Altern.Therapies.* 2014: Vol. 20, 6, 37. (See: Exhibit 10, herein).

adequate for these purposes for some people[8] nor is a singular opt-out adequate for the inhabitant of an apartment building who is sickened by a bank of meters. This request for an analog opt-out would lower some risks of the AMI program and reduce the costs to the ratepayers and should be considered by all intervenors to avoid future costs for the company to litigate the opt-out issue should the legislature continue to stall on bringing forth a bill that has long since been passed in other states including California, Vermont and Maine. Concomitant with other claims that have manifested in the past month that the AMI systems are not working as advertised and concomitant with knowledge that more robust wired systems exist and are being deployed elsewhere, all parties should take stock of the costs O&R is asking to expense to the ratepayers (and put in rate base) and ask if they should be expensed at all (and put in rate base) when a system that is creating extra costs for ratepayers and not proven to save the ratepayers measurable amounts of money is effectively obsolete and appears to be unsafe.

Furthermore what emerges from the paper, which represents some consensus about the major EMF findings from internationally recognized experts, including the world renowned Lennart Hardell, whose work was largely the basis for the World Health Organization ("WHO's") 2b carcinogenicity categorization of radiofrequency radiation and whose work was used by a European Court to find that cell phones and cordless phones are causing brain tumors, is a picture of a society where multiple overlapping exposures (from multiple devices and/or infrastructure in a discrete location) are particularly problematic and exposures for certain subgroups of the population, including, but not limited to children[9]; smart meters represent an involuntary form of exposure in one's own dwelling or office. Questions about the total costs to

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[8] Wired digital meters have been shown to put electrical pollution, i.e. high frequency transients onto wiring as demonstrated in the Isotrope Wireless,"Report on Examination of Selected Sources of Electromagnetic Fields at Selected Residences in Hastings-on-Hudson", 11/23/13. (Exhibit 13 herein)

[9] In 2008, the National Academy of Sciences published a report, Identification of Research Needs Relating to Potential Biological or Adverse Health Effects of Wireless Communication Devices documenting the problem of multiple co-located exposures and potential health risks for certain subgroups. The report is herein in Exhibit 9.

health and wellbeing created by exposures from smart meters, not just for people with electro-hypersensitivity, need to be raised in light of this paper, which terms emissions of the type emitted by these devices “a significant health threat”. Costs to health, though an economic externality, are economic costs and hence “costs” under any definition of the term. It also suggests that the ongoing O&R policy of junking analog meters should be stopped and the amortizations charges for these old meters should be rethought. The issue of whether new AMI infrastructure, which creates harm and interferes with fundamental rights for some people (and adding to a public health problem for everyone else), should be put in rate base at all when the current system appears to already be obsolete and next generation systems exist that are robust, wired, protect privacy and do what the so-called smart meters were expected to do, which is automate the process of turning appliances off by directly transmitting rate information and load-balancing to a home system and in a safe manner, needs to occur in this proceeding.

Dr. Carpenter also includes an exhibit from the testimony of Dr. Karl Maret, MD, PhD, a wireless radiation dosimetry expert that had been presented to Fortis BC several years earlier. This testimony is relevant now, because while Dr. Maret associates certain emissions with epidemiological studies that show certain biological effects, Carpenter’s new paper demonstrates agreement among some prominent international scientists for biological markers in those complaining of these symptoms; this provides empirical evidence and support for Dr. Maret’s damning assertions, which are that the levels being emitted from smart meters are dangerous.

The other testimony I seek to have admitted, that of Dr. Schoechle, is relevant because it too, addresses the fact that hard-wired systems can be made that eliminate the health risk of wireless as well as fulfill the mandate that smart meters were supposed to offer (which the current AMI systems fail to do). It is note-able that a forward to Dr. Schoechle’s new report has been written by Frank Clegg, the former head of Microsoft Canada, who now campaigns for

wired systems over wireless systems through his organization, Canadians for Safe Technology. The evidence that smart meters contain toxic emissions that sicken certain people overtly (and sicken others over time more slowly) should be considered in tandem with other evidence presented that the systems are now effectively obsolete and require new ones to have the functionality promised. Ratepayers should not be made to continue to invest in a failing system *or at least the further rollout of a failing system.* In light of the DHS upcoming hearings on hacking intrusions which address the issue of protection of data, intervenors should understand the privacy risks which have not been disclosed by O&R. (O&R refused to answer interrogatory Kopald-42; See Exhibit 20). Also, on July 19, 2018 class action attorneys have filed suit against Central Maine Power[10] for overbilling, an issue, which I had asserted in my petition for rehearing on 17-M-0178 continues to exist. The complaint is in Exhibit 3 herein. Any examination of Dr. Schoechle should also include questions about theories about overbilling and what the existence of this lawsuit might portend for the future for O&R. Overbilling will subsequently generate the following costs at a minimum: the interventions of consultants and software and customer service training. This issue should be further examined because O&R merely defers to the meter manufacturer, Aclara, which apparently takes issue with a study suggesting their product is inherently defective and can create overbilling problems (See Exhibit 17- O&R answer to interrogatory Kopald-35). The point is there is evidence that the benefits of the meters are overstated and with evidence about extra and unknown costs, this new evidence must be vetted carefully in an evidentiary hearing with questions needing to be posted to both O&R and the DPS in light of further analysis.

[10] The Electric Power Research Institute (EPRI) white paper, Accuracy of Digital Meters, had previously raised issues about the accuracy of digital meters. It is in Exhibit 11 herein. So too had the Dutch researchers who produced Leferink F, Keyer C, Melentjev A. Static energy meter errors caused by conducted electromagnetic interference. *IEEE Electromagnetic Compatibility.* 2016; 5(4): 59-55. It is in Exhibit 12 herein. O&R deferred to the question about overbilling and claimed that the manufacturer (which has an obvious conflict of interest) refuses to accept the findings of the study. See Exhibit 17 answer to Interrogatory Kopald-35.

The AMI program needs to be more fully vetted by the intervenors in light of new information and implications that may be drawn from an examination of this information at an evidentiary hearing; it is also important that since the DPS and O&R have dismissed claims in the past as theoretical or "not recognized" that are proving to be accurate (most recently, O&R has asserted that they are largely protected from any hacking intrusion; this must be re-considered in light of the DHS findings and the four hearings ordered); it is critical that the Hearing Examiners, who are supposed to be independent of the DPS, allow for a full vetting of issues that have previously been given short shrift by the DPS and for which now there is now more specific evidence of problems. As a society, we have often have to come to terms with new evidence to make prudent policy choices; in the past, such new evidence has caused us to radically change course on how we use lead, asbestos, and other items of perceived ubiquitous convenience (even the use of x-rays, popular drugs and certain devices); when something is ultimately going to cost more than has been projected, both in terms of cost to public health, privacy and charges to address premature obsolescence and unadvertised costs to the consumer themselves who are being asked to pay for the rollout of a system with diminishing returns to them (and that has only been partially rolled out- i.e. the point of no return has not been reached) and an order exists to review costs on something about to be rolled out, the time to vet the issue is at this rate hearing and not revisit it in the hypothetical future.

O&R's response to the interrogatories Kopald-12, 13 and 15 regarding the Switch Mode Power Supply ("SMPS") and the allegations of their parent company's customer Michele Hertz are non-answers (Exhibit 21); they have no response to the claims in Hertz's declaration (Exhibit 22) alleging that many people suffered heart anomalies, became electrosensitive and worse when the meters were installed in her neighborhood; they have no comment about the Switch Mode Power Supply ("SMPS") in the meters which Hertz is on record claiming in the

movie Take Back Your Power that ConEd's engineer told her was defective (and which Hertz and many experts believe is a contributor to symptoms) and they cannot answer whether the SMPS can withstand certain voltage surges and whether such a surge will cause a fire. The other issues given short shrift, of course, is the idea that the smart meters are going to do the beneficial things advertised and create actual value to the ratepayer. No real evidence has been forthcoming about this, and the testimony and exhibits I am asking to be let in provides more evidence that O&R's claims are disingenuous. Again, with no disclosure to the intervenors about the AMI assets in rate base and a failure to fully disclose AMI expenses being sought, intervenors are left to assume that the rate increases that O&R is seeking to saddle the ratepayers with are being inflated by the AMI program.

Conclusion

As I stated in response to O&R's motion to strike:

> Whatever the intervenors decide in the current proceedings, they must have all facts about smart meters and their costs and all facts about the ongoing legal dispute as to whether the further rollout of AMI was properly permissioned before them for consideration for this time. The intervenors must have the tools at their disposal to ask critical questions about the program. *Alliance for Affordable Energy, Inc. v. Council of City of New Orleans*, 578 So.2d 949, 95 (La. Ct. App. 1991) is applicable here. The justices relied upon the following definition in their consideration of prudence: "whether the utility followed a course of conduct that a capably managed utility would have followed in light of existing and reasonably knowable circumstances." The justices further noted: . . . the prudence test "is applied for the purpose of excluding what might be found to be dishonest or obviously wasteful or imprudent expenditures." Thus, a utility must actually consider a range of alternatives and attempt to foresee knowable risks in order to obtain a determination of prudence. A review of costs for the AMI project can and should include an analysis of what was known by the DPS and O&R at the time of 17-M-0178. A hearing during that proceeding should have included an analysis of whether the Pilot demonstrated the so-called benefits touted in O&R's business plan instead of merely rubber-stamping a business plan whose model has been proven faulty by other jurisdictions which have had these meters for some time, including and especially the so-called demonstrated savings to the Consumer. That analysis can and should occur at this proceeding pursuant to the DPS' November 16, 2018 order. Even the DPS contemplated this review in its order.

At this point, there is now much further evidence that O&R's accounting and analysis about the

costs of the smart meter program appears faulty (certainly they have never substantiated their claims of benefits and tangible savings to the consumer), and that the DPS relied upon statements by O&R that are contradicted by the reality documented in other jurisdictions. Inasmuch as the DPS' original order in 17-M-0178 specifically asks for a review of costs, the attached testimony and other exhibits, which relate to claims in the new testimony, should be let into evidence in this proceeding. Again, O&R is not being transparent in its failure to disclose to the intervenors the portions of the AMI program being put into rate base and being used in the formula to generate higher rates. Other comments I made in response to O&R's motion are relevant to the point of letting in more testimony and exhibits:

> The DPS November 16, 2018 order specifically contemplates a review of costs for the AMI program in this proceeding. O&R would like a gag order on any inconvenient information about the overall cost of the smart meter program. O&R would like the matter of what is reflected in its business plan and accounting statements be deemed the absolute truth by fiat. O&R's wish and the DPS' clear command are incompatible. Even if this were not the case, given the on-going controversy about whether the smart meter rollout should have been further permissioned at this time, the intervenors should have all of the information related to that ongoing and concurrent issue whilst contemplating O&R's claims to the Commission that are related to smart meters. There is nothing that obligates the intervenors to rubber-stamp certain decisions and pass along costs to ratepayers that they deem contrary to the public interest. There is also nothing obligating the intervenors to pass along costs related to the AMI program to the ratepayers if they deem they do not benefit the ratepayers (and hence should be passed along to the investors).

The various unacknowledged and not properly accounted for costs of this boondoggle and unrealized benefits suggest that putting AMI assets in the rate base would not be in good faith (again, O&R has not yet been able to identify which AMI assets are in rate base and which ones are being expensed and which ones are related to the "further rollout" permissioned in 17-M-0178). The issue of having point of use control is critical as the current situation is more akin to the LifeLock bank commercial in which the security guard says the following during a violent robbery:

I'm not a security guard,
I'm a security monitor.
I only notify people if there's a robbery…
……There's a robbery.

Here the system is mostly one of notification about rates and electricity use that requires subsequent user intervention (which has been shown to be ineffectual) to shut off certain electricity producing items. Dr. Schoechle's testimony suggests that the UK corroborates earlier claims and theories that there does not appear to be sufficient capability in current AMI systems to later retrofit it to a premises-control system whereby the home could take incoming information from the utility about rates and automatically shut off things that don't need to be on during peak periods and/or other times of higher rates. The system now is sending information out to the utility about when power is being consumed and the utility can send only that use-age information to consumers via computer/smartphone, but it is wholly inefficient in that the system should have been designed so information is directly coming to a premises that has on-site equipment to automatically shut things off during peak times or when other items that increase load are in use- not have that information re-sent back to a smart-phone to "inform" the homeowner. In any event, when people leave the house, they turn off things off before they leave, the UK Minister of State for Energy, who jettisoned his own meter (Schoechle-Exhibit 3, a sub-exhibit of Exhibit 3 herein) explained. The concept that one will get a ping on one's smart phone has been proven to be flawed for two reasons: first, it requires user intervention and incorrectly suggests that people will keep adjusting things remotely whilst getting changing real time rates from the utility on their phones; second, the system is not robust enough to attach items in the house to it, (right now one may be able to remotely control the furnace by having a Nest system or some type of smart home, but not all items in the house, and the information that powers those systems is *not* being relayed through the smart meter (it is being relayed from the

home to a phone and the information transmitted does not relate to rate), cannot be changed absent human user intervention and the inputs regarding rates to automate those decisions are not going through any existing on-premises system.

The existing systems, such as the "smart home" *which do not involve the smart mete*r are also premised upon putting another level of pulse-modulated microwave radiofrequency radiation ("PM MW RF") in the home, which blasts microwave radiofrequency radiation 4,000 feet from the source. Germany and the Netherlands are developing a hard-wired system that transmit the rates to the users via a gateway; (it is not even legal for the utilities in Germany to collect the granular information about what is being used by the devices in the house and overall power consumption and transmit it back to the utility); this is a more robust system, without carcinogenic and neurotoxic radiation, that protects consumers' privacy and has the capacity to do more complex activities that could actually result in lowered electricity use-age and billing to consumers. According to Dr. Schoechle, our Department of Energy is developing a similar hard-wired system called "transactive energy". Anyone adhering to the international guidance including the American Academy of Environmental Medicine ("AAEM") (Exhibit 6) and the Institute for Building Biology and Ecology ("IBE") (Exhibit 7) would not buy in to having another layer and/or a redundant layer of Pulse Modulated Microwave Radiofrequency Radiation ("PM MW RFR") in their home. Their recommendations apply to children, the elderly and people with most medical conditions; in other words, a majority of humans.

Inasmuch as the new information suggests O&R's claims about saving massive costs to the consumer have never been substantiated and only continue to be refuted as the evidence keeps mounting that the systems do not create savings or really lower use of electricity in a way that justifies their costs, and O&R's last AMR system was rendered obsolete within a matter of years, the full itemization of the costs to the consumer should be addressed at this evidentiary

hearing. Furthermore, the fact that the UK report reinforces that the systems are not robust enough to be retrofitted to improve functionality, and that they are already obsolete; concomitant with claims made by O&R that suggest the AMI system is interoperable with DEMS, ADMS and SCADA when they are not, according to Dr. Schoechle, we can assume that large charges will be needed in the near term future. It is intellectually dishonest to say, well, we know, but we can adjust the depreciation schedule at a later date via a rider and pass these charges along to the ratepayer after the fact. It is also intellectually dishonest to put in rate base items that are not benefitting the ratepayer and to put expenses into the formula to calculate rate of return. It is also intellectually dishonest to claim that interrogatories about what AMI assets are in the rate base and what AMI expenses are sought to be collected are "harassing" when the DPS ordered AMI costs to be reviewed in this hearing. (See again: Exhibit 24). All of this information as well as what is actually in rate base is necessary to properly analyze costs pursuant to the DPS' order in 17-M-0178. There should be a robust discussion amongst the intervenors about whether costs, that do not benefit the consumer or marginally benefit the consumer to a much lesser degree than claimed, should be passed down to ratepayers at all or put in rate base to justify increased charges to the ratepayer. The question too of how much O&R can plausibly claim it was not aware of what was going on in other jurisdictions needs to be raised immediately.

Certainly, O&R could not point to one instance in the original rollout in which they were able to shut off a peak-loader because of the existence of smart meters (See Exhibit 18, O&R's response to Interrogatory Kopald-34). Nor does their business plan provide any evidence to support the claim in their response to Interrogatory Kopald-41 that "Smart Meters are a proven method…. and have shown to provide significant cost savings benefits". My question talked about savings to the *Consumer* (i.e. the ratepayer in most instances); O&R identifies none. (See Exhibit 19). Again, O&R still has not identified how much of the AMI system is in rate base and

expenses and has not been able to answer that question to date and neither O&R nor the DPS have shown any evidence of how these meters will lower bills for consumers and meaningfully save electricity use at the present time *whilst allowing O&R to spend $98.5 million on capital expenditures for this program and presumably put some of this into the rate base*. The DPS ordered the parties to review AMI costs; O&R is concealing them, and new evidence has emerged that the AMI program does little if anything to benefit the ratepayer and more likely than not, represents a net cost to the ratepayer.

For the aforementioned reasons, I respectfully request that the testimony of Drs. Timothy Schoechle and David O. Carpenter and other exhibits be admitted into this proceeding.

Respectfully Submitted,

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EXHIBIT LIST

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Belpomme D, Hardell L, Belyaev I, Burgio E, Carpenter DO.
Thermal and non-thermal health effects of low intensity non-ionizing radiation:
An international perspective. Environmental Pollution 242 (2018) 643-658.

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Karl Maret, MD, PhD Testimony
With David M. Aaron Esq.;
Fortis BC Inc. Application for a
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for the Advanced Metering Infrastructure Project
~ Project No. 3698682
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Exhibit 2: Testimony of Dr. Timothy Schoechle……………………………..PDF #1, Page 94

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British Infrastructure Group
Not So Smart: A Comprehensive Investigation
into the Roll-Out of Energy Smart Meters
(signed by 93 Members of Parliament)
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Re-Inventing Wires:
The Future of Landlines and Networks
Timothy Schoechle
June 2018- online edition;
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H.DeQuetteVille
“How the Smart meter rollout became such an expensive failure,
its own minister has thrown his out”
UK Telegraph
July 29, 2018

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R. Smith
"Russian Hackers Reach U.S. Utility Control Rooms,
Homeland Security Officials Say:
Blackouts could have been caused
after the networks of trusted vendors were easily penetrated"
The Wall Street Journal
July 23, 2018

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Smart grid data privacy:
key issues and third-party institutional dimensions
Timothy Schoechle
Internal Report for University of Colorado, Boulder (2012)

Exhibit 3: July 18, 2018, Levesque v. Central Maine Power Company, Class Action Complaint……………………………………………………………………...PDF #1, Page 351

Exhibit 4: September 17, 2015, Letter of Assemblywoman Michelle Schimel to Commissioner Audrey Zibelman, New York Public Service Commission...PDF #1, Page 351

Exhibit 5: July 27, 2018, Affidavit of Deborah Kopald……………….........PDF #1, Page 360

Exhibit 6: July 12, 2012 American Academy of Environmental Medicine ("AAEM") Recommendations Regarding Electromagnetic and Radiofrequency Exposure and AAEM Position Paper on Electromagnetic and Radiofrequency Fields Effect on Human Health (2012)……... ……………………………………………………………………...PDF #2, Page 1

Exhibit 7: International Institute for Building-Biology and Ecology Standards (including Radiofrequency Radiation)….…………...PDF #2, Page 13

Exhibit 8: March 12, 2012 EU Written Declaration on the recognition of multiple chemicals sensitivity and electrohypersensitivity in the International Statistical Classification of Diseases and Related Health Problems (ICD)..PDF #2, Page 26

Exhibit 9: National Academy of Sciences ("NAS") Identification of Research Needs Relating to Potential Biological or Adverse Health Effects of Wireless Communication Devices (2008)……..………...PDF #2, Page 29

Exhibit 10: Lamech F. Self-Reporting of Symptom Development from Exposure to Wireless Smart Meters' Radiofrequency Fields in Victoria, Australia: A Case Series ***Altern.Therapies.*** **2014: Vol. 20, 6, 37……………………….......................PDF #2 Page 109**

Exhibit 11: Accuracy of Digital Meters. Electric Power Research Institute, May 2010……………………………………………………………………...PDF #2 Page 123

Exhibit 12: Leferink F, Keyer C, Melentjev A. Static energy meter errors caused by conducted electromagnetic interference. *IEEE Electromagnetic Compatibility.* 2016; 5(4): 59-55...……………………………...……………………………………...PDF #2 Page 132

Exhibit 13: November 23, 2013 Isotrope Wireless,"Report on Examination of Selected Sources of Electromagnetic Fields at Selected Residences in Hastings-on-Hudson"……………………………………………………………... ………...PDF #2 Page 140

Exhibit 14: December 5, 2017 Citizens for Fair Rates and the Environment's Brief-In Chief. Case No. 15-00312-UT, Before the New Mexico Public Regulation Commission………………………………………... ……………………..……...PDF #2 Page 157

Exhibit 15: Data Request Woodward 2.12 to Arizona Public Service Company Regarding the Application to Approve Rate Schedules Designed to Develop a Just and Reasonable Rate of Return, Docket No. E-01345A-16-0036……………………….………...PDF #2 Page 253

Exhibit 16: United States Access Board/National Institute of Building Sciences Indoor Environmental Quality Report, pages 8, 87-88. ………..…………………...PDF #2 Page 256

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Exhibit 24: O&R Response to Kopald Interrogatories Kopald 45-2 to 53-2 and 55-2 to 57-2..……..PDF #2 Page 347