STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application and request of the DETROIT EDISON COMPANY seeking approval and authority to implement its proposed Advanced Metering Infrastructure opt out program.	)))))	Case No U-17053

INTERVENOR LINDA KURTZ'S & CYNTHIA EDWARDS' INITIAL BRIEF

February 12, 2013

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I. Introduction

This initial brief is filed by Linda Kurtz and Cynthia Edwards, in pro per, as intervenors in the above captioned case in accordance with the schedule established by Administrative Law Judge Dennis Mack. Any issues or positions proposed by a party to this matter not addressed herein should not be construed as agreement with such issue or position.

ARGUMENTS

II. Scope of the Case

A. Introduction

The Commission is charged with determining whether to accept the opt-out proposal offered by Detroit Edison under the September 11, 2012 Order of the Commission in U-17000 in its entirety or with modifications. All of the elements of Detroit Edison's opt-out proposal are new and not contained within any previous tariff. There is no tariff approving the use of nontransmitting meters nor is there any tariff no previous tariff regarding replacement of AMI meters with another kind of meter.

The Commission is charged with reviewing this new, proposed tariff and deciding what parts of this proposal to keep and what parts to reject. This includes, but is not limited to, reviewing and deciding on

1. the cost of the opt-out and how much, if anything, any customer should have to pay to opt-out;
2. who, if not the customer opting out, will bear the costs of the opt-out;
3. whether a reason must be offered by the customer for opting out;
4. what type of meter will be used on the buildings of the customers who opt out;
5. whether businesses should be included in the opt-out, since the opt-out only provides for residential customers;
6. the contents and language of the proposed tariff in this case (Exhibit A-2 of the Direct Testimony of Robert E. Sitkauskas).

All of these are possible options, all are possibilities that could be included in an opt-out proposal. All of these parameters relate to cost of service. However, it is not necessary that they relate to cost of service as nontransmitting meters have not been approved.

The September 11 Order states that the investor-owned utilities "shall make available an opt-out option, based on cost-of-service principles, for their customers."[1] It orders that "Commission Staff's report on Advanced Metering Infrastructure and Smart Grid is accepted."[2]

In that report accepted by the Commission, Staff states that the utilities should "investigate a variety of opt-out options. Electromechanical meters [analog meters] may be a viable opt-out option for some

[1] September 11, 2012 Commission Order in U-17000, p 5
[2] September 11, 2012 Commission Order in U-17000, p 6

customers."[3] The report goes on to list additional potential options, including "installation of a smart meter that does not have a communicating radio, relocating a smart meter on the customer's premise, or hard-wiring a smart meter into the network."[4]

The Commission stated that "the report [in U-17000] should be accepted as a *practical point of departure for further discussion and Commission action*."[5]

In Detroit Edison's proposal, there is no indication that any of these other options were considered. Intervenor questions about this matter were struck.[6]

B. Language

1. Meaning of *proposal*

The Detroit Edison has "proposed" a tariff for approval in this case.[7] A *proposal* is something "set forth for acceptance or rejection."[8] Synonyms include "offer, proffer, propound, suggest, put forth, put forward."[9] Inherent in a proposal is the fact that it may be accepted, rejected, or modified.

2. Meaning of *program*

In its Application in U-17053, Detroit Edison is seeking approval for its opt-out "program." A *program* is "a plan or system under which action may be taken toward a goal,"[10] and by definition consists of multiple parts. As such, all parts of the *proposed program* and of the *proposal* must be considered by the Commission, especially since all parts of Detroit Edison's proposed opt-out program bear on cost of service. In keeping with the statutory mandate of the Commission, all aspects of the proposed tariff must be considered.

C. Content and language of the proposed tariff/program

Detroit Edison's program consists of the following, as outlined in its Application in U-17053 and in the Direct Testimony of Robert E. Sitkauskas and its attached Exhibits A-1 and A-2:

1. Smart meter with radiofrequency disabled as alternative to a fully functioning smart meter
2. Customer must supply identification to start opt-out procedure
3. Customer may opt out for any reason
4. Customer does not have to state why opting out
5. $87 charge to disable the radiofrequency and to accommodate billing system modifications
6. $15 monthly fee for meter reading and associated costs

[3] U-17000 Report to the Commission, p 27.
[4] U-17000 Report to the Commission, p 27.
[5] September 11, 2012 Commission Order in U-17000, p 4 (emphasis added).
[6] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 328–329.
[7] Direct Testimony of Robert E. Sitkauskas p 3; September 11, 2012 Commission Order in U-17000, p 5.
[8] *Merriam-Webster's New Collegiate Dictionary* (1975), definition of *propose* and *proposal*.
[9] *Webster's* online dictionary, definition of *propose*.
[10] *Merriam-Webster's New Collegiate Dictionary* (1975)

7. Manual meter reads
8. Monthly meter reads[11]
9. Advisements to opt-out customers that "they are giving up certain benefits attributed to AMI at their service location including increased restoration capability, access to timely metering data and other benefits that promote the efficient operation of the electrical distribution system."[12]

Exhibit A-1 is Detroit Edison's proposed tariff language. It includes the following:

1. A long first paragraph on what AMI is, according to Detroit Edison.
2. A long second paragraph summarizing the opt-out history with regard to Commission orders and proceedings.
3. A statement on applicability:
    a. Who may participate (residential customers only)
    b. The meter for opt-out customers is a "nontransmitting AMI meter."
    c. The meter will be read manually.
4. Initial fee: $87
5. Monthly fee: $15
6. What will happen to the meters:
    a. Customers with a smart meter will have their meter "changed" to a non-transmitting meter.
    b. Customers who retain their original meter will have it removed and replaced with a transmitting meter
    c. That customer will later "receive" a nontransmitting meter.
7. Statement regarding what Detroit Edison considers "losses" to the customer if they do not keep an AMI meter.
8. Statement that all other applicable tariffs continue to apply.

Clearly, the proposed opt-out program consists of multiple parts, consistent with the definition of *program.* It is this proposed program, in all its parts, that is before the Commission. Every facet of this program is up for approval.

Commission Staff has changed the language of the tariff in ways that go beyond what Staff continually claims are limited cost of service principle. Specifically, the first paragraph of Detroit Edison's proposed tariff was struck by Staff. The second paragraph was struck in its entirety and replaced with a single sentence. The third and fourth paragraphs are the only ones that in Staff and Edison's arguments bear directly on cost of service, and these were changed to reflect a different rate.

An additional provision was added to the fifth paragraph that clarify when fees shall be paid.

The final paragraph was substantially unaltered.

[11] Items 1–9 from Application in U-17053, page 2, item 4.
[12] Application in U-17053, page 3, item 5.

D. The type of meter to be installed as an alternative to the smart meter is within the scope of this case

This tariff is a new tariff that seeks to establish a number of things, including the nontransmitting AMI meter (radio-off smart meter) as the alternative to the AMI meter (radio-on smart meter). The benefits and deficits—cost, health, burdensomeness to the customer, etc—of the nontransmitting meter have not heretofore been the subject of any evidentiary hearing. These subjects were not addressed in this hearing because the administrative law judge held that the type of meter to be used in the opt-out has no bearing on cost of service. An adequate record has not been developed as to what meter, other than the existing customer meter, may serve as the opt-out meter or meters.

In addition, the type of meter used in the opt-out has a direct bearing on cost of service. This is extensively discussed in Section IV.B.

Detroit Edison's sole witness, Robert Sitkauskas, manager of the company's AMI technology group, made it clear throughout the cross-examination that Detroit Edison believes that the type of meter to be installed as an alternative to the smart meter is something the Commission will have to approve.

The following language is contained in Detroit Edison's proposed tariff: "Customers electing this Opt-Out Provision will have a non-transmitting AMI meter(s) installed at the customer's service location."[13] Mr. Sitkauskas testified as to its purpose, stating that it is "to establish the type of meter being installed at that location for the customer opting out."[14] The definition of *establish* is "to gain full recognition or acceptance"; "to institute (as a law) permanently by enactment or agreement."[15] When asked whether the type of meter to be installed in the opt-out is an established fact at the present time, Mr. Sitkauskas stated that it is not.[16]

The full transcript reads[17]:

> Q [Mr. Erickson]: "What separate and independent purpose is the language, 'customers electing this Opt-Out Provision will have a non-transmitting AMI meter(s) installed at the customer's service location,' intended to have?"
>
> A [Mr. Sitkauskas]: To establish the type of meter beings installed at that location for the customer opting out." Q [Mr. Erickson]: " 'To establish' implies to me that that is not an established matter of fact at the present time. Is that an accurate understanding by me?"
>
> A [Mr. Sitkauskas]: "Correct."

[13] Direct Testimony of Robert E. Sitkauskas, Exhibit A-2.
[14] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 518, lines 4–5.
[15] *Merriam-Webster's New Collegiate Dictionary* (1975)
[16] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 517– 518, lines 24–25 and 1–9.
[17] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 517– 518, lines 24–25 and 1–9.

Mr. Sitkauskas's testimony in response to various questions during the cross-examination further illustrates the company's position that the type of meter to be used in the opt-out is a matter for the Commission to approve.

1. "[W]e are not *proposing* an analog meter. We are *proposing* that we are putting through the single meter, the open way [Openway] meter with the radio shut off."[18]
2. "[O]ur *proposal* is the non-transmitting AMI meter."[19]
3. "[W]hat we are *proposing* in our opt out here is a non-transmitting AMI meter."[20]
4. "The meter we're *going to*, *proposing* to put on the house is a non-transmitting meter."[21]

Notice that in the last quotation, Mr. Sitkauskas even corrects himself. He apparently began to say, "The meter we are *going to* put on the house," and rephrased to "*proposing to,*" because the type of meter to be installed is something the Commission has to approve. It is part of the proposal.

Throughout the cross-examination, questions by various intervenors concerning whether the proposed meter was the most cost-effective opt-out meter were repeatedly challenged and stricken from the record. The ALJ stated that no further questions bearing on type of meter were to be allowed, with the result that many questions that would go to showing whether the meter proposed by Detroit Edison is the most effective use of resources and serves the intended function of the opt-out were left unasked and unanswered.

While some might wish to argue that simply turning off the radio on a smart meter does nothing to change the nature of the already investigated smart meter, clearly such is not the case. Were its nature unchanged, the nontransmitting meter could not constitute an alternative to the smart meter. Intervenors Linda Kurtz, Cynthia Edwards, and Dominic and Lillian Cusumano attempted to present testimony that bore on whether the type of meter proposed for the opt-out would serve its intended function of alleviating customer concerns about smart meters. These concerns include concerns regarding health, power quality, privacy, cyber-security, and safety. The testimony was stricken from the record.

The Staff report in U-17000 did not address the health effects of nontransmitting meters. Testimony submitted by Intervenors Cynthia Edwards and Linda Kurtz addressed these health effects, but was stricken from the record.

The Commission must allow a full record to be developed on whether the meter proposed by Detroit Edison as the alternative to the smart meter adequately fulfills the customer concerns that the opt-out was designed to address.

[18] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 294, lines 7–9 (emphasis added).
[19] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 294, lines 15–16 (emphasis added).
[20] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 294, lines 13–14 (emphasis added).
[21] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 260, lines 6–7 (emphasis added).

III. Summary of Detroit Edison's cost analysis

Detroit Edison presented its cost analysis in Exhibit A-1 of the Direct Testimony of Robert E. Sitkauskas. Further details of the proposed cost of a non–smart-meter option were given during cross-examination of Mr. Sitkauskas.

Detroit Edison's cost projections are based on the assumption that 4,000 of its non-business customers will choose to opt out. Detroit Edison has made no provision in its program for nonresidential customers to opt out.

Detroit Edison considered only the cost of converting an smart (AMI) meter to a nontransmitting meter in its opt-out program. It did not consider other alternatives, such as opt-out customer retention of existing meter or using meters removed during AMI install for the opt-out meter.

The Staff cost projections are based on the assumption that 15,500 residential customers will opt out.

The following come from Exhibit A-1, Schedules 1, 2, and 3:

The item "Training for Field Personnel to disable and enable AMI Meter Transmitter" (Schedule 1, Line 2) consists of an estimated amount for training personnel. Training will, neatly, take one hour. 126 techs will be trained.

The item "Time and Expenses to disable and enable AMI Meter Transmitter" (Schedule 1, Line 1) consists of the training of technicians to disable the radio transmitter on the smart meter that Detroit Edison proposes to install on opt-out customer homes, as follows: [22]

1. An estimated 45 minutes to insert a probe and disable the transmitter
2. An estimated 15 minutes of travel time.
3. Pension and benefits costs.
4. Expenses for fleet, vehicle maintenance.

The average rate of pay would be $31.65 per hour, not including indirects or benefits. Pension and benefits add $24.20 to this cost (Schedule 2).

Schedule 1, Line 3, "Billing System Modifications," denotes the computer programming changes that will have to be made so that the computer knows a customer is an opt-out customer.[23] The programming changes that have to be made will cost approximately $24 per customer.

Mr. Sitkauskas delineated the opt-out system during cross-examination.

[22] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 348–349
[23] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 352.

1. A customer will call Detroit Edison expressing interest in opting out. Apparently, there is no provision for a customer to mail in a request, as Mr. Sitkauskas did not note this possibility during cross-examination.
2. The representative will put in what Mr. Sitkauskas termed "an action" to have a "service visit" made to the customer's residence. This is referred to as an "event" in the billing system.
3. An opt-out meter would be installed with the radiofrequency turned on, and the customer would then have to call to have it turned off.[24]

IV. Reasonableness of Costs

A. Introduction

The costs proposed to be imposed by Detroit Edison on opt-out customers are unreasonable, unjust, and imprudent in light of the fact that a more cost-effective, non–labor-intensive opt-out alternative exists. The Michigan Court of Appeals in *In Re Application of Detroit Edison Company to Increase Rates*, Nos 296374, 296379 (Apr 10, 2012), held that "the PSC may allow recovery of a utility's costs only when the utility proves recovery of costs is just and reasonable."

The proposed opt-out unreasonably penalizes and harms the opt-out customer in the following ways, and thus is neither just nor reasonable:

1. It requires the opt-out customer to pay for the installation a meter that will not provide any benefit to the customer or to Detroit Edison.
2. It requires the customer, subsequent to the installation of this unnecessary meter, to pay a considerable sum for the disabling of a component of this meter. Such disabling would not be required if this meter were not installed in the first place.

The proposed opt-out is not cost-effective for the company or the customer, nor is it a wise or prudent use of material resources or labor resources because

1. no cost savings is realized by the company or the customer
2. the expenditure of unnecessary resources is required under the present opt-out proposal
3. there is no benefit to customer to have different meter than his or her existing meter
4. there is no benefit to Detroit Edison for the customer to have different meter than his or her existing meter
5. if opt-out customers retained their current meter, Edison and the customers would save between $252,000 and $1 million, depending on the total number of opt-outs
6. if Detroit Edison's supply of non-AMI meters were used as the opt-out meter for all opt-out customers, even those who have had an AMI meter installed, Edison and customers could save nearly $2 million

[24] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 352, p 470.

B. Meter installation[25]

1. No Benefit to Detroit Edison or Customer

It is poor use of time, labor, resources, and materials to install a device that will not provide any benefits to either Detroit Edison or the customer. Detroit Edison has made it clear that the customer with a non-AMI meter gains *no benefit whatsoever* from the installation of a nontransmitting meter.[26]

It has also stated that there is no benefit to the company from installing a smart meter on a customer home and, within short order, disabling its RF transmitter.[27] Detroit Edison witness Robert Sitkauskas stated that the only perceived deficit to Detroit Edison from not requiring a customer to have a radio-disabled smart meter installed on his/her premises is that the meter "could not be upgraded to AMI."[28] In fact, the meter *can* be "upgraded" to AMI—this is exactly what Detroit Edison is doing now to most of its non-AMI meters. Detroit Edison would simply send a field service technician out to change out the meter and it would be "upgraded." See Section IV.B.2.c. i and ii for a discussion of why this is a simpler and cheaper solution to "upgrading" to AMI than installing a radio-on smart meter and then disabling its radio transmitter.

2. Savings of $1–1.5 Million

a. Introduction

If all customers choosing to opt-out who do not have a smart meter at the time of opting out keep their current, non-AMI meter, the costs savings to Detroit Edison and the opt-out customers could be as high as *$1 million*. If opt-out customers who have had a smart meter installed have that meter replaced with a non-AMI meter, the savings could reach. If businesses are included in the opt out, savings would increase even more.

Rather than the $87 one-time opt fee requested by Detroit Edison, customers would pay an initial, one-time charge of between $6 and $24 to opt out.

As discussed in Section IV.B.2.c, even if an opt-out customer has had his or her meter replaced with an AMI meter, it will actually be a cost savings to replace that meter with a non-AMI meter.

b. Initial Savings to Detroit Edison and the Customer

i. Initial savings projected from Staff and Detroit Edison calculations

Initial savings are the savings to be realized by leaving existing meters on the residences of customers who have not had a smart meter installed.

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[25] The discussion in this section is based on the proposed opt-out tariff submitted by Detroit Edison, Exhibit A-1, Schedule 1, Lines 1 and 2 of the Direct Testimony of Robert E. Sitkauskas, and Schedule 2 of the same exhibit and testimony, "Time and Expenses to Disable Smart Meter Radiofrequency Transmission" and "Training for Field Personnel," and the same line items in Exhibit S-1 of the Direct Testimony of Steven Q. McLean.

[26] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 508–509

[27] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 509

[28] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 514, line 8.

According to Detroit Edison's calculations, it will cost the company $63 per meter in labor and associated costs to turn off the radiofrequency on a smart meter[29] (or, in Detroit Edison's terminology, to "install a nontransmitting meter" [30]). Commission Staff has calculated radio turn-off costs at $61.[31] If all customers choosing to opt-out were allowed to keep their current, non-AMI meter, the costs savings *to Detroit Edison* under Staff's projected opt-out rate of 15,500 customers would be $945,500 ($61 X 15,500). Under the company's projected opt-out rate of 4,000 customers, the company savings would be $252,000, but, as Staff has estimated, and as is discussed further below, the opt-out rate will likely be considerably higher. Projecting from current meter refusals and opt-out requests (discussed in section *ii*), the number of people opting out will be at least 7,800 before any company publicity about the opt-out. If 7,800 customers opt out at a rate of $63 per meter, if customers keep their existing meter, company savings could be well over *half a million dollars*. While, presumably, some opt-out customers will have already had their non-AMI meter replaced with an AMI meter, as discussed in Section IV.B.2.c., even greater savings than that calculated here will be realized if these meters are replaced with a non-AMI meter. It is for this reason that we are terming the savings discussed here *initial savings.*

More importantly, not only the company, but *opt-out customers* on whose residences Detroit Edison has not already installed a smart meter would, as a whole, save $1 million.[32] Individually, each customer would save $63 ($61) in initial opt-out costs. The only initial cost remaining to these customers would be the one-time charges for billing system modifications, which amount to $24 per customer under Detroit Edison's calculations[33], and $6.20 under Staff's[34]. A $24 opt-out—let alone a $6 opt-out—is certainly a preferable and more cost-effective solution for the consumer, especially for those who are low-income or elderly.

If existing meters (whether analog or digital) of opt-out customers were left in place, the company (and, therefore, customers) would not incur the following costs:

1. Cost of special visit to remove old meter and install new, AMI meter, including
    a. travel time
    b. pension costs
    c. benefits costs
    d. fleet costs
2. Costs of training of personnel to disable radiofrequency transmitter[35]
3. Costs to disable the RF transmitter of a smart meter, which consist of[36]
    a. travel time
    b. costs to disable radiofrequency transmitter

[29] Exhibit A-1, Schedule 1, Lines 1 and 2 and Schedule 2 of the Direct Testimony of Robert E. Sitkauskas.
[30] This phrasing is inaccurate since the company is not installing a nontransmitting meter. Rather, it is installing a smart meter with the radio turned on and subsequently disabling that radio transmitter.
[31] Direct Testimony of Steven Q. McLean, Exhibit S-1, Lines 1 and 2.
[32] $61 X 15,500
[33] Exhibit A-1, Schedule 1, Line 3 of the Direct Testimony of Robert E. Sitkauskas.
[34] Direct Testimony of Steven Q. McLean, Exhibit S-1, Line 3.
[35] Exhibit A-1, Schedule 1, Lines 1 and 2 and Schedule 2 of the Direct Testimony of Robert E. Sitkauskas. There would not be any costs whatsoever to train personnel if non-AMI meters are reinstalled on opt-out customer homes on which smart meters have already been installed. This is the less expensive option, as discussed later in this brief.
[36] Exhibit A-1, Schedule 1, Lines 1 and 2 and Schedule 2 of the Direct Testimony of Robert E. Sitkauskas.

c. pension costs
d. benefits costs
e. fleet costs

Employee time could be spent doing other Detroit Edison business, which would benefit all Detroit Edison customers, the company, and the company's shareholders. One hundred twenty-six employees are being pulled part-time from other jobs in order to accommodate the disabling of radiofrequency transmissions.[37] It is worth noting here that Staff deemed "significant" the fact that under AMI, meter readers could now do "other useful work at the utility."[38] Since all opt-out customers will have their AMI meter replaced with a non-AMI meter, there will be no training costs whatsoever, as there will be no need to disable the smart meter's radio transmitter and no subsequent need to re-enable it when a service location switched to AMI. See Section IV.B.2.c..

ii. Initial savings projected from data on customer install refusals

As of November 30 of last year, DTE records indicate that 3,269 customers had expressed directly to DTE some sort of interest in opting out, either by calling in, writing in, or preventing access to their meters. [39] If all of these customers have retained their meters and Detroit Edison does not install a new meter on their residence, the savings to Detroit Edison in installation costs would be $205,947 and somewhat under 3,395 labor hours.[40] Detroit Edison was directly denied access to installation in 2608 of these 3,269 cases, which means that at least 2608 customers in *installed* territory still retained their old meters.[41] If *only* these 2,608 people elect to retain their current meter, the savings to Detroit Edison would be $164,304 in installation costs[42] and 2,734 person-hours in training and field time.[43]

[37] Schedule 2, Note 1. This assumes Detroit Edison's estimate of 1 hour of training time per service person and 1 hour of installation time.

[38] Michigan Public Service Commission Staff's Motions to Strike in U-17053, p 3. Of course, most meter readers have not been directly employed by the company for years; given that, the significance of this opportunity pales.

[39] Detroit Edison claims that 722,000 smart meters had been installed at that the time it made its opt-out calculation of 4,000 customers (Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 514, lines 12–15). Detroit Edison has 2.4 million residential meters (Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 432, lines 17–23). As of November 30, 2012, Detroit Edison claimed that 3,269 customers had in one way or another expressed an interest in retaining their current, non-AMI meter, or, at a minimum, expressed concerns about smart meter installation, and 2,608 customers had denied or prevented installation (Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 461 , lines 9–25). Detroit Edison claimed that as of November 30, 2012, it had installed 800,00 meters (Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 433, lines 14–17). If the rate of interest in retaining the current meter holds steady (though it might increase [and presumably will not decrease, given the continued publicity around smart meters]), then by the time all of Detroit Edison territory is installed, one could expect about 9800 opt-out customers, based on this rate (3,269 probable opt-out customers per 800,000 customers).

[40] $63 X 3269 customers; 3269 installation hours plus 126 training hours

[41] *See* fn 39.

[42] 2608 X $63; 2608 + 126.

[43] Note that many more people in territories Detroit Edison was installing attempted to deny installation—either verbally or by posting a sign denying installation— but those warnings were ignored by service personnel. Detroit Edison has also returned to many "deny" sites and installed smart meters. The number of people still retaining old meter in installed territory would be higher had the customers' wishes been respected. Moreover, the number to date is likely higher, as this figure is from November 30, 2012.

If the *rate* of customer interest in retaining their current meter holds steady, and if the *rate* of denial of install remains at between 2,600 and 3,200 customers per 800,000 customers[44], then by the time all of Detroit Edison territory is installed, one could expect between 8000 and 10,000 opt-out customers to retain their old meter. If denial of install rates increased, then we might see the full 15,500 opt-out customers projected by Staff to retain their old meter. Given the continued publicity around smart meters, the total number of customers who deny installation, keep their old meter, and choose to opt out will likely be much higher.

If 7800 people retain their old meter[45], then nearly *half a million dollars* in *initial* savings will be realized by not switching the meters to smart meters and then turning off their radiofrequency. If 10,000 people retain their old meter, the savings to Detroit Edison and customers will be approximately $630,000. The labor savings will be over 10,000 hours. [46]

c. Long-term savings to Detroit Edison and customers

i. Introduction

Edison has stated that the sole benefit to the company of installing a nontransmitting smart meter on a customer residence is that the meter can be "upgraded" to AMI.[47] This "upgrade" can be accomplished much more cheaply and with less labor by leaving or reinstalling a non-AMI meter on the homes of opt-out customers than by requiring them to have a nontransmitting AMI meter. When the time, if any, comes to "upgrade," the company can simply send out a field service technician to change out the meter, effectively accomplishing the "upgrade."

It is less expensive to "upgrade" to AMI from a *non*-AMI meter than from a nontransmitting AMI meter. The smart meters come to Detroit Edison with the radiofrequency component *enabled*. Detroit Edison projects one hour of time to disable the radiofrequency transmitter of a meter, at a cost of $63 per meter.[48] Under its current proposal, by the time a non-AMI meter is changed to a nontransmitting meter and then upgraded to AMI, Edison will have incurred a minimum of $124 in unnecessary expenses per meter. The actual total is likely much, much higher. This is discussed in section *ii* below.

It is less expensive to remove an existing AMI meter and replace it with a non-AMI meter than to "install" a nontransmitting meter. A minimum of $63 is saved by this option. This is discussed in section *iii* below.

By the time a meter is "upgraded" to AMI, it is likely that the technology will have changed such that the current AMI meters are obsolete. See section *iv* below.

There are numerous other cost savings associated with the use of non-AMI meters as the opt-out alternative. See section *iv* below.

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[44] 2600 is the low end of the estimate, these being people who denied installation 3200 is the high end, these being people Detroit Edison has logged as not wanting a smart meter. While some of these people may ultimately decide to have a smart meter placed on their residence, given that they have taken the time and trouble to contact DTE with their dissatisfaction, most will likely opt out.
[45] 2600 meters X 3. Rate based on 2600 opt-outs per 800,000 customers.
[46] 9800 meters + 126 training hours.
[47] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 514, line 8.
[48] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 348–349

ii. It is less expensive to "upgrade" to AMI from a non-AMI meter than from a nontransmitting AMI meter

The following costs would be involved in "upgrading" from a nontransmitting meter to an AMI meter:

1. Cost of the AMI meter
2. Installation cost of the AMI meter
3. Training of technicians to disable radiofrequency
4. Sending out a technician to disable the radiofrequency (a.k.a., sending out a technician to "install" the meter)
5. Upon decision to upgrade, sending out a technician to enable the radiofrequency

The following costs would be involved in "upgrading" from a non-AMI meter to an AMI meter:

1. Cost of the AMI meter
2. Installation cost of the AMI meter

If a non-AMI meter is upgraded to an AMI meter, three costs are avoided:

1. the cost of training technicians to disable the radiofrequency ($2)
2. the cost of a field visit to turn off the radiofrequency ($61)
3. the cost of a field visit to turn on the radiofrequency ($61)

A total of $124 per meter in *upgrade* costs is avoided if the opt-out meter is not a nontransmitting meter. These savings do not take into account the savings incurred by using non-AMI meters as the replacement meter for customers who do not want transmitting smart meter on their home. The total cost savings would be the following:

- If 15,500 meters are eventually upgraded to AMI, the cost savings under this method is $1,922,000.[49]
- If 10,000 meters are eventually upgraded to AMI, the cost savings under this method is $1,240,000.
- If 4,000 meters are eventually upgraded to AMI, the cost savings under this method is $496,000.
- If 1,000 meters are eventually upgraded to AMI, the cost savings under this method is $124,000.

iii. It is less expensive to remove an existing AMI meter and replace it with a non-AMI meter than to "install" a nontransmitting meter

If this tariff is approved, Detroit Edison will not actually "install" a nontransmitting meter on an opt-out customer's home. The smart meters come to Detroit Edison with the radiofrequency component enabled. Under its opt-out proposal, Detroit Edison will install a *smart meter* on the home of every customer and only *later* turn it into a nontransmitting meter by disabling the radiofrequency[50] (a process the company mischaracterizes as "installing" a nontransmitting meter). It would be less expensive to

[49] $124 X 15,500 = $1,922,000
[50] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 349, lines 3–24.

remove the AMI meter and replace it with a non-AMI meter than to go through the cumbersome and time-consuming process of disabling the radiofrequency component of the AMI meter.

The following costs would be involved in Detroit Edison's proposed tariff:

1. Cost of the AMI meter (unknown, but likely $250 per meter)[51]
2. Installation cost of the AMI meter (5 minutes of labor plus 15 minutes of travel time: $20.33)[52]
3. Training of technicians to disable radiofrequency
4. Sending out a technician to disable the radiofrequency (a.k.a., sending out a technician to "install" the meter) ($61 for 1 hour of labor)[53]

The following costs would be involved in replacement of an AMI meter installed on a home with a non-AMI meter:

1. Cost of the non-AMI meter (zero, with possible exception of testing meter for accuracy)[54]
2. Installation cost of non-AMI meter (same cost as for installation of AMI meter: 5 minutes of labor plus 15 minutes of travel time)[55]

The cost of using a non-AMI meter as the alternative to the smart meter is essentially zero, with the possible exception of meter testing. However, analog meters have an extremely long life expectancy (*see* section *iv(b)* below), and this alone would more than pay for any meter testing that might have to be done.

Two costs go away by using a non-AMI meter: the training of technicians and the cost to disable the radiofrequency. *By using* an *AMI* meter as the opt-out meter rather than one of the many meters being removed from homes during the AMI install, Detroit Edison incurs the substantial cost of the AMI meter (probably around $250) plus the $61 "installation" cost (i.e., disabling the radiofrequency) plus the $2 training cost for a total of between $63 and approximately $315. Sixty-three dollars is the "installation" cost only. Three hundred fifteen dollars is the "installation" cost plus the probable cost of the AMI meter. On top of this we can add the likely need to replace the AMI meter after 15 or 20 years (see section *iv(b)* below).

Thus, total savings equals:

> *(cost of AMI meter + training costs + cost to disable transmitter) – (cost to install non-AMI meter + possible meter testing costs)*

If all premises are installed with AMI and then opt-out premises are installed with non-AMI rather than disabling radio transmitter, the following savings could be achieved (this assumes a per-AMI meter cost of $250).

[51] As questions pertaining to costs of any meter other than the nontransmitting were deemed out of the scope of the case, this cost was not ascertained.
[52] This figure is reached from the following: Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 348–349; p 514, line 16–17.
[53] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 39–350, lines 19–25 and 1–2.
[54] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 348–349; p 514, line 16–17
[55] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, pp 348–349; p 514, line 16–17

Total Savings for 1 customer

(The question mark (?) denotes possible meter testing cost of zero, which is scenario 1. Scenario 2 assumes a meter testing cost of $61.)

Scenario 1: *($250 + 0 + $61) – ($20.33 + ?) = $311 – $20.33 =* ***$290.67*** *(no meter testing)*

Scenario 2: *($250 + 0 + $61) – ($20.33 + ?) = 311 – 81.33 =* ***$229.67*** *(includes $61 meter testing)*

Savings for 15,500 customers (training cost $0): 15,500 x 290.67 = **$4,505,385** *(no meter testing)*

15,500 x 229.67 = **$3,559,885** *(includes $61 meter testing)*

Savings for 10,000 customers: (training cost $0): 10,000 x 290.67 =**$2,906,700** *(no meter testing)*

10,000 x 229.67 = **$2,296,700** *(includes $61 meter testing)*

Savings for 4000 customers: *(training cost $2*): 4,000 x 290.67 = **$1,170,680** *(no meter testing)*

4,000 x 229.67 =**$926,680** *(includes $61 meter testing)*

If meters cost $50:

Total Savings for 1 customer

(The question mark (?) denotes possible meter testing cost of zero, which is scenario 1. Scenario 2 assumes a meter testing cost of $61.)

(50 + 0 + 61) – (20.33 + ?) = 111 – 20.33 = **$90.67** *(no meter testing)*

= 311 – 81.33 = **$29.67** (includes $61 meter testing)

Savings for 15,500 customers: **$1,405,385** *(no meter testing)*

$459,885 (includes $61 meter testing)

Savings for 10,000 customers: **$906,700** *(no meter testing)*

$296.700 (includes $61 meter testing)

Savings for 4000 customers *($2 training fee)*: **$370,680** *(no meter testing)*

$126,680 (includes $61 meter testing)

iv. Other cost savings realized by not installing AMI meter before it is needed or wanted

(a) Savings of labor costs

Retention of a customer's current meter would preclude the need to send personnel out on a case-by-case basis to install meters in random locations across the map where smart meters have already been

installed, saving hours of personnel time. Detroit Edison proclaims as one for the reasons for installing the smart grid the projected energy savings, the savings of a precious national resource. By not sending out personnel to install meters needlessly, gasoline and wear and tear on vehicles will be saved, as well as wear and tear on tools. It takes about 5 minutes to change out a meter.[56] A meter change can be made at the time when a customer requests to be on AMI, and that will likely happen only when the customer taking service at the residence changes. At that time, a meter read will have to be done anyway, and at that time, the meter can be changed out.

(b) Technological obsolescence of current AMI meters

The technology used by AMI will likely be obsolete by the time a meter is "upgraded" to AMI. In its Initial Brief in U-16472, Staff stated that it at best expected a 15-year useful life for the smart meter, "due to technological obsolescence and early failure rates due to the 'newness' of the technology."[57] It noted that "a report for the Edison Electric Institute by NERA, Inc. states the useful life of smart meters to be 10-15 years, Indiana-Michigan Power of Michigan estimates a seven year meter life, and Centerpoint Energy of Texas is implementing a 12 year surcharge for their Advanced Meter System."[58] Every American knows that computers and smart phones must be upgraded on a near-yearly basis these days to keep up with changes in technology, although one can limp along with older technology. Detroit Edison has made clear in its filings that it intends to keep up with changing AMI technology.

(c) Analog meters have a life expectancy at least double that of AMI meters

Analog meters have a life expectancy that can exceed 80 years. The *depreciable* life of an analog meter is 43 years.[59] This is double Detroit Edison's estimated depreciable life of a smart meter,[60] nearly three times the Staff's estimated life expectancy of a smart meter[61], and six times Indiana-Michigan Power's estimate.[62] This would more than pay for any meter testing that might have to be done.

(d) Use of existing product

If customers retain their current meter, neither Detroit Edison nor customers would incur the cost of the smart meter device itself.

New smart meters cost money. Analogs and other non-AMIs have already been purchased. Detroit Edison has a ready supply of non-AMI meters, as it is removing them daily.

The AMI meter slated for installation on an opt-out customer's home can be used on another site or in new residential construction.

Detroit Edison would save the cost of disposition of meters it now proposes to remove.

[56] Transcript, Cross-Examination of Robert Sitkauskas, U-17053,p 514, line 16–17.
[57] Michigan Public Service Commission Staff's Initial Brief in U-16472, p 105 (June 3, 2011) [citation omitted].
[58] Michigan Public Service Commission Staff's Initial Brief in U-16472, p 105 (June 3, 2011) [citation omitted].
[59] Transcript, Cross-Examination of Robert Sitkauskas, U-17053,p 473, lines 6–8
[60] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 375 lines 16–20
[61] Michigan Public Service Commission Staff's Initial Brief in U-16472, p 105 (June 3, 2011)
[62] Michigan Public Service Commission Staff's Initial Brief in U-16472, p 105 (June 3, 2011) [citation omitted].

(e) Possible meter testing costs

Even though a meter that is removed from one customer's home and placed on the home of another might have to be tested for accuracy, the cost savings of not buying a new meter, not disabling the radiotransmission, and not training personnel to disable a transmitter would not only cover those costs[63], it would save hundreds of thousands to millions of dollars, as would the fact that analog meter life expectancy is double, and possibly triple or even sextuple, the life of an AMI meter (see sections (a) and (b), above). Consumers Energy maintains a meter testing and recalibration service, but presumably this would not be needed as those meters that needed recalibration could simply be disposed of (recycled, sold to a remanufacturer) as Detroit Edison has a huge supply of meters that do not need recalibration.

(f) Energy savings

If existing meters are used, energy savings would result from the lack of need to recycle and the fact that metals and plastics were not being used to manufacture meters that aren't necessary for an opt-out. The smart grid has been instituted because it will, supposedly, cause incremental energy savings by consumers.

3. Inclusion of nonresidential customers in the opt-out will reduce the cost of the opt-out

Detroit Edison's proposal does not include business customers, even though business customers may wish to opt out and have expressed interest in opting out.[64] The inclusion of business customers as opt-out participants would reduce the cost of service even more. If businesses opted out at the same rate as residential customers, cost savings would double and reach the $2 million mark. If business customers opted out t the same rate as Staff projects for residential customers, $76,494 would be saved in installation costs if all opt-out customers have not yet had a smart meter placed on their business. Savings would be much higher than this when the factors listed in section c are taken into account.

V. Costs to disable radiofrequency should not be borne by the customer

In the event that the Commission decides that the nontransmitting meter must be used by some or all opt-out customers, we argue that any costs to disable a smart meter that has already been installed should not be borne by the customer, since they did not ask for such a meter, and many people attempted to deny installation but were ignored. Moreover, few people were (and are) aware that smart meter installation has been taking place and did not have sufficient knowledge to request that a smart meter not be installed or to deny installation. These people were denied a choice. However, if such costs are to be borne by the customer, then they could be spread among all opt-out customers. Regardless of whether some opt-out customers have smart meters already installed on their homes, the

[63] An exact cost cannot be given because intervenors were precluded from asking questions about this when the judge ruled that only questions regarding the nontransmitting meter were permitted.

[64] Mr. Sitkauskas stated during cross-examination that "it's been [pre]dominantly residential customers that have asked for" an opt-out [Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 373]. Thus, business customers have expressed an interest in opting out. As shown by comments posted on the e-file for this docket, businesses have asked to be included in the opt-out and many individuals who commented on the e-file docket have requested that businesses be included in the opt-out.

cost of the labor for meter rectification will be considerably less than the $63 proposed by Detroit Edison, since the majority of customers known to Detroit Edison who are interested in opting out (approximately 2,600 to 3300 of those so far interested) do *not* have a smart meter on their home and, as stated above, those numbers are likely to increase.

There are additional reasons why customers choosing to opt out and who already have a smart meter installed on their home should not be required to pay the cost of radiofrequency disabling or the reinstallation of an analog or other non-AMI meter: These customers have all borne the cost of the installation of AMI infrastructure, computer programming, and other costs.

VI. Meter Reading: An Additional Savings to the Customer

Commission Rule 460.115 regarding consumer billing standards and practices allows individuals and businesses to read their own meters, negating the need for monthly meter readings for customers who choose to read their own meter. Under this rule, Detroit Edison is required to read a meter only once per year. It may *elect* to read meters more often. As this is elective, any costs of additional meter readings for customers who read their own meters should be borne by Detroit Edison. Clearly, a yearly charge is all that is warranted for those who wish to opt out and read their own meters on a regular basis.

Rule 460.115 states:

> A utility shall provide each customer with the opportunity to read and report energy usage provided the customer accurately reports energy usage on a regular basis. A utility shall provide postage-paid, pre-addressed postcards for this purpose upon request, or the utility may permit customers to report meter readings on a secure company website, by telephone, or other reasonable means. At least once every 12 months, a utility shall obtain an actual meter reading of energy usage to verify the accuracy of readings reported in this manner. Notwithstanding the provisions of this rule, a utility company representative *may* read meters on a regular basis.

(Emphasis added.)

Under this rule, a customer may send meter readings in to the utility. The rule states that the utility "shall" provide each customer the "opportunity to read and report energy usage." The use of the word "shall" is directive. The utility *must* provide this opportunity. The only limitations on customer ability to self-report electric consumption is that the customer report the energy usage "accurately" and "on a regular basis." There is one further limitation, and that is that the utility "shall" obtain an "actual" reading "at least once every 12 months."

There are two permissive words used in this rule: "at least" and "may." The utility is not *required* to obtain a reading more often than once every 12 months. It "*may*" elect to do so more often. As this is elective, any costs incurred by a more frequent reading of the meter of a customer who "accurately reports energy usage on a regular basis" should be borne by the utility.

The Staff Report to the Commission in U-17000 notes that "Commission billing rules allow for customers to read their own meters".[65] It goes on to state that the utility "must verify the meter reading once a year."[66]

The tariff should be amended to provide the option for a customer to report his or her usage on a regular basis and not be charged the monthly read. As the monthly read is a fixed cost not based on the number of opt-out customer nor on the number of manual ("special") reads, a customer who regularly reports his or her meter reading can simply be credited that amount on his or her bill. Provision can be made such that a customer who fails to report a reading more than two times in a row (or whatever number the Commission deems appropriate) will be considered to have waived his or her opportunity to self-report electrical usage until such time as the customer reports readings four consecutive times in a row (or such other number as the Commission deems appropriate).

The company constantly hums the refrain that one of the benefits of AMI is that a meter reader won't have to come to an individual's house each month and implies that this is a burden on the customer. Meters have been manually read for scores of years, and manual meter reading has never been a controversy nor made headlines. It has never been a burden upon this customer, nor has this customer ever heard anyone else complain. What will be a burden is the proposed opt-out program. Under the program as outlined by Mr. Sitkauskas during his cross-examination, an opt-out customer will first be required to have a smart meter with the radio turned on installed on his or her home, which requires one visit. Then, a second visit, with the customer likely needing to be present, will be made. Mr. Sitkauskas outlined the procedure for opting out during cross-examination: Once a smart meter is installed on a customer's home (which requires a field visit and thus a field technician treading upon a customer's property), a customer may call in to Detroit Edison and express an interest in opting out. "The CSR would put an action in for [Detroit Edison] to have a field service visit to disable the radio meter."[67] "Likely an appointment [would be] made."[68] Another unspecified period of time will elapse before an installer is sent out to disable the radiofrequency component of the meter.

It would be much less burdensome for the customer to simply call in, say they want to opt out, and that be the end of it. No need to schedule an appointment. No need to wait around. And no pesky installer treading upon one's property.[69]

VII. Exclusion of business customers inequitable on several grounds

[65] U-17000 Report to the Commission, p 27, fn 54.
[66] U-17000 Report to the Commission, p 27, fn 54.
[67] Transcript, Cross-Examination of Robert Sitkauskas, U-17053, p 352, lines 18–19.
[68] Transcript Vol 2, p 470, line 3. "That will be putting into the system that the customer wants an opt out, the meter would have to be changed to a non-transmitting meter, likely an appointment be made, and then we'll take that forward through the system." Transcript Vol 2, p 470, line 1–5.
[69] The customer who is truly bothered by the meter reader coming upon his or her property will probably decide not to opt out. If an opt-out customer wants no meter reader upon his or her property, s/he can read her/his meter regularly and put up with that pesky meter reader but once a year.

The exclusion of business customers is inequitable on a variety of grounds.

1. Business may want to opt out, and there is no good reason for their not doing so.
2. The same residential customers who need to opt out for health reasons and/or for health concerns own, patronize, or work at businesses that will be installed with AMI. (While the Commission may have found that the health risks of AMI are significant, the fact remains that for a subset of the population, serious and deleterious health effects are being experienced and are impacting people's lives in negative ways.)
3. Some of the same residential customers who wish to opt out because of privacy concerns own businesses and may wish to have their businesses opt out for the same reasons.
4. Businesses may be required to accommodate customers who have a disability that is exacerbated by smart meters. (See section IX.C .)

VIII. The wording used in the tariffs proposed by Detroit Edison and by Staff is inaccurate and misleading

A. Language of the tariff proposed by Detroit Edison and Staff is inaccurate and misleading

The language of the tariff proposed by Detroit Edison is misleading and inaccurate. The third paragraph states:

> APPLICABILITY: Available to individual residential electric customers at a specific site location who elect to not have a transmitting AMI meter(s) installed at their premises. Customers electing this Opt-Out Provision will have a non-transmitting AMI meter(s) installed at the customer's service location, have the meter read manually and be subjected to the following charges.[70]

The language used in Staff's opt-out tariff is similar.

Detroit Edison is not installing a nontransmitting meter. It is installing a transmitting smart meter. Only later, through the opt-out process, will that meter's radiofrequency function be disabled. This process involves the customer calling in and making an appointment to have a field technician come out to disable the meter.[71]

It needs to be made clear, if this tariff is adopted, that the customer will have a transmitting AMI meter installed on their premises and that only later, through the opt-out process, will the radiofrequency of this meter be disabled, converting it to the so-called nontransmitting meter.

The first sentence of the second-to-last paragraph states:

> Customers electing to opt-out and who already have a transmitting AMI meter installed at their premise will have their meter changed to a non-transmitting AMI meter.[72]

[70] Direct Testimony of Robert E. Sitkauskas, Exhibit A-2.
[71] Direct Testimony of Robert E. Sitkauskas, Exhibit A-2.
[72] Direct Testimony of Robert E. Sitkauskas, Exhibit A-2.

The use of the word *changed* is inaccurate. In fact, the meter will not be changed. Rather, the radiofrequency transmitter will be disabled. This needs to be made clear in the language.

The second sentence of the second-to-last paragraph reads:

> Opt-out customers, who have not had their current meter replaced by a transmitting AMI meter at the time they request to opt out, will temporarily retain their current meter until such a time as AMI meters in their area are installed and subsequently will receive a non-transmitting AMI meter.

This language needs to be changed to accurately reflect the fact that the customer will receive a *transmitting, AMI meter* when AMI is installed in their area and that this AMI meter will *subsequently* have its radiofrequency component disabled, thus converting it to the so-called nontransmitting meter.

B. Proposed language that would accurately reflect the opt-out process

We propose that the language of the tariff, if this tariff is adopted, be changed to the following:

> When a Customer who already has a transmitting meter installed at their premises elects to have a non-transmitting meter rather than a transmitting meter, Detroit Edison will return to the customer's premises to disable the radiofrequency transmitter of the meter, thus converting the meter to a nontransmitting meter. A Customer who has not had their current meter replaced by a transmitting meter at the time they request to have a non-transmitting meter will temporarily retain their current meter. When transmitting meters in their area are installed, their premises will be installed with a transmitting meter. They will subsequently receive a non-transmitting meter. A Customer who has not had their current meter replaced by a transmitting meter and requests a non-transmitting meter will pay the initial fee at the time they request this option but will not pay the monthly charge until transmitting meters are installed in their area.

This language makes it clear that every customer will receive a transmitting meter and have such meter installed on their premises for an indeterminate amount of time. It further makes it clear that the customer is not receiving a *different* meter, as the language of both Detroit Edison's and Staff's proposed tariffs imply. There is no "special" opt-out meter under the proposed tariff, only an AMI meter with the radiofrequency turned off.

IX. Applicability of the Americans with Disabilities Act, as amended, and similar Michigan laws

A. Some Detroit Edison customers are covered under the ADA

Even though the Staff report in U-17000 found that the health risks of smart meters are "insignificant"[73], for some Detroit Edison customers, the effects of smart meters and of radio-off smart meters are actual, frequently immediate, not insignificant, and limit major life activities as defined under the Americans with Disabilities Act as amended, 42 USC 12101 et seq. (ADA).

[73] U-17000 Report to the Commission

An individual with a disability is a person who has "a physical or mental impairment that substantially limits one or more major life activities"; "has a record of such an impairment"; or is "regarded as having such an impairment."[74] *Major life activities* include, but are not limited to, "caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working."[75] *Major life activities* also include "the operation of a major bodily function, including but not limited to, functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions."[76]

Any customer for whom a major life activity is affected by the nontransmitting meter Detroit Edison proposes to install is a customer who falls within the purview of the ADA. As such, these customers must be accommodated with the installation of an analog meter because the voltage transients and harmonics generated by digital meters are not tolerated by these sensitive customers.

The Architectural and Transportation Barriers Compliance Board, the federal agency devoted to accessibility for people with disabilities has recognized that

> electromagnetic sensitivities may be considered disabilities under the ADA if they so severely impair the neurological, respiratory or other functions of an individual that it substantially limits one or more of the individual's major life activities."[77]

A prima facie case has already been made by the submissions of individuals under public comments in Case No. U-17000 and Case No. U-17053 that smart meters and digital meters do in fact noticeably harm some utility customers' health within minutes, hours, days, or a few weeks of their installation. Just as, for a minority of individuals, wheelchair ramps are necessary, for a minority of the individuals, analog meters are necessary. This fact does not in and of itself refute the Commission's finding that for the majority of the population, AMI is safe. It is not necessary here to debate whether there are health consequences for the larger population. The fact remains that for a small subset of the population, both digital meters and AMI create health problems or exacerbate already-existing disabilities.

Intervenors Edwards and Kurtz attempted to submit testimony in this case showing that some customers experience impairment of one or more major life activities as a result of exposure to smart and digital meters, but this testimony was struck. This testimony was submitted to show that the nontransmitting meter proposed by Detroit Edison as the alternative to the smart meter does not address the health problems experienced by some customers. While the commission may have looked at the radiofrequency component of the smart meter, it did not address its switched mode power supply, which generates voltage transients and harmonics to which some individuals are hypersensitive.

[74] 42 USC 12102(1); 28 CFR 35.104
[75] 42 USC 12102(2)
[76] 42 USC 12102(2)
[77] Architectural and Transportation Barriers Compliance Board, Background for Final Rule on Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities (Sept 2002).

Under the ADA, disabilities include sleeping problems, endocrine disorders, anxiety, and respiratory problems, to name a few. All of these problems are problems reported by the witnesses upon exposure to smart and/or nontransmitting digital meters. Diabetics, persons with seizure disorders, people with Parkinson's, and individuals with ADD and cancer are among other customers who would be covered under the ADA and for whom provision for a non-AMI, analog meter must be made.

We are not arguing here that all individuals exposed to smart meters or nontransmitting meters will be harmed, but rather that, for a subset of the population, the harm is grievous and that these individuals are covered under the ADA.

B. The Commission must adhere to the Americans with Disabilities Act when enacting a new tariff

The Commission is expressly bound by Title II of the ADA to avoid discrimination against people with disabilities by ensuring that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of services, programs, or activities of a public entity."[78] Electricity is an essential service.[79] The Commission must ensure that customers who cannot tolerate a smart or nontransmitting meter on their home have access to electric service by means of some other kind of meter that they can tolerate. i.e., their existing non-AMI meter.

Title II of the ADA forbids the use of surcharges on people with disabilities to cover the cost of providing accommodation.[80] The Commission has two options here. It can require a customer claiming impairment and disability to reach an appropriate threshold to show that the decision to maintain an analog meter is not a preference but rather is a medical necessity due to a disability. It would be much easier to simply have all opt-out customers keep their existing meters than to require Detroit Edison and the customer to jump through various hoops to prove impairment of a major life activity. This is important also because many of the individuals who require a non-AMI meter because of health issues are persons of low income due to already-existing health issues.

We have already thoroughly discussed the facts that the existing customer meter is a more cost-effective solution to the opt-out, even where AMI meters are already installed on opt-out customer homes.

C. Detroit Edison is a public accommodation subject to Title III of the ADA and MCL 37.1102

Title III of the ADA applies to public accommodations, prohibiting activity that would deny "full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation" to any person with a disability.[81] Detroit Edison falls into category F of Title III.[82] Title III generally requires public accommodations to provide equal access to goods and services to people with disabilities as are provided to non-disabled patrons. This prohibition on

[78] 42 U.S.C. 12132.
[79] *Memphis Light, Gas and Water Division v. Craft*, 436 U.S. 1, 98 S.Ct. 1554, 1565 (1978) ("Utility service is a necessity of modern life; indeed, the discontinuance of water or heating for even short periods of time may threaten health and safety.")
[80] 28 C.F.R. 35.130(c), (f).
[81] 42 U.S.C. 12182.
[82] 42 U.S.C. 12181 (7) (F).

discrimination specifically includes a requirement to modify standard practices and procedures when necessary to provide access,[83] and to provide auxiliary aids and services to the extent necessary to ensure that a person is not denied service due to a disability[84].

Title III is to be liberally construed so that people with disabilities have broad access to goods and services.[85]

"The statute applies to the services *of* a place of public accommodation, not services *in* a place of public accommodation."[86] The ADA's prohibition against "discrimination in the enjoyment of goods, services, facilities or privileges is that *whatever* goods or services the place provides."[87] The ADA applies to services of a public accommodation accessed in private residences: "The ADA covers the services 'of' a public accommodation, not services 'at' or 'in' a public accommodation."[88]

Access to electricity requires a meter and is the essence of the service offered by Detroit Edison. If the nontransmitting meter cannot be tolerated by a customer due to medical reasons, then the use of such a meter would prevent the customer from being able to access electrical services, and the utility must provide a different meter without charge. If the AMI meter cannot be tolerated by a customer due to medical reasons, then the use of such a meter would prevent the customer from being able to access electrical services. The utility must provide a different meter without charge, a meter that the customer can tolerate.

Similarly, under MCL 37.1102, "[A]n individual [may not be denied] the full and equal enjoyment of the goods, services, facilities, privileges, advantages, and accommodations of a place of public accommodation or public service because of a disability that is unrelated to the individual's ability to utilize and benefit from the goods, services, facilities, privileges, advantages, or accommodations."

As public accommodations, businesses must be allowed to participate in the opt-out. As employers, businesses must be able to, and may be required to, participate in the opt-out. Similarly for governmental units.

X. Section 504 of the Rehabilitation Act of 1973

Section 504 of the Rehabilitation Act of 1973 provides protection from discrimination based on disability to individuals receiving program benefits and services from all organizations that received financial assistance from federal sources, in addition to educational and workplace applications. The nondiscrimination requirements of the law apply to employers and organizations that receive financial

[83] 42 U.S.C. 12182(b)(2)(A)(ii).
[84] 42 U.S.C. 12182(b)(2)(A)(iii).
[85] S. Rep. No. 116, 101st Cong. 1st Sess. 59 (1989):
[86] *Nat'l Federation of the Blind*, 452 F.Supp. 2d at 953 (emphasis in the original) (citing 42 U.S.C. 12182(a)).
[87] *Weyer v Twentieth Century Fox Film Corp.,* 198 F3d 1104, 1115 (9th Cir. January 3, 2000)
[88] *Nat'l Assoc. of the Deaf v. Netflix, Inc.,* __ F.Supp. 2d __, 2012 WL 2343666, *4 (D. Mass) (June 19, 2012) (citing *Nat'l Federation of the Blind,* 452 F.Supp. 2d at 953).

assistance from any federal department or agency.[89] Detroit Edison received federal stimulus money under TARP for its AMI program.

V. Potential future costs that must be considered, as they will burden the government and employers

A. Health care and disability costs

In making its decision about costs, the Commission would do well to consider the financial burden the federal and state governments will assume in taking care of individuals who are disabled by nontransmitting and/or smart meters. While the health risks of AMI may be "insignificant," as the Staff report found, for a small subset of the population, the fact remains that health effects from digital meters are actual, significant, and lasting. The Commission may want to take especial notice of this, since, with the passage of the Affordable Care Act, more of the burden of health care is falling on the government.

Comments submitted to this docket attest to the health and social costs that some individuals have borne since the installation of smart or nontransmitting digital meters. In some of these comments, individuals report sleeplessness and fatigue and that this is impacting their ability to perform their work. Given the ongoing and unremitting nature of the sleeplessness and fatigue, over time this may lead, for most, if not all, to the necessity of going on disability, which would impact not only health care costs, but other government-support services as well. This relates to cost-of-service principles, even if it is not Detroit Edison who will pay out most of the costs of these added financial burdens.

The comments submitted attest to the social costs that some individuals have borne since the installation of smart, digital, or nontransmitting meters. Social isolation impacts psychological health and thus productivity, as does fatigue and lack of sleep. It also affects parenting ability. Once again, this relates back to the costs to the government, taxpayers, and businesses, since under the Affordable Care Act, psychological services are covered.

B. Costs of litigation

Considering how to accommodate now will help avoid costs of litigation of these issues in the not-so-distant future, saving both the government and Detroit Edison time and money. In fact, given the tremendous costs of litigation, it will save Detroit Edison tremendously more money to accommodate those individuals with disabilities than not to accommodate. This has a direct bearing on the costs that people who have smart meters on their homes will be paying for their electric service, since, presumably, all customers pay for Detroit Edison's legal department.

[89] Factsheet on Section 504 of the Rehabilitation Act of 1973, http://www.hhs.gov/ocr/civilrights/resources/factsheets/504.pdf

C. Potential future costs to customers

The costs to that subset of customers who are disabled by the installation of a nontransmitting AMI meter on their home may include:

1. Health care costs
2. Costs to move to an electric utility area that does not have AMI or at least provides that customers may have an analog meter on their residence
3. Remediation costs so that their home is livable, to whatever extent remediation may be feasible

XII. Relief Requested

Intervenors request the following relief:

A. Intervenors ask the Commission to

1. Issue an Order rejecting the opt-out proposal in its present form.
2. Amend the proposal to address the issues raised in this brief or, in the alternative, direct Detroit Edison to resubmit, within 30 days or such time period as the Commission finds appropriate, a revised opt-out proposal that addresses the issues raised in this brief.
3. Issue an order halting AMI installation until a revised opt-out proposal has been approved.

B. Intervenors request the Commission to include or direct Detroit Edison to include the following in any opt-out tariff:

1. Analog meters will be the opt-out meter, except where a customer has a non-AMI digital meter already on their residence.
2. A revised the fee structure that reflects the lower costs of an opt-out wherein existing meters are left in place and opt-out customers who have already had a smart meter installed are given a non-AMI meter as their opt-out meter.
3. Inclusion of businesses in the opt-out.
4. Opt-out customers who have not yet had an AMI meter installed on their residence may retain their existing meter and may opt out prior to AMI installation in their area.
5. Such other relief as is contained within this document.
6. Such other relief as will address the concerns of customers who wish to opt out as they have been expressed to Detroit Edison and the Commission.

C. Intervenors request, if the current tariff is adopted that it be made clear, that the customer will have a transmitting AMI meter installed on their premises and that only later, through the opt-out process, will the radiofrequency of this meter be disabled, converting it to the so-called nontransmitting meter.

Respectfully submitted,

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