1	STATE OF NEW HAMPSHIRE			
2		PUBLIC UTILITIES COMMISSION		
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4	April 18, 2014 - 1:35 p.m. Concord, New Hampshire			
5	Concord, New	NHPUC MAY02'14 PM12:50		
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8	RE:	DE 14-063		
9		UNITIL ENERGY SYSTEMS, INC.: Step Adjustment.		
10 '	.5			
11	PRESENT:	Chairman Amy L. Ignatius, Presiding		
12		Commissioner Robert R. Scott Commissioner Martin P. Honigberg		
13	4	Sandy Deno, Clerk		
14				
15	APPEARANCES:	Reptg. Unitil Energy Systems, Inc.:		
16	a .	Gary Epler, Esq.		
17		Reptg. Residential Ratepayers: Susan Chamberlin, Esq., Consumer Advocate		
18		Jim Brennan Office of Consumer Advocate		
19		Reptg. PUC Staff:		
20		Suzanne G. Amidon, Esq. Thomas C. Frantz, Director/Electric Division		
21		Grant Siwinski, Electric Division		
22				
23	Cou	rt Reporter: Steven E. Patnaude, LCR No. 52		
24				



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{DE 14-063} {04-18-14}

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2		EXHIBITS	
3	EXHIBIT NO.	DESCRIPTION	PAGE NO.
4	1	Step Adjustment filing effective 6 May 1, 2014 pursuant to the Settlement Agreement approved in Docket No. DE 10-055	
5			
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22			
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1 PROCEEDING

CHAIRMAN IGNATIUS: We are here in the case of Unitil Energy Systems' tariff filing requesting a step adjustment for investments in its Reliability

Enhancement and Vegetation Management Program and submission of its Plan that we reviewed. On March 4th,

2014, Unitil Energy Systems filed its proposed tariffs, and included its report for 2013 Reliability Enhancement Program and Vegetation Management Plan, and the results of its 2013 Storm Resiliency Pilot Program, asking for changes to its rates effective May 1st, 2014. We issued an order on March 19th calling for a hearing this afternoon.

So, let's begin first with appearances.

MR. EPLER: Good afternoon. Gary Epler, appearing on behalf of Unitil. Thank you.

MS. CHAMBERLIN: Good afternoon. Susan Chamberlin, Office of the Consumer Advocate. And, with me today is Jim Brennan.

MS. AMIDON: Good afternoon. Suzanne
Amidon, for Commission Staff. With me today is Tom
Frantz, the Director of the Electric Division, and Grant
Siwinski, an Analyst in the Electric Division.

CHAIRMAN IGNATIUS: Good afternoon,

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1
       everyone. What is our plan for presentation of the Plan
       and discussion of the tariff request?
 2
 3
                         MR. EPLER: Chairman Ignatius, the
 4
       Company proposes to put four witnesses on as a panel.
       And, we have several exhibits. And, so, while the panel
 5
 6
       is getting settled, I can describe what those items are.
 7
                         CHAIRMAN IGNATIUS: All right.
                         MR. EPLER: And, then, I'll have a short
 8
 9
       direct examination, to walk through a couple of sections
10
       of the filing, to provide some explanation and background.
11
                         CHAIRMAN IGNATIUS: All right.
12
       sounds fine. If you want to bring the witnesses forward.
13
                         MR. EPLER: Yes. Maybe we should swear
14
       the witnesses first, and then I can proceed.
15
                         CHAIRMAN IGNATIUS: All right.
16
                         (Whereupon John Bonazoli, Sara
17
                         Sankowich, Raymond Letourneau, and
18
                         David Chong were duly sworn by the Court
19
                         Reporter.)
20
                         MR. EPLER: The first item that I'd like
21
       marked as "Exhibit 1" is the Company's filing and all the
22
       attachments to that filing that was made on March 4th,
23
       2014.
                         CHAIRMAN IGNATIUS: All right.
24
                                                         We'll
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1
       mark that for identification as "Exhibit 1".
 2
                         (The document, as described, was
 3
                         herewith marked as Exhibit 1 for
 4
                         identification.)
 5
                         CHAIRMAN IGNATIUS: And, Mr. Epler, just
 6
       a reminder, in the future, if you can do sequential Bates
 7
       stamping on these, it really is going to make it easier
       for our review.
 8
 9
                         MR. EPLER: Yes. I realized that this
10
       morning when I looked at it, and I apologize for that.
11
                         And, the second item, if you look at --
12
       I believe, on the desk in front of you, there were three
13
       documents. What I'd like marked as "Exhibit Number 2" --
       or, premarked as "Exhibit Number 2", if you look in the
14
       upper right-hand corner, it should say "Schedule 3 -
15
16
       Revised with OCA SRP Recommendation".
17
                         CHAIRMAN IGNATIUS: And that, everyone
18
       has a copy of that? The parties have that?
19
                         MS. AMIDON: Yes.
20
                         (Atty. Chamberlin nodding in the
21
                         affirmative.)
22
                         CHAIRMAN IGNATIUS: All right. We'll
23
       mark that as "Exhibit 2" for identification.
24
                         (The document, as described, was
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herewith marked as Exhibit 2 for
 1
                         identification.)
 2
 3
                         MR. EPLER: And, I'll explain these in a
 4
       moment. And, then, premarked as "Exhibit 3" would be
 5
       several pages, and in the upper right-hand corner says
       "Schedule 4 - Revised with OCA SRP Recommendation".
 6
 7
                         CHAIRMAN IGNATIUS: And, again,
 8
       everyone's got that?
 9
                         MS. AMIDON: Yes.
10
                         (Atty. Chamberlin nodding in the
11
                         affirmative.)
12
                         CHAIRMAN IGNATIUS: All right. We'll
13
       mark that as Exhibit 3.
14
                         (The document, as described, was
                         herewith marked as Exhibit 3 for
15
16
                         identification.)
17
                         MR. EPLER: And, then, Exhibit 4 is the
18
       color document, two-sided, that would be premarked as
       "Exhibit Number 4".
19
20
                         CHAIRMAN IGNATIUS: And, does it have a
21
       first page and a second page?
22
                         MR. EPLER: Yes. I quess, for
23
       convention, let's say that the first page would be the
24
       maps.
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1
                         CHAIRMAN IGNATIUS:
                                             All right.
                                                          And,
 2
       everyone has a copy of that as well?
 3
                         (Atty. Amidon nodding in the
                         affirmative.)
 4
 5
                         CHAIRMAN IGNATIUS: I assume there's no
 6
       objection to any of these markings?
 7
                         (No verbal response)
 8
                         CHAIRMAN IGNATIUS: All right.
                                                         We'll
       mark that for identification as "Exhibit 4".
 9
10
                         (The document, as described, was
                         herewith marked as Exhibit 4 for
11
12
                         identification.)
13
                         MR. EPLER: So, if I could explain
14
       Exhibit Number 2 and Exhibit Number 3. Pursuant to
15
       discussions among the Company, the Staff and the OCA,
16
       these two exhibits reflect changes that we're proposing to
17
       the Company's filing. And, what these changes are is as
18
       follows: In the original Settlement Agreement in Docket
19
       DE 10-055, it was, as part of the overall agreement
20
       reached, it was agreed that the step increases would be
21
       allocated first 115 percent to residential customers, and
22
       then on an equal proportion allocation to the rest of the
23
       customers. And, this was agreed upon, because there was
24
       acknowledgement among the parties that there was a
```

deficiency in revenue collected from the residential class. There wasn't necessarily an agreement as to the magnitude of that, because that depended on how one interpreted the cost of service studies. But there was general consensus that there was a deficiency. And, so, it was agreed that, as the step increases came in, more would be allocated to the residential class to -- as an attempt to begin to address that deficiency over time.

Subsequent to the Settlement Agreement, and beginning with the 2012 step increase, we introduced the Storm Resiliency Pilot Program. The first year was approximately 550,000, and the second year we increased that amount, last year we increased that amount by an additional \$880,000.

What we've discussed this year and agreed upon is to allocate that, the combined amount, the 1.4 million, going forward on an equal proportion basis. And, that's what these Exhibits Number 2 and Number 3 represent. And, the reasoning behind that was, in considering the Storm Resiliency Program that was agreed upon subsequent to the original Settlement Agreement, so, the concept is to take that out of that agreed upon allocation and just do it on an equal proportion basis. We're not going back in time, we're not going to

1 reallocate what was collected in 2012 and 2013. 2 going forward, we're reallocating this. 3 CMSR. HONIGBERG: A quick question. Are 4 you reallocating everything or just allocating the Storm Resiliency a different way than what you're allocating 5 6 everything else? 7 MR. EPLER: It's the latter. CMSR. HONIGBERG: Okay. 8 MR. EPLER: We're allocating the Storm 9 10 Resiliency on an equal proportion basis. The other part 11 of the step increase is allocated according to the Settlement Agreement. 12 13 CMSR. HONIGBERG: Thank you. 14 MR. EPLER: And, so, that's reflected in 15 these pages. Now, in order to see the magnitude of that 16 change, if you look at Exhibit Number 2, it has two pages. 17 They're both double-sided. And, one says -- the first 18 page says "Schedule 3 - Revised with OCA SRP 19 Recommendation", and that's a two-sided document. And,

20 then, the second says "Schedule 3 - Revised", just

21 "Revised". And, that -- just step back just for a second.

22 There is one other change that's indicated in these

23

documents, a very minor change, based on the Staff audit

24 of the filing. There was a \$56 item that the audit picked

1 up, and we have accounted for that. So, both of these pages have that item in there. That's why they both say 2 3 "revised". But the top one goes further and has the allocation of the Storm Resiliency Pilot on an equal 4 5 proportion basis. And, --6 CHAIRMAN IGNATIUS: Well, I'm sure 7 you'll go through these in more detail, but I'm having 8 trouble understanding. I had assumed that the total 9 numbers on Exhibit 2, the first page, and really the third 10 page, to be able to compare, that the totals would be the 11 same but for that \$56, and it would be the percentage -or maybe I'm missing -- maybe I'm not saying that right. 12 13 Are there other changes to the program revenues? I expect 14 to see more numbers lining up in it, and I'm not following 15 you right now. 16 MR. EPLER: Okay. If you look at -- if 17 you perhaps were to unstaple the two sheets, so it might 18 be easy to compare the two, and then hold them 19 side-by-side, so that you can see Column (5) from 20 Schedule 3 - Revised, so it has the "Percent Change". 21 CHAIRMAN IGNATIUS: Yes. 22 MR. EPLER: And, then, compare that to 23 Column (8) on Schedule 3 - Revised with OCA SRP 24 Recommendation. And, you see how the percentages are

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1
       different and the total design revenue is different?
 2
       That's because the Schedule 3 - Revised with OCA has an
 3
       allocation based on an equal proportion allocation of the
 4
       1.4 million from the SRP. So, that's why those -- and,
 5
       then, if you go down and look at the percentages, the
 6
      percentages of change is almost equal for all those rate
 7
       classes. Whereas, if you look at the Schedule 3 -
       Revised, there's a larger percentage increase to the
 8
 9
       residential, because they got 115 percent and the rest --
10
       so, that reflects the difference.
11
                         CHAIRMAN IGNATIUS: I'm just not
       following why the "Total Design Revenue" at the bottom
12
13
       should be different between the two, other than the $56?
14
                         MR. EPLER: Oh.
                                          That's total design
15
       revenue just for the G1 transformer discount. So, that's
16
       going to be different, --
17
                         CHAIRMAN IGNATIUS:
                                             Oh.
18
                         MR. EPLER: -- because, if you're
19
       comparing the 6.876 million to the 6.845 million, that's
20
       because they have been allocated less of the SRP.
21
                         CHAIRMAN IGNATIUS: Understood.
22
                         MR. EPLER: So, those total design
23
       revenues, in each of those rows for the classes, will
24
       reflect that difference. That's why it would either be
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1
       larger or smaller, depending upon what's been allocated.
                         CHAIRMAN IGNATIUS: That helps.
 2
 3
       was my mistake. It's a total of a subcategory, not a
 4
       total.
 5
                         MR. EPLER: I do have a witness
 6
       available who can explain how this calculation was made,
 7
       if there are additional questions on this. But --
 8
                         CHAIRMAN IGNATIUS: All right. We may
 9
       get into that.
10
                         MR. EPLER: Okay.
11
                         CHAIRMAN IGNATIUS: Thank you.
12
                         MR. EPLER: Sure.
13
                         CHAIRMAN IGNATIUS: Why don't we --
14
       Commissioner Honigberg suggested a good idea, to make
15
       Exhibit 2A be the -- what's now "2", the first page of 2,
16
       so, it's "Schedule 3 with the OCA Recommendation", and 2B
17
       would be the second -- the stapled sheet that's entitled
18
       "Schedule 3 - Revised". So, that would be "2B".
19
                         (Whereupon Exhibit 2 as previously
20
                         marked was separated into Exhibit 2A
21
                         and Exhibit 2B as described above.)
22
                         MR. EPLER: And, then, Schedule 3 is
23
       just the rate impacts of the new allocation. So, that
24
       would be -- that's Schedule 4, compared to Schedule 4 in
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1
       the original filing. So, again, you can see the bill
       impact differences between the two.
 2
 3
                         CHAIRMAN IGNATIUS: All right.
                                                         Thank
 4
       you.
 5
                         CMSR. HONIGBERG: Just a quick question
 6
       on Exhibit 3. This is a six-page exhibit, each page in
 7
       the upper right-hand corner says "Page 1 of 6". But it
 8
       should be "2 of 6", "3 of 6", "4 of 6", right?
                         MR. EPLER: That's correct.
 9
10
                         CMSR. HONIGBERG: Okay.
11
                         MR. EPLER: It was a last-minute
12
      printing error.
                         CHAIRMAN IGNATIUS: All right.
13
14
                         MR. EPLER: Okay?
15
                         CHAIRMAN IGNATIUS: Why don't you
16
      proceed. Thank you.
17
                         MR. EPLER: All right.
                         JOHN BONAZOLI, SWORN
18
19
                        SARA SANKOWICH, SWORN
20
                      RAYMOND LETOURNEAU, SWORN
21
                          DAVID CHONG, SWORN
22
                          DIRECT EXAMINATION
23
    BY MR. EPLER:
24
          Could the witnesses on the panel identify themselves,
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- 1 name and your title with Unitil.
- 2 A. (Bonazoli) John Bonazoli, Manager of Distribution
 3 Engineering.
- 4 A. (Sankowich) Sara Sankowich, System Arborist.
- A. (Letourneau) Ray Letourneau, Vice President of Unitil
 Energy Systems and Director of Electric Operations for
 Unitil Service Corp.
 - A. (Chong) David Chong, Director of Finance and Assistant

 Treasurer for Unitil Service Corp.
 - Q. Drawing the panel's attention to the document that's been marked as "Unitil Exhibit 1". This is the filing that was made on March 4th, 2014. And, rather than trying to go piece-by-piece through this document, do the witnesses affirm that this filing was -- is your collective work product, was pulled together by you or under your direction, and you verify that it's accurate?

(Court Reporter interruption - Multiple witnesses speaking at the same time.)

20 **BY THE WITNESS:**

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- 21 A. (Bonazoli) I do.
- 22 A. (Sankowich) I do.
- 23 A. (Letourneau) I do.
- 24 A. (Chong) I do.

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1 CHAIRMAN IGNATIUS: Now they speak the 2 same way.
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- 3 (Laughter.)
- 4 BY MR. EPLER:
- Q. And, other than the changes that I described on what's been marked as "Exhibits Number 2" and "3", are there any changes or corrections to this document?
- 8 A. (Bonazoli) No.
- 9 A. (Sankowich) There are not.
- 10 A. (Letourneau) No.
- 11 A. (Chong) No.
- Q. Okay. Thank you. Ms. Sankowich, could you please turn to the Annual Report for 2013. It's the 43-page document that appears after the proposed tariff changes in the packet. And, could you turn to Page 5 of that, Page 5 of 43.
- 17 A. (Sankowich) Yes.

- Q. Okay. And, there, in Paragraph 2.2, there's a
 description of a deviation in costs and activity based
 on what was proposed and what occurred. And, there
 were two areas, "Hazard Tree" work and "Core Work", is
 that correct, that deviated from what was originally
 proposed?
 - A. (Sankowich) Yes. They were the largest deviations.

- Q. And, in terms of the "Hazard Tree Mitigation", it indicates that the spending was below the anticipated level, is that correct?
 - A. (Sankowich) That's correct.

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- Dut, then, on the next page, Page 6, at the bottom,
 there is an indication that initially it was estimated
 that 1,760 hazard trees would be removed, but the total
 number was larger, "2,128", is that correct?
- 9 A. (Sankowich) That is correct.
 - Q. So, is it correct that, even though the total spending for hazard tree removal was smaller, the Company removed, as part of its normal Vegetation Program, remove more hazard trees than originally planned?
- 14 A. (Sankowich) That is correct.
- 15 Q. And, is there any particular explanation for that?
 - A. (Sankowich) The amount of hazard trees that are removed, based on the amount spend, varies based on what's found in the field. So, you could have a large tree that is more expensive to remove. We have also implemented some contract strategy methods that help to improve efficiency in spending and give some incentives to the vendor to bundle those together. So, the variations found in the field with the size of the trees and what was encountered for risk, and also the

- improvement in our contracting strategy, allowed us to
 be able to do all of the trees that needed to be
 removed, plus some additional, at a lower cost.
 - Q. Okay. Now, could you please turn to Page 16 of 43 in that same exhibit.
- 6 A. (Sankowich) Yes.

- Q. And, what I'd like you to do, if you could start to —
 if you could explain, first, looking at Chart 1, what's
 in that chart? What is the Company attempting to show
 by that chart?
- A. (Sankowich) Chart 1, and the following charts on the next page, are attempting to show our monitoring of the Vegetation Management Programs as they affect reliability. Realizing that these programs are still in their infancy, we do not have a lot of historical data, we attempted to measure the programs' progress relative to the past performance using the five-year average. So, looking at Chart 1, the straight line across the middle is the five-year average number of customers interrupted. So, if you looked at the past historic five years, that would be the average amount of customers interrupted. The line that goes up and down, fluctuates from year to year, is the individual year number of customers interrupted for that

particular year. So, we are looking to see if there is any trends as we work towards completing our five-year cycle with improvement in reliability. So, you can see that, as the program changed and the step adjustments occurred, we did have a slight downward trend in number of customers interrupted. The bar — the bars behind the line are the number of incidents that occurred. So, that's the number of interruptions that happened. And, those are also decreasing over the years.

This is not normalized for weather. So, it takes into account any minor events or anything that would be changing in relative to those areas. So, we do have to look at it from that perspective. But it does capture at least the fact that we are monitoring the system as it goes through.

And, the charts on the following pages are --

- Q. I'm sorry. Just to interrupt you for a moment please.
- 19 A. (Sankowich) Yes.

Q. Before you go there, just so we're clear, in terms of the program that the Company is in the middle of, the Vegetation Management Program, you have years here on this chart 2009 to 2013. And, if you could indicate what years the program was implemented, so, what we're

1 seeing?

- A. (Sankowich) Sure. The program was implemented
 beginning partially through the year in 2011. That's
 when I came on board and began implementing the new
 program. So, 2012 was the first year of the full
 implementation, and 2013 as well.
- 7 Q. And, the full program is a five-year cycle?
- 8 A. (Sankowich) That's correct.
- 9 Q. So, these charts reflect basically halfway through the program?
- 11 A. (Sankowich) Yes, through about two and a half years.
- 12 Q. Okay. All right. Can you turn to Chart 2 then, on the next page?
- 14 A. (Sankowich) Yes.

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- 15 Q. Could you please explain that.
 - A. (Sankowich) The chart on the following page, these represent a snapshot of the circuits that underwent a particular type of work for a particular year. So, each chart represents a type of work activity in a year. This also includes information about reliability before the work was done and after. The year that work was performed is represented by a dashed line. So, work could have occurred at any point during that year. So, the reliability of that year is made up of before

1 work was done and after.

So, Chart 2 is for the circuits that were pruned in 2011. Chart 3 is for circuits that were pruned in 2012. Chart 4 is for circuits that were pruned in 2013.

The next group of charts are those circuits that had pruning and hazard tree work done concurrently.

- Q. Okay. And, before, just to go back to Chart 2, there's also a bar underneath that chart with additional information. Could you explain what that is.
- A. (Sankowich) Sure. The little table bar underneath the chart is a representation of the data in the chart, showing the actual numbers. So, you can see the percent change in customers interrupted and the percent change in incidents.
 - Q. Okay. And, you can then continue. I think you were up to Chart 5.
- A. (Sankowich) Yes. So, the next group of charts, 5, 6,
 and 7, show the group of circuits that had the activity
 of pruning and hazard tree done concurrently, for the
 years 2011 in Chart 5; 2012 in Chart 6; and 2013 in
 Chart 7.
 - Q. Now, looking at Chart 5, it appears to show a large

- increase in interruptions in 2013. Is there any particular explanation for that? Or am I not reading it correctly?
- (Sankowich) Yes. It does show that there is a number Α. of more customers interrupted in 2013 than there was in 2012, also more overall incidents. The best way to look at this is that we are only looking at one circuit in this scenario. In 2011, because this was only a partial year, only one of the circuits had both pruning and hazard tree. So, you're not looking at a very large subset here. So, if there is any variability in weather, like a minor storm, even one interruption could drastically change the way the chart looks. more data you have, the more circuits that undergo work, the less one minor storm would show in your chart. So, in this occurrence here, we had a few minor weather events that brought the number of customers interrupted and the number of events that occurred in 2013 higher than what had happened, than what had occurred previously.
- 21 Q. Okay.

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A. (Sankowich) Continuing on, the last subset of charts,

Chart 8 and 9, refer to the Storm Resiliency work that

was done in 2012 and 2013. Chart 8 shows the three

circuits that had Storm Resiliency work done in 2012, and Chart 9 shows the four circuits that had work done last year.

If you notice that Chart 8 has the table at the bottom showing the improvement in customers interrupted and the improvement in number of incidents. The reliability benefit, Chart 9, does not have that, because work was completed last year. So, you don't see the improvement until the following year. So, these charts are set up so that we can continue to add years of reliability data onto them and continue to monitor them and see how the program is working, and then make modifications based on what we see, as far as trends that develop from reliability. But we do expect to see some improvement, as is indicated in some of the charts with the data, there is some indication of improvement. We're looking to see that in the future as the program continues.

- Q. Okay. And, also, just to clarify, on all of these charts, when you have "number of incidents", are these total incidents no matter what the cause or are these solely tree-related incidents?
- A. (Sankowich) These are just tree-related incidents.
- Q. Okay. And, so, if I understood your testimony in

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1
          explaining these charts, do you anticipate that, as the
 2
          Company continues with its VMP, and we have more years,
 3
          have trimmed more and more of the system, and have a
          greater population to look at, we'll see a clearer
 4
 5
          trend as to the effectiveness of the program in these
 6
          charts?
 7
          (Sankowich) Yes. The more data that we have to add
     Α.
 8
          into the charts, I think the better we'll be able to
 9
          see the improvement.
10
          Mr. Bonazoli.
     Q.
11
          (Bonazoli) Yes.
     Α.
12
          Could you please turn to Pages 39 through 41 of the
     Q.
13
          Report.
14
          (Bonazoli) Yes.
15
          And, could you explain what the Company is attempting
     Q.
16
          to show in Charts 11, 12, and 13?
17
     Α.
          (Bonazoli) Sure. Chart 11, on Page 39, this is our
18
          reliability performance for the past ten years.
19
          line in red is the SAIFI, which is the average
20
          frequency.
21
                         WITNESS BONAZOLI: Madam Chairman?
22
                         CHAIRMAN IGNATIUS: We've got a black
```

WITNESS BONAZOLI:

Oh, I'm sorry.

Sorry

So, --

23

24

and white copy.

1 about that.

BY THE WITNESS:

A. (Bonazoli) So, the line that has, if you look at year 2005, the higher line, --

CHAIRMAN IGNATIUS: Thank you.

CONTINUED BY THE WITNESS:

A. (Bonazoli) -- that is the SAIFI, the average frequency interruption. And, then, the other line is SAIDI, which is the average duration. And, below, below the graph, you can see the actual -- the actual performance in numbers. And, you can see in this, in this graph, the last -- the last couple years, since 2010, you'll see a noticeable improvement in the overall reliability of the system. In fact, in last year, in 2013, it was the best year since 2004, which was an improvement of about 27 percent in relationship to the ten-year average. The ten-year average, for SAIDI, is 162.86, and the ten-year average for SAIFI is 1.406. This is not a -- this is not a line on the chart.

That chart is for both -- is for all of
Unitil Energy Systems, the Seacoast and the Capital
area. And, Chart 12 is the same information for the
Capital area. And, the upper line on this chart is the
SAIDI graph, and the lower line is SAIFI. And, then,

in Chart 13 is the same information for the Seacoast area. And, on this, the upper line, from 2007 to 2012, that is SAIDI, and the lower line is SAIFI. In all charts, you can see, since 2010, there's a trend of -- an improvement trend.

BY MR. EPLER:

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- Q. Ms. Sankowich, could you please turn to the color document that's been premarked as "Exhibit Number 4".
- 9 A. (Sankowich) Yes.
- 10 Q. And, can you please explain what this is?
- 11 (Sankowich) Sure. This document is helping to explain Α. 12 the Storm Resiliency work that was conducted in 2013. 13 The first page, with the maps, shows three of the 14 circuits that work was performed on. The top one being 15 the 13W1 circuit in Canterbury, and the bottom one is 16 two circuits together, the C7W3 and the 18W2. 17 attempted to show the benefit to customers and people 18 in the area by showing where our substation is and 19 where the work was done on the lines from the 20 substation out through the communities, highlighting some of the municipal benefits, such as the life safety 21 22 resources, the lifeline resources, and the community 23 resources that also benefited from this enhanced 24 clearing and hazard tree work. So, it gives a little

1 overview. We also provided a field trip. And, so, 2 this page was used on the field trip to show where we were driving, looking at these lines. 3 4 On the next page is pictures of before 5 and after of right outside of our substation, on the 6 18W2, from the other page, in Bow. And, it shows the 7 clearing that was done. You can see that there's a large amount of trees that were removed and the 8 overhang taken off from above. So, just to give you an 9 10 idea of what it looks like in the field after this work 11 has completed and the reduction in exposure from trees 12 that occurs because of it. 13 And, then, I just provided a couple of 14 snapshots from the report showing the number of miles 15 of work and the trees removed, and a little bit about some of the benefits. 16 17 MR. EPLER: That's all the questions I 18 have. Thank you. 19 CHAIRMAN IGNATIUS: Thank you. 20 Ms. Chamberlin, questions? 21 MS. CHAMBERLIN: I have no questions. 22 Thank you. 23 CHAIRMAN IGNATIUS: Ms. Amidon? 24 MS. AMIDON: Thank you. Yes. We have a

1 few questions. And, most of them I think are for Ms.

2 Sankowich.

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CROSS-EXAMINATION

- 4 BY MS. AMIDON:
- Q. You conducted vegetation -- you conduct vegetation
 management at customer's requests sometimes, is that
 right?
- 8 A. (Sankowich) That's correct.
 - Q. And, do you -- when you do this, do you review the lines to determine whether it's a customer responsibility or a utility responsibility?
 - A. (Sankowich) Yes, we do. We do review all of the customer calls that come in before we go and do the work. If it is the customer's responsibility, we will notify them of that. If it is our responsibility, we then determine whether or not that work needs to be done immediately, because of an emergency, or whether it can be deferred to our regular maintenance work.
 - Q. Thank you. With respect to the work on some of the sub-transmission lines, the Company spent about \$54,000 more than was planned. And, I understand that some of this additional cost was unanticipated and it was related to work along railroad right-of-ways. Could you explain the reason for these additional costs?

- A. (Sankowich) Yes. We did have some unanticipated costs because of working adjacent to railways. The railroads required us to have an increase in insurance, which we weren't aware of, and hadn't needed in the past. We also needed flaggers, some additional training, and some permits. So, the increase in some of their requirements were transferred onto us and caused some of the overage in our sub-transmission right-of-way clearing.
- Q. Thank you. In the course of this, of some of our technical sessions on this docket, you explained that you developed certain criteria by which you evaluated, and I'll just say the "ten worst" circuits in terms of reliability. Would you just briefly explain how you, and this is in terms of the Storm Resiliency Program especially, which is a program I understand that you designed and oversee the implementation.
- A. (Witness Sankowich nodding in the affirmative).
- Q. So, would you please explain how you developed the criteria or some of the elements of the evaluation method that you developed that provided the identification of the targeted areas for the Storm Resiliency?
 - A. (Sankowich) Sure. I actually have a handout, if this

1 would be helpful to go over, in color.

CHAIRMAN IGNATIUS: Mr. Epler, make sure that Ms. Chamberlin has a copy.

(Atty. Epler distributing documents.)
CHAIRMAN IGNATIUS: Thank you.

BY THE WITNESS:

A. (Sankowich) I provided this information as part of a discovery request. And, this chart that we're looking at, on the second page here, includes all of the circuits that were chosen to undergo Storm Resiliency work in the UES system. These circuits are not 100 percent of the circuits that are available in the Seacoast area. These are only ones that met the criteria for the Storm Resiliency Program. So, the first phase of choosing the lines was, when I developed the plan, which we are proposing to extend for the next nine years, was to make sure that we were only including those circuits which were good candidates for this work. So, those subset of circuits you see here are just those circuits that met that first criteria.

From there, we then wanted to prioritize those circuits and do the circuits that had the most amount of benefit first. So, the first thing that we did was look at their ranking, based on a model that I

built looking at three types of data. The first being the number of customers served, the second being the numbers of customers interrupted per event, and the third being the number of events per mile. If they are the worst in each particular subcategory, they get a low score. I then add all three categories together to give them their total rank, and that is the number that you see in the column called "2014 Model Rank". And, those are just tree-related events only, looking at what's driving the reliability. And, it's for the past historic three years. So, the numbers with the lowest score have the biggest reliability issues related to trees for the past three years.

So, the circuits that are highlighted in red are the top ten circuits using that model ranking.

There's actually 11 circuits highlighted, because two of them have the same rank.

From that point, we then do a field check on all of those ten circuits. And, we look for the density of the trees and the number of hazards that are apparent through a field drive-through. And, we gave them a field check ranking at that point.

And, then, those circuits that continued forward as having the highest amount of field issues

are highlighted in blue. And that, combined with recent work history or some planning for 2014, helped us to narrow it down to have those circuits be on the short list for potential work. And, from that point, we took the recent work into account, the planned work for 2014, and looked at the mileage, so that we could make a determination of the circuits and still keep within our mileage goals, so that we can effectively manage the work and be able to deliver it cost-effectively and to a high quality based on our standards. So, that's how we derived the three circuits that were proposed for 2014 work.

BY MS. AMIDON:

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- Q. And, those are the circuits that are identified in red?
- 15 A. (Sankowich) That is correct, yes. So, the ones that
- have the reddish green highlighting on them, those
- three circuits are the ones that are proposed in our
- 18 filing.
- 19 Q. And, where are the locations of those circuits?
- 20 A. (Sankowich) They are in the Seacoast area, in Kingston
- and Exeter areas.
- 22 Q. Thank you. How has -- have you had any customer
- feedback on this program?
- 24 A. (Sankowich) Yes, we have. We've had a number of

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customers call into us, e-mail, tweet on our Twitter page, and also just speak with us when we're out there doing work. And, our response from customers has been an overwhelming amount of positive support. We are removing a large amount of trees, and we were very concerned with how customers would react, and whether this would be a positive program giving us benefits. But customers have overwhelmingly come to us saying that they see a difference from the work, and that, in minor rain events or, you know, some of the snow events we've had in the last couple of years, that they felt that their reliability has improved because of the work, and they were happy to see that we were responding to some of the concerns they had after the major events that we've had in 2011 and around that same period. And, are you able at this point to isolate any and

- Q. And, are you able at this point to isolate any and attribute any reliability improvements to the Storm Resiliency Program? I know it's early in the program. So, that's why I'm asking if you're able to at this point?
- A. (Sankowich) We have been able to look at a couple of minor storms that we had and do a benefit -- cost/benefit analysis on those minor events. We did

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have Hurricane Sandy that came through in 2013, and we were just beginning our Pilot Program in our Seacoast area there. And, we did have one circuit that was completed at that time and that performed well. We did not have a system lockout, meaning that some customers on that circuit that was completely done had no loss of power during Hurricane Sandy, and they were happy to see that. We had a couple minor events on that circuit in areas where we didn't do work, but we were able to restore those quickly. So, we believe that there was some savings as far as the amount of troubles that occurred and the resources that were needed to use So, we attempted to quantify that in our cost/benefit analysis. And, even though those are minor, we do feel that that's just a snapshot of one year of a larger program, in only one circuit of multiple circuits that are being done. So, as this program progresses, those will continue to build, and we'll be able to see more improvement, not just for events like Hurricane Sandy and the snowstorms that we've had, but for everyday, you know, wind events and even in blue sky. MS. AMIDON: Mr. Frantz has a couple

MS. AMIDON: Mr. Frantz has a couple questions for Ms. Sankowich.

MR. FRANTZ: Thanks. Thank you.

BY MR. FRANTZ:

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- Q. This is a multiyear program. And, one of the questions we have is, several years from now, how are you defining success, that you know that you're on target?

 And, if you're asked that question three years from now, what quantifiable data do you have that you'll look at and say "this is actually a successful program"?
- (Sankowich) Yes. We have been working with that as Α. well, because that's an important piece, to be able to show that we're making improvements. So, besides just looking at the overall reliability trends, we're looking at a way that we can use the actual reliability data and sort of look at some of the other studies that have been done. In our cost/benefit analysis, we reference a study from the Berkeley Labs that looks at the costs to customers for having interruptions over the course of a year. And, so, we were -- we were thinking about applying that projection that they use to our actual customer base that's being affected by these programs, and then monitoring the reliability from that point. So, we were trying to take some of these studies and then actually use our own data and

see what kind of benefit we've been getting from there.

- Q. But do you have SAIDI/SAIFI indices that you target on these circuits over time, to see if they actually meet some target levels or number of incidents or number of minutes?
- A. (Letourneau) When we designed this program, we weren't looking at improvements in reliability as being the main driver of the program. The main driver, although it is, you know, part of, you know, when you are removing as many hazard trees as we are and removing as many ground-to-sky clearing for, you know, 15 or 30 miles a year, that will have, you know, benefits to the system as the picture shows in Exhibit 4.

The real design of the program was more for the Page 1 of Exhibit 4, the life safety resource, lifeline resources, and community resources. That's why we designed the program. We were hearing, after every major event, from our municipals, that they are concerned with wires down in town, that their emergency shelters were relying on, you know, very old generators that may not last three or four or five days. People with generators at their homes were having to drive 50 miles to find an open gas station, those types of —so, we designed this program really to try to, in every

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community that we serve, have an area that, after we have a significant event, again, the SRP was designed for a significant event, a hurricane, a major ice storm, that you're going to have a lot of damage to all your circuits, there's no doubt about that. But, if we can keep our sub-transmission lines energized, and if we can keep from our substations to our first protection point on all our circuits that we have, we will have someplace in the community that will have electricity. You'll be able to go get a warm cup of coffee, you'll be able to get a hot meal, you'll be able to get fuel for your generator. The town will have roads that will be unblocked, because the trees in that area won't come down, so that the fire department, the police department won't be on the phone to us to try to get us to remove trees that are wrapped in wires, those types of things.

So, if we're successful in that, and you asked a question earlier about "three years from now", I am hoping, and I hate to hope for storms, that we have a major event, and we're able to prove out this theory that, because, when you look at trying to keep your electric system energized after these major events, the only thing that you can compare the SRP to

- is undergrounding our system. And, I think that we've had enough studies done on undergrounding, and we know how expensive, and it's just something that is not a feasible solution. This is the best solution we have versus undergrounding to keep our system energized.
- Q. Have any of the towns, and I'm certainly aware of one, Canterbury, that's had some concerns about the amount of vegetation removed, and how it would affect their town, especially as far as scenic value and on scenic roads. Have you had any trouble with towns that that one was a result, I believe, in Canterbury. But have you run into any opposition with some of those other towns that you're in?
- A. (Sankowich) Everywhere that we have done work so far, we have been able to work with the towns and come to a resolution. There were some concerns in Canterbury about some trees in the town common area, that are beautiful trees when they're in color in the fall.

 However, they are old and starting to mature and fall apart. So, we were looking to have them removed. But we were able to come to a compromise by doing some selective pruning and cabling through the town to avoid that. So, we do take into account the different considerations of towns and municipalities that we're

working in.

And, when we were looking at the circuits to include in this program, we also included the scenic roads in that first analysis. So, there are a couple of circuits that go through an area that have high amount of scenic value, and there would be some opposition. So, we elected in those areas to not apply this program there at this time. But there are some areas that we felt that they were critical to either the infrastructure or the municipality, and they might still be scenic roads, but we felt that we could explain the need for the work and really get our point across and get some support. So, we did reach out beforehand to the municipalities and explain what was going on and our thought process for including some of these roads, and got some support at that time.

So, we feel confident that, when we come to the towns and we sit at the planning board meetings and talk about the scenic roads, that those roads that we've identified we will be able to get support from, whether it's by a small compromise or by just education of what the benefits are. So, I think, as long as it continues in the atmosphere that we've had recently with storms, and it being on people's minds, and them

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really wanting this type of a program, that we shouldn't have too much opposition, even though we do run into areas that are high scenic areas and might have some concerns.

The other thing to note that we do highlight when we're out there talking to the customers and the towns, is that, while we are removing a large number of trees, we are not removing all of the trees in an area. So, even from the picture, you can see that there are still trees remaining on the roads. people that live there, it looks pretty drastic, that we removed a lot of trees. But those trees adjacent to the lines will still continue to grow and bloom, and those trees will leaf out, and that change will be less drastic over time. So, while it might be an immediate change, when you see the crews going through, but the people will still be able to have beautiful roads that they can drive on. We're not removing all of the trees. And, we're trying to do as least amount of damage as we do as we come through. We use cranes and specialized equipment, to really make sure that the underbrush that's not going to grow up into the lines is not damaged where possible. And, so, that way, we can preserve some of that beauty, and maybe even

- highlight some of the rock walls or things that maybe haven't been seen in a while. And, so, we really bring that out to the customers when he talk to them, and really get them to be able to buy in and enjoy the benefits that the program affords.
- Q. As you mentioned, at the bottom of Page 6 of the Report, you ended up taking a lot more hazard trees out than you anticipated. Do you think that will occur as you go on with this program, that there will be more hazard tree removal than anticipated? Or, do you think you'll actually see sort of what you anticipate in the budgets? It's difficult, I know, until you actually get out in the field and see the trees and --
- A. (Sankowich) Yes. I think that we will probably stay on track more around what we are anticipating for this year. You know, we revised the number of hazard trees we think we're going to do based on what it cost us last year. So, we're getting a more accurate number each year as we go. Depending on where you're doing the work, it might be more costly, depending on what the contractors have available for crews, and other areas they're working, other projects, it changes the price. So, we're doing everything we can to keep it the most economical as possible and get more hazard

trees done. So, I'm hopeful that we'll continue to be able to do more hazard trees.

But I do think that, depending on the area we work in, we might not be as fortunate as we were this past year. Judging by the work that's going on so far this year, we have had some larger, a little bit more expensive removals. But I don't think it's going to be a deterrent to finishing our work this year, but I don't think we'll be above the amount of hazard trees like we were last year.

MR. FRANTZ: Thank you.

12 BY MS. AMIDON:

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- Q. This is the last step increase that came out of the Company's most recent distribution case, is that correct?
- 16 A. (Chong) Yes, it is.
- Q. And, insofar as the allocation of the costs with
 respect to the Storm Resiliency Program, that could
 change subject to a cost of service study in the
 Company's next distribution rate case, is that true?
- A. (Chong) Yes. That the allocation would be subject to a cost of service study in the next rate case.
- Q. Okay. Thank you. And, finally, I just want to make sure we're clear. The Company is asking that the Pilot

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Storm Resiliency Program be made permanent in this filing, if that right?
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- A. (Sankowich) That is correct.
- 4 MS. AMIDON: Okay. Thank you. That's
- 5 all I have. Thank you.
- 6 CHAIRMAN IGNATIUS: Thank you.
- 7 Commissioner Scott?
- 8 CMSR. SCOTT: Thank you. Good
- 9 afternoon.

- 10 BY CMSR. SCOTT:
- 11 So, let's pick up where Attorney Amazon -- I'm sorry, Ο. 12 Amidon just left off. I've been on the Internet too 13 long, I think. So, what does making the Storm 14 Resiliency Program permanent compared to the current 15 pilot, what does that -- what is the impact of that? 16 And, again, whoever would like to answer, just not all 17 at once, unless you use the same words, as we said 18 earlier.
- 19 A. (Sankowich) Is this from a rate perspective or from a 20 program perspective?
- Q. From a program perspective. What's the tangible difference between if it stays a pilot or if it becomes permanent?
- 24 A. (Sankowich) The only difference is that it affords us

more flexibility in being able to put the work out to bid and get it done. We'll have more time to plan, and we'll be able to offer successive programs to our vendors, hopefully increasing the efficiency and reducing the costs of it, if possible, or at least limiting any future increases.

However, the scope of work will remain the same. So, there will be no changes to the scope, the amount of work, and what was actually done in the pilot. The only thing it allows us is the benefit of knowing that it will continue, and we can offer that to our vendors, so that they can have the right equipment, we have more time to work plan and offer more time for them to look at the work in the field and provide an accurate price.

Q. Okay. That's helpful. So, one of my concerns is what I expected generically, and, Mr. Letourneau, your characterization was actually very helpful to put in perspective for me what the program is trying to accomplish. What I envision, going from a pilot to permanent, what I expect generally, notionally, is a pilot gives us some real-world data, we take that data, and then we say "we're good to go" and we make it permanent. And, my reluctance to this program, as you

mentioned, you had the October winter -- October wind storm, a little bit of Sandy, but you have a small amount of real data. And, then, you're using the lab -- more labs, you're using some good information out there, but that seemed to be information to me that would justify continuing the pilot. So, I'm just trying to draw the connection as why -- why do we have enough data at this point to make this permanent? I guess, ask you what I mean, that's what I meant.

A. (Sankowich) I feel just from experiencing the amount of work that we've been doing, and the results that we got in those minor storms, that it did make a large impact. However, quantifying that impact and the impact to the customers is what we struggle with. Just from seeing the amount of trees that were removed and the reduction in exposure, it's a big, big impact on what has been done. And, then, looking at how those circuits have fared in our everyday events, and even those minor events, there really hasn't been any issues there. So, I know that it's only a couple of, you know, of these major events, but the overall perspective of working and doing this type of vegetation management work for the past 13 years or so, and experiencing what types of normal troubles happen and things that go along with

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it, this is the first time that I've ever seen or had a chance to implement something of this magnitude where you're really removing this amount of trees and exposure. And, I really feel that the benefits are there. We just haven't had the opportunity to be able to show them yet, because it's a very hard thing to get your hands around. I am preventing something from happening. So, we're taking these trees down. I can't prove to you that one or two or five of those trees were going to cause a massive amount of damage. But, just from being out and working in storms, I know that large trees fail, they take down wires onto the ground, they cause emergency hazards, they block roads, they take equipment down onto the ground. And, while there are costs associated with repairing all of that and having crews do that, you know, there's a bigger impact is to the customers that are served.

And, we haven't been hit with a direct impact like Sandy. But I know that, from areas where they did get hit with that, and there were whole centers of towns and big blocks of areas that had no power, people were not able to get gas, there was multiple days they're out, just panic starts to set in for people. And, that's what we're really looking to

avoid. We want to have a center of town where people can go to the shelters and gas stations, maybe get some food. And, maybe their house will be without power for a couple days or however long it takes us to restore in a major event, but the panic won't set in, because they do have an area where they can go and get some resources.

And, so, it's hard to prove that that, you know, will happen. But, just from experiences of doing this work, and how much vegetation was cleared in the past and how much we were able to do now, I really feel that there's a lot of benefit that it brings, and that the cost really outweighs what it would, you know, the benefits that come back. So, really, the benefits are just so much greater to the customers, even if you can't show it in actual dollars, you know, saved in a minor event. I think, over time, it will really show on our system.

Q. I appreciate that. And, the other thing, what I would hope a pilot would do for us and you is to kind of flesh out one of the other, not only -- one of the questions, obviously, "are there benefits and is it worth it?" But there's also a question of "how much and how little?" So, you know, do we have the right

1 amount we're spending? Are we spending too little on 2 this or too much on this? And, those type of metrics. 3 So, how do we know that right now, to go -- to say that 4 we should now go make this a permanent program? 5 Α. (Sankowich) Yes. That was something that we looked 6 into when we went from the first year of the pilot to 7 the second year. Obviously, the more lines we do immediately, the greater the benefit we have right 8 9 away. And, if we could do all of the lines tomorrow, 10 then, if we had a storm the following day, we would get 11 the biggest amount of impact. However, it's not practical for us to be able to do all of those lines at 12 13 once. It's a large amount of work. Our vendors are 14 not equipped for it. We want to make sure that we can 15 handle the volume of work that comes in and be able to 16 monitor it appropriately, and get the quality that is 17 required. So, that's how we determined the amount of 18 mileage for last year's 2013 pilot, was the test of the 19 actual volume of work, the spending and the level that 20 we would like to continue forward. And, we found that 21 we were able to manage that amount. We had two vendors in the second year, instead of just one. We were still 22 23 able to handle those two vendors, even though it's a 24 little bit trickier. But we felt that that was a very

good level, where we could still get results by doing more than what's happened in the first year, but still be able to get those good results. And, you know, we were concerned with adding any more than that, we might not be able to manage it as effectively in a year time frame, and that the quality and things might suffer. So, that's why we left it at that mileage there.

- Q. Okay. Thank you. And, earlier, and I think it was more just more explicitly in the Vegetation

 Management Program specifically, but you showed us the charts and went through those. And, I think you mentioned, you know, you'd use these to monitor trends, and then perhaps to modify the programs. Can you elaborate, how would you do that? What things would you change to the program based on the trends?
- A. (Sankowich) We could look at overall cycle length,
 based on areas that were worked. So, if we noticed
 that there's a trend in a particular location, we can
 inspect, "well, why are we having more reliability
 problems after, say, three or four years?" By the time
 things start to regrow, we might want to take a look at
 growth rates in those areas. So, if we found maybe the
 Seacoast area, closest to the coast, was having more
 growth, we could then look at modifying the cycle time

1 period there.

We could also see if there's a particular combination of work that works better, whether it's just pruning by itself or pruning and hazard trees, or maybe hazard trees on a separate cycle. And, we could try to schedule the activities in the same year or not, to get the biggest amount of return. We have found so far that doing the work together seems to give us a fairly big return. The reliability in those areas seems to be better than just straight pruning.

Also, reliability issues, as the years progress on, we can look at all of year one together, all of year two together. So, right now, it's grouped by work for that year. So, you're looking at 2012 onward by year. But you could stack them so that all of the year ones are together. So, we prune Circuit A in 2011, Circuit B in 2012. But that, if you align all the first year after pruning, you can see a trend as to what the growth rates — as to what growth may have impacting and the time period between exposure may have on reliability. And, that could lead us to make some investigation onto species. Maybe there's a particular species that's causing us problems, or other changes to

our specifications on what we're requiring the vendors to do when they're out there, maybe add in branch reduction or overhang reduction or things like that, that could help us to extend our reliability through the whole five-year window. So, really, it's just an indicator of where we might be having problems, whether it's with our cycle length, with what we're actually doing, as far as work goes, or with timing.

- Q. Thank you. And, obviously, vegetation grows, it's not a bad thing, it's just what happens. Is this a never-ending process? I mean, are we -- is this just part of doing business and ensuring reliability?
- A. (Sankowich) Our normal Vegetation Management Programs is somewhat never-ending. Trees always grow back. So, you're going to be back out there pruning. However, things change every day. We have storms and pests and weather events and changes that, you know, man-made and natural, that change the forest environment. So, it's always going to be evolving. But there will be some level of work that needs to be done from now and on. If we have wires and trees coexisting in the same space, we're going to always have to do some maintenance.

anticipate that there will still need to be some work continuing on in the future from that. But the level of that we are not sure what that level will be. We're taking on a large number of big, mature trees. So, that number shouldn't be the same the year we come back, because there are not going to large mature trees overnight. But we do anticipate that the forest will continue to mature, and there may be other hazardous trees. So, there might be some level of maintenance required for that, but we don't expect it to be at the same level as the first pass-through. But we have to evaluate and see how the circuits are performing and determine what the appropriate level will be.

- Q. Okay. Thank you. And, finally, for me, on your

 Vegetation Management Program Annual Report, on Page

 42, there was a line item that says, granted, it's a

 small amount, it says "Improper installation". And, I

 was just curious what that was? It's on Table 19.
- A. (Letourneau) I can answer that. You want to do it?
- 20 A. (Bonazoli) Okay. That's in the regular reliability.
- 21 Q. Okay. Thank you.

- 22 A. (Bonazoli) So, Table 19 --
- A. (Letourneau) So, that table is showing all the type of outages that we track on our system by basically what

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1
          we call a "cause code". So, each of those is, when a
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          line worker responds to a trouble call, they have to
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          mark on a trouble report what is the cause of the
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          outage, and these choices in Table 19 are what cause
 5
          outages for us. So, an "improper installation" could
          have been a connector, for example, that's on the wrong
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 7
          size wire. And, over time, it fails. So, the lineman
          gets there, and he looks at the connector and says "Oh,
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          this is for a number" -- you know, "a one aught wire,
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          but it's a four aught wire, put the wrong connector."
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          So, that would be an example of "improper
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          installation".
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          I kind of assumed all that. I was more pointing out --
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          and I assume there's training programs, and that's not
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          a normal thing?
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     Α.
          (Letourneau) No. That's, as the Director of Electric
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          Operations, that's one I don't like to see.
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                         CMSR. SCOTT: And, as a Public Utilities
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       Commissioner, that's one I don't like to see. Thank you.
20
       I'm all set.
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                         CHAIRMAN IGNATIUS: Commissioner
       Honigberg, any questions?
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                         CMSR. HONIGBERG: I have a few.
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BY CMSR. HONIGBERG:

Q. What exactly does an arborist do?

- A. (Sankowich) There are many types of arborists. And, in general, just an arborist is somebody that takes care of trees and does tree care. I would be a utility arborist, and I would do tree maintenance and care for a utility.
- Q. What's your education and experience to become an arborist?
 - A. (Sankowich) I have a Bachelor of Science degree in

 Forest Resource Management. So, I went to a specific
 school for forestry, learning about the forest and how
 to manage trees in an urban and a forested setting.
 - Q. You talked a little bit about how you work with towns when there are concerns, and you try to anticipate them, avoid them. Do you have other mitigation things you can offer up? To plant trees elsewhere, if you're taking trees down? I don't think you mentioned that.
 - A. (Sankowich) Yes. I did not mention that. But we do do replanting programs as well. We really want to work with the communities and, in instances where we have to remove some large trees, especially if they're only in moderate health, but they're going to require pruning, that could be a detriment to their health, we offer replacement trees. We tend to give out smaller growing

underneath the wires and provide sort of a green area in that same spot. We occasionally will provide larger trees, but require them to plant them farther away from the wires. Depending on what they're looking for and how much space is available, whether the tree was on private property or whether it was a municipal tree, we weigh all those factors in. But we do offer replanting, because we realize that we are removing canopy in the town and it affects their towns.

- Q. Did the program that you developed come from someplace else? Are there others doing things like this that you cribbed off of?
- A. (Sankowich) Yes and no. This program is unique. I don't know of any other utility doing it to the extent that we have. But there are lots of reliability programs that involve tree removal and maintenance that utilities do. I polled some of the other system arborists in nearby utilities that do similar work, to try to figure out what improvement they were getting, what costs they had for their work. However, most of the other utilities have vegetation management as one component of their programs. So, they may do other hardening type activities as well. We really wanted to

benefited from pruning, but, really, on the overall experience of large storms and how they cause issues for our customers and the concerns our customers have raised. And, we are looking at the customer experience related to the vegetation management work. So, we weren't just looking at pure reliability in everyday instances, and we are looking for that storm impact. And, so, that sets it apart a little bit.

The amount of trees that we're removing is also setting it apart. Typical hazard tree programs may remove three to five hazard trees a mile. Enhanced hazard programs that some of the other utilities do may remove 11 to even 20 trees a mile. We're removing 70 to 100 trees a mile. So, we're way advanced as far as the amount of hazard trees we're removing. So, it really is steps above what some other utilities have done.

CMSR. HONIGBERG: That's helpful. Thank you very much.

CHAIRMAN IGNATIUS: Just a couple more questions.

BY CHAIRMAN IGNATIUS:

Q. I ask you to take a look at the Report on Page 24.

- Chart 9 shows for "Storm Pilot Circuits Only in 2013".

 So, I assume that means work that was done in 2013

 under the Storm Pilot Program.
 - A. (Witness Sankowich nodding in the affirmative).

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- Q. And, there's a significant increase in the number of incidents and outages in the 2013 bar to the far right.

 Can you explain again why we'd be seeing such a large increase there?
- (Sankowich) Sure. Yes. This chart is showing that we Α. picked the right circuit to work on. That dotted line there is showing the year that work was done. So, last year, when we got approval to do our pilot, we began work planning. Immediately we hired some people to go out and mark all the trees and talk to all the customers, talk to the municipalities. After that was all finished, we had the vendors come in and bid, and we awarded work. So, the actual tree removal did not begin until the end of September. So, we're looking at September, October, November, and December, where the vendors began removing those trees. So, that's why that line is in dotted line, because it includes events that occurred before work happened, and potential events that happened after work happened. So, that year is sort of a mix of showing what happened. So, in

this case, work was not even started until the end of the year. So, you're mostly showing events that happened before work occurred on that line.

So, you can see from 2010, 2011, 2012, it looks like there were more events occurring, more customers being interrupted. So, we did not want that trend to grow. So, hopefully, doing this work will allow it to go the other way. So, I look at this and I say "that was a good circuit to choose." It was obviously having some issues. And, when we went out there and looked at all those circuits, we definitely found a lot of work. We removed, you know, 2,271 trees along all of those lines in the last quarter of 2013.

- Q. Thank you. That's helpful. And, in the paragraph below that, in the second line it says "there was a slight reduction in incidents, but an increase in customers interrupted during this year." I guess that's 2013. Any explanation for why that might occur?
- A. (Sankowich) Yes. That's why we look at not only the number of events that happen, but the customers interrupted, because it can help us to pinpoint where the problems are happening. So, we could have an increase in events, and have less customers affected, if the events were happening farther away from our

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substation. So, if you have one event outside your substation, it will affect all of the customers that are served off of that line. So, you could have one event that affects the 2,000 customers served on that So, we are targeting our program to be outside the substation to our first protection device or our second, where the most customers are affected. So, we would hope that the number of customers that are interrupted per event would decrease as the program progresses. So, while we may not see a huge improvement in the number of events, because there could still be small events occurring on taps in front of people's houses and things like that, we didn't do any work under the Storm Resiliency Pilot there, so there may still be limbs and trees that fall there, and we can't avoid all of those. However, we may only have two or three or four customers out related to that one event, as opposed to thousands of customers out because of one event. So, we want to look at all of those indices to try to figure out where the problems are happening and target exactly what the problem is. If we see that there were a lot of

customers interrupted, but not a lot of events, then we might think that there needs to be some pruning work or

we might target the work that needs to done a little bit differently. So, using these indices helps me to figure out what work needs to be done, and then we always follow it up with a field inspection, where we can see firsthand exactly what's going on. But it gives us a good place to start.

- Q. Thank you. At the bottom of that page, it says, in the second half of that sentence, it says "barring any unforeseen items such as weather", and goes on, that you'd "expect to see a continuing trend in reliability improvement." I found that an odd sentence. So, I thought the whole point of this was that, because of weather, you're looking for improvements, not in spite of it or "as long as there's no weather issues, we'll be doing okay." So, why don't you explain what --
- A. (Sankowich) Sure.

- 17 Q. -- what you're getting at in that sentence?
 - A. (Sankowich) I think the issue here was that this was broken out into these little subcategories, and this final paragraph was supposed to be conclusions for the whole -- all of the charts, not just the conclusion for the Storm Resiliency Pilot charts. So, the first part of the sentence says "we will continue to monitor those circuits that have undergone pruning, hazard tree and

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Storm Resiliency work." The "weather" is more affected -- is more directed towards the pruning and some of the hazard tree -- typical hazard tree work. It's not really directed towards the Storm Resiliency work. However, there are weather events where our Storm Resiliency work may not have a big effect. If we get a direct hit from a large scale hurricane or big catastrophic event, say we got a tornado, something like that, healthy trees from other streets may come over and knock down lines. So, we can't prevent everything. We are really trying to make a difference in that minor storm category, to just beginning with the major storm events, not really the catastrophic. So, there is -- there is some variability to weather. But that sentence -- that line was really directed more towards the pruning and the hazard tree, which is much more variable from everyday weather events. That makes sense. Thank you. The Pilot Program was started as a five-year pilot, is that correct?

- Q.
- (Sankowich) We didn't decide on a five-year at that time. We had -- we had thought about potentially trying to make it five years, but we didn't design the Pilot at that time for five years.
- All right. So, when you were talking about going to a Q.

permanent program, you would have a greater ability to plan and to work with vendors and be more cost-effective, right now are you doing it year to year?

- A. (Sankowich) Yes. Right now, we were waiting for approval to do the work, and then implementing it at that point. So, we have not started any of the 2014 work. So, we're really limiting the amount of time that we have to work plan and our vendors to get out there and do the work. It's a hard time for the vendors to be able to get a workforce up and mobilized. At the end of the year we get a lot of feedback from them that it would be easier for them to get the workforce to do the work if they could start a little bit earlier. So, yes. Right now, we don't begin the work until we had gotten approval for the pilot portion of it.
- Q. Would it be helpful to the Company to have a continuing pilot program, but that gave you a broader period of time to plan for, say, three years out or whatever it might be, rather than year-to-year, as you continue to develop data to decide whether it really should become a permanent program or not?
- A. (Sankowich) Yes. The longer that we know that we will

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          have funding and the ability to continue with the
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          program, the more I can customize it to be attractive
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          to the vendors, that's helping to work plan and to
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          actually do the work. So, the more that we know what's
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          coming in the future, the better we can package it.
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          Thank you. On the change to the allocation of the rate
     Q.
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          impacts charts, we had Exhibits 2A and 2B, and then I
          guess Exhibit 3 shows the bill impacts. I don't know,
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          Mr. Chong, did you develop those?
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          (Chong) I did not. That was Mr. Debski.
     Α.
     Q.
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          Okay. We can see the percentage difference on the
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          first page of that Exhibit 3. And, by flipping back to
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          the old one, see that they have all come down a bit on
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          the percentage difference for residential customers.
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          Does it show the actual dollar figure differences?
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          What the dollar rate impact will be for customers?
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                         MR. EPLER: Perhaps Mr. Debski could
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       answer that. He would need to be sworn first before doing
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       that.
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                         CHAIRMAN IGNATIUS:
                                             That would be fine.
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                         MR. DEBSKI: I have two schedules before
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       me --
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                         (Court reporter interruption.)
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                         (Whereupon Douglas Debski was duly sworn
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1 by the Court Reporter.) DOUGLAS DEBSKI, SWORN 2 3 WITNESS DEBSKI: My name is Douglas 4 Debski. I'm a Senior Regulatory Analyst for Unitil 5 Service Corp. I have two sets of bill impacts before me. 6 One is -- just reflects the \$11 difference in the revenue 7 requirements, versus the original filing. And, then, the second one is under the OCA and Staff's recommendation to 8 9 remove this SRP Program and allocate it proportionally to 10 each customer class. 11 If I just compare a 600 kilowatt-hour residential bill, it decreases from \$105.42 to \$105.28. 12 13 So, there's a 14 cent difference. 14 CMSR. SCOTT: And, to clarify, you're 15 not looking at of the exhibits, you're looking at your 16 computer, is that right? 17 WITNESS DEBSKI: The one that represents 18 \$105.28 is Exhibit 3. 19

CHAIRMAN IGNATIUS: And, I finally found what I was thinking of to compare it to, in the "Explanation of Filing" pages in the packet that was filed on March 4th, on Page 3, there's a summary of all the different provisions. And, there's a section called "Bill Impacts". And, it has for the "typical 600 kWh

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- residential customer would see a monthly bill increase of \$1.13 or 1.1 percent". And, so, I was looking for what would be the comparison to that?
 - WITNESS DEBSKI: The comparison to that would be 99 cents, or 0.9 percent.

CHAIRMAN IGNATIUS: Thank you.

CMSR. HONIGBERG: And, you're pulling those numbers off of the first page of Exhibit 3, and comparing it to what was Page 1 of Schedule 4 in the original filing, is that right?

WITNESS DEBSKI: Correct.

CHAIRMAN IGNATIUS: Thank you. I have no other questions. Anything further? Commissioner Honigberg.

CMSR. HONIGBERG: I do have one question again about the program, for Ms. Sankowich.

BY CMSR. HONIGBERG:

Q. As you have studied and followed or are continuing to follow the ones — the circuits that you worked on, do you have a control group of any sort that you're also looking at, similar characteristics, ones that you aren't able to get for other reasons, to see if you can compare that control group at some point down the line with the group that you're able to work on?

- A. (Sankowich) For the Storm Resiliency Program?
- 2 Q. Yes.

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Α. (Sankowich) We didn't necessarily indicate a control group, but we did compare it, after the storm event, to adjacent areas that did not undergo work. So, because storms are variable, they hit in different areas, we didn't want to just designate one control area that might not be affected the same. So, we kind of did it, as the storm hit us, then we looked and say "okay, well, this particular area was hit, and this adjacent circuit may be just slightly north, to the west, was hit with similar amount of damage, we'll use that as a comparison." Because if we could have picked one that was maybe to the south and the east or something, and, you know, it didn't get quite the same amount of damage. So, we definitely did the comparison, but we didn't particularly label anything as a control group.

CMSR. HONIGBERG: Thank you.

CHAIRMAN IGNATIUS: All right. I'm going to resist the temptation to ask about squirrel damage. I've learned from past hearings that you guys love to talk about squirrels. All right. We have no other questions. Any redirect, Mr. Epler?

MR. EPLER: No. No thank you.

1	CHAIRMAN IGNATIUS: Thank you. I do
2	have a question for you. Whether the data request that
3	was distributed you wanted marked as an exhibit? So, it's
4	the March 18, 2014 I'm sorry, March 28, 2014 data
5	response.
6	MR. EPLER: It's probably helpful to
7	include it, rather than not. So, I would have no
8	objection to marking that as "Exhibit Number 5". That
9	would be the response to Staff 1-14.
10	CHAIRMAN IGNATIUS: Any objection from
11	OCA or Staff?
12	MS. CHAMBERLIN: No.
13	CHAIRMAN IGNATIUS: All right. We'll
14	mark that then as "Exhibit 5".
15	(The document, as described, was
16	herewith marked as Exhibit 5 for
17	identification.)
18	CHAIRMAN IGNATIUS: All right. The
19	witnesses are excused. Thank you very much for your
20	testimony. This was helpful.
21	Is there any objection to striking the
22	identification on the five exhibits and making them full
23	exhibits?
24	CHAIRMAN IGNATIUS: Seeing none, we will

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do that. Is there anything else to take up before closing statements?

(No verbal response)

CHAIRMAN IGNATIUS: Seeing nothing, then, Ms. Chamberlin, we'll begin with you.

MS. CHAMBERLIN: Thank you. Part of the Settlement Agreement in 10-055 included a stay-out agreement. And, the OCA felt strongly that, because the utility was coming in with this program before the stay-out provision was over, that it affected the whole terms of the Settlement Agreement. At the same time, Staff and the Company were in strong support of the Program, and was recognizing that it was in response to concerns about reliability and extreme weather events. And, because the Pilot had been approved, it was already up and running. And to, you know, to stop it and wait didn't seem to be reasonable. And, so, the agreement that we reached was the one that Mr. Epler presented. that is that the allocation that was part of the Settlement Agreement was not continued for this Storm Resiliency Program. And, when it comes again to -- when the stay-out period is over, and they come in for a rate case, we can look at this again, and determine if that allocation is correct. At that time, also we'll have some

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       more data to determine whether or not this is an effective
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                 The early indication is that it is. So, that is
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       how the OCA came to support the proposal as it was
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       presented here today.
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                         CHAIRMAN IGNATIUS:
                                             Thank you.
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       Ms. Amidon.
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                         MS. AMIDON: Yes.
                                            Thank you. I
       appreciate the chance to state Staff's position on this
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       filing. Staff has reviewed the filing, both the REP/VMP
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       reconciliation portion, the results of the Program, and
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       the Storm Resiliency Pilot Program, and the resulting
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       tariffs. Having reviewed the filing, we support Unitil's
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       filing. And, we do believe that there is merit in making
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       the Pilot Storm Resiliency Program permanent, because we
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       have thoroughly reviewed the Program with the Company, and
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       they clearly have designed the Program to address the
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       concerns of customers to continue to receive, as was
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       discussed, essential services during periods of
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       potentially extended outages.
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                         So, therefore, we support the
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       permanent -- the proposal to make the Program on a
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       permanent basis. And, thank you for your attention today.
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                         CHAIRMAN IGNATIUS:
                                             Thank you.
24
       Epler.
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MR. EPLER: Yes. Thank you. First, to address the Chairman's question and perhaps suggestion with regard to the Storm Resiliency Program, whether or not there was some in between level between making the program permanent or there was some approval for a lesser number of years. Certainly, while the Company is advocating that it be approved on a permanent basis, we also recognize that there's really nothing in rate-setting that's permanent. And, so, we would anticipate that in the next — in the Company's next rate proceeding, that we would have to justify this program, as we would any other program.

So, clearly, again, as indicated in our initial filing, we'd prefer that it — that we get the approval on a "permanent" basis. We anticipate being coming before you the next time and justifying it, showing, just as we've shown in this report, the experience. If we happen to have storms between now and then, we'd have more data to be able to show a comparison of circuits.

In terms of the overall filing, I just want to acknowledge that this is the last step increase under the Settlement Agreement in Docket 10-055. And, from the Company's perspective, this has been a very good,

very workable Settlement Agreement. And, we appreciate the opportunity to work with the Staff and the OCA to put a program in place and a rate program that allowed us to make continual investments over time and to ramp up the Vegetation Program.

We acknowledge that we're spending a lot of money on these programs, and there were some significant rate increases associated with this. And, so, the intent was to try to moderate those, the impacts of those by having these increases occur over time.

Nonetheless, we do feel very, very strongly that there is significant benefits that we've achieved under this Settlement Agreement and being able to increase both the REP and the VMP programs, and the increases have allowed us to do that. And, we do anticipate that you will see hard data that shows increasing reliability, you know, adjusted for weather events. And, so, we appreciate that. We acknowledge the support that we received from the OCA in this go-around.

One of the things that we didn't discuss here, we had the opportunity to conduct a field visit with the OCA. And, we think that that was very helpful in going out and gaining an appreciation of what's involved in these programs. And, the Company is certainly willing,

at some future point, whether it's this summer or fall, to 1 2 offer a field visit to the Commission and any other Staff members, so that you could actually see what we're doing, 3 what's occurring in the field. Because, while the photos 4 5 are helpful, actually seeing and being able to question us 6 and seeing what's going on in the field, it is sometimes 7 more helpful than anything we can describe in the hearing 8 room. CHAIRMAN IGNATIUS: 9 Thank you. 10 MR. EPLER: Thank you. Ιf 11 CHAIRMAN IGNATIUS: All right. 12 there's nothing further, we will take this under 13 advisement, and appreciate everybody's help today in 14 understanding it. Thank you. 15 (Whereupon the hearing was adjourned at 16 3:21 p.m.) 17 18 19 20 21 22 23 24