

### **HOUSE DOCKET NO. 3596**

An Act An Emergency Act to Investigate the Results Reporting of the National Grid Worcester Smart Meter Pilot Program and its Implications for the Department of Public Utilities Grid Modernization, Time of Use, and Smart Meter Proceedings

Petition of Patricia Burke, PRESENTED BY: Shawn Dooley, (BY REQUEST)

<https://malegislature.gov/Bills/191/HD3596>

### **HOUSE RESOLVE HD. 3428**

Resolve to Investigate the Results Reporting of the National Grid Worcester Smart Meter Pilot Program and its Implications for the Department of Public Utilities Grid Modernization, Time of Use, and Smart Meter Proceedings

Petition of Pamela Steinberg, PRESENTED BY: John J. Mahoney, (BY REQUEST)

<https://malegislature.gov/Bills/191/HD3428>

## **National Grid, Navigant, and the Massachusetts Department of Public Utilities; An Overview of Misleading and/or Fraudulent Worcester National Grid Smart Meter Pilot Program Results Reporting**

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### **Overview**

In 2008, investor-owned utilities in the Commonwealth of Massachusetts were directed to design and implement smart meter pilot programs, in accordance with Section 85 of the Green Communities Act.<sup>1</sup> In 2012, the Massachusetts Department of Public Utilities authorized National Grid to run a 2-year pilot program budgeted for \$45M, involving 15,000 homes and businesses in the city of Worcester, MA.<sup>2</sup> ‘Smart’ electricity meters were installed on homes and businesses selected by National Grid. The program was promoted as “free” to the community and to participants, who were not charged for the meters or for their choice of enabling technologies. The cost of the pilot was borne by National Grid ratepayers.

The Worcester pilot was behind schedule and over-budget. Reported costs grew to \$60M before the pilot reached the halfway mark of the time-of-use and critical peak period pricing experiments being conducted on consumers. In addition, the Massachusetts Department of Public Utilities

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<sup>1</sup> <https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter169> Section 85 of the Green Communities Act requires each electric distribution company to file with the Department of Public Utilities (“Department”) a proposal for conducting a smart grid pilot program. St. 2008, c. 169, § 85 (“Section 85”).

<sup>2</sup> MA DPU 11-129

authorized National Grid to extend the pilot for 2 years, pending a decision regarding full statewide deployment of smart meters for investor-owned utilities.

The pilot formally ended on December 31, 2018.

The purpose of this analysis is to advocate for an audit and investigation concerning the integrity of the pilot results reporting and cost-benefit analysis, before the Commonwealth pursues further smart meter initiatives and expenditures to ratepayers, due to the following objections about the results claims reported by Navigant Consulting and promoted by National Grid;

- Inaccurate misleading reporting of retention, opt outs, and number of participants;
- Inaccurate misleading reporting of cost savings;
- Inaccurate misleading reporting of energy savings.

### **Three Examples of Misleading Claims Regarding the Worcester Pilot, William Jones of National Grid, Navigant, and Mary Reed of National Grid (listed by date)**

<p><b>1. March 22, 2017, William Jones, Director of the Smart Energy Solutions Program for National Grid, Editorial, “As I See It” “Sustainability Hub of National Grid Efforts” Published in the Worcester Telegram and Gazette</b></p>
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*“In Worcester, National Grid has pioneered a Smart Energy Solutions program in which **15,000 customers have access to pricing plans designed to help them save on their electric bills** and prepare for days when energy usage is highest.*

*The program encourages customers to take greater control of their energy usage and to save on electric bills by becoming more aware of how and when they use energy.*

*In 2015 the SES program achieved **a 98 percent retention rate, a 72 percent customer satisfaction rate and total customer savings of \$1.25 million on participant electric bills.** These Smart Rewards Pricing plan participants saved an average of \$100 during the first year of the pilot. **The average participant also reduced their usage by nearly four percent during peak periods of energy demand.**<sup>3</sup>*

<p><b>2. May 2017, Navigant Consulting Analysis of Results for the National Grid Smart Meter Pilot Program, Financed by Ratepayers</b></p>
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**“Energy and Demand Savings for Active Customers** Load reductions from 4% to 31% (0.12 to 0.60 kW) during Conservation Day Peak Events depending on the combination of rate and **technology 5.4% (approximately 35 kWh per month) weighted average energy savings across the technology groups for CPP customers over the two years of the Pilot”** (note: CPP refers to critical peak period pricing)

**“Enabling Technologies Increased Demand Savings for Active Customers:** Customers with programmable communicating thermostats had the highest **load reductions** (25%-31% on CPP and 22%-29% on PTR) Customers with in-home displays were next (17%-18% on CPP and 4%-9% on PTR), followed by customers with only Web Portal access (12%-15% on CPP and 10% on PTR)” (PTR is peak time rebate)”

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<sup>3</sup> <https://www.telegram.com/opinion/20170322/as-i-see-it-sustainability-hub-of-national-grid-efforts>

**“Bill Savings** Average per customer bill savings of \$236 over the two years of the Pilot for customers on CPP Average total rebates of \$30 for Conservation Day Peak Events across both summers for customers on PTR”

**“High Retention Rate** 98% retention rate of customers in the Pilot at the end of 2016 after rates went live on January 1, 2015”

**“Strong Customer Satisfaction** 69% of customers rated their satisfaction with Smart Energy Solutions at least a 5 on a 7-point scale”<sup>4</sup>

**3. August 2017, Massachusetts National Grid President Marcy Reed, presentation to federal legislators regarding Worcester’s National Grid Smart Meter Pilot Program, as reported by the Statehouse News Service and the Worcester Telegram and Gazette:**

*“If your power goes off at your house, the only way we’d know right now is if you pick up the phone and call us,” National Grid Massachusetts President Marcy Reed told policy-makers from around the country Tuesday. “A lot of people just assume in this day of technology, of course we must know. Well, we don’t. It’s a dumb grid.”*

*“The exception is Worcester, where Reed said a pilot modernization project has allowed 11,000 customers to save \$1.8 million over the last year of the pilot. [ ] Reed said that in Worcester, National Grid offered customers the ability to opt out of the pilot and only about 2 percent opted out.”<sup>5</sup>*

## **Three Critiques: Misleading Pilot Results Reporting**

### **1. Inaccurate Misleading Reporting: Retention, Number of Opt Outs, vs. Number Enrolled vs. Number of Participants vs. Number of Active Participants**

The number of pilot participants has been portrayed as either 15,000 or 11,000 by National Grid spokespersons. National Grid installed over 15,000 meters on homes and businesses in Worcester, and enrolled passive customers in a default time-of-use billing plan. The 15,000-meter installation figure is most likely the source of the claim by William Jones that 15,000 Worcester pilot participants “had access to experimental pricing plans.”

A chart in the final report by Navigant, below, which breaks down the enrollment by technology class, is most likely the source of the “about 11,000 customers” by Massachusetts National Grid President Marcy Reed, (even though the company was unsuccessful in enrolling businesses in the pilot and did not include results for 504 businesses in most of its analysis.)<sup>6</sup>

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<sup>4</sup> [SES Final Evaluation Report Customer 5-5-17.pdf](#)

<sup>5</sup> <http://www.telegram.com/news/20170809/worcester-cited-as-example-of-power-grid-that-isnt-stupid>

<sup>6</sup> Out of 504 business accounts reflected in table 2-1 only 30 accounts are identified as “active.” However, National Grid counted the 500 business accounts in claiming that the pilot had “about 11,000 customers.”

*“As there were too few commercial customers in the Pilot area to survey, Navigant interviewed four commercial participants in order to obtain qualitative input about their 2015 summer season experience. National Grid and Navigant identified approximately 275 commercial participants on general service (G1) rates, but the majority were property owner accounts and almost all were on the Critical Peak Pricing (CPP) rate with Level 1 technology. Navigant sought a variety of participants, aiming to talk to customers with Level 2 or higher technology as well as a PTR customer, focusing on retail and office customers. Customers received a \$200 honorarium or charity donation for a 30-minute interview. The four interviewed customers were all on the CPP rate with Level 1 technology.”*

**Table 2-1. Customer Enrollment by Technology Level and Price Plan (as of January 1, 2017)**

Level	Price Plan	Number of Residential Customers	Number of Commercial Customers
1 (AMI meter + web portal + mobile app)	CPP - Active	1,456	26
	CPP - Passive	7,459	456
	PTR - Active	92	1
	PTR - Passive	338	18
2 (Level 1 + digital picture frame)	CPP	640	1
	PTR	32	0
3 (Level 1 + smart thermostat)	CPP	28	0
	PTR	4	0
4 (Level 1 + Level 2 + Level 3 + load control devices)	CPP	237	0
	PTR	15	2
<b>Total</b>		<b>10,301</b>	<b>504</b>

Source: Navigant analysis

Note: The active/passive status of Level 1 customers was determined as of October 12, 2016 which was after the final event of the 2016 summer season.

<sup>49</sup> Although active promotion ended in 2015, Pilot customers were able to enroll in the technology packages through the end of 2016 if they wished to do so and met the eligibility requirements.

A casual reader would assume that the pilot included both residences and businesses, with participants who provided informed consent, and were aware of the implications of the pricing plans.

However, on page 44, the Navigant report states,

*“There were a total of 2,504 active customers in the Pilot at the end of 2016; an increase of 478 (or 22%) compared to the end of 2015. This is the net increase, meaning it includes increases resulting from new customers joining the Pilot and achieving an active status, increases from passive customers shifting to active (either by accessing the web portal or opting into a technology package), and decreases due to active customers leaving the Pilot. National Grid undertook efforts to increase active participation in the second summer of the Pilot, such as launching the rewards platform, described further in Section 2.3.2”*

An “Active Participant” in the pilot was identified as a customer who visited the website even once, and in the second year of the pilot program, the rewards platform described above was launched in order to cultivate specific behaviors by pilot participants, including visiting the website. 2,219 gift cards were reportedly redeemed.

On page 49, Navigant states, “Customers also earned points by completing energy- savings tips, logging into the web portal for the first time, taking certain actions such as enrolling in or completing selected National Grid programs, signing up to receive Peak Event notifications via text message, completing the home profile on the Worcester Smart web portal, or visiting the National Grid Sustainability Hub”

*“The evaluation team found that the commercial customers interviewed were continuing business as usual and with one exception were not aware of their rate choice within the Pilot. The participants knew about the CPP pricing plan but not the PTR pricing plan and knew about the events but were unable to adjust their usage during them.*

*Given the very low response rates and the amount of effort exerted to recruit just five customers for interviews in 2015, as well as the small number of commercial participants in the Pilot, Navigant did not conduct commercial interviews in 2016”.*

National Grid was enrolling new pilot participants throughout the duration of the program. The 98% customer retention rate claim is based on a comparison between the end of 2015 and 2016 using the 2,504-enrollment figure, and not from the 2-year period from the start to the end of the pilot, which was preceded by several years of community opposition and opt outs that were not quantified as opt-outs.

Page 134 of the Navigant report states that the pilot started in 2014 with 11,184 customers.

Year	Worcester Non-Pilot Customers	Pilot Participants
	Total Number of Customers	Total Number of Customers
2014	69,029	11,184
2015	70,090	10,555
2016	69,915	10,361

The pilot ended in 2016 with 10,361 customers. The loss of over 800 accounts is a 13% and not a 2% attrition rate. Counting the retention starting at the halfway mark of the pricing portion of the pilot allowed Navigant to manufacture the claim that the pilot had a 98% retention rate, even though customers were being recruited as well as leaving the program throughout the 2 years.<sup>7</sup>

The claimed 98% retention rate was calculated at the midpoint of the 2-year pricing portion of the pilot, misleading decision-makers and the public. Furthermore, National Grid was backfilling for customers who were leaving the pilot.

On page 2, Navigant described the 4 phases of the program, including this statement: *"In this initial phase the Company raised awareness about and installed advanced metering infrastructure (AMI) meters (also referred to as "smart meters") in approximately 15,000 homes and businesses. Five percent of customers offered AMI meters refused them."*

Customers could have only refused a meter or the auto-enrollment into the pilot if they realized that they had received an AMI meter. From the Navigant report, it is unclear how many Worcester residents

- were aware that they had received an AMI meter,
- were aware that they were in a default billing plan,
- were aware that their personal private electricity usage was being monitored,
- were aware that National Grid had purchased their private financial information from an aggregator in order to assign them to an income category.

The Navigant report does not quantify how many attempts were made to enroll participants, as was clearly reflected in the pilot reports from the other investor-owned utilities in MA. The Navigant report does not quantify how many total meter installations were made, how many customers knew they were in the pilot, or how many opted out by choosing an alternative provider.

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<sup>7</sup> Customers who moved or reported a name change on the billing account reported receiving AMI smart meters, with no process of informed consent for enrolling them in the pilot, after the first year of the experimental pricing plans.

In addition, National Grid reported to the MA DPU that it also had its own employees<sup>8</sup> and some vendors in the pilot.<sup>9</sup> Over 16,000 meters were installed in Worcester, and approximately 5,000 customers rejected the pilot. The 98% retention claim, (which was misrepresented as the 2% opt out rate for 11,000 participants to the National Conference of State Legislators by Marcy Reed) is misleading if not fraudulent, and necessitates objective, independent, and timely reevaluation.

## **2. Inaccurate Reporting: Cost Savings**

Whether they knew it or not, participants in the default billing plan of the pilot received lowered electricity rates all year long, except on the days when National Grid called a critical peak period during a summer heat wave. Customers in the default billing plan received lower rates for their electricity consumption from 8 am to 8 pm Monday through Friday, and even lower rates on nights and weekends, except on the 20 days of the year (summer months) when the utility called a “Critical Peak Period” incentivizing customers to refrain from electricity use via a surcharge.

On Page 33, Navigant states. *“Bill savings for customers on the CPP rate were calculated by subtracting the actual participant bill amount from the counter-factual bill amount if the participant had not joined the program.”* Therefore, the cost savings claimed by Navigant and National Grid was determined by the price differential offered, multiplied by the number of customers who received discounted rates. By increasing reported participation, the \$1.8M savings claim could be achieved.

The pilot was presented as “free” to participants, who received their choice of enabling technologies at no charge. The claims of cost savings do not account for the fact that full deployment of smart meters will not be “free.” The enabling technologies will not be free, and utility companies did not budget for free prizes such as Ipads and donut gift cards in their grid modernization filings.

The claimed cost savings appear to have been inflated in part by the savings achieved by the extensive number of passive customers who may not have even realized that they were in the pilot.

## **3. Inaccurate Reporting: Energy Savings**

Baseline consumption patterns were estimated for the pilot participants, who were compared to matched controls rather than to their behavior with and without the pricing and technology experiments.

Customers in the pilot program were offered 4 different levels of free technology. Reported savings depending primarily on whether or not they had central air conditioning and Wi-Fi.

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<sup>8</sup> <http://www.telegram.com/article/20141128/NEWS/311289970/0/SEARCH> National Grid employee and pilot participant Lynn Westerlind wrote an editorial about how she can find out if she left her coffee pot on through her smart phone

<sup>9</sup> *The response to Information Request AG 3-4 lists the number of customers and SES Program participants who visited the Sustainability Hub. Included in those numbers are Company employees or vendor employees who are also Company customers or participants in the SES Program.*

Source: D.P.U. 14-109/15-21

Responses to the Department’s Fourth Set of Information Requests July 8, 2015

Exhibit DPU 4-1 page 1 of 1

Absolute peak load reductions for each technology/price group in each summer are shown in Table E-2.

Table E-2. Average Absolute Peak Event Load Reductions per Customer by Residential Technology/Price Group

Technology/Price Group	2015 Absolute Savings (kW)	2016 Absolute Savings (kW)
Level 1 CPP Passive	0.01	0.05
Level 1 PTR Passive	0.03	0.07
Level 1 CPP Active	0.13	0.17
Level 1 PTR Active	0.12	0.12
Level 2 CPP	0.20	0.21
Level 2 PTR	0.13	0.05
Level 3 CPP	0.53	0.49
Level 4 CPP	0.56	0.60
Level 4 PTR	0.50	0.60

Source: Navigant analysis

The vast majority of customers who were in the default billing plan (Level 1) received access to an app and a web portal where they could view their electricity usage.

In Level 2, customers also received a free in-home digital picture frame for monitoring their electricity usage.

In level 3, customers who had central air conditioning received a free smart thermostat. In level 4, customers also received a smart plug load control device.

The number of customers in each of the categories shown above is not provided.

Limited assumptions about energy savings can be made about the **at least 8,000 passive customers** in the pilot, because they may not have even known that they were in the pilot.

Limited assumptions can be made about the savings for the approximately 1,500 “active customers” in the pilot in the default billing plan for Level 1, because the criteria for an active customer was someone who visited the website even once, and National Grid was rewarding customers to log onto the website. *(Footnote, page 40)*

Levels 2, 3, and 4 included only 956 residential and 3 business customers.

**The populations demonstrating the highest energy savings were the 284 customers in levels 3 and 4 who may have been able to shed load with their swimming pool pump and central air conditioning, which is not representative of National Grid’s service territory. and not based on 11,000 or 15,000 customers.**

**By weighting the averages, the energy savings claims are misleading.**

Many of the customers in the pilot may not have even been home when the critical peak periods were called. Although National Grid identified 5 different energy consumption usage patterns used to tailor energy savings tips to consumers, National Grid did not provide a breakdown of how many customers recruited for the pilot would have even been home during the hours of the day when the majority of the critical peak periods were called.

## Conclusion

In addition to concerns about participation, cost savings, and energy savings reporting, there are many other issues regarding the pilot, including but not limited to:

- The claims of high customer satisfaction rates were based on only 615 surveys, which may have included program vendors and National Grid employees who participated in the pilot.
- High customer satisfaction ratings were inflated by the rewards platform.
- There are hidden costs of off-books expenses that are not accounted for in the cost analysis, including the Green2Growth summit
- Costs were not accurately accounted for in the early field trial. 5,000 Itron meters were installed in Worcester before the pilot program had received final approval.
- The Navigant report inaccurately portrays the Green2Growth summit as a mechanism for introducing the pilot to the community.<sup>10</sup> The summit appears to have been facilitated to support National Grid's objectives, by manipulating the process of Appreciative Inquiry, in part to justify the Sustainability Hub. The smart meter pilot was never mentioned at the summit.
- National Grid and Navigant overstated the Sustainability Hub's valuation by the community.
- The Navigant overview of media coverage of the pilot (Appendix E) excludes reports of citizen opposition.
- The Navigant reporting about the impacts on low-income customers, seniors, snap back, and pre-cooling behaviors is based on limited data.
- Non-consenting, non-benefitting residents were exposed to the microwave radiation emitted by the WiMax towers.
- The smart meter industry relied on the opinion of a tobacco scientist to justify smart meter safety.
- There is an absence of premarket safety testing for smart meters.<sup>11</sup>
- There has been an absence of independent investigation of health concerns,<sup>12</sup> including the emerging issue of conducted emissions on household wiring.<sup>13, 14</sup>
- The pilot created an undisclosed invasion of privacy for both pilot participants and controls.
- The City of Worcester, property assessor, and the health department overrode citizen concerns.
- There was a lack of representation for residents, with overrunning the process of community consent, and engagement of residents in human experimentation without knowledge or consent by political and economic interests
- There were possible civil rights violations if pilot materials were not translated for non-English speaking residents

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<sup>10</sup> Page 19, page 29 of the Navigant final report

<sup>11</sup> "Health Risks Associated with Smart Meter Wireless Emissions," SkyVision Solutions Blog Article, October 2016, at <https://smartgridawareness.org/2016/10/02/health-risks-associated-with-smart-meter-wireless-emissions/>

<sup>12</sup> "Radiofrequency (RF) Radiation Power Density Levels for Smart Meters, Various Biological Effects, and Exposure Guidelines," SkyVision Solutions, at <https://smartgridawareness.org/rf-health-effects/comparison-values/>

<sup>13</sup> Pre-Filed Testimony by Samuel Milham, M.D., M.P.H on behalf of Warren Woodward, April 3, 2017; available at <http://docket.images.azcc.gov/0000178631.pdf>

<sup>14</sup> Based upon a "Report on Examination of Selected Sources of EMF at Selected Residences in Hastings-on-Hudson" by Isotrope Wireless, dated November 23, 2013: "There was a substantial conducted 915 MHz component on the power line." Report available at <https://skyvisionsolutions.files.wordpress.com/2014/04/report-on-examination-of-selected-sources-of-emf-at-selected-residences.pdf>.

- There was a lack of disclosure of the environmental impact of foliage removal to enable the microwave signal integrity, as demonstrated at the Cooks Pond substation<sup>15</sup>
- There was lax Massachusetts Department of Public Utilities oversight of pilot, including the authorization of the auto-enrollment design, the approval of additional costs of rebranding and changes to the program design, the expended budget allowance for the costly Sustainability Hub, and the 2-year interim extension. (By extending the pilot, customers who did not know that they were in the pilot would not find out they were in the pilot when their utility bills suddenly increased)
- There was a lack of transparency in the Massachusetts Department of Public Utilities dockets, including but not limited to: MA DPU 11-129, MA DPU 14-84, MA DPU 14-109/15-21, MA DPU 16-28, MA DPU 17-53, MA DPU 18-28, MA DPU 10-82 in addition to the grid modernization dockets: MA DPU 12-76, and MA DPU 15-120, 121 and 122.
- It is not possible for ratepayers to transparently determine the cost of the pilot.
- The MA DPU has relied on the testimony of a career tobacco scientist to negate citizen health concerns for over a decade, for the smart meter order MA DPU 12-76, and many other infrastructure projects, despite citizen complaints.
- Opting out does not protect customers from neighboring emissions or grid power quality issues introduced by smart grid infrastructure.
- National Grid promoted a free opt out during the pilot as indicative of its commitment to customer choice, while already surcharging customers opting out of first generation AMR meters, and planning for surcharges in its grid modernization proposal.

There are examples in the Navigant report of findings that do not support grid modernization, but the analysis has been packaged to support a positive outcome of the pilot's results.

For example, Navigant reported; **40% of customers overrode their thermostat during Peak events:** *"In each year as the summer progressed, respondents reported using the override button on their thermostat more frequently (see Figure C-5). In each summer, a little under 40% of customers indicated overriding their thermostat at least once during a Peak Event."*

Navigant also wrote: **Only 30% of participants used a smart plug in year 2.** *"Half of respondents that had a smart plug reported using it during Peak Events in 2015 and 30% reported doing so in 2016. In 2015, those who used their smart plug plugged it into small appliances and electronics (26%), lamps or other light fixtures (8%), refrigerator or freezer (4%)—although National Grid told customers not to use the smart plug for these appliances—room air conditioner or dehumidifier (4%), or other uses (8%). In 2016, those who did not use their smart plug reported that they had forgotten about the Smart Plug (20%), did not understand its purpose (16%), or did not know how to use it (9%). Most customers were satisfied or very satisfied with the smart plug."*

Another example that calls into question the effectiveness of smart meters: *"As shown in Figure 4-24, customers wanted lower rates, shorter Peak Event timeframes, fewer Peak Events, and additional information about their usage."*

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<sup>15</sup> [NG\\_resp\\_AG4thSet.pdf](#), page 14, *"The technology and infrastructure utilized for the communications required vegetation management services to allow for proper clearances for antennas, clearing vegetation around routers and clearing vegetation around range extenders to mitigate signal quality issues."*

Also, *“Low Income Customers: However, in Level 2 the low-income customers had lower Peak Event savings than the group as a whole. As discussed further in Section 3.1.3, possible reasons for this difference in Level 2 include (1) lower central air conditioning penetration for the low-income customers, (2) low-income customers may have less discretionary energy usage and thus less energy to save, and (3) low-income customers may have been less able to shift their usage than other residential customers. The difference could also be a spurious finding since low-income customers had the same impacts as other customers in two of the three groups analyzed.”*

The findings attributed to low-income customers may apply to customers in all rate classes.

The Massachusetts Department of Public Utilities did not yet approve the customer-facing portion of the grid modernization plans for investor-owned utilities, but is still pursuing smart meters as the cornerstone to grid modernization.

The utility industry reported that the issue that is holding back approval of smart meters in Massachusetts was, in part, the migration of customers to third party and municipal suppliers.<sup>16,17</sup> Yet this finding is absent from the Navigant report, and it’s relevancy is discounted in the fine print of 2 footnotes.<sup>18</sup> Furthermore, the public narrative about the pilot in Worcester and beyond is that the pilot had 15,000 or 11,000 participants, with a 2% opt out or a 98% retention rate.

There appear to be multiple narratives circulating about the Worcester pilot program, with the potential to mislead the public, decision makers, regulators, and investors.

Alongside the industry’s reports that smart meter installations have flat-lined, smart meter proponents are continuing to promote positive results that have been reported from pilot programs around the county;<sup>19</sup>

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**<sup>16</sup> Massachusetts Rejects Smart Meter Rollouts, as Competitive Energy Undermines the Business Case**

How customers migrating to third-party and municipal electric services have put National Grid, Unitil and Eversource’s AMI plans in question.

<https://www.greentechmedia.com/articles/read/massachusetts-rejects-smart-meter-rollouts-as-competitive-energy-undermines#gs.QQ4P6ELo>

<sup>17</sup> <https://www.utilitydive.com/news/virginia-rejects-majority-of-dominions-6b-grid-modernization-plan-smart/546361/>

“Virginia regulators joined their counterparts in Kentucky and Massachusetts in denying smart meter proposals, part of a trend that has seen AMI deployment flatline at roughly 50% of electric customers.”

<sup>18</sup> In the footnote on page 16, Navigant states, “The difference between the 15,000 customers offered an AMI meter and the 11,000 enrolled in the Pilot is accounted for by customers who get electricity from a competitive supplier, moved out before the Pilot rates went live, or chose to drop out of the Pilot before it started”.

In the footnote on page 17, Navigant states, “Over time, customer retention reflects how many customers remain in the Pilot rather than dropping out. The retention rate considers only those customers who actually drop out of the Pilot and excludes those who moved or switched to a competitive supplier, which could have happened for any number of reasons unrelated to the Pilot.”

<sup>19</sup> An emerging push for time-of-use rates sparks new debates about customer and grid impacts, Momentum is building behind time-of-use rates, but longstanding doubts about whether they are fair remain unresolved, threatening new efforts.

<https://www.utilitydive.com/news/an-emerging-push-for-time-of-use-rates-sparks-new-debates-about-customer-an/545009/>

On January 28, 2019, Utility Dive's Herman K. Tarbush reported:

*"Pilot programs have shown smartly designed residential time-of-use (TOU) and other time varying rate structures can effectively shift power consumption away from peak demand and drive significant savings for both customers and utilities. But concerns about whether such rate structures are good for all customers remain. And doubts about whether they can be designed and implemented both fairly and effectively are emerging."*

On page 61 of the Navigant report, the National Grid results for Residential Peak Impacts Percentage for 2015 and 2016 are compared very favorably with NStar, DTE, GMP, OG&E, MMLD, SMUD, BGE, and CEIC electric companies.

This leads to the question for consumers about the integrity of results reporting for the industry as a whole.

Are the faulty and misleading National Grid Massachusetts results being utilized to justify further investment in smart meters elsewhere?

In fact, the report for the Worcester pilot was submitted to New York utility regulators.<sup>20</sup>

National Grid is currently conducting a 3-year smart meter pilot in Clifton Park, NY for 14,000 customers, budgeted for \$26M.<sup>21</sup> The New York smart meter pilot is one year longer at nearly half the cost to ratepayers compared to the Worcester pilot.

In addition, National Grid has stated that it intends to implement smart meters in Rhode Island.

### **The lack of informed consent negates the value of the pilot.**

Page 6 of the Navigant report states, *"Eligible customers in the Worcester area who accepted a smart meter were enrolled onto the CPP rate by default."*

The sentence sums up the issue with the auto-enrollment design of the Worcester pilot program. If customers did not realize that they received a meter, they did not accept the meter. And if they did not know that they were in a TOU pricing plan, it is not possible to draw conclusions about how they responded to the variables of pricing and time-of-use. The pilot did not test the parameters planned for full state-wide deployment of smart meters.

The Worcester National Grid smart meter pilot program fires a warning shot across the bow of the future of smart cities, big data, 5G, and the internet of things, because the pilot success appears to have been a foregone conclusion, delivered by those who had the data. It demonstrates that data can be manipulated to support a pre-determined outcome. The pilot appears to have operated as "decision-based evidence-making."

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<sup>20</sup> BEFORE THE STATE OF NEW YORK PUBLIC SERVICE COMMISSION  
In the Matter of Niagara Mohawk Power Corporation d/b/a National Grid  
Cases 17-E-0238 and 17-G-0239 August 2017  
{BBE155CF-D39C-446E-A3E1-6FA0D30F1F2A} (1).pdf

<sup>21</sup> <https://dailygazette.com/article/2018/01/16/smart-meters-help-clifton-park-residents-curb-energy-use>

There must be a system of checks and balances in place to address this scenario of decision-making based on corruption of data.

National Grid is a British company that earned more than \$4.6 billion in profits last year.<sup>22</sup> Not all of those profits came from Massachusetts's ratepayers, but they indicate the cost that customers paid above and beyond the cost of the basic service for electricity. This includes cooking and heat for some customers.

The pilot delivered results claims that support smart meters, but the MA DPU did not evaluate the low-cost alternative of customer outreach and education alone, to manage energy consumption during critical peak periods.

Customer education does not introduce privacy, security, hacking, health, cost, environmental, and green-washing concerns.

Punitive pricing plans clearly discriminate against certain classes of customers, particularly those who work from home, work 3<sup>rd</sup> shift, rely on a home health aide, and those customers experiencing adverse health symptoms due to exposure to microwave radiation and the grid harmonics caused by the meters.

Smart meter pricing plans are based on an underlying assumption that customers routinely consume more electricity than they need. Consumers who desire to use a home energy-monitoring device are able to do so without the need for an AMI meter, or the cost for the utility to collect, transmit, store, analyze, and potentially sell the data.

Massachusetts is in a position to bring new options to the table regarding energy, by transparently addressing the shortcomings of the pilot results reporting, on behalf of ratepayers, decision-makers, regulators, and investors.

National Grid, Navigant, and the MA DPU have provided an industry-friendly analysis of the Worcester pilot, in collaboration with pro-industry vendors and financial interests.

To guarantee

- that the Worcester community is not exploited,
- that the National Grid ratepayers are not defrauded,
- And that the MA DPU is not engaged in malfeasance,

informed ratepayers respectfully request that the legislature intervene to investigate and clarify the results reporting for the Worcester National Grid smart meter pilot program.

Please support MA legislative bills HD 3596 and HD 3428.

Respectfully submitted, Feb, 13, 2018  
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*Note: The author declares no financial conflicts of interest.*

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<sup>22</sup> <https://www.bostonglobe.com/opinion/2018/10/15/national-grid-lockout-puts-profit-first-workers-and-safety-last/8UIV1lvhXzLzvyEXzPee8L/story.html>