

December 6, 2017

**BY HAND DELIVERY AND ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket 4755 – 2018 Energy Efficiency Program Plan  
Responses to PUC Data Requests – Set 1**

Dear Ms. Massaro:

I have enclosed ten copies of National Grid's<sup>1</sup> responses to the first set of data requests issued by the Rhode Island Public Utilities Commission in the above-referenced docket.

Please be advised that National Grid is seeking protective treatment of Attachment PUC 1-2-B and Attachment PUC 1-11, as permitted by PUC Rule 1.2(g) of the Public Utilities Commission Rules of Practice and Procedure and R.I. Gen. Laws § 38-2-2(4)(B). Accordingly, the Company has provided the PUC with one complete, unredacted copy of the confidential documents in a sealed envelope marked "**Contains Privileged and Confidential Information – Do Not Release,**" and has included redacted copies of these materials for the public filing.

Thank you for your attention to this filing. If you have any questions, please contact me at 781-907-2121.

Sincerely,



Raquel J. Webster

cc: Docket 4755 Service List  
Jon Hagopian, Esq.  
Steve Scialabba, Division

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.

\_\_\_\_\_  
Joanne M. Scanlon

December 6, 2017  
Date

**Docket No. 4755 - National Grid – Energy Efficiency Program Plan for 2018**  
**Docket No. 4756 - National Grid – 2018 System Reliability Procurement**  
**Report (SRP)**  
**Service list updated 11/27/17**

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**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
RHODE ISLAND PUBLIC UTILITIES COMMISSION**

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**In Re: 2018 Energy Efficiency Plan**

**Docket No. 4755**

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**NATIONAL GRID'S MOTION FOR PROTECTIVE TREATMENT  
OF CONFIDENTIAL INFORMATION**

National Grid<sup>1</sup> respectfully requests that the Rhode Island Public Utilities Commission (PUC) provide confidential treatment and grant protection from public disclosure certain confidential information submitted in this proceeding, as permitted by PUC Rule 1.2(g), R.I. Gen. Laws § 38-2-2(4)(A)(I)(b) and R.I. Gen. Laws § 38-2-2(4)(E). National Grid also respectfully requests that, pending entry of that finding, the PUC preliminarily grant National Grid's request for confidential treatment pursuant to Rule 1.2 (g)(2).

**I. BACKGROUND**

On December 6, 2017, National Grid filed its responses to the PUC's first set of data requests in this docket. Two of the Company's responses include confidential information that the Company would not ordinarily share with the public. The Company's response to Data Request 1-2 includes an attachment (Attachment PUC 1-2-B) that reflects confidential settlement negotiations. Specifically, Attachment PUC 1-2-B reflects changes between the first and final draft of the 2018 Energy Efficiency (EE) Plan. The parties in this docket negotiated the 2018 Energy Efficiency Plan through various settlement negotiations, and the proposed 2018 Energy EE Plan that is pending before the PUC for review and approval is the final plan to which the

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

settling parties agreed. Attachment PUC 1-2-B, however, reflects the parties negotiations before they reached a settlement on the final 2018 EE Plan. The Company's response to Data Requests PUC 1-11 also includes sensitive confidential information. Specifically, Attachment PUC 1-11 identifies customers that participate in the Company's large and industrial loan energy efficiency fund. Attachment PUC 1-11 also includes the customers' account and loan numbers. As explained below, the Company respectfully requests confidential treatment of Attachment PUC 1-2-B and Attachment PUC 1-11 because, among other things, these attachments reflect confidential settlement negotiations and private customer information.

## **II. LEGAL STANDARD**

The PUC's Rule 1.2(g) provides that access to public records shall be granted in accordance with the Access to Public Records Act (APRA), R.I. Gen. Laws §38-2-1 *et seq.* Under the APRA, all documents and materials submitted in connection with the transaction of official business by an agency is considered as a "public record," unless the information contained in such documents and materials falls within one of the exceptions specifically identified in R.I. Gen. Laws §38-2-2(4). Therefore, to the extent that information provided to the PUC falls within one of the designated exceptions to the public records law, the PUC has the authority under the terms of the APRA to treat such information as confidential and to protect that information from public disclosure.

In that regard, R.I. Gen. Laws § 38-2-2(4)(A)(I)(b) provides in part that the following types of records shall not be deemed public:

Personnel and other personal individually identifiable records otherwise deemed confidential by federal or state law or regulation, or the disclosure of which would constitute a clearly unwarranted invasion of personal privacy pursuant to 5 U.S.C. § 552 *et seq.* . . . .

R.I. Gen. Laws § 38-2-2(4)(A)(I)(b). See also Providence Journal Co. v. Kane, 577 A.2d 661, 665 (R.I. 1990) (noting that the plaintiffs' request for information that will uniquely identify State employees by name, address, and employment history directly contravenes the clear proscription set forth in R.I. Gen. Laws § 38-2-2 against disclosure of all records, which are identifiable to an individual employee, including personnel records. In addition, the APRA provides that “[a]ny records that would not be available by law or rule of court to an opposing party in litigation” shall not be deemed public.” R.I. Gen. Laws § 38-2-2(4)(E).

### **III. BASIS FOR CONFIDENTIALITY**

National Grid respectfully requests confidential treatment of the unredacted version of Attachment 1 PUC 1-2-B because that attachment reflects sensitive and confidential negotiations between the settling parties in this docket that would not be available by law or rule of court to an opposing party in litigation. See R.I. Gen. Laws § 38-2-2(4)(A)(I)(b). Attachment PUC 1-2-B reflects key changes between the first and final drafts of the proposed 2018 EE Plan, and such changes were made as a result of the negotiations and settlement discussions between the parties in this docket who settled and signed the final draft of the 2018 EE Plan. The Company would not ordinarily share such drafts with the public, and release of the first draft of the EE Plan could have a negative impact on future settlement discussions involving the annual EE Plans. Accordingly, National Grid maintains that Attachment PUC 1-2-B satisfies the exception in R.I. Gen. Laws § 38-2-2(4)(A)(I)(b).

Finally, National Grid respectfully requests confidential treatment of Attachment PUC 1-11, which includes private customer information. See Providence Journal Co. v. Kane, 577 A.2d 661, 665 (R.I. 1990) (noting that the plaintiffs' request for information that will uniquely

identify State employees by name, address, and employment history directly contravenes the clear proscription set forth in R.I. Gen. Laws § 38-2-2 against disclosure of all records which are identifiable to an individual employee, including personnel records. Although the Court in Kane addressed a request for personal employee information, the Company maintains that the APRA clearly protects the personal customer information that National Grid seeks to protect here because this information includes customers' names and sensitive loan data – information that National Grid is obligated to protect. As such, National Grid maintains that the customers' personal loan information contained in Attachment PUC 1-11 satisfies the exception in R.I. Gen. Laws § 38-2-2(4)(A)(I)(b).

#### **IV. CONCLUSION**

Accordingly, the Company respectfully requests that the PUC grant protective treatment to Attachment PUC 1-2-B and Attachment PUC 1-11 included in the Company's responses to the PUC's first set of data requests in this docket.

**WHEREFORE**, for the foregoing reasons, the Company respectfully requests that the PUC grant this Motion for Protective Treatment of Confidential Information.

Respectfully submitted,

**NATIONAL GRID**

By its attorney,



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Raquel J. Webster, RI Bar #9064  
National Grid  
40 Sylvan Road  
Waltham, MA 02451  
(781) 907-2121

Dated: December 6, 2017

PUC 1-1

Request:

Please identify members of the Collaborative who are not a party to the settlement of the proposed 2018 Energy Efficiency Plan (EE Plan).

Response:

TEC-RI and RI Housing were not parties to the settlement.

PUC 1-2

Request:

Please provide a redlined copy of the EE Plan that shows the changes between the first and final drafts and, if available, a redlined copy that shows the changes between the 2017 EE Plan and the 2018 EE Plan.

Response:

Please see Attachment PUC 1-2-A for the changes between the 2017 EE Plan and the 2018 EE Plan.

Please see Confidential Attachment PUC 1-2-B for the changes between the first and final drafts of the 2018 EE Plan. Please note that Attachment 7 was not included in the first draft of the 2018 plan and was added in the second draft.

As explained in the Company's attached Motion for Confidential treatment, the Company respectfully requests confidential treatment of Attachment PUC 1-2-B since it reflects settlement negotiations between the parties in this docket.

Please note that due to the voluminous nature of Attachments PUC 1-2-A and PUC 1-2-B, the Company is providing these documents on CD-ROM.

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4755  
In Re: 2018 Energy Efficiency Plan  
Responses to Commission's First Set of Data Requests  
Issued on November 20, 2017

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Attachment PUC 1-2-A

Please see Attachment PUC 1-2-A on CD-ROM

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4755  
In Re: 2018 Energy Efficiency Plan  
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Issued on November 20, 2017

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Attachment PUC 1-2-B

**REDACTED**

Please see Confidential Attachment PUC 1-2-B on CD-ROM.

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4755  
In Re: 2018 Energy Efficiency Plan  
Responses to Commission's First Set of Data Requests  
Issued on November 20, 2017

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PUC 1-3

Request:

Please provide the minutes of EERMC meetings in which the 2018 EE Plan was discussed and/or voted upon.

Response:

Please see the EERMC meeting minutes attached as Attachment PUC 1-3-1 and PUC 1-3-2.



STATE OF RHODE ISLAND  
**ENERGY EFFICIENCY &  
RESOURCE MANAGEMENT COUNCIL**

**MEETING MINUTES**

**Thursday, September 21, 2017 | 3:30 - 5:30 PM**  
Conference Room B, 2<sup>nd</sup> Floor, Department of Administration, Providence, RI

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**Members in Attendance:** Chris Powell, Carol Grant, Roberta Fagan, Tom Magliocchetti, Anthony Hubbard, Karen Verrengia, Michael McAteer, Bob Bacon, Diane Williamson, Joe Cirillo, Shigeru Osada, Joe Garlick and Betsy Stubblefield Loucks.

**Others Present:** Mike Guerard, Emily Levin, Nick Ucci, Sara Canabarro, Carrie Gill, Chris Kearns, John Richards, Lindsay Foley, Seth Handy, Matt Ray, Alice Hourihan, Kat Burnham, Erika Niedowski, Courtney Lane, Angela Li, Mona Chandra, Matt Chase, Belinda Wong and Brigid Ryan.

**1. Call to Order**

Chairman Chris Powell called the meeting to order at 3:31PM.

**2. Approval of Meeting Minutes**

Chairman Powell requested a motion to approve the minutes for August, with the amended note by Shigeru Osada. Joe Cirillo made a motion to adopt the minutes as amended; Bob Bacon seconded the motion. All approved.

**3. Executive Director Report**

*a) General Update*

Commissioner Carol Grant reported that the ACEEE Energy Efficiency Scorecard will be out by 9/28, and she will share those results with the Council at the next meeting. She also shared that the nine states participating in the Regional Greenhouse Gas Initiative, have reached an agreement to go forward with even more aggressive reductions in GHG emissions. Commissioner Grant also noted that the General Assembly had held a special session and had not yet passed legislation that would change the 2018 energy efficiency plan budget cap to a system benefit charge cap. The original Three-Year Plan had not included this cap on the budget. Commissioner Grant added that OER and other stakeholders will continue to work on the impacts that any legislation might have on the 2018 EE Plan and will keep the Council informed throughout the process.

Mr. Osada asked how National Grid can honor the budget cap if the Three-Year Plan is already submitted to PUC. Commissioner Grant and Chairman Powell both explained that Annual Plans are legally binding filings, while the Three-Year Plan is meant to provide overall strategic direction. Therefore, the Annual Plan will be required to be in compliance with the law when submitted to the PUC.

**4. Chairperson Report**

*a) General Update*

Chairman Powell stated that the majority of the meeting will focus on reviewing National Grid's draft version of the 2018 annual energy efficiency and SRP Plans. During this meeting, the Council will also be voting on the Consultant Team's cost-effectiveness report for the Three-Year Plan, which is due to the PUC tomorrow. National Grid will also be giving a summary of their Q2 program progress report. During the Council Business section of the agenda, the Council will review Energy Education proposals, proposed edits to Council By-laws, and the Consultant Services RFP Evaluation Team.

## 5. National Grid Programs & Plans

### *a) Vote to Approve Cost- Effectiveness Report for Three- Year Plan*

Mike Guerard reported that the Three-Year Plan is cost effective and less than the cost of supply per the LCP Standards. The Consultant Team documented these findings in the cost-effectiveness report before the Council that was distributed on September 14. He stated that the report's content is similar to other cost-effectiveness reports previously submitted to the PUC. This is the document that the Council has historically voted on and has submitted to the PUC as evidence that the Three-Year Plan complies with the Least Cost Procurement Law, and is cost effective.

Mr. Osada commented that if the cost effectiveness report shows the cost/benefit ratio detail on top, why not show the comparison of the cost of energy efficiency versus the cost of supply. Mr. Guerard answered that the numbers on the front of the report are meant only as a reference, and pages 5 through 7 provide more detail. Mr. Osada also questioned why the residential standard offer service rate is used for the price comparison in the report, instead of comparing the actual prices each sector pays. Moreover, he expressed concerns over the cost per kWh of the innovation line item, and how this uncertainty is included in the cost-effectiveness test. Chairman Powell then clarified that the Council already approved the Three-Year plan., which included the innovation line. Therefore, as long as the plan passes the cost-effectiveness test as defined in the Standards, the Council should move on to other items on the agenda. Betsy Stubblefield Loucks also asked the Council to move on to allow others to make comments. Mr. Osada stated that he did not think that approving the Three-Year Plan meant approving the cost for the innovation line item which he thinks is unreasonable.

Chairman Powell requested a motion to approve the Cost-Effectiveness Report for the Three-Year Plan. Karen Verrengia made a motion to approve; Ms. Stubblefield Loucks seconded the motion. All approved, except for Mr. Osada.

### *b) Intro to draft 2018 Energy Efficiency & System Reliability Plans*

Emily Levin reported that the 2018 Annual Plan is due to the PUC on November 1<sup>st</sup> and that National Grid is responsible for the drafting and filing of this plan. She added that this presentation was based on a plan without a budget cap, so they will start working to update the information right away. Mike Guerard explained that the savings for 2018 are between what was represented in the Three-Year Plan and the Targets filing. The Annual Plan numbers shifted because they had to take into account recent evaluation results that were not available for the drafting of the Three-Year Plan. These new evaluations are showing more savings being attributable to the programs. Therefore, the savings are shown as adding no additional cost. Mr. Osada shared that he is very frustrated that the numbers keep changing for every draft. Ms. Levin stated that all the changes simply reflect additional information that allows National Grid to claim more savings from the currently established programs. Chairman Powell explained that the timeline available to conduct evaluations and plans in sequence is insufficient.

Mr. Bacon wants to better understand what Mr. Osada's concerns are, and what purpose the Three-Year plan has. Mr. Osada reiterated his concern over comparing the average cost per lifetime kWh saved across sectors to the residential standard offer service rate. Mr. Guerard stated that the Three-Year Plan allows for long-term planning and guides the annual plan process. Ms. Levin continued with the presentation, and shared that the written comments for the draft 2018 Annual Plan are due tomorrow to National Grid. The consultant team sent memos to each Council member highlighting the areas affecting their representative constituencies. She encouraged the Council members to send their input/comments to the consultant team in order for their comments to be incorporated into the next version of the Plan. All the Council members should also feel free to reach out to her or Mike Guerard with any questions.

### *c) National Grid Summary of draft 2018 Annual Plans*

Courtney Lane and her team went over the draft of the 2018 Energy Efficiency Plan and System Reliability Plan. Ms. Lane stated that the first draft of the Annual Plan does include the \$12.5 million diversion of funds per the General Assembly. She shared that National Grid will work with the Council and Collaborative to identify ways to strategically make an additional ~\$10 million budget cut as a result of legislation. Ms. Lane informed the Council that National Grid and the Collaborative have a call this upcoming Monday, and will inform the Council of any changes as soon as possible, so that by October 19<sup>th</sup> the Council can vote on the final draft of the 2018 Annual Plan. Karen Verrengia asked Ms. Lane to highlight exactly where the budget cuts are going to happen to make it easier to understand when comparing to previously expected savings. Nick Ucci added that during the Collaborative phone call last week, it was agreed that the budget cuts would not impact Income-Eligible customers. Mr. Osada believes that the benefit/cost ratio is very low for 2018 and asked National Grid to show the trend of the benefit/cost ratio over time so that the Council can recognize today's situation visually. Ms. Lane explained that the plan complies with the law and the graphs displayed are truthful.

Angela Li informed the Council that October 5<sup>th</sup> is National Energy Efficiency Day, and she encouraged members to sign up for free Home Energy Assessments offered by National Grid.

Lindsey Foley and Matt Chase went over the draft System Reliability Plan, but did not have any presentation slides. Mr. Osada expressed an opinion that sometimes immediate investment is better than deferral, and he shared a concern about not having invested in certain infrastructure with a possibly hot 2018 summer. Ms. Foley explained that the premise of non-wires alternatives is that deferral of investments is better than immediate investment, and that National Grid's deferral of investment maintains an appropriate buffer to mitigate risks.

*d) Public Comment on the draft 2018 Annual Plans*

Chairman Powell reported that Seth Handy (from Handy Law) had sent a letter with comments, which was included in the Council's packets.

Kat Burnham from People's Power & Light (PP&L) shared that they are pleased that the Plan commits to the Least Cost Procurement Law, and demonstrates real benefits. They are pleased to see the integration of the RI test, since they had made a lot of comments over time that the Total Resource Cost test didn't sufficiently capture emissions costs and energy efficiency benefits. The RI Test is better aligned with state goals. Regarding the increased incentives for heating oil weatherization, they are very pleased these incentives are included, and they expect consumers to respond well to them. In order to maintain Rhode Island's national leadership on efficiency, we have to maintain high levels of savings. For this reason, the savings proposed in the Three-Year Plan were very welcomed. Regarding the proposed SRP document, PP&L is very excited about the storage pilot that's proposed to address the Summer Peak. However, they have heard it may be discontinued due to funding concerns. Ms. Burnham also stated that we need to emphasize how detrimental the \$12.5 million diversion to the General Fund and program budget cap is to our energy efficiency programs. PP&L had made this point at the time of the Three-Year Plan's development, and will emphasize it again for this Annual plan. She concluded that it is on all of us to educate our community on the importance of Energy Efficiency, and this plan can and should be used as a tool to educate folks.

Erika Niedowski from Acadia Center shared that they are very pleased to see additional cost effective energy savings in the Annual Plan, as compared to the Three-Year Plan. Specifically, the proposed Annual Plan not only meets, but exceeds the 2018 Natural Gas targets filed by the EERMC. They are also very pleased to see the RI test incorporated into the plan. Broadly speaking, the plan offers strategies to deliver cost effective energy efficiency savings across customer segments, and lays important ground work for future innovation. The Acadia Center also welcomes the suggestion of creating a business forum, or working group to bring more business voices to the table. Acadia Center has two serious concerns about

the 2018 Plan. First, the General Assembly appropriation of \$12.5 million in ratepayer's funds to the general revenue fund is effectively an energy tax. Second, the cap on the 2018 budget will result in an additional \$10 million in cuts towards energy efficiency at a time when electricity rates are going up. Moreover, it places an artificial limitation on cost-effective energy efficiency and violates Least-Cost Procurement law. The Acadia Center strongly recommends Income-Eligible programs to be spared from any budget cuts. While the Acadia Center supports efforts to provide efficiency to the delivered fuels sector, that sector is not covered in the Least Cost Procurement Law, so for that reason it may be appropriate to delay incentives in these programs and continue to think about the best ways to serve this sector.

*e) Council discussion on draft 2018 Annual Plans*

Michael McAteer stated that the benefits are large, and he encourages the Council to really dive into the plan. This plan is setting the direction for the future of energy efficiency and clean energy. Chairman Powell shared that there is a Power Sector Transformation meeting on September 25<sup>th</sup>, which is opened to the public, and he encourages the Council members to attend. Mr. Osada stated that the Annual Plan is too long to dive into, and he recommends more visuals to help quicken everyone's understanding. Chairman Powell said that the Council needs to repeat training sessions, or add more retreats, to make sure that all members understand what is going on and can have open discussions, as well as have all their questions answered. Mr. Osada and Ms. Stubblefield Loucks support this idea.

Diane Williamson asked how the Council can prevent such legislative budget cuts from happening again. Chairman Powell suggested communicating to legislators. Commissioner Grant reminded Council members that their representation in this conversation is very powerful because they understand both energy efficiency and the needs of their stakeholders, and posed the question of how to communicate benefits of energy efficiency to customers in an environment of increasing costs. Chairman Powell suggested that he, Commissioner Grant, and Becca Trietch brainstorm on how to communicate to legislators and would come back to the Council with some ideas. He also suggested having the Council's legal counsel, Marisa Desautel, talk to Council members about the legal process and how to best prevent a diversion of funds and program budget caps in the future.

*f) National Grid Quarter 2 Energy Efficiency Program Update*

Angela Li, Courtney Lane and John Richards went over the Quarter 2 update on the 2017 Energy Efficiency Programs. Mr. Osada recommended showing the top measures that contribute to achieving the energy savings goals. Ms. Lane explained that there is already significant data for the time allotted during EERMC meetings, and he should discuss with the Consultant Team.

## **6. Council Business**

*a) Vote on Energy Education Proposal Selection*

Ms. Stubblefield Loucks shared that Becca Trietch, Karen Verrengia and herself went over the energy education proposals from NEED, RI Housing and Evergreen Economics, and after using the rubric for evaluation, they all agreed that NEED offered the best proposal. Ms. Verrengia added, however, that all three of them appreciated the needs assessment that Evergreen Economics had included in their proposal. Therefore, Ms. Verrengia proposed assigning \$60k to NEED (instead of the full amount of \$75k that is available) and allocate the remaining \$15K for a needs assessment to inform future education efforts. Ms. Stubblefield Loucks reiterated NEED's extensive experience with energy education and asked the Council to vote to approve the NEED Energy Education proposal for the amount of \$60k today, and they and Ms. Trietch will work to write a separate RFP for a needs assessment. Angela Li also commented from the audience that historically National Grid and OER have provided funding to NEED. Ms. Verrengia

explained that this year, funding sources have leveled off and the Council's funding would help NEED to expand the program's reach.

Chairman Powell requested a motion to approve the NEED Energy Education Proposal for \$60k. Bob Bacon made a motion to approve; Anthony Hubbard seconded the motion. All approved.

*b) EERMC Bylaw Review*

Nick Ucci stated that Becca Trietch, Marisa Desautel and DOA's legal team put together this redlined version of the EERMC Bylaws to be reviewed by the Council. The goal of the edits is to try and lessen the burden of the Executive Committee. Chairman Powell shared that the largest changes include moving the agenda creation duty to the Chairperson, specifying some duties already performed by OER under the Executive Director, and specifying a method for Council members to adjust agendas if desired. By moving the monthly agenda creation to the Chairperson, the Executive Committee could meet on an as-needed basis instead of monthly. Nick Ucci asked the Council members to review the document redlines and provide comments to Ms. Trietch. A vote on the revisions will be held in October.

*c) Vote on Consultant Services RFP Proposal Evaluation Team*

Chairman Powell reported that Ms. Stubblefield Loucks, Tom Magliocchetti and Anthony Hubbard have volunteered to make up the Consultant Services Proposal Evaluation Team. Chairman Powell requested a motion to approve. Ms. Verrengia made a motion to approve; Bob Bacon seconded the motion. All approved. Mr. Osada asked Mr. Ucci if anyone had submitted questions about the RFP; Mr. Ucci responded that he was not aware of any questions, but would ask Ms. Trietch to circulate that information if any came to light.

**7. Other Public Comment**

No public comments were made.

**8. Adjournment**

Chairman Powell requested a motion to adjourn the meeting. Mr. Osada made a motion to adjourn; Joe Cirillo seconded the motion. All approved.

The meeting was adjourned at 5:29PM.



STATE OF RHODE ISLAND  
**ENERGY EFFICIENCY &  
RESOURCE MANAGEMENT COUNCIL**

**MEETING MINUTES**

**Thursday, October 19, 2017 | 3:30 - 5:30 PM**

Conference Room A, 2<sup>nd</sup> Floor, Department of Administration, Providence, RI

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**Members in Attendance:** Chris Powell, Carol Grant, Anthony Hubbard, Michael McAteer, Joe Cirillo, Shigeru Osada, Joe Garlick, Raquel Webster, Diane Williamson and Betsy Stubblefield Loucks.

**Others Present:** Mike Guerard, Emily Levin, Nick Ucci, Sara Canabarro, Becca Trietch, Danny Musher, Jonathan Schrag, Lindsay Foley, Matt Chase, Erika Niedowski, Courtney Lane and Brigid Ryan.

**1. Call to Order**

Chairman Powell called the meeting to order at 3:36PM.

**2. Approval of Meeting Minutes**

Chairman Powell requested a motion to approve the minutes for September, with the amendments shown in track-changes by Shigeru Osada. Mr. Cirillo made a motion, and Ms. Stubblefield seconded it. All approved.

**3. Executive Director Report**

*a) General Update*

Commissioner Grant was not present at this moment of the meeting, so she asked Deputy Commissioner Nick Ucci to provide the general update. Mr. Ucci reported that Rhode Island ranked third in the 2017 State Energy Efficiency Scorecard, rising one position compared to last year. Rhode Island earned a perfect score for its utility policies and programs for the fourth year in a row and continues to achieve levels of savings amongst the highest in the country. Mr. Ucci stated there is a one page summary included in the council member packets. Mr. Ucci also reminded the Council that, Senator Whitehouse will be hosting his Energy Environmental Stakeholder Event at the convention center tomorrow, October 20<sup>th</sup>.

**4. Chairperson Report**

*a) General Update*

Chairman Powell stated that the majority of the meeting will focus on reviewing National Grid's final version of the 2018 Annual Energy Efficiency (EE) and System Reliability Procurement (SRP) Plans. During the meeting, the Council will also be voting on a funding transfer request from National Grid. More information on this request will be provided by both the Consultant Team and National Grid during their presentations. Chairman Powell also stated that the C-Team is giving an update on the status of the Cost-Effectiveness Report. The Council will also vote on the Bylaw redlines, which Ms. Trietch will go over during this meeting. To help with discussion questions and votes, there is a document stapled to the agendas that were distributed to the Council members that shows recommended discussion questions and vote language options.

*1. EERMC Quarter 3 Budget Status*

Chairman Powell reported that due to time constraints, an EERMC Q3 Budget report has been included in the Council member packets, but will not be discussed during today's meeting. If there are any questions on the report, please contact Becca Trietch.

**5. National Grid Programs & Plans**

*a) Overview of final 2018 Energy Efficiency & System Reliability Procurement Plans and Associated Budget Adjustments*

Mr. Guerard and Ms. Levin provided an overview of the final 2018 EE & SRP Plans and associated budget adjustments. To summarize, the savings were reduced from the first draft due to the budget cap, but are still higher than the levels of 2018 electric and gas savings in the Three-Year Plan. Cuts made due to the budget cap represent a reasonable balance across sectors and preserve Rhode Island's commitment to energy security and innovation. The plan maintains Rhode Island's national leadership and delivers robust, cost-effective energy savings. The plan includes a strong focus on innovation and pilots to position Energy Efficiency and System Reliability Procurement programs for the future. For all these reasons, the C-Team recommends that the Council vote to approve the 2018 Annual Plan as presented, to be submitted by National Grid to the PUC by November 1<sup>st</sup>.

Chairman Powell asked if the Council had any questions. Mr. Ucci thanked everyone involved in the making of the 2018 Annual Plans for their incredible, hard work, and he stated that OER strongly supports the plans. Deputy Administrator, Jonathan Schrag from the DPUC also stated their support for the Annual Plans.

The Consultant Team also summarized how the methodology for comparing the cost of energy efficiency to the cost of supply was updated for the 2018 annual plans. Instead of using the residential standard service rate, a weighted average of all rates was used. In addition, only the program cost of delivering the energy efficiency programs was compared to the weighted average rate to confirm the Plan's cost-effective savings were less than the cost of supply. This methodology is in line with what other states are using. Mr. Osada asked if the Consultant Team was admitting that the old methodology for comparing EE costs to supply costs was not appropriate. Mr. Guerard responded that this change happened based on the Council's discussion last meeting, and that the previous way was not wrong, but this new way is better, similar to how the Total Resource Cost Test (TRC) was changed to the RI Test this year in a similar move to improve methods. There were questions raised about whether the residential standard offer was the appropriate reference point, which led the Consultant Team to revisit the approach. The new definition is a more accurate way of representing EE costs versus cost of supply. To make sure the new methodology fulfills the Least Cost Procurement (LCP) law, the Council's attorney, Marisa, was asked to write a legal opinion that included in the Council member packets. She found that the new methodology and the process by which it was changed does adhere to LCP law.

Chairman Powell asked what the gap between the cost of efficiency and the cost supply was. Mr. Guerard responded that the new interpretation is about \$.05 efficiency, and \$.10 supply. He added that, even if they had not changed the methodology, the old way would still have the portfolio of energy efficiency, costing less than the cost of supply. He repeated that this is simply a more accurate way to represent the cost difference. Ms. Levin stated that the Consultant team had made sure they were using best practices. Mr. Osada then asked if other States are using this new definition, and if RI has always done it wrong by using the old way. Ms. Levin replied that the other States have always used the new definition, and that RI was not doing it wrong, just not ideally. No matter what methodology you use for comparison, all the previously approved energy efficiency plans would still be cost-effective, so it would not have changed the outcome. Energy efficiency has always been less expensive, and they made this change to now align with the National best practice. Mr. Osada then asked, if the RI Test was changed and approved by the PUC without being discussed with the Council, should the same process be used for changes to this methodology? He also stated that he believes this change to be drastic. Chairman Powell replied that there is a memo from the legal counsel included in today's packets that shows the Council is meeting and doing what they are supposed to do.

*b) National Grid Summary of the final 2018 Energy Efficiency & System Reliability Procurement Plans and Associated Funding Transfer Request*

Courtney Lane went over the changes to the Residential Sector programs and changes to the C&I Sector programs, highlighting that despite budget cuts, the plan delivers on innovative new technologies, will test new solutions and go-to-market strategies and will build solutions for the future. Ms. Lane then continued to go over the final draft by the numbers. Specifically, she highlighted the benefits and how the final draft costs less than supply. John Richards reviewed the final draft Bill Impact analysis, stating that over the lifetime of the programs proposed for 2018, the average RI customer's bill will be less than if there were no EE programs. Ms. Lane concluded the presentation by stating that the Plan complies with LCP and the Standards; it meets the Three-Year Plan savings targets; continues proven strategies while preparing for the future and provides savings opportunities to all customer segments. It is also cost-effective and less than cost of supply, and gives benefits to the citizens of Rhode Island. In addition, this Plan is also supported by members of the RI Collaborative.

Ms. Lane then also requested the Council's approval to transfer \$1.8 Million from the Non-Income Eligible Sector's ENERGY STAR® Lighting program to the commercial and industrial (C&I) sector finance budget in 2017. Approval of this transfer is essential to accomplishing all the goals outlined in the 2018 Plan. The letter requesting the necessary approval has been included in the Council member packets.

Next, Lindsay Foley and Matt Chase reviewed the Non-Wires Alternatives (NWAs) section of the SRP Plan and went over the Rhode Island System Data Portal included in the Plan. They also provided an update on the Tiverton Pilot implementation, and described the savings achieved by this pilot. Mr. Chase also reviewed the Little Compton Battery Storage Project that will be starting in 2018. Ms. Foley then reviewed the SRP Incentive Mechanism Proposal and the SRP 2018 Proposed Budget. The 2018 proposed budget had been developed to meet the requirements of the 2018 budget cap (i.e. the budget did not exceed the amount approved in the 2017 SRP Plan).

Mr. Osada questioned if the graph showing savings from the Tiverton pilot showed cumulative savings or savings each year. Ms. Foley explained that the graph represents how much load relief had been created in the Pilot area by the end of 2017.

*c) Public Comment on the final 2018 Annual Plans & Budget Adjustment Request*

Erika Niedowski from Acadia Center shared that they are excited that RI rose one place to #3 on the ACEEE National Energy Efficiency Scorecard. Ms. Niedowski stated that 2018 is a difficult year for EE programs. The \$12.5 million scoop, and the program budget cap are depriving Rhode Island residents of significant energy savings at a time where electric rates have increased. The Acadia Center believes this is not the best plan we could have and it does not fulfill the State's policy of LCP due to the budget cap. This plan, however, is the best we could do under the circumstances. Acadia Center offers its support for the Plans and urges the Council to approve it. The cuts while disappointing, were done with reasonable compromises. Acadia Center is ready to use their platform to help grow support for EE Programs within the State House and Rhode Island's local communities, and it looks forward to working with everyone on those efforts.

Jonathan Schrag from the Division of Public Utilities and Carriers (DPUC) stated that on behalf of Rhode Island ratepayers, the DPUC supports the 2018 Annual Plans, in particular the SRP. This plan reflects a new direction with respect to transparency and a data based approach. The DPUC sees this as an important turning point for the distribution systems in RI. Mr. Schrag added that he is extremely impressed with the transparency and attention to detail that National Grid, OER and the Consultant Team have provided. The DPUC supports the 2018 Plans.

Brigid Ryan from RI Housing shared that she appreciates being part of the collaborative and the overall process of developing the EE and SRP Plans. Ms. Ryan stated that RI Housing supports the new RI Test,

and that many lives were, and are being saved by the health benefits of energy efficiency. Ms. Ryan also shared that RI Housing believes that program caps and any limitations are wrong- instead of growing our economy, we are hurting Rhode Islanders since energy rates are already too high for our residents. Ms. Ryan appreciates everyone's protection of the Low-Income programs during the budget cutting process and she stated that RI Housing supports the approval of the Plans.

*d) Council Discussion & Vote on Funding Reallocation in 2017 Budget*

Ms. Trietch quickly reported that a spreadsheet highlighting all the changes to the 2017 budget that would occur with the transfer of funds request was included in the Council member packets. In addition, the DPUC was also asked to approve this funding transfer request and has already done so (their approval letter was also included in Council member packets for easy reference). The formal request from National Grid is in the packets and was sent out via email in advance of today's meeting. Ms. Trietch also attempted to draft an approval letter for the EERMC.

Chairman Powell requested a motion to vote to approve on National Grid's funding transfer request. Mr. Garlick made a motion to approve the signing of the drafted letter of approval for National Grid's 2017 funding transfer request and for OER to send to the signed letter to National Grid by October 20<sup>th</sup>. Mr. Hubbard seconded this motion; All approved.

*e) Council Discussion & Vote on final 2018 Annual Plans*

Mr. Osada expressed his concerns about the new definition of the cost of energy efficiency which now excludes the customer's contribution. He also stated his belief that the benefit-cost ratio is now inflated by the PUC-approved RI Test which includes further economic and carbon emission benefits of energy efficiency. Mr. Osada is concerned that these changes make it too easy to justify increasing the system benefit charge on customer bills in the future. He does not support the plan because of these reasons.

Chairman Powell requested a motion to vote to approve the 2018 Annual Plans. Ms. Stubblefield made a motion to approve the 2018 EE and SRP Plans as written by the National Grid and to allow slight amendments and/or edits to the Plans if such changes are deemed appropriate by both National Grid and the EERMC Consultant Team. Any such amendments must be reviewed and agreed to by the EERMC Consulting Team, acting on behalf of the Council. Furthermore, the Council should direct Marisa Desautel to provide a signature page to National Grid prior to November 1<sup>st</sup> as part of the Settlement of Parties for the PUC Filing. Mr. Garlick seconded this motion; All approved, except for Mr. Osada.

*f) Schedule Cost-Effectiveness Report for 2018 Annual Plan*

Mr. Guerard informed the Council that the Standards require that the Council submits a cost-effectiveness report on the 2018 Annual Plan 14 days after National Grid files the plan. Unfortunately, the next Council meeting is on November 16<sup>th</sup> (16 days past the November 1<sup>st</sup> filing deadline). Therefore, Marisa requested an extension from the PUC which was granted. The Council members will now be able to vote on the final draft of the cost-effectiveness report during the November meeting. The report will then be submitted to the PUC by the extended deadline of November 17<sup>th</sup>.

## **6. Council Business**

*a) Vote on EERMC Bylaws Edits*

Ms. Trietch quickly went over the suggested redlines (shown in the packets), that were put together by Marisa, DOA's Legal team and herself. The goal of the edits was to try to lessen the burden of the Executive Committee. The largest changes include moving the agenda creation duty to the

Chairperson (from the Executive Committee), specifying some duties already performed by OER under the Executive Director, and specifying a method for Council members to adjust agendas if desired. By moving the monthly agenda creation to the Chairperson, the Executive Committee could meet on an as-needed basis instead of monthly. Chairman Powell requested a motion to vote to approve the Bylaw edits. Mr. Hubbard made a motion to approve; Ms. Stubblefield seconded this motion. All approved.

*b) Update on Consultant Services RFP from the evaluation Team*

Anthony Hubbard shared that the Evaluation team had received one response to the RFP from the existing Consulting Team. The Evaluation Team agrees it's a very well written response, and since this is a very specific scope of work, they do not foresee any other firm submitting other responses. They would therefore like to make a recommendation to the Council to move forward with the evaluation process. Ms. Trietch stated that in November's meeting, they will bring the full recommendation and the Council will be voting on the selection.

**7. Other Public Comment**

Mr. McAteer stated that he appreciates everyone that worked and contributed towards the 2018 Annual Plans, and he thanks the Council for its approval. Commissioner Grant also reminded the Council one more time of Senator Whitehouse's Energy and Environment event occurring tomorrow, October 20<sup>th</sup>.

**8. Adjournment**

Chairman Powell requested a motion to adjourn the meeting. Mr. Cirillo made a motion to adjourn; Mr. Garlick seconded the motion. All approved.

The meeting was adjourned at 5:03PM.

PUC 1-4

Request:

Please identify three aspects of the 2018 EE Plan which distinguish it most from the 2017 EE Plan.

Response:

The strategic priorities in the 2018 plan are in line with the 3Year Plan (2018-2020) themes which are focused on customer, business, environment and the future. The three aspects of the 2018 EE Plan that distinguish it from the 2017 EE Plan are:

1) The RI Test

In previous years the company assessed the cost-effectiveness of measure, programs and portfolio's according to the Total Resource Cost (TRC) test. The revised Standards set forth in 2018, set new requirements for a cost-effectiveness test called the Rhode Island Benefit Cost test (RI Test), which more fully reflects the policy objectives of the State with regard to energy, its costs, benefits, and environmental and societal impacts. The RI test includes two new benefits for cost-effectiveness screening: non-embedded greenhouse gas reductions (i.e., the value of reducing greenhouse gas emissions that is not already included in the baseline avoided costs) and economic development impacts. The RI Test framework is intended to capture all benefits and costs of interest in Rhode Island energy policy and will allow a fair comparison of diverse resources in Rhode Island.

2) Beneficial Electrification

In 2018 the Company plans to begin displacing electric resistance heating or delivered fuel heating systems with high-efficiency cold climate electric heat pumps. This is an important strategy for reducing greenhouse gas and other emissions produced from fossil-fuel fired heating equipment. In addition to lowering energy system emissions, beneficial electrification also lowers electric system costs and individual customers' energy burden, and also lowers annual heating costs for customers.

PUC 1-4, page 2

3) Focus on pilots and demonstrations

In 2018 the Company has planned numerous pilots and demonstrations to test out new technologies and go-to market strategies that may increase participation and promote comprehensive savings. The pilots and demonstrations serve the purpose of testing the viability of technologies and strategies that can become part of our standard program offering and provide customers opportunities to invest in new technologies that add value to their lives, homes and businesses while saving energy.

PUC 1-5

Request:

Were there any programs and/or measures that were offered in the 2017 EE Plan that are not being offered in 2018 EE Plan? If yes, please identify and explain.

Response:

As stated in the 2018 Energy Efficiency (EE) Plan, the Company will continue the residential and commercial and industrial energy efficiency programs offered in 2017.

As noted in Attachment 1 of the 2018 EE Plan, for residential measures, the Company plans at a measure group level. As noted in Attachment 2, for commercial electric measures, the Company plans at a subprogram level. For commercial gas measures, the measure group is used. Measure groups and sub programs may have hundreds of measures within them.

The Company plans to offer all measure groups identified in the 2017 Plan to its customers in 2018, with the following exceptions:

1. The Company continues to deliver the Home Energy Reports program in 2018 but discontinued the points and rewards component of the program, due to low participation and to optimize cost.
2. In the Residential EnergyWise program, the air conditioning (AC) timer measure is not planned to continue due to negligible participation in recent history and the fact that most window AC units come with an integral timer, where adding an external timer would not deliver additional savings.
3. In the gas commercial and industrial programs, the following measure groups are not planned to have significant participation due to a lack of participation recently, however they will still be offered: small business duct insulation, multi-stage boiler resets, programmable thermostats, and combo condensing boiler water heaters that are 90+ and 95+.

The Company continues to evaluate its product offerings and may consider additional enhancements throughout the program year as information becomes available.

In the course of answering this information request, the Company realized that the Gas Program Measure Group table in Attachment 2, Bates 193, was not updated from 2017. An updated table is below:

PUC 1-5, page 2

**Gas Program Measure Group Description with Quantity and Rebate Levels**

<b>Program</b>	<b>Measure Group</b>	<b>MMBtus</b>	<b>Rebate Level</b>
Large Commercial New Construction	Boiler95	1,722	\$ 1,500
	CODES AND STANDARDS	309	\$ 63,000
	COND UNIT HEATER 151-400 MBH	724	\$ 750
	Condensing boiler <= 300 mbh	260	\$ 1,500
	Condensing boiler 1000-1700 mbh	836	\$ 7,500
	Condensing boiler 1701+ mbh	2,926	\$ 10,000
	Condensing boiler 300-499 mbh	496	\$ 2,000
	Condensing boiler 500-999 mbh	910	\$ 4,000
	Furnace95ECM	50	\$ 500
	Furnace97ECM	12	\$ 800
	INFRARED HEATER - LOW INT	266	\$ 750
	WATER HEATER TANK 0.67 EF	637	\$ 100
	Water Heating Boiler - 85% TE	52	\$ 100
	Water Heating Boiler - 92% TE	124	\$ 100
	COND WATER HEATER 90%MIN 75-800	6,120	\$ 100
Custom	27,321	Up to 75% of Total Resource Cost	
Large Commercial Retrofit	BOILER RESET 1 STAGE	71	\$ -
	Builder Operator Certification	1,667	\$ 518
	LF_SHWR_HD_1.75_GPM_DI	26	\$ 200
	Pre Rinse Spray Valve	23	\$ 25
	STEAM TRAPS	8,523	\$ 50
	WiFi Thermostat - cooling and htg	165	\$ 100
	WiFi Tstat-heat only	494	\$ 100
	Custom Retrofit	175,812	Up to 50% of Total Resource Cost
Small Business Direct Install	BOILER RESET 1 STAGE	70	\$ 420
	FAUCET_AERATOR_0.5_DI	444	\$ 11
	INSUL_PIPE_DI_1.5IN_H2O	53	\$ 6
	INSUL_PIPE_DI_2IN_H2O	3	\$ 8
	LF_PRE_RINSE_SPRAY_NZL	674	\$ 100
	LF_SHWR_HD_1.75_GPM_DI	1,061	\$ 25
	SALON_NOZZLE	201	\$ 100
	THERMOSTAT	552	\$ 126

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4755  
In Re: 2018 Energy Efficiency Plan  
Responses to Commission's First Set of Data Requests  
Issued on November 20, 2017

PUC 1-5, page 3

<b>Program</b>	<b>Measure</b>	<b>MMBtus</b>	<b>Rebate Level</b>
C&I Multifamily	Air Sealing_MF	3,769	Average Incentive based on measure mix
	CUST NON-LGT_MF	351	
	Faucet Aerator_MF	329	
	Insulation_MF	7	
	Low-Flow Showerhead_MF	82	
	Pipe Wrap (Water Heating)_MF	41	
	Programmable Thermostat_MF	1,578	
	TSV Showerhead_MF	406	
	WiFi thermostat gas_MF	80	

PUC 1-6

Request:

Please identify the new technologies, finance channels, and programs identified in the EE Plan at Bates 10, the budget for each, and the estimated energy savings.

Response:

As the Company states on Bates 10 of the Plan: "The Plan has sought to balance pursuing energy and finance savings from current technologies and programs while also seeking to identify new technologies, finance channels and programs to continue delivering savings to Rhode Island customers for years to come." The following answer provides both what is new in 2018 and what the Company is doing to identify what will be new in the future.

1. New Technologies:

For commercial and residential customers, the Company is identifying new technologies through pilots and demonstrations, which are listed with budget and savings information in Comm. 1-16. The purpose of these pilots is to test new technologies, delivery strategies, and determine savings potential. For many of these pilots, the Company does not yet have estimates on savings potential.

2. Finance Channels:

For commercial customers, finance channels are detailed on Bates 121 to Bates 131. Established finance channels include C&I On Bill Repayment (OBR), the Efficient Buildings Fund (EBF), and Commercial Property Assessed Clean Energy (C-PACE). For new finance channels, there is Ascentium Capital, a third-party finance product. There is no additional incremental budget associated with third-party finance products like Ascentium. At this time, it is difficult to predict the amount of energy savings this finance product will enable. This third party finance product, Ascentium, is detailed on Bates 131.

Additionally, to develop new channels for the future, the financing plan for 2018 focuses on understanding and optimizing the use of existing financing products such as OBR to examine whether the availability of financing will impact the use of incentives and customer reaction to comprehensiveness requirements. The Company will also explore opportunities to leverage more or new third-party capital sources like Ascentium and the Rhode Island Infrastructure Bank (RIIB) for commercial and industrial programs.

PUC 1-6, page 2

For residential customers, the Company will evaluate the HEAT loan to gain insights on customer use of financing and other areas that could be included in this financing solution, the Company. The Company will also launch a revolving loan fund with the Capitol Good Fund, an effort that has been underway in 2017 with a budget of \$500,000. Residential finance is detailed on Bates 55-56 and 61. The Company is also eagerly anticipating the RIIB residential offering and will assist in communicating the offering to customers.

3. Programs:

For commercial customers, there are new initiatives in several of the programs. In Commercial Retrofit, the Company will explore a new approach called Strategic Energy Management for industrial customers, which looks at energy savings from non-capital measures. This new approach intends to create a culture at a customer's business that empowers staff to pursue energy efficiency through operations, maintenance and behavioral changes. The Company will also establish a methodology for estimating variable savings from this custom approach. The budget is part of the retrofit budget for custom incentives. The budget and savings are included in the overall program budget and goal.

In the Commercial New Construction program, the Company is exploring new enhancements with performance-based procurement that encourages building owners and developers to specify energy performance targets as part of project request for proposals for designers and contractors. Please see PUC 1-16 for budgets and estimated savings.

For communities, the Company is revising the structure of the Community Based Initiative to gain deeper energy efficiency participation within the engaged municipalities. Although this is not a new program, the Company is revising the structure of the Community Based Initiative to gain deeper energy efficiency participation in the engaged municipalities. There are no savings attributed to this initiative because the purpose of it is to increase participation (and therefore savings) in all of our other programs. The total cost for the Community Initiative is \$202,200 from the Residential budget and \$50,700 from the C&I budget.

For residential customers, there are numerous customer enhancements planned for the programs. The following table from Attachment 1, Bates 47, describes new solutions, savings and budgets:

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4755  
In Re: 2018 Energy Efficiency Plan  
Responses to Commission’s First Set of Data Requests  
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PUC 1-6, page 3

Solutions	Programs Highlighted	New for 2018	Savings and Budget
<p><b>Whole House Programs</b></p>	<p><b>Single Family and Multifamily retrofit</b> programs where customers experience no-cost assessments and comprehensive upgrades. Also included are the <b>Residential New Construction</b> program, and the <b>Income Eligible Services</b> program.</p>	<ul style="list-style-type: none"> <li>• Online portal for multifamily condos</li> <li>• Automated benchmarking for multifamily facilities</li> <li>• Multifamily Heat Pump Installations</li> <li>• Enhanced delivered fuel incentives</li> <li>• Revolving loan fund for Capital Good Fund</li> </ul>	<ul style="list-style-type: none"> <li>• The multifamily enhancements are included in the overall program budget and do not have individually allocated savings.</li> <li>• Delivered fuels budget \$3.8 million, with 25,866 annul MMBtu of oil savings</li> <li>• Capital Good Fund savings are attributed to the customer incentives it enables and budget is \$0 as it begun in 2017</li> </ul>

The Narragansett Electric Company  
d/b/a National Grid  
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PUC 1-6, page 4

<p><b>Behavior and Products Programs</b></p>	<p><b>Home Energy Reports, (HER), ENERGY STAR Lighting, Residential Consumer Products, and HVAC programs.</b></p>	<ul style="list-style-type: none"> <li>• Updated HER messaging for income eligible customers</li> <li>• National Retail Products Platform</li> <li>• Beneficial electrification demonstration within HVAC</li> <li>• Upstream Heat Pump Water Heater incentive</li> </ul>	<ul style="list-style-type: none"> <li>• HER enhancement is included in overall budget and has no individually allocated savings.</li> <li>• National Retail Products Platform is included in overall budget and has no individually allocated savings.</li> <li>• Beneficial electrification incentives budget of \$165,000 with 44,156 annual kWh and 350 annual MMBtu of oil savings</li> <li>• Increased heat pump water heater incentives budget of \$225,000 with 600,000 annual kWh savings</li> </ul>
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PUC 1-7

Request:

How is the 2018 EE Plan different for low-income ratepayers compared to the 2017 EE Plan?

Response:

The delivery model for the income eligible services (IES) program remains consistent from 2017 to 2018 with the services overseen by National Grid's Lead Vendor and implemented by the six Rhode Island Community Action Programs (CAPs). The IES program continues to offer all services and product replacement at no-cost to income eligible customers. The program continues to improve and evolve in order to provide savings and create comfort for customers. In 2018, two measures were added to the IES program, and one will be explored. The program will continue its marketing efforts to increase participation and will work with the Company's effort to bring more customers onto the A-60 rate to ensure that customers are aware of the IES program.

Specific changes to the IES program include:

- New measures – dehumidifiers and clothes washers;
- Explore the ability to offer heat pump mini splits;
- Increase marketing efforts, considering lawn signs, telemarketing, and use of the RI Innovation Hub for stakeholder engagement; and
- Planned increased participation for home energy assessments and respective increases to weatherization and heating systems.

PUC 1-8

Request:

What changes are proposed in 2017 that are being made to better serve non-owner occupied low-income premises?

Response:

The Income Eligible Services program will continue to serve renters through by providing energy assessments and instant savings measures equaling high efficiency LED bulbs, smart power strips, and water saving shower heads. If applicable, information is provided to renters regarding opportunities for further savings, such as eligible efficient appliance replacement, weatherization or heating system replacements. These may require owner approval. Through the broad-reaching Home Energy Report, the IES program is promoted in an effort to educate customers about the IES program and to encourage participation in the program.

In 2018, the IES program will work with the EE Marketing team to increase targeted marketing efforts for owners of income eligible properties with 1 – 4 units. Marketing efforts will include messaging for renters to inform them of services that are available to them as well as other services that are available but need owner approval. The Income Eligible Multifamily program will follow a similar model and will work with property managers to distribute energy saving information with tenants.

PUC 1-9

Request:

Does energy efficiency reduce arrearages or energy burden for low-income ratepayers. If yes, please quantify if possible.

Response:

Yes. The value for reduced arrearages is \$2.61 annually per participant. This value was obtained from the "Massachusetts Program Administrators: Massachusetts Special and Cross-Sector Studies Area, Residential and Low-Income Non-Energy Impacts (NEI) Evaluation," NMR Group, Inc., Tetra Tech. 8/15/2011. See <http://ma-eeac.org/wordpress/wp-content/uploads/Special-and-Cross-Sector-Studies-Area-Residential-and-Low-Income-Non-Energy-Impacts-Evaluation-Final-Report.pdf>.

PUC 1-10

Request:

What amounts are budgeted in 2018 for Company owned and customer owned street light incentives?

Response:

The Company plans to spend \$1.425 million on street light incentives as part of the Large commercial and industrial retrofit incentives budget. Since the costs to energy efficiency do not change based on who owns the lights, the Company did not distinguish planning between customer-owned and Company-owned street lights. For 2018, the planned incentive is 15 cents per kWh for the LED street lights and 25 cents per kWh for the controls.

PUC 1-11

Request:

For each entity participating in the large commercial and industrial loan fund please provide the amount of each loan, the entity receiving the loan, the interest charged, any additional terms, and whether the entity is current with loan payments or in default.

Response:

Please see Confidential Attachment PUC 1-11 for a list of participating entities in the large commercial industrial loan fund as of November 24, 2017, including the original loan amount, outstanding balance, and arrears. No interest is charged on these loans. This list only includes loans that have an outstanding balance as of November 24, 2017 and does not include loans that have been previously been paid-off.

A participating entity is defined as a customer that received a loan and is still actively paying back that loan. A customer can have multiple accounts and each account may have multiple loans.

Pursuant to PUC Rule 1.2(g), the Company is seeking confidential treatment of Attachment PUC 1-11 because it contains confidential customer information.

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
xxx	xxx	xxx	07/05/2017	\$15,081.35	\$14,004.14	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	05/16/2017	\$17,987.00	\$15,588.74	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	05/16/2017	\$22,335.00	\$19,232.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	02/02/2016	\$17,938.00	\$10,464.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	07/12/2017	\$9,336.90	\$8,558.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	05/16/2017	\$26,151.00	\$22,415.16	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/06/2017	\$21,546.50	\$21,546.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/05/2017	\$11,829.00	\$10,076.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/05/2015	\$94,482.00	\$36,743.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/16/2017	\$25,808.90	\$25,808.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/16/2017	\$20,817.60	\$20,817.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/23/2017	\$40,000.00	\$37,777.78	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/18/2016	\$285,700.00	\$119,041.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/06/2017	\$2,943.55	\$1,962.43	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/20/2017	\$21,077.15	\$21,077.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/06/2017	\$15,563.00	\$15,563.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/07/2016	\$99,575.00	\$29,042.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/22/2016	\$127,999.00	\$53,332.94	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/05/2016	\$118,075.00	\$49,300.54	\$102.60	\$0.00	\$0.00	\$0.00	\$102.60
xxx	xxx	xxx	09/22/2017	\$26,525.00	\$26,525.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	12/02/2016	\$15,936.00	\$12,616.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	09/09/2016	\$82,014.00	\$41,007.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	04/14/2016	\$16,668.00	\$4,167.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	01/28/2015	\$60,386.00	\$18,870.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	04/14/2016	\$16,492.00	\$4,810.28	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	03/17/2017	\$14,215.00	\$9,476.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	05/03/2017	\$9,881.00	\$7,822.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	04/18/2017	\$46,911.00	\$35,183.28	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	05/07/2015	\$16,565.00	\$6,557.10	\$345.10	\$0.00	\$0.00	\$0.00	\$345.10
xxx	xxx	xxx	02/06/2017	\$2,700.00	\$1,800.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	04/18/2017	\$24,335.00	\$18,251.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/06/2017	\$17,801.65	\$17,801.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/11/2017	\$45,235.00	\$44,292.61	\$942.39	\$942.39	\$0.00	\$0.00	\$1,884.78
		xxx	07/11/2017	\$43,924.00	\$43,008.92	\$915.08	\$915.08	\$0.00	\$0.00	\$1,830.16
xxx	xxx	xxx	07/06/2016	\$159,609.00	\$66,503.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	04/18/2017	\$19,858.00	\$15,720.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/20/2017	\$10,589.33	\$8,824.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	05/09/2017	\$11,805.38	\$9,345.93	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	05/09/2017	\$4,788.91	\$3,707.11	\$115.38	\$0.00	\$0.00	\$0.00	\$115.38
	xxx	xxx	06/20/2017	\$1,099.53	\$916.29	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/06/2017	\$18,919.53	\$18,919.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/03/2017	\$8,978.58	\$7,781.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
		xxx	01/17/2017	\$8,978.58	\$7,631.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/06/2017	\$4,588.80	\$4,588.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/10/2016	\$68,879.15	\$45,919.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	06/20/2017	\$10,776.65	\$9,429.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	09/06/2017	\$3,907.76	\$3,907.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	06/20/2017	\$6,887.36	\$5,739.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/06/2017	\$14,989.59	\$14,989.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	03/03/2017	\$149,335.00	\$99,556.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$63,720.00	\$39,825.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	04/14/2016	\$31,275.00	\$22,350.30	\$521.25	\$457.80	\$0.00	\$0.00	\$979.05
	xxx	xxx	12/16/2015	\$107,098.00	\$60,670.89	\$2,231.20	\$2,231.20	\$428.09	\$0.00	\$4,890.49
	xxx	xxx	04/18/2017	\$145,185.00	\$133,548.26	\$2,881.76	\$0.00	\$0.00	\$0.00	\$2,881.76
xxx	xxx	xxx	08/11/2017	\$232,500.00	\$226,041.67	\$6,458.33	\$0.00	\$0.00	\$0.00	\$6,458.33
		xxx	11/15/2016	\$18,923.00	\$11,826.95	\$788.45	\$0.00	\$0.00	\$0.00	\$788.45
		xxx	03/03/2017	\$34,224.00	\$24,242.00	\$1,426.00	\$0.00	\$0.00	\$0.00	\$1,426.00
		xxx	11/05/2015	\$8,982.78	\$374.34	\$374.34	\$0.00	\$0.00	\$0.00	\$374.34
xxx	xxx	xxx	03/03/2017	\$11,429.00	\$7,619.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/18/2016	\$87,167.47	\$68,281.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/19/2017	\$22,779.15	\$21,260.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	02/02/2016	\$16,259.00	\$9,484.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/20/2017	\$14,562.80	\$14,562.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/16/2017	\$17,025.90	\$17,025.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	05/16/2017	\$10,364.00	\$8,950.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$10,897.00	\$10,897.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/02/2016	\$12,850.00	\$7,496.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/19/2017	\$22,106.35	\$20,405.89	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/20/2017	\$16,697.30	\$16,697.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/20/2017	\$28,971.75	\$28,971.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/20/2017	\$19,182.50	\$18,601.22	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$16,556.85	\$16,556.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/05/2017	\$10,373.70	\$9,745.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$15,992.90	\$15,992.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/16/2017	\$22,182.15	\$22,182.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$22,465.55	\$22,465.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/19/2017	\$19,828.75	\$18,303.49	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/16/2017	\$20,478.70	\$20,478.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/19/2017	\$20,762.00	\$19,031.84	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/20/2017	\$22,383.10	\$22,383.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/16/2017	\$21,507.30	\$21,507.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/20/2017	\$14,840.55	\$14,840.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/16/2017	\$10,465.80	\$10,465.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$27,748.95	\$27,748.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
	xxx	xxx	02/16/2016	\$12,792.00	\$7,462.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	09/22/2017	\$10,840.30	\$10,840.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$21,904.55	\$21,240.78	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/12/2016	\$17,592.00	\$10,262.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/16/2017	\$11,052.80	\$11,052.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/20/2017	\$20,015.45	\$19,459.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/12/2017	\$25,417.85	\$24,005.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	08/23/2017	\$26,906.70	\$26,091.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/06/2017	\$18,506.30	\$18,506.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	08/23/2017	\$24,691.30	\$23,194.86	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/20/2017	\$16,176.90	\$16,176.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$11,427.30	\$11,427.30	\$317.42	\$0.00	\$0.00	\$0.00	\$317.42
	xxx	xxx	10/06/2017	\$7,589.95	\$7,589.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/16/2017	\$21,400.05	\$21,400.05	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/16/2017	\$12,049.35	\$12,049.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/12/2016	\$18,321.00	\$10,687.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/06/2017	\$12,165.50	\$12,165.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	08/23/2017	\$32,241.00	\$31,318.29	\$54.29	\$0.00	\$0.00	\$0.00	\$54.29
	xxx	xxx	05/16/2017	\$26,360.00	\$21,478.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/17/2016	\$9,423.00	\$5,693.11	\$196.31	\$0.00	\$0.00	\$0.00	\$196.31
xxx	xxx	xxx	09/06/2017	\$57,815.00	\$57,815.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/12/2017	\$22,479.00	\$22,479.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/06/2015	\$27,098.00	\$9,032.72	\$752.72	\$0.00	\$0.00	\$0.00	\$752.72
		xxx	07/13/2015	\$21,135.00	\$5,283.84	\$587.08	\$0.00	\$0.00	\$0.00	\$587.08
xxx	xxx	xxx	06/17/2015	\$57,895.00	\$12,865.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	01/04/2016	\$2,477.00	\$413.00	\$0.00	\$103.20	\$0.00	\$0.00	\$103.20
	xxx	xxx	01/04/2016	\$12,078.03	\$7,850.73	\$201.30	\$0.00	\$0.00	\$0.00	\$201.30
xxx	xxx	xxx	01/04/2016	\$32,913.71	\$22,491.07	\$548.56	\$0.00	\$0.00	\$0.00	\$548.56
xxx	xxx	xxx	12/22/2016	\$90,563.00	\$65,406.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/17/2015	\$51,576.00	\$11,461.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	07/13/2015	\$10,362.00	\$2,590.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/20/2017	\$24,732.00	\$20,610.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	12/22/2015	\$39,830.00	\$4,978.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	12/22/2015	\$59,778.00	\$4,981.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/01/2016	\$50,413.00	\$14,703.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/15/2016	\$355,314.50	\$207,266.80	\$14,804.77	\$0.00	\$0.00	\$0.00	\$14,804.77
xxx	xxx	xxx	11/16/2017	\$10,224.00	\$10,224.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/06/2017	\$16,890.00	\$16,890.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/23/2017	\$11,373.45	\$10,741.61	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/05/2017	\$11,172.30	\$10,495.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/11/2017	\$83,047.00	\$76,126.42	\$3,460.29	\$0.00	\$0.00	\$0.00	\$3,460.29
xxx	xxx	xxx	08/23/2017	\$18,639.50	\$18,121.74	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
xxx	xxx	xxx	05/09/2017	\$90,604.99	\$75,504.19	\$3,775.20	\$0.00	\$0.00	\$0.00	\$3,775.20
xxx	xxx	xxx	03/17/2017	\$32,328.00	\$25,862.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/05/2015	\$29,952.20	\$1,248.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/04/2016	\$92,756.00	\$61,837.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	12/03/2015	\$180,208.00	\$7,508.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/09/2015	\$52,767.00	\$16,123.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/06/2017	\$21,379.65	\$21,379.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$17,093.65	\$17,093.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/16/2017	\$22,599.53	\$22,599.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$21,994.50	\$21,994.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	03/13/2017	\$32,250.00	\$23,946.03	\$1,102.28	\$0.00	\$0.00	\$0.00	\$1,102.28
xxx	xxx	xxx	10/09/2015	\$6,794.00	\$4,621.30	\$113.23	\$113.23	\$113.23	\$318.36	\$658.05
	xxx	xxx	10/06/2015	\$9,691.00	\$5,653.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/03/2017	\$4,123.00	\$3,521.77	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/15/2015	\$44,690.00	\$26,069.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2015	\$5,592.00	\$3,355.20	\$93.20	\$0.00	\$0.00	\$0.00	\$93.20
	xxx	xxx	10/09/2015	\$9,370.00	\$5,622.16	\$156.16	\$0.00	\$0.00	\$0.00	\$156.16
xxx	xxx	xxx	11/06/2017	\$6,108.00	\$6,108.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/05/2016	\$208,826.32	\$127,616.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	12/02/2016	\$14,637.75	\$10,571.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	09/06/2017	\$119,830.00	\$114,837.09	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/06/2017	\$18,767.35	\$18,767.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	01/17/2017	\$31,723.00	\$21,148.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/11/2017	\$15,408.00	\$14,124.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/04/2016	\$12,988.00	\$9,741.04	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	08/20/2015	\$7,218.00	\$3,969.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/05/2015	\$30,678.00	\$18,406.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/05/2015	\$5,000.00	\$3,083.41	\$83.33	\$0.00	\$0.00	\$0.00	\$83.33
		xxx	10/04/2016	\$9,291.00	\$7,161.84	\$193.56	\$0.00	\$0.00	\$0.00	\$193.56
		xxx	11/05/2015	\$8,759.00	\$5,401.46	\$145.98	\$0.00	\$0.00	\$0.00	\$145.98
	xxx	xxx	10/04/2016	\$21,082.00	\$15,372.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/02/2016	\$77,516.00	\$59,751.99	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/04/2016	\$11,295.00	\$8,706.59	\$235.31	\$0.00	\$0.00	\$0.00	\$235.31
	xxx	xxx	03/03/2017	\$23,266.00	\$20,357.80	\$484.70	\$0.00	\$0.00	\$0.00	\$484.70
xxx	xxx	xxx	12/02/2016	\$23,611.94	\$13,773.64	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/16/2017	\$58,274.00	\$58,274.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/20/2017	\$96,471.00	\$88,431.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/10/2014	\$34,896.00	\$8,724.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/02/2016	\$122,608.00	\$78,332.99	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/16/2017	\$17,793.55	\$17,793.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/06/2017	\$22,671.45	\$22,671.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/06/2017	\$13,805.00	\$13,805.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
	xxx	xxx	11/06/2017	\$11,309.00	\$11,309.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/11/2017	\$14,730.60	\$13,421.24	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/06/2017	\$16,001.00	\$15,645.43	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/19/2017	\$18,457.45	\$17,578.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/05/2017	\$26,602.75	\$22,907.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	02/16/2016	\$11,735.00	\$6,845.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/23/2015	\$3,487.00	\$1,801.81	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/20/2015	\$28,193.00	\$15,976.12	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	08/11/2015	\$16,386.00	\$9,285.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/13/2015	\$12,402.00	\$6,821.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/04/2017	\$150,416.00	\$142,059.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	04/18/2017	\$73,320.00	\$65,988.00	\$1,222.00	\$0.00	\$0.00	\$0.00	\$1,222.00
		xxx	10/04/2016	\$38,664.00	\$31,575.60	\$644.40	\$0.00	\$0.00	\$0.00	\$644.40
xxx	xxx	xxx	08/23/2017	\$60,245.00	\$58,013.71	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	09/06/2017	\$51,705.00	\$51,705.00	\$2,154.37	\$0.00	\$0.00	\$0.00	\$2,154.37
xxx	xxx	xxx	07/05/2017	\$45,015.00	\$41,263.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$22,356.00	\$18,164.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/12/2017	\$2,999.00	\$2,915.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/12/2017	\$5,706.00	\$5,547.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/02/2016	\$121,878.00	\$66,017.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/07/2016	\$33,218.00	\$11,072.72	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/20/2017	\$7,642.00	\$7,642.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	12/14/2016	\$39,462.78	\$21,375.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/20/2017	\$11,307.27	\$11,307.27	\$471.13	\$471.13	\$471.13	\$0.00	\$1,413.39
	xxx	xxx	05/09/2017	\$3,938.55	\$3,818.69	\$164.10	\$164.10	\$164.10	\$44.24	\$536.54
xxx	xxx	xxx	02/06/2017	\$3,695.00	\$2,976.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$3,033.00	\$2,359.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$5,300.00	\$4,122.24	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$1,223.00	\$917.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$12,774.00	\$9,580.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$48,935.00	\$32,623.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/10/2016	\$84,971.00	\$49,566.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	01/17/2017	\$5,458.00	\$4,245.12	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/22/2017	\$137,407.00	\$121,376.23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	05/03/2017	\$3,131.60	\$2,348.72	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/03/2017	\$22,722.00	\$17,041.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$33,846.00	\$21,153.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$7,831.00	\$6,090.84	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$5,333.00	\$4,147.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	03/10/2016	\$35,540.00	\$21,472.21	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$4,122.00	\$3,091.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$13,385.00	\$10,782.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
	xxx	xxx	02/03/2017	\$12,830.00	\$9,719.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/10/2016	\$68,844.00	\$43,027.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$6,242.00	\$4,681.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$2,703.00	\$2,102.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$797.00	\$619.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$9,916.00	\$7,987.92	\$275.44	\$0.00	\$0.00	\$0.00	\$275.44
	xxx	xxx	02/03/2017	\$6,478.00	\$4,858.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$3,699.00	\$2,774.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/10/2016	\$113,435.00	\$68,533.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/06/2017	\$10,271.00	\$7,988.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/10/2016	\$49,569.00	\$29,948.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	03/10/2016	\$43,555.00	\$26,314.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$3,300.00	\$2,475.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	05/09/2017	\$1,947.27	\$1,622.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/06/2017	\$5,176.00	\$4,025.84	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	05/03/2017	\$157,025.00	\$143,939.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	02/03/2017	\$5,799.00	\$4,510.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	03/22/2017	\$9,526.00	\$7,144.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/06/2017	\$148,262.00	\$105,018.94	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/11/2017	\$129,185.00	\$118,419.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/09/2015	\$224,602.00	\$81,106.38	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	03/22/2017	\$1,624.00	\$1,353.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	03/03/2017	\$117,992.00	\$98,326.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/09/2015	\$221,220.00	\$73,740.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	03/03/2017	\$125,922.00	\$97,939.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/17/2015	\$49,660.00	\$16,553.44	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/06/2015	\$18,615.00	\$5,688.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	12/03/2015	\$180,501.00	\$65,181.07	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/02/2016	\$74,680.00	\$51,861.16	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/02/2016	\$30,923.00	\$22,333.30	\$858.97	\$0.00	\$0.00	\$0.00	\$858.97
		xxx	11/02/2016	\$49,917.00	\$36,051.20	\$1,386.58	\$0.00	\$0.00	\$0.00	\$1,386.58
		xxx	11/05/2015	\$59,702.00	\$19,900.88	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/05/2017	\$74,067.18	\$60,187.91	\$1,551.38	\$0.00	\$0.00	\$0.00	\$1,551.38
		xxx	10/06/2015	\$58,244.70	\$1,220.00	\$1,220.00	\$0.00	\$0.00	\$0.00	\$1,220.00
		xxx	10/12/2017	\$150,319.58	\$150,319.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	06/15/2016	\$14,467.26	\$5,125.48	\$303.02	\$0.00	\$0.00	\$0.00	\$303.02
		xxx	10/04/2016	\$9,221.32	\$4,419.61	\$193.15	\$0.00	\$0.00	\$0.00	\$193.15
xxx	xxx	xxx	12/22/2015	\$57,187.00	\$22,239.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	01/17/2017	\$523,181.00	\$305,189.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/11/2016	\$2,730.68	\$1,536.06	\$85.33	\$0.00	\$0.00	\$0.00	\$85.33
		xxx	07/11/2016	\$29,411.72	\$14,705.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	02/02/2016	\$10,924.00	\$4,855.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
	xxx	xxx	04/14/2016	\$153,798.00	\$76,899.12	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	12/14/2015	\$68,308.32	\$26,564.42	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/02/2016	\$9,185.00	\$3,827.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/02/2016	\$10,079.00	\$4,199.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	12/14/2015	\$131,790.26	\$51,251.78	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/02/2016	\$206,558.00	\$86,065.88	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	02/02/2016	\$63,470.00	\$26,445.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	11/02/2016	\$36,084.00	\$25,058.37	\$1,002.33	\$0.00	\$0.00	\$0.00	\$1,002.33
xxx	xxx	xxx	07/05/2017	\$48,362.00	\$42,316.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/07/2016	\$25,020.55	\$7,297.71	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/17/2015	\$2,775.00	\$231.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	12/03/2015	\$10,300.00	\$429.32	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	05/11/2016	\$78,398.00	\$43,554.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/23/2017	\$25,055.80	\$23,770.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/23/2017	\$23,144.55	\$22,630.23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/23/2017	\$18,146.50	\$17,681.21	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/23/2017	\$10,602.00	\$9,895.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	12/02/2016	\$3,244.67	\$1,892.77	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/16/2017	\$91,295.00	\$91,295.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	01/17/2017	\$50,543.00	\$36,503.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/16/2017	\$79,143.20	\$79,143.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/11/2015	\$4,660.00	\$2,038.84	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/11/2017	\$8,633.00	\$8,273.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/20/2017	\$7,891.00	\$6,904.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/06/2017	\$18,431.00	\$18,431.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	02/03/2017	\$34,743.00	\$30,110.60	\$579.05	\$0.00	\$0.00	\$0.00	\$579.05
xxx	xxx	xxx	11/15/2016	\$5,127.00	\$4,272.50	\$85.45	\$0.00	\$0.00	\$0.00	\$85.45
xxx	xxx	xxx	12/02/2016	\$2,953.00	\$1,845.64	\$123.04	\$0.00	\$0.00	\$0.00	\$123.04
		xxx	01/17/2017	\$2,663.00	\$1,775.40	\$110.95	\$0.00	\$0.00	\$0.00	\$110.95
		xxx	12/22/2015	\$4,454.70	\$742.50	\$185.61	\$0.00	\$0.00	\$0.00	\$185.61
		xxx	05/11/2016	\$6,545.00	\$2,454.50	\$272.70	\$0.00	\$0.00	\$0.00	\$272.70
		xxx	02/02/2016	\$18,216.30	\$3,795.11	\$759.01	\$0.00	\$0.00	\$0.00	\$759.01
		xxx	04/14/2016	\$3,691.95	\$1,230.67	\$153.83	\$0.00	\$0.00	\$0.00	\$153.83
		xxx	08/03/2016	\$2,777.30	\$1,272.94	\$115.72	\$0.00	\$0.00	\$0.00	\$115.72
		xxx	11/05/2015	\$2,150.00	\$89.66	\$89.66	\$0.00	\$0.00	\$0.00	\$89.66
		xxx	03/14/2016	\$19,893.00	\$5,802.21	\$828.87	\$0.00	\$0.00	\$0.00	\$828.87
xxx	xxx	xxx	03/03/2017	\$132,029.00	\$113,691.65	\$3,667.47	\$0.00	\$0.00	\$0.00	\$3,667.47
		xxx	10/12/2017	\$6,342.00	\$6,342.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/12/2017	\$162,459.00	\$162,459.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/12/2017	\$76,264.00	\$76,264.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/12/2017	\$127,888.00	\$127,888.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	03/03/2017	\$22,665.00	\$19,517.10	\$629.58	\$0.00	\$0.00	\$0.00	\$629.58

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
		xxx	09/06/2017	\$820.00	\$820.00	\$13.66	\$0.00	\$0.00	\$0.00	\$13.66
		xxx	03/03/2017	\$27,341.00	\$23,543.65	\$759.47	\$0.00	\$0.00	\$0.00	\$759.47
		xxx	09/06/2017	\$27,391.00	\$27,391.00	\$456.51	\$0.00	\$0.00	\$0.00	\$456.51
		xxx	03/03/2017	\$28,238.00	\$24,316.10	\$784.38	\$0.00	\$0.00	\$0.00	\$784.38
		xxx	06/20/2017	\$35,162.00	\$34,575.97	\$586.03	\$0.00	\$0.00	\$0.00	\$586.03
		xxx	09/06/2017	\$85,626.00	\$85,626.00	\$1,427.10	\$0.00	\$0.00	\$0.00	\$1,427.10
		xxx	11/16/2017	\$92,318.00	\$92,318.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	09/11/2017	\$72,000.00	\$68,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	09/20/2017	\$262,061.00	\$247,502.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	01/04/2016	\$40,118.13	\$26,076.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	08/05/2016	\$54,068.58	\$40,551.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	05/11/2016	\$24,568.00	\$18,016.64	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/11/2017	\$4,100.00	\$3,895.01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/06/2017	\$12,623.00	\$12,412.62	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	10/12/2017	\$8,912.00	\$8,912.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/19/2017	\$17,044.00	\$15,978.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	10/06/2015	\$9,691.00	\$5,814.76	\$161.51	\$0.00	\$0.00	\$0.00	\$161.51
xxx	xxx	xxx	12/16/2015	\$22,515.00	\$14,634.75	\$375.25	\$0.00	\$0.00	\$0.00	\$375.25
		xxx	11/06/2017	\$11,569.00	\$11,569.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/05/2017	\$70,093.00	\$66,588.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	05/09/2017	\$22,627.00	\$20,741.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	04/18/2017	\$29,630.00	\$26,667.02	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	12/20/2013	\$3,109.00	\$1,086.72	\$0.00	\$0.00	\$0.00	\$1,086.72	\$1,086.72
xxx	xxx	xxx	04/18/2017	\$7,281.00	\$6,431.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	06/17/2015	\$11,734.50	\$6,258.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	07/17/2015	\$5,961.00	\$1,324.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	01/17/2017	\$3,696.00	\$3,141.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	01/17/2017	\$7,218.00	\$6,135.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/06/2017	\$24,162.00	\$24,030.13	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	01/17/2017	\$15,977.00	\$13,846.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	01/17/2017	\$26,227.00	\$22,730.12	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	09/11/2017	\$3,975.00	\$3,809.38	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	07/11/2017	\$14,245.00	\$13,057.92	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	07/11/2017	\$24,630.00	\$22,988.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	12/14/2016	\$4,854.00	\$3,505.70	\$134.83	\$0.00	\$0.00	\$0.00	\$134.83
		xxx	05/23/2017	\$12,630.00	\$11,577.52	\$350.83	\$0.01	\$0.00	\$0.00	\$350.84
xxx	xxx	xxx	04/18/2017	\$39,467.50	\$27,956.21	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	08/11/2017	\$52,517.00	\$51,058.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	07/11/2017	\$8,432.00	\$7,963.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	12/03/2015	\$106,851.00	\$8,904.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	11/16/2017	\$28,544.00	\$28,544.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	08/11/2017	\$129,688.00	\$127,526.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

ON BILL FINANCING INFORMATION THROUGH NOVEMBER 24, 2017						ARREARS INFORMATION AS OF NOVEMBER 24, 2017				
ENTITY	ACCOUNT #	PRODUCT #	CREATION DATE	LOAN AMOUNT	OUTSTANDING BALANCE	31-60 DAYS ARREARS	61-90 DAYS ARREARS	91-120 DAYS ARREARS	121+ DAYS ARREARS	TOTAL ARREARS
	xxx	xxx	05/03/2017	\$309,704.00	\$283,895.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	09/20/2017	\$35,222.00	\$35,222.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	10/04/2016	\$39,527.00	\$31,621.64	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		xxx	11/02/2016	\$43,201.00	\$35,280.89	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	07/11/2017	\$5,696.00	\$5,221.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	xxx	xxx	01/08/2015	\$21,553.00	\$1,197.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
xxx	xxx	xxx	01/04/2016	\$12,880.24	\$8,372.17	\$214.67	\$0.00	\$0.00	\$0.00	\$214.67

Notes

1) A customer can have multiple accounts and each account may have multiple loans.

2) Arrears represent the amount of the loan that is past due for the specified period of time listed in the arrears columns above. For example, if a loan has \$120 listed in the 31-60 days arrears column and \$120 listed in the 61-90 days arrears column, this can be interpreted as the customer is 31-60 days late on a \$120 on bill financing payment and 61-90 days late on an additional \$120 on bill financing payment for a total of \$240 in arrears on the on bill financing portion of the bill.

PUC 1-12

Request:

Will the Rhode Island Infrastructure Bank (RIIB) be issuing bonds to fund the Efficient Building Fund (EBF)? Will annual energy efficiency budgets include funding for the EBF? If yes, for how many years and the anticipated funding for each year?

Response:

RIIB has indicated that it may issue bonds. At the 2017 Energy Efficiency Program Plan hearing, Jeffrey Diehl, the Executive Director and Chief Executive Officer of RIIB, testified that there are several ways for leveraging the funds that are transferred to RIIB. This includes, among other things, issuing bonds and working with bank investors. In preparation for this response, the Company contacted RIIB, and RIIB confirmed that Mr. Diehl's testimony from the 2017 Energy Efficiency Program Plan hearing is still correct.

At public meetings, including the Technical Session on Energy Efficiency at the PUC on May 18, 2017, RIIB requested \$5,000,000 per program year for each year in 2018 through 2020. The Company will work with Collaborative members, the EERMC, OER, RIIB annually to allocate an appropriate amount based on the success of the EBF, public building retrofit demand and need, and other customer and program considerations.

PUC 1-13

Request:

Does the RIIB attend meetings of the Collaborative? Is the RIIB a member of the Collaborative? Please provide an explanation.

Response:

A representative from the Rhode Island Infrastructure Bank (RIIB) attends Collaborative meetings to provide updates and feedback on the progress of existing finance programs such as the Efficient Buildings Fund (EBF) and Commercial Property Assessed Clean Energy (C-PACE).

RIIB is not a member of the Collaborative. RIIB has not requested to join the Collaborative or become a settling party to the Energy Efficiency Program Plan. Representatives from RIIB have said that RIIB is well represented in the Collaborative process given that the Rhode Island Office of Energy Resources, who is a partner agency for RIIB's clean energy financing programs, is a member of the Collaborative and settling party.

PUC 1-14

Request:

Please provide a deadline for when a common reporting framework will be developed and implement for large Commercial and Industrial programs (Bates 124)?

Response:

The Rhode Island Infrastructure Bank (RIIB) and the Company have continued efforts to refine the reporting framework and will finalize the reporting framework in the 2017 Fourth Quarter Report. The draft reporting framework began as part of the Company's 2017 Second Quarter Report, which the Company filed with the PUC on August 24, 2017. That report included metrics for RIIB's Efficient Buildings Fund and the Company's loan funds in the same format.

PUC 1-15

Request:

With respect to LED upgrades in technology, and decreasing costs of LED, is it likely that CFLs are being replaced prior to the end of their measured life? If so, how is this accounted for when calculating cost-effectiveness of lighting?

Response:

Yes. National Grid is aware of the possibility of early replacement of CFLs to LEDs and its implications on cost effectiveness. National Grid uses baselines that are continuously updated to include a realistic mixture of incandescents, halogens, CFLs, and LEDs rather than relying solely on a baseline of incandescent and halogens. The blended baseline appropriately adjusts the savings and measure lives that serve as inputs in the calculation of benefits from the program. These adjustments are based on the market adoption model tool, as noted in the 2017 technical reference manual. The cost-effectiveness calculation is also adjusted for free-ridership by not including savings from customers who would install LEDs without any program incentives. To the extent that the early replacement of CFLs to LEDs will take place even without program influence, this action is accounted for in the cost-effectiveness calculation.

National Grid conducts numerous studies to assess the future of the lighting market and the possible implications to the Company's lighting programs, including on-site visits and surveys to assess the lighting market in both residential and commercial sectors. The direct install programs also ensure that LED replacements only occur with higher wattage lighting.

PUC 1-16

Request:

For each pilot or demonstration, please provide the estimated costs and benefits. Please also state the limits set on the scope and length of each pilot or demonstration, in accordance with the PUC’s Guidance on Goals, Principles and Values for Matters Involving The Narragansett Electric Company d/b/a National Grid issued in Docket No. 4600A; <http://www.ripuc.org/eventsactions/docket/4600A-GuidanceDocument-Final-Clean.pdf>. For the pilots and demonstrations that do not have a benefit-cost ratio greater than one, please explain what additional, qualitative values will be achieved through the planned work.

Response:

The purpose of the pilots and demonstrations in the 2018 EE Plan is to test new technologies, strategies, adoption rates with customers, performance, and to determine the savings potential. In many cases, one of the objectives of a pilot or demonstration is to assess savings estimates and costs through testing, learning, and calculating impacts. Therefore, benefit-cost ratios are not available.

The following table lists the pilots and demonstrations, assigned budgets (excluding labor), their scope, savings assumptions (where applicable) and time frames. Descriptions of the pilots and demonstrations, including their planned work and qualitative value such as barriers or learnings, are in the Plan. The applicable Bates pages are listed below for reference.

**Commercial Pilots**

	<b>Pilot and Demonstration</b>	<b>Targeted Goals and Scope</b>	<b>Length of Pilot/Demo</b>	<b>Budget 2018</b>	<b>Savings</b>	<b>Bates # for benefits</b>
1	Zero Energy Demonstration projects – Commercial	2 Projects	2018-2020	\$148,750	TBD	Bates 141
2	Power Over Ethernet	Exploratory	2018-2020	\$10,000	TBD	Bates 143
3	Performance Based Procurement	3 Projects	2018-2019	\$50,200	194,335 kWh/each Approx.	Bates 143, 144

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4	Indoor Agriculture	Exploratory	2018-2020	N/A	TBD	Bates 144
5	Demand Response Large C&I	10 MW enrollment	2018-2020	\$524,500	10MW	Bates 173
6	Demand Response (DR) Small Business Direct Load Control	300 Wi-Fi T-stats	2018-2020	\$52,600	0.24 MW Approx. (0.79 kW per device)	Bates 174
8	Energy Efficiency Upgrades in pumping systems for water/wastewater plants	2 Stations	2018-2019	\$100,000	TBD	Bates 175
9	Behavior Change through education of small-medium business plant personal	6 Plants	2018-2019	\$38,000	TBD	Bates 176
10	Secure Lighting Spec	Outreach to 5 Manufacturer 20 projects	2018-2019	\$11,500	9,760 MWh	Bates 176
11	Lighting as a Service	Exploratory		\$10,000	TBD	Bates 177
12	One-Fit – Lighting Manufacturer Based Turn-Key lighting Design	Outreach to 3 Manufacturers 20 projects	2018-2020	\$11,500	9,760 MWh	Bates 178
13	Lighting Re-Specification Incentive	TBD	2018-2020	\$10,000	TBD	Bates 178
14	Automated Window Shade Systems	TBD	2018	\$10,000	TBD	Bates 179

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15	Web Based Performance Lighting Plus App	Increase Participation in Performance Lighting Plus	2018-2020	\$8,200	TBD	Bates 179
16	Online Trade Ally Training on Advanced Lighting Systems	The training provides proper installation and persistence in savings for existing EE programs	2018-2020	\$8,500	TBD	Bates 120
17	Gas DR	Outreach to commercial customers, specifically with process-only equipment. 300 DTh reduction/ year	2018-2019	\$357,356	300 DTh reduction/ year	

**Residential Pilots**

	<b>Pilot and Demonstration</b>	<b>Targeted Goals and Scope</b>	<b>Length of Pilot/Demo</b>	<b>Budget 2018</b>	<b>Savings</b>	<b>Bates # for benefits</b>
1	Zero Energy Demonstration projects - Residential	Income eligible and market rate demonstrations	2018-2020	\$240,000	TBD	Bates 88
2	Connected Device Demonstration	Bring demonstration to scale and test new technologies	2018-2020	\$292,800	0.39 – 0.46 kW per customer per event	Bates 86
3	Emerging Lighting Controls	Continuation of LED smart lighting	2018	\$75,000	TBD	Bates 87

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4	Energy Storage	Customer research on storage, distributed generation, and electric vehicles	2018-2020	\$135,000	TBD	Bates 87
5	Residential Energy Monitoring	Residential energy monitors for home energy disaggregation	2018-2019	\$165,000	TBD	Bates 87, 88

PUC 1-17

Request:

Please explain the underlined phrase in the following sentence found at Bates 60: “In the multifamily sector specifically, this will include offering more smart thermostats and introducing the installation of ductless min-split heat pumps in electrically-heated facilities and possibly facilities served by delivered fuels if cost effective.” Please be specific about what “possibly” is indicating, and whether or not “if cost effective” refers to a facility-by-facility analysis, at the measure level, or some other level. Please also indicate if this is part of, the whole, or not part of the electrification pilot the Company highlighted in the Three-Year Plan.

Response:

The term "possibly" means that customers are served on a first-come, first-served basis and that budgets will be managed accordingly. However, the Company is actively investigating opportunities for the installation of Air Source Heat Pumps (ASHPs) at some sites in 2018, and is doing so in support of the Company's greater strategic electrification efforts. In Multifamily, ASHP cost effectiveness is assessed on a case by case basis as a custom measure.

PUC 1-18

Request:

With respect to National Grid's agreement regarding the AutoGrid initiative, please state if the agreement is reflected in the 2018 EE or 2018 SRP Program Plans and budgets. If yes, please provide a detailed update of this initiative.

<https://www.greentechmedia.com/articles/read/national-grid-taps-autogrid-for-multi-state-demand-response-distributed-ene#gs.TJ=CwH4>

Response:

In June 2017, National Grid launched a commercial and industrial summer demand response (DR) pilot in Rhode Island and Massachusetts. AutoGrid was selected as the provider for a demand response management system (DRMS) platform through a competitive request for proposal process for Rhode Island, Massachusetts, and New York. The DRMS platform automates many of the processes of running a demand response program such as:

1. Demand response asset registration;
2. Demand response available asset scheduling;
3. Predictive analytics to anticipate the need for a demand response events;
4. Calling of demand response events via the Open ADR 2.0 Protocol;
5. Monitoring demand response performance during events;
6. Reporting DR event performance to customers and vendors; and
7. Reporting DR event performance to National Grid and its evaluators.

The cost for the AutoGrid platform that is specific to Rhode Island is included in the 2018 Electric Energy Program Budget, Attachment 5, Table E-2, Bates page 260. This cost is included as part of the Commercial Demonstrations and Research and Development line.

The customer offering was launched in May of 2017. Twenty-seven customers enrolled in the program, in Rhode Island, with a committed load reduction of 6.75 MW. Two demand response events were called during the summer of 2017. The Company will include a summary of how the customers performed in the 2017 Energy Efficiency Year-End report.

PUC 1-19

Request:

With regard to the residential battery storage project referenced at Bates 87, please provide the following information:

- a. What was the budget in 2017?
- b. What is the proposed budget in 2018?
- c. Please provide an update of the project activities in 2017.
- d. Please identify the activities for 2018.
- e. What was completed in 2017 that will be included in 2018?
- f. Is the work in this project related to past, ongoing, or future work or desired outcomes in System Reliability Procurement plans?
- g. Why is this project included in the EE Plan and not the SRP Report?
- h. Please provide more detail about the proposed activity. Is the Company proposing to research the design of consumer packages, actually offer packages, or something else?

Response:

- a. The 2017 budget was \$125,000.
- b. The proposed 2018 budget is \$135,000.
- c. In 2017, National Grid met with several battery storage manufacturers to investigate a pilot initiative in Rhode Island. Some were interested and others were not given the size of the budget. The Company is also observing battery storage in the Company's other jurisdictions.
- d. In 2018, the energy storage activities will focus on customer-centric design of consumer packages in the storage, renewable, and electric vehicles. This research will allow insight into the design of consumer packages that resonate with consumers and associated pricing. This research will lay the foundation for a demonstration in 2019.
- e. In 2017, there were discussions with battery storage companies, but given the size of the allocated budget, no additional activities were pursued. The Company will continue to observe battery storage activities in other Company jurisdictions while conducting the research discussed above in d.
- f. This energy storage research is independent of the SRP activities, except that the Company's battery experts were used to identify and conduct the meetings with battery storage vendors.

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- g. The research in the 2018 EE Plan is focused on broad-based residential customer, behind the meter approaches. The SRP battery storage project proposal is focused on localized peak load reduction at the feeder level, using a grid-scale battery. There is the potential that the battery storage research work could relate to SRP in the future.
- h. The plans for 2018 will be focused on research and design of RI customer packages that could be deployed in future years.

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PUC 1-20

Request:

National Grid's filing at Bates 8 contains Table 2 which compares the proposed 2018 EE Plan to the 2018 annual plan as envisioned in the Three-Year Plan. For each line in the chart where the 2018 EE Plan varies from the 2018 annual plan as envisioned in the Three-Year Plan by more than 5%, please provide an explanation.

Response:

Please see the chart below, which highlights lines from Table 2 on Bates Page 8 of the EE Plan that represent more than a 5% change. Please see the explanations following the chart for all highlighted lines.

<b>Electric Programs</b>	<b>2018 3 Year Plan</b>	<b>2018 Annual Plan</b>	<b>% Change</b>
Annual MWh Savings	179,968	186,855	4%
Lifetime MWh Savings	1,712,064	1,735,472	1%
Annual Peak kW Savings	29,639	24,802	-19%
Total Benefits	\$ 373,004,694	\$ 342,439,012	-9%
Total Spending	\$ 103,047,860	\$ 94,568,584	-9%
Benefit Cost Ratio (RI Test)	2.93	2.84	-3%
Cost/Lifetime kWh	\$ 0.071	\$ 0.067	-7%
EE Program Charge per kWh	\$ 0.01090	\$ 0.01000	-9%

<b>Gas Programs</b>	<b>2018 3 Year Plan</b>	<b>2018 Annual Plan</b>	<b>% Change</b>
Annual MMBtu Savings	396,113	414,795	5%
Lifetime MMBtu Savings	4,552,056	4,756,052	4%
Cost/Lifetime MMBtu	\$ 8.17	\$ 7.45	-10%
Total Benefits	\$ 97,702,163	\$ 101,474,752	4%
Total Spending	\$ 29,399,869	\$ 28,080,908	-5%
Benefit Cost Ratio (RI Test)	2.53	2.76	8%
C&I EE Program Charge per Dth	\$ 0.721	\$ 0.727	1%
Residential EE Program Charge per Dth	\$ 0.882	\$ 0.898	2%

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Electric Programs

1. Annual Peak kW Savings:

- Annual peak kW savings are lower for several reasons. The first is the impact of the budget cap on the 2018 EE Plan. The budget cap reduced the amount of cost-effective electric savings that could be achieved, which also resulted in lower associated Annual Peak kW savings. The second reason is that the kW per kWh ratio was lowered in the Small Business Direct Install (SBDI) program due to a change in planned measure mix based on updated year-to-date program performance. The SBDI program has experienced a higher percentage of exterior LED lighting projects that create less electricity savings during peak hours. This trend is forecasted to continue, and the measure mix was adjusted accordingly in the 2018 EE Plan. The third reason is that the Large Commercial New Construction upstream HVAC measure category kW value was updated with historic data that is a more accurate predictor for the end use.

2. Total Benefits:

- Since the Three-Year Plan was filed, several factors increased and decreased benefits, resulting in an overall net decrease in total benefits. First, after the Three-Year Plan was filed, there was an increase in benefits due to the application of several evaluations, which increased the claimable savings and, therefore, increased total benefits. The evaluations include the commercial and industrial (C&I) Custom Realization Rate Study, C&I Free Ridership and Spillover Study, and the C&I Upstream Lighting Study. Second there was a decrease in benefits due to the loss of energy savings from the budget cut. There was also a slight decrease in benefits due to corrections made to non-energy impacts in the income-eligible sector over the course of reviewing the 2018 EE Plan.

3. Total Spending:

- The spending is lower due to the budget cap requirement set forth in 2017 House Bill 5175 Sub A.

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4. Cost/Lifetime kWh:
  - The cost per lifetime kWh is lower due to the budget cap requirement set forth in 2017 House Bill 5175 Sub A.
5. EE Program Charge per kWh:
  - The EE Program Charge is lower due to the budget cap requirement set forth in 2017 House Bill 5175 Sub A.

Gas Programs

1. Cost/Lifetime MMBtu:
  - The cost per lifetime MMBtu decreased for two reasons. The first reason is the application of the C&I Free Ridership and Spillover evaluation, which increased the amount of lifetime MMBtu the Company can claim. In addition, the Company refined budgets downward based on updated spending trends and projections for C&I measures.
2. Benefit Cost Ratio (RI Test):
  - The Benefit Cost Ratio increased due to higher claimable savings from recent evaluations and lower budgets as described in #1 above.

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PUC 1-21

Request:

Please update the response to COMM 1-2 provided in Docket No. 4654 to include the current proposal.

Response:

Please see Attachment PUC 1-21 for the updates to the table that was provided in the Company's response to COMM 1-2 in Docket 4654.

Rhode Island Energy Efficiency 2003 - 2018

Electric	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 <sup>(6)</sup>	2014	2015	2016	2017 <sup>(7)</sup>	2018 <sup>(8)</sup>
Energy Efficiency Budget (\$Million) <sup>(1)</sup>	\$23.1	\$22.6	\$23.1	\$22.4	\$22.5	\$21.0	\$32.4	\$37.6	\$59.2	\$61.4	\$77.5	\$87.0	\$86.6	\$87.5	\$94.6	\$94.6
Spending Budget (\$Million) <sup>(2)</sup>	\$16.3	\$15.8	\$17.6	\$16.5	\$16.4	\$14.7	\$23.5	\$28.8	\$45.3	\$55.3	\$64.8	\$80.6	\$77.3	\$77.6	\$88.5	\$88.7
Actual Expenditures (\$Million) <sup>(3)</sup>	\$22.8	\$19.5	\$23.4	\$23.7	\$21.9	\$19.2	\$31.7	\$29.7	\$40.0	\$50.7	\$72.9	\$85.3	\$87.4	\$78.4	-	-
Incentive Percentage	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Target Incentive <sup>(9)</sup>	\$712,557	\$781,959	\$774,689	\$726,627	\$723,000	\$647,689	\$1,035,943	\$1,267,043	\$1,992,513	\$2,434,131	\$3,240,747	\$4,032,000	\$3,867,400	\$3,878,087	\$4,425,528	\$4,436,022
Earned Incentive	\$712,557	\$604,876	\$795,648	\$760,623	\$716,075	\$675,282	\$1,085,888	\$1,333,996	\$1,929,273	\$2,469,411	\$2,997,681	\$4,223,321	\$4,533,360	\$4,128,034	-	-
System Benefits Charge (\$/kWh) <sup>(9)</sup>	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00320	\$0.00320	\$0.00526	\$0.00592	\$0.00876	\$0.00911	\$0.00953	\$0.01077	\$0.01124	\$0.01000
Annual Cost to 500 kWh/month Residential Customer w/o tax <sup>(10)</sup>	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$19.20	\$19.20	\$31.56	\$35.52	\$52.56	\$54.66	\$57.18	\$64.62	\$67.44	\$60.00
Annual Cost to 500 kWh/month Residential Customer w/ tax <sup>(11)</sup>	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$20.00	\$20.00	\$32.88	\$37.00	\$54.75	\$56.94	\$59.56	\$67.31	\$70.25	\$62.50

  

Gas <sup>(4)</sup>	2003	2004	2005	2006	2007 <sup>(4)</sup>	2008	2009	2010	2011 <sup>(5)</sup>	2012	2013 <sup>(6)</sup>	2014	2015	2016	2017 <sup>(7)</sup>	2018 <sup>(8)</sup>
Energy Efficiency Budget (\$Million) <sup>(1)</sup>	-	-	-	-	-	\$7.3	\$7.6	\$4.8	\$7.3	\$13.7	\$19.5	\$23.5	\$24.5	\$27.7	\$29.7	\$28.1
Spending Budget (\$Million) <sup>(2)</sup>	-	-	-	-	-	\$6.6	\$6.1	\$4.5	\$6.2	\$12.9	\$17.9	\$21.8	\$22.4	\$25.0	\$27.8	\$26.2
Actual Expenditures (\$Million) <sup>(3)</sup>	-	-	-	-	-	\$7.4	\$6.3	\$5.5	\$4.9	\$13.3	\$19.6	\$21.5	\$21.5	\$24.6	-	-
Incentive Percentage	-	-	-	-	-	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Target Incentive	-	-	-	-	-	\$288,734	\$266,980	\$199,743	\$274,460	\$570,382	\$898,285	\$1,089,700	\$1,119,800	\$1,251,654	\$1,387,550	\$1,309,076
Earned Incentive	-	-	-	-	-	\$288,734	\$262,121	\$231,310	\$239,863	\$586,036	\$968,229	\$1,362,108	\$1,387,079	\$1,496,869	-	-
System Benefits Charge (\$/therm) - all non-exempt customers <sup>(12)</sup>	-	-	-	-	\$0.0071	\$0.0107	\$0.0150	\$0.0150	\$0.0411	\$0.0384	\$0.0417	-	-	-	-	-
Residential System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	-	-	-	-	\$0.0600	\$0.0781	\$0.0748	\$0.0888	\$0.0898
C&I System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	-	-	-	-	\$0.0492	\$0.0637	\$0.0487	\$0.0726	\$0.0727
Annual Cost to 846 Therm/year Residential Customer w/o tax <sup>(10)</sup>	-	-	-	-	\$6.04	\$9.05	\$12.69	\$12.69	\$18.28	\$32.49	\$35.28	\$50.76	\$66.07	\$63.28	\$75.12	\$75.97
Annual Cost to 846 Therm/year Residential Customer w/tax <sup>(11)</sup>	-	-	-	-	\$6.23	\$9.33	\$13.08	\$13.08	\$18.85	\$33.49	\$36.37	\$52.33	\$68.11	\$65.24	\$77.44	\$78.32

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Spending Budget includes Implementation and Evaluation Expenses; excludes EERMC Costs, Commitments and Copays, and Outside Finance Costs. For 2017, Outside Finance Costs are included.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) Gas programs began during July 2007 and were not reported on separately that year since programs were still in development. The 2007 gas programs are included in 2008 reporting. Systems Benefit Charge shown for 2007 is the weighted average of \$0.063 per decatherm from January 1, 2007 - June 30, 2007 and \$0.107 per decatherm from July 1, 2007 through December 31, 2008.
- (5) On July 25, 2011 the Commission ordered that National Grid could increase the gas System Benefits Charge from \$0.15 to \$0.411 per decatherm for the period of August 1, 2011 through December 31, 2011. Annual cost represents 7 months usage (632 therms) at \$0.015 per therm and 5 months usage (214 therms) at \$0.0411 per therm.
- (6) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (7) 2017 values are planned.
- (8) 2018 values are preliminary.
- (9) Beginning in 2012, the EE Program Charge includes the System Reliability Factor. It does not include the \$0.0003 renewables per RI General Laws §39-2-1.2 and Order #19608, which appears on customer bills.
- (10) Reflects the annual cost excluding Gross Earnings Tax.
- (11) Reflects the annual cost including Gross Earnings Tax.
- (12) The Gas EE Program Charge was uniform for all customers until 2014, at which time the Company proposed and the PUC approved individual factors for the residential and C&I sectors.

PUC 1-22

Request:

Please update the response to COMM 1-6 in Docket No.4654 to include the current proposal.

Response:

Please see the table below for an update to COMM 1-6 in Docket No. 4654 that provides the percentage of the annual electric and gas savings goals that the Company achieved between 2006 and 2016.

<b>Year</b>	<b>Electric energy savings goal achieved (%)</b>	<b>Electric demand savings goal achieved (%)</b>	<b>Gas savings goal achieved (%)</b>
2006	111.3%	106.4%	N/A <sup>1</sup>
2007	101.9%	106.1%	N/A <sup>2</sup>
2008	110.9%	112.5%	108.9%
2009	115.0%	142.1%	138.8%
2010	107.1%	77.7%	126.8%
2011	93.6%	71.3%	117.0%
2012	93.1%	83.4%	99.2%
2013	98.9%	114.0%	108.6%
2014	105.2%	77.7%	124.0%
2015	115.1%	112.2%	111.4%
2016	107.3%	100.7%	105.6%

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<sup>1</sup> As detailed in PUC 1-2, gas programs began in July 2007. Therefore, there are no savings to report in 2006. The 2007 gas programs are included in 2008 reporting since the Company did not report on these programs in 2007, when the programs were still in development.

<sup>2</sup> See footnote 1.

PUC 1-23

Request:

Please update Tables E-9 and G-9 (incentive calculations) to include a column for maximum possible incentives.

Response:

Please see Attachment PUC 1-23 for updated Tables E-9 and G-9, which include a column for maximum possible incentives.

**Table E-9  
National Grid  
2018 Targeted Shareholder Incentive**

Energy Incentive Rate: 3.50%

	(1)	(2)	(3)	(4)	(5)	(6)
Sector	Spending Budget \$(000)	Target Incentive \$(000)	Annual kWh Savings Goal	Threshold kWh Savings	Target Incentive Per kWh	Max Incentive \$(000)
Income Eligible Residential	\$11,868	\$415	7,471,934	5,603,951	\$0.056	\$519
Non-Income Eligible Residential	\$33,815	\$1,184	79,868,307	59,901,230	\$0.015	\$1,479
Commercial & Industrial	\$43,037	\$1,506	99,515,244	74,636,433	\$0.015	\$1,883
Total	\$88,720	\$3,105	186,855,485	140,141,613	\$0.017	\$3,882

Demand Incentive Rate: 1.50%

	(7)	(8)	(9)	(10)	(11)	(12)
Sector	Spending Budget \$(000)	Target Incentive \$(000)	Annual kW Savings Goal	Threshold kW Savings	Target Incentive Per kW	Max Incentive \$(000)
Income Eligible Residential	\$11,868	\$178	865	649	\$205.8	\$223
Non-Income Eligible Residential	\$33,815	\$507	9,264	6,948	\$54.7	\$634
Commercial & Industrial	\$43,037	\$646	14,673	11,004	\$44.0	\$807
Total	\$88,720	\$1,331	24,802	18,602	\$53.7	\$1,664

**Notes:**

(1) and (7) Eligible Spending Budget excludes Regulatory Costs, and Shareholder Incentive. See Table E-3 for details.

(2) Equal to the incentive rate (3.5%) x Column (1).

(3) and (9) See Table E-7

(4) and (10) 75% of Column (3) and (9). No incentive is earned on annual kWh or Annual kW savings in the sector unless the Company achieves at least this threshold level of performance.

(5) Column (2)\*1000/Column (3). This illustration is for achieved savings equal to the savings target. The incentive earned per kWh will vary with the percent of the savings target achieved

(6) Equal to 125% of Column (2).

(8) Equal to the incentive rate (1.5%) x Column (1).

(11) Column (8)\*1000/Column (9). This illustration is for achieved savings equal to the savings target. The incentive earned per kW will vary with the percent of the savings target achieved

(12) Equal to 125% of Column (8).

The shareholder incentive for Energy and Demand incentives will be calculated as follows, where SB is the Spending Budget in the sector:

- From 75% of savings to 100% of savings: Shareholder Incentive = SB x (0.15 x % of savings achieved – 0.10)
- x 0.7 for electric energy savings
- x 0.3 for electric demand savings
- x 1.0 for natural gas savings
- From 100% of savings to 125% of savings: Shareholder Incentive = SB x (0.05 x % of savings achieved)

**Table G-9**  
**National Grid**  
**2018 Targeted Shareholder Incentive**

Incentive Rate: 5.00%

	(1)	(2)	(3)	(4)	(5)	(6)
Sector	Eligible Spending Budget \$(000)	Target Incentive \$(000)	Target Savings Goal (MMBTU)	Threshold Savings (MMBTU)	Target Incentive Per Annual MMBTU	Max Incentive \$(000)
Income Eligible Residential	\$6,375	\$318.7	28,842	21,632	\$11.05	\$398.4
Non-Income Eligible Residential	\$12,490	\$624.5	146,706	110,030	\$4.26	\$780.6
Commercial & Industrial	\$7,317	\$365.8	239,246	179,435	\$1.53	\$457.3
Total	\$26,182	\$1,309.1	414,795	311,096	\$3.16	\$1,636.3

**Notes:**

- (1) Eligible Spending Budget excludes EERMC, OER, and Shareholder Incentive. See Table G-3 for details.
  - (2) Equal to the incentive rate (5.0%) x Column (1).
  - (3) See Table G-7
  - (4) 75% of Column (3). No incentive is earned on annual MMBTU savings in the sector unless the Company achieves at least this threshold level of performance.
  - (5) Column (2)\*1000/Column (3). This illustration is for achieved savings equal to the savings target. The incentive earned per MMBtu will vary with the percent of the savings target achieved
  - (6) Equal to 125% of Column (2).
- The shareholder incentive will be calculated as follow, where SB is the Spending Budget in the sector:
- From 75% of savings to 100% of savings: Shareholder Incentive = SB x (0.15 x % of savings achieved – 0.10)
  - From 100% of savings to 125% of savings: Shareholder Incentive = SB x (0.05 x % of savings achieved)

PUC 1-24

Request:

Attachment 5, page 1 projects an \$8.9 million carry over from 2017 to 2018 (electric budget). On the gas side, Attachment 6, page 1 projects a year end negative fund balance for 2017 of \$2.3 million. Please provide an update to these figures, if appropriate.

Response:

With three additional months of actuals (August-October) and updated projections for November and December revenues and expenses, the updated fund balance projections are:

- Projected Year-End 2017 Electric Fund Balance = \$10,898,353
- Projected Year-End 2017 Gas Fund Balance = negative \$701,147

The figures are provided for informational purposes only. The Company is not revising Attachments 5 or 6.

PUC 1-25

Request:

At its September 28, 2015 open meeting, the Commission approved National Grid's involvement with the Block Island Energy Efficiency Pilot. The Commission directed the Company to file a final report at the conclusion of the pilot. Please provide a copy of the final report.

<http://www.ripuc.org/eventsactions/minutes/092815.pdf>

Response:

The OER directs and manages the Block Island Pilot, and the Company provides administrative services. Since the September 2015 open meeting, the OER decided to extend the Block Island pilot. On October 16, 2017, the OER notified the Company that the Block Island Saves initiative had concluded.

The OER is currently completing an analysis of the Block Island Saves initiative. The Company will include the OER's analysis in its 2017 Energy Efficiency Year End Report.

PUC 1-26

Request:

Please explain why Standard Offer Service rates from October through March are used when calculating whether energy efficiency is cheaper than additional energy supply, but the updated 2015 Avoided Energy Supply Cost is used when calculating cost-effectiveness?

Response:

To calculate whether energy efficiency is cheaper than supply, the Company needs to compare its cost to procure the energy savings included in the 2018 EE Plan to the cost of procuring additional energy supply to meet customer energy demand. The cost of energy savings in the EE Plan takes into account the varying costs of energy efficiency across all customer segments. Therefore, to conduct an accurate comparison between energy efficiency and supply costs, the supply values must also be broken down by customer segment. The Avoided Energy Supply Cost (AESC) study does not provide avoided energy costs by customer class because, at the wholesale electricity market level, the value of energy does not differ by customer class. Therefore, Standard Offer Service (SOS) rates are used when calculating whether electric energy efficiency is cheaper than additional energy supply because SOS rates are available by customer rate class.

It is not appropriate to use the SOS rates for the calculation of cost-effectiveness. The SOS rates wrap energy and capacity costs into a single rate and do not contain the time-based or component-specific granularity that is necessary to accurately assess the value of EE measures with different load shapes and peak-to-energy savings characteristics. This granular detail is paramount to assessing the cost-effectiveness of various measures and programs.

PUC 1-27

Request:

Please provide the cost incurred by the Company to support the "Lite Rock 105 National Grid Weather Center" radio spots. Please indicate the funding source for these radio spots.

Response:

The radio spots are part of the Adaptive Radio with Weather Triggers, which is part of the Customer Communications campaign. The campaign includes a sustained weekly frequency of short length radio reads, the weather triggered radio reads, and online takeovers. The campaign is for eight months and will run from mid July 2017 through mid-March 2018. The total cost of this campaign is \$54,400. These costs are not recovered through the Company's EE surcharge or any other reconciling factor. Instead, these costs are classified as an operational expense and, like other operational expenses, are indirectly recovered through the Company's base distribution rates. Unlike other reconciling factors, the Company does not recover the actual \$54,400 in costs but instead recovers a test year level amount, which was based on 2011 expenses.

PUC 1-28

Request:

Please provide all of the benefit and cost values in the RI Test that were used in this EE Plan and SRP Report and the source and/or methodology for each value.

Response:

The benefit, cost values, sources, and methodology used in the RI Test for the 2018 EE Plan and 2018 SRP are included in the following documents:

1. The 2018 Rhode Island Technical Reference Manual (TRM), which the Company filed with the PUC on November 30, 2017, contains costs and the methodologies and savings assumptions used by National Grid to estimate the savings, including reductions in energy and demand consumption and other resource and non-energy impacts, attributable to its electric and gas energy efficiency measures and programs. The TRM also contains a list of sources.
2. The 2018 Rhode Island Test overview, which is included as Attachment 4 of the 2018 EE Plan, includes a description of the benefits and cost that are to be included in the RI Test as well as methodology and sources.
  - a. The 2018 SRP Report utilizes the RI Test as included in Attachment 4 except for the value associated with avoided marginal distribution cost (MDC). The 2018 SRP Report instead uses a localized avoided distribution benefit that is calculated as the avoided revenue requirements for the distribution investment being deferred for the specific years of deferral.