## STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

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Concord, New Hampshire

RE: DG 18-064
LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP., D/B/A LIBERIY UTILITIES: 2018 CAST IRON/BARE STEEL REPLACEMENT PROGRAM RESUITS
(Hearing on the Merits)

PRESENT: Chairman Martin P. Honigberg, Presiding Commissioner Kathryn M. Bailey Commissioner Michael S. Giaimo

Sandy Deno, Clerk

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Court Reporter: Susan J. Robidas, NH LCR No. 44

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PROCEEDINGS
CHAIRMAN HONIGBERG: Good
afternoon. We're here in Docket DG 18-064, which is Liberty Utilities (EnergyNorth Natural Gas) Corp.'s Cast Iron/Bare Steel Replacement Program Results. We have a hearing on the merits. We have people already prepositioned. Before we do anything else, let's take appearances.

MR. SHEEHAN: Good afternoon, Commissioners. Mike Sheehan for Liberty Utilities (EnergyNorth Natural Gas).

MR. BUCKLEY: Good afternoon, Mr. Chairman and Commissioners. My name is Brian D. Buckley. I'm a staff attorney with the Office of Consumer Advocate. I'm here representing the interests of residential ratepayers.

MS. FABRIZIO: Good afternoon, Commissioners. Lynn Fabrizio on behalf of Commission Staff. With me today are co-counsel, Alexander Speidel; Randall Knepper, Director of Safety and Security in the Safety Division; and Anthony Leone of the
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Gas and Water Division, utility analyst. Thank you.

CHAIRMAN HONIGBERG: I see witnesses are in place. What do we need to do in the way of preliminaries, Mr. Sheehan?

MR. SHEEHAN: The Company proposes to mark two exhibits. The first is the initial filing, Docket Book Tab 1, which consists of the Furey/Frost testimony, Bates 1 through 44, and the Simek/McNamara testimony, Bates 45 through 67; and Exhibit 2, which was a revised filing. Mr. Simek will explain what was revised. And that is just the Simek/McNamara testimony which we have marked as 45 R through 67R. So it can be a complete replacement for that portion of Exhibit 1. And there's nothing in this filing that is confidential.

CHAIRMAN HONIGBERG: Okay. Any
other preliminaries before we have the witnesses sworn in?
[No verbal response]
CHAIRMAN HONIGBERG: All right.
Would you do the honors, please.
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Q. Do you have any changes in your testimony?
A. (Furey) No.
Q. And do you adopt your testimony as your sworn testimony here today?
A. (Furey) I do.
Q. Mr. Frost, same questions. Your position with the company is what?
A. (Frost) I'm an engineer.
Q. And did you prepare testimony in this matter as well?
A. (Frost) Yes.
Q. And you prepared that with Mr. Furey?
A. (Frost) Correct.
Q. And can you give us a real high level -- the purpose of your testimony was to describe what?
A. (Frost) It was to describe the results of last year's program costs, mileages and drivers in the program.
Q. And do you have any changes to that testimony?
A. (Frost) No.
Q. And do you adopt your written testimony as your live testimony here today?
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A. (Frost) Yes, I do.
Q. Ms. McNamara, your position with the company, please?
A. (McNamara) I'm a rates analyst in Rates and Regulatory Affairs.
Q. And we marked as Exhibit 1 testimony by you and Mr. Simek, and as Exhibit 2, revised testimony of you and Mr. Simek. Did you assist Mr. Simek and did he assist you in preparing that testimony?
A. (McNamara) Yes.
Q. And do you have any changes to bring to the Commission's attention this afternoon?
A. (McNamara) No.
Q. And if I were to ask you these questions today that are in writing, would your answers be the same?
A. (McNamara) Yes.
Q. So today you adopt that testimony as your sworn testimony?
A. (McNamara) Yes.
Q. Last, Mr. Simek, your name and position with the company, please?
A. (Simek) David Simek, manager of Rates and \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}

Regulatory Affairs.
Q. And did you participate in the preparation of what's been marked as Exhibits 1 and 2, your and Ms. McNamara's joint testimony?
A. (Simek) Yes.
Q. And do you have any changes to what has been filed?
A. (Simek) I do not.
Q. Could you explain for us the reasons for the revised testimony of you and Ms. McNamara, which is Exhibit 2?
A. (Simek) Yes. There were two changes. One related to the ROE that was used in the revenue requirement calculation. The Company had used 9.4 percent, which was included in the settlement agreement from the distribution rate case. And then in the meantime, an order had come out in that case that the ROE had changed to 9.3 percent.
Q. So your filing updated to reflect that ROE.
A. (Simek) Correct. And the other change in the revised filing had to do with Mr. Knepper requesting in some of his illustrative pages to include the degradation fees that weren't
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Company filed a request to formally -- filed a formal request to recover the so-called "Carryover costs" that were not included as part of the original filing; is that correct?
A. (Simek) Yes.
Q. Those carryover costs are the issue that the Company and Staff have spoken about, and the OCA, over the last few hearings; is that correct?
A. (Simek) Yes.
Q. And did you do a calculation of what impact that would have on this filing should the Commission order the recovery of the carryover costs here?
A. (Simek) Yes.
Q. And what would that be?
A. (Simek) The revenue requirements would increase by $\$ 63,763$, which would then have a residential customer bill impact of $\$ 3.53$ annually. So it's 27 cents higher than our original revised filing.
Q. Thank you.

MR. SHEEHAN: That's all I have.
Oh, and for the Commission's benefit, I have
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in front of me copies of the spreadsheet. I can hand them up your way if people start asking questions about them.

CHAIRMAN HONIGBERG: Thank you, Mr. Sheehan.

Mr. Buckley.
MR. BUCKLEY: Thank you, Mr. Chairman. Fortunately, Attorney Sheehan already went over my question about residential billing impacts, so we'll skip over that one.

## CROSS-EXAMINATION

BY MR. BUCKLEY:
Q. So, moving to Mr. Furey and Mr. Frost, whoever feels is most able to answer, if I could ask you to turn to Bates Page 10 in Exhibit 1, which is your testimony. Now, I'm looking at Lines 5 through 9, which is a discussion of unit costs. And I think I understand this, but if you could possibly just break it down for me a little further.

Am I correct in understanding that the Company underestimated direct costs by 21 percent, but the overall variance of the
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total costs was only 4 percent?
A. (Frost) That is correct.
Q. And could you just explain to me a little further what's included in direct versus indirect costs and why those two values are so different?
A. (Frost) Direct costs include the direct contractor and material charges to a job; that would be the contractor's bills and exactly how much we were to pay for a piece of pipe. Indirect costs or loaded costs refer to the direct costs plus the Company's overhead costs. The overhead costs, as explained in the testimony, they include benefits and preliminary design. There is a little bit of an imprecision in calculating loaded costs because it would reflect the total operating costs of the Company at a given time.
Q. And where do degradation fees fall within the category of direct versus indirect?
A. (Frost) Degradation fee is a direct cost.
Q. So is it possible that a significant portion of that 21 percent underestimate could be \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}

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households that are not current customers of the Company.
Q. So it sounds like the marketing efforts to customers along the CIBS program are slightly -- are more labor and possibly cost-intensive than other marketing efforts for a customer --
A. (Frost) That is correct.
Q. And so at the bottom of the chart at Bates 18, Lines 6 through 7, it provides some dollar values on customer conversion costs. Could you characterize those values for me per customer?
A. (Frost) In fiscal year 2018, we spent $\$ 787$ for each customer obtained during the CIBS marketing efforts.
Q. And in the last three years, would it be accurate to say that the per-customer acquisition costs are somewhere between roughly $\$ 750$ and $\$ 1,000$ ?
A. (Frost) That is correct.
Q. And then if I could ask you to turn to the chart at Bates 19 of your testimony. Now, am I correct in understanding that this same
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type of cost is displayed at the bottom of this chart but for the non-CIBS marketing efforts for customer conversions?
A. (Frost) That is correct. It's for marketing in areas where we don't currently have service and are extending mains.
Q. And can you just explain to me in your testimony, you basically have looked at these two numbers and made a suggestion. What is that suggestion?
A. (Frost) Our suggestion is that we would like to continue notifying all customers along CIBS routes; however, we would like to investigate possibly using door hangers or just straight mailing to all property owners or residents along the route without the manual, time-intensive process of trying to figure out which residents along the route are our customers and which ones aren't, because of the costs incurred and that we've spent a lot less in areas where we can just mail based on number of residents there.
Q. I'm curious. Do you use the -- I know the Company has a SIMS program that they use to
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sometimes identify customers who might be potential conversions. Do you use that for this, for CIBS? Excuse the overlap between the two. If you don't know, that's fine, too. I'm just curious.
A. (Frost) I'm not sure of the SIMS program, the acronym you're using.
Q. I don't know that it is an acronym. But from what I understand, the Company has leased a software program from ICF that helps to identify various potential for conversion in various areas.
A. (Frost) I don't think I can adequately speak. I wasn't involved with that program's development and use.
Q. But $I$ guess in summary, you are looking at the costs associated with marketing to the customers along CIBS, and specifically those costs associated with the manual data entry and identification. And you're saying that, well, maybe if we back off on some of those labor-intensive marketing practices, we'll still get a fair number of conversions, but at a much smaller cost. Is that an accurate
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last line of that page indicates that only six pipe and soil samples were collected. Do you see that line?
A. (Frost) Yes.
Q. And what does that state?
A. (Frost) It states that six pipe samples were collected.
Q. And summarized on the following pages.

Now I'd like you to go to Bates Page 40 of your testimony. And this page states there was a seventh sample collected; is that correct?
A. (Frost) Yes.
Q. So would you agree, then, that the correct number is seven samples rather than six?
A. (Frost) Yes, seven samples.
Q. Okay. Now, looking at the same written report on Bates Page 40 of your testimony, it states that the pipe is from a low-pressure system. Do you see where that is indicated?
A. (Frost) Yes.
Q. And would you agree that the Tilton mains are fed from a 60 psi high-pressure system and that that is the only pressure distribution \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}
system in the town of Tilton?
A. (Frost) Yes, I do.
Q. So, going back to Mr. Knepper's testimony on Bates Page 35, Attachment 3 shows that the seventh sample, which is again on the far right, in the last big box with an outline around it, correctly says 60 psi on Peabody Street.
A. (Frost) Yes.
Q. And do you believe that's accurate?
A. (Frost) I do.
Q. Okay. So we have those corrections to the understanding of those statements in the testimony.

Now, looking at your testimony of all seven samples on Bates Page 34 through Bates Page 40, would it be fair to say that these samples indicate that there is evidence of active corrosion on each of these samples? Would that be your understanding of what these pictures depict?
A. (Frost) They do depict corrosion.
Q. Okay. And would it be fair to say that all seven of the sample pipe pieces have
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experienced active corrosion, based on these photos, and your report as well?
A. (Frost) I would say -- I mean, is there a definition of "active corrosion" we'd like to use?
Q. Well, maybe we can get at it by saying what you mean in your report when you spell out the sample condition of each piece.
A. (Frost) They all indicate varying degrees of corrosion.
Q. Okay. Thank you.

Now going back to Mr. Knepper's testimony on Bates Page 35, again the Attachment 3 and his history of the 55 bare steel samples that have been submitted by Liberty Utilities and its predecessors as part of CIBS filings since 2009. They appear to indicate -- all of the samples in his summary appear to indicate evidence of active corrosion, is that correct, with the possible exception of the two in yellow that are marked as in "good" condition?
A. (Frost) That would be correct, that they all evidence wall loss due to corrosion.
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Q. Okay. Thank you.

And is it fair to say that any bare steel pipes shown with various levels of pitting, and clearly the ones with holes, have indeed experienced active corrosion? Is that your understanding of the sample conditions?
A. (Frost) Yes, they've all experienced wall loss.
Q. Okay. Thank you.

And do you agree that bare steel samples that have been selected through the years have been appropriate for all the years listed?
A. (Frost) I do.
Q. And could you elaborate on that, why you feel they're appropriate?
A. (Frost) Sections of bare steel pipe selected for replacement have prior leak history or risk factors due to their operating pressure or location that would indicate replacement is warranted.
Q. Okay. Thank you.

And is it correct that the average age \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}
of the seven samples in fiscal year 2018 appear to be nearly 90 years old?
A. (Frost) That is correct.
Q. And the larger group over the entire 55 samples collected since 2009 have an average age of nearly 85 years?
A. (Frost) That is correct.
Q. And can we extrapolate from that and expect that the condition of the remaining bare steel segments can be characterized as either well past their prime and examples of deteriorating or what is known as "worn" pipe or "leak-prone" pipe?
A. (Frost) Yes.
Q. Thank you.

Now I'd like to go to your testimony on Bates Page 9. Specifically I'm looking at Line 10. I see a figure of 2,668,808. Can you explain what that figure represents?
A. (Frost) That represents costs from the fiscal year 2017 program for finished restoration that occurred during fiscal year 2018.
Q. That are being carried over in this proceeding or --
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A. (Frost) That is correct. They're being carried over into this proceeding.
Q. Okay. Thank you.

Now, please go to Attachment 2 of your testimony. These are the large spreadsheets attached.

MR. SHEEHAN: If You'd like them, these are the bigger, if you want to -- not a lot bigger, but a little bigger.

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BY MS. FABRIZIO:
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Q. I'm looking at the one marked as Page 44 that's handwritten in the lower corner of the spreadsheet, lower right-hand corner.

MR. SHEEHAN: Commissioner, the large printout is 44 and 45 combined, left to right.

MS. FABRIZIO: We're all on the same page?

BY MS. FABRIZIO:
Q. So if you go to Column BL and Row 83, 83 will be the first shaded blue line at the bottom of the column. I see a cell with the 2,668,808 that is referenced in your testimony. Is that where this number in your \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}

of $2,718,259$ listed at that point. Can you confirm which number is correct? Is it this number or is it the 2,668 -- the $2,668,808$ figure?
(Witness reviews document.)
A. (Frost) The discrepancy appears to be as a result of degradation fees. I believe that the Company can collect degradation fees under recovery. So it would be $2,718,259$.
Q. So this adds degradation fees to the total carryover cost figure that we saw earlier?
A. (Frost) Yes.
Q. Okay. Thank you.

Now continuing down a little further on Bates Page 27, the same paragraph, closer to the middle, there's a sentence that begins, "The Company is seeking the revenue requirement..." Do you see that sentence? (Witness reviews document.)
A. (Frost) Yes.
Q. Could you read that sentence for the record, please?
A. (Frost) "The Company is seeking the revenue requirement associated with $\$ 1,402,570$ of
fiscal year 2017 carryover costs above the allowable carryover cost as part of the step increase in Docket No. DG 17-048."
Q. Okay. And can you explain how the 1,402,570 is derived?
A. (Simek) I can't right now. I believe it was the actual known spend at the time of the filing of the distribution rate case.
Q. And does this number reflect the number crunching prior to the Commission's issuance of its order on April 27th?
A. (Simek) Yes.
Q. Okay.
A. (Simek) Yes, it was the known spend above and beyond the 5 percent that we were aware had already been placed in service, and we requested it within the distribution rate case.
Q. And given the Commission's order of April 27th, does this number need to be revised for purposes of this filing?
A. (Simek) No, it's the exact amount.
Q. Okay. And turning to back to Mr. Frost and Mr. Furey, in your testimony in Bates Page 9, \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}

Line 21, and Bates Page 10, Lines 1, 2 and 3, you state that -- you cite to city rules regarding minimum temperature requirements, or a requirement that trenches be allowed to settle for one full freeze-thaw cycle before final restoration; is that correct?
A. (Frost) Yes.
Q. And am I correct in understanding that the minimum temperatures apply to pavement temperatures or air temperatures?
(Witness reviews document.)
A. (Frost) They apply to air temperature during the day.
Q. And are these mentioned only in the City of Nashua's street repair requirements, to your knowledge? Is this a requirement that is clear in the three cities that you discuss in your testimony: Manchester, Concord and Nashua?
A. (Frost) Yes. Paving specifications are applicable to Nashua, Manchester and Concord.
Q. And is that specific requirement of minimum temperature applicable in all three of the cities that you are looking at: Manchester
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Concord, Nashua? My understanding is that that applies only in Nashua, but I just -- it may be an incorrect understanding. I'd like to know what your understanding is.
A. (Frost) My understanding is that all three cities have paving specification requirements.
Q. And so what exactly is the minimum temperature below which paving should not occur?
A. (Frost) The generally accepted temperature is 60 degrees that New Hampshire DOT recommends, which most cities adopt.
Q. And my understanding is that in Nashua, that temperature is actually memorialized at 40 degrees. Is that your understanding?
A. (Frost) Could you repeat the question?
Q. My understanding is that that minimum temperature is actually memorialized in Nashua's requirements as 40 degrees. Was that your understanding, working in Nashua?
A. (Frost) I do not have a copy of Nashua's standard specifications and ordinances up here.
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MS. FABRIZIO: Mr. Speidel is going to hand out copies to the witnesses of the cities of Concord, Manchester and Nashua and State of New Hampshire specifications for paving requirements, and we would like to mark these as exhibits.

CHAIRMAN HONIGBERG: I think three is the next number.

MS. FABRIZIO: Three is the next, yeah.

BY MS. FABRIZIO:
Q. So you will see that you have general permit conditions and construction requirements for the City of Concord, City of Manchester, City of Nashua and the State of New Hampshire. Could you point us to the minimum temperature requirements that you relied on in each of these, please?
(Witness reviews document.)
Q. If it helps, Staff was able to find a temperature restriction only in the City of Nashua requirements, and that is on Bates Page 14. Again, on Bates Page 16, the mixing temperature and the placing hot bituminous
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pavement provisions refer to temperatures, specifically, surface temperature and air temperature must be above 40 degrees with respect to paving -- mixing of pavement for paving.
(Witness reviews document.)
Q. Do you see that reference to 40 degrees?

So, given that limitation in the City of Nashua, if there were a period of four hours during the day in the fall, let's say between $10 \mathrm{a} . \mathrm{m}$. and $2 \mathrm{p} . \mathrm{m} .$, and it was above 40 degrees, assuming the surface temperature is warmer than the air temperature, would it be possible to pave in Nashua?
A. (Frost) I don't think I could conclusively comment on that. We would have to verify with the city engineer's office whether they would accept pavement in that situation.
Q. When the temperature's above 40 degrees?
A. (Frost) If they would accept pavement in a situation where the temperature was above 40 degrees for such a short period of time.
Q. I was giving the time limitation only as potential construction work hours during the
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day, say between 10 and 2 on that day the temperature stays above 40 degrees. Could the Company pave if they had paving to do?
A. (Frost) In a situation like that, we would contact the city engineer's office who oversees our construction and has to accept the final product, and we would ask them if a temperature of that short a duration would allow proper curing of the asphalt replacement.
Q. And do you know if a similar restriction is included in Manchester's or Concord's written policies, based on your experience in those cities?
A. (Frost) Based on my experience, low temperatures, low ambient temperatures do not result in proper quality of placed asphalt. So many municipalities will not allow the Company to complete paving or finish paving and final restoration during low temperature periods. That forms the basis for the varying calendar date restrictions on finish paving.
Q. Am I correct that the freeze-thaw
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requirements apply only after a certain date in the calendar year, for example, after November 15th, for all three cities? Is that correct?
A. (Frost) Could you expound upon the freeze-thaw requirement?
Q. Along the same lines of thought, do these temperature restrictions apply only after a certain date in the calendar year? Do you have to worry about these minimum, for example, the 40-degree minimum that we saw in the Nashua requirements, you know, any time of the year before November 15th?
A. (Frost) That would be correct.
Q. What would be correct? I'm sorry.
A. (Frost) They're two separate requirements, calendar-year restrictions on paving and temperature to ensure quality finished product.
Q. And what is the calendar-year restriction that's separate from the temperature requirement?
A. (Frost) It's outlined in the exhibit you gave us. Bates Page 3 of the exhibit defines, for \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}
the City of Concord, that no permanent street restoration will be allowed between November 15th and April 15th unless specifically authorized by the city engineer.
Q. So a typical construction period for the year would be between April 15 and November 15.
A. (Frost) That would be the finished paving --
Q. Can you explain that, please?
A. (Frost) -- requirement. Many times the cities will allow us to continue construction later than, all the way through the end of the year; however, they will not allow placement of final restoration and finished paving because cold temperatures will not allow proper pavement placement.
Q. After November 15th. Essentially that's the stop point for that; is that correct?
A. (Frost) Typically you'd find that November 15th, the weather would be too cold to allow satisfactory paving operations.
Q. Okay. All right. Going to try again.

November 15th appears to be the sort of cut-off date for finished paving, as you call it, in each of the three cities.
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November 15th in Concord, for example -Concord actually requires permanent patching to wait only 30 days for the settling of a temporary patch. So if you've put in the temporary patch 30 days before November 15th --

CHAIRMAN HONIGBERG: Mr. Knepper, maybe you can clarify how these -- what the questions are here.

CROSS-EXAMINATION
BY MR. KNEPPER:
Q. Let me ask this question: So is it our understanding that if you look at Bates Page 004 right next to that Exhibit 3, it states when that permanent patch has to be done; so if you were finished in the month of May, you could put that permanent patch on and let it settle? And what they're saying is anytime after July 1st you could do the finished paving. And then it gives a similar one for June, and it says you can do that finished paving by August, and then similar by July, and it continues all the way up to basically they want all finished paving by
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November 15th? Is that correct?
A. (Frost) I believe that that chart mainly applies to spot repairs for Liberty. That would be such as a single excavation for a leak repair. The city typically requires us to finish all of the mains and service project in its entirety before beginning final paving because they do not want kind of a checker board, quilted patch. They would like the job to be finished in its entirety and paved as one unit. And this job could -this could be a main replacement job that stretches for half a mile.
Q. Correct. What we're saying is, if you have the half a mile done in the month of June, looking at that page, you could finish pave in August, the whole month of August, the whole month of September, the whole month of October, and up to November 15th, is that correct, if it was completely completed in the month of June?
A. (Frost) Yes, but I'm not aware of Liberty being able to complete a half-mile of construction by the beginning of June.
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Q. Okay. If it was -- I'm not really worried about the half-mile or whether it's 2,000 feet or 4,000 feet. The whole point is the city kind of lays out when you have to be done. And basically, it does not require a freeze-thaw cycle on all your jobs is what -looking at Exhibit 3, Bates Page 4 in that calendar.
A. (Frost) The Company's testimony last year explained the freeze-thaw cycle. The City of Concord allows an alternative restoration of milling and overlaying, that the Company presented a 30-percent, approximately, cost savings. And the Company came to an agreement with the City of Concord to let the trench settle over the winter, because during the prior testing period there was paving warranty claims that cost the Company, and by extension, the Company's customers, in pavement repairs. And it was found that by letting the trench settle over one winter period, that those claims did not occur. So the Company found it to be in the best interest of all parties to complete paving in
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the second year.
Q. Okay. So that's a Liberty-initiated -- or informal agreement, but that's not memorialized in the city's paving specifications; is that correct?
A. (Frost) That is correct. That's in writing. We have it in writing with the city. So, looking and going on to the next page of Exhibit 3, in Manchester, do they have a similar freeze-thaw cycle restriction that you just mentioned for Concord?
A. (Frost) They only have an informal freeze-thaw cycle because the Company has presented the grind and inlay program that saves money to the City of Manchester and only applies to PILOT program projects in that city.
Q. And similar for Nashua. Do you see the same thing, a restriction for the freeze-thaw in their paving specifications?
A. (Frost) No. Nashua mandates a settling period.

MR. KNEPPER: Okay. I think that's
what Lynn was trying to ask.
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MS. FABRIZIO: Thank you, Mr. Knepper.

BY MS. FABRIZIO:
Q. All right. So, looking back at the large spreadsheet we have, Bates Page 44, I see a column labeled "AF." Column AF is labeled "Status." And within that column I see entries that are either blank or filled with "casbuilts" or "comps". My understanding is that casbuilt signifies an entry into the work system, indicating that mains and services have been installed, a work order is not closed out yet, and perhaps unfinished final paving costs or other restoration efforts may not be completed yet; is that correct? Can you explain what "casbuilt" stands for?
A. (Frost) The projects marked "casbuilt," they've had all final records received, they've been financially accounted for by the Company as the units of property are in service. The columns marked "comp" mean that all final records have been received, the projects are in service, the pipe is in
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service, but the financials have not been finalized yet. And we did not reflect status for carryover jobs, but those should all be in casbuilt.
Q. An example would be for the Concord mains in Lines 4 through 6 of Ridge Road, Langdon Avenue and Downing Street. And the corresponding column, BG, Estimated Carryover Loaded Costs, are, respectively, 87,404, 28,235 and 48,234. Is that correct for those projects?
A. (Frost) Those are estimated carryover costs.
Q. So, based on what you've said, the comp means the work order's completed and all costs are finalized, including paving costs; is that correct?
A. (Frost) It does not include final restoration.
Q. Okay. So if we look at Concord mains, Row 10, Armour Place, Library Road, Column AF says comps; and the corresponding Row BG, Estimated Carryover Loaded Cost, is shown as zero. Is that what you see?
A. (Frost) Correct.
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Q. And now reading Rows 12 and 13, I see Gladstone and Warren Street. These are listed as comp, but there's also Column AF that says comp, and corresponding Row BG, Estimated Carryover Loaded Costs, is shown as 30,603 and 24,224, respectively. So is the comp completed, or is there work still to be done in those two projects?
(Witnesses Frost and Furey confer.)
A. (Frost) Yes, it does show carryover restoration costs for those projects because they have not been final paved.
Q. Okay. Thank you.

Moving on to your testimony on Bates Page 15, Lines 6 and 7. You refer to Attachment SDF/BRF-3. Could you point me to the Bates page where you can find that?
(Witness reviews document.)
Q. Staff has not been able to identify that particular exhibit. Does this need a correction, or is there in fact an SDF/BRF-3?

MR. SHEEHAN: If I can help? It
clearly is not attached as Attachment 3 to
the testimony. It's the marketing letter
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that prior orders have required the Company to file. And we did file one, dated December 20 of 2017. And I can -- we will certainly provide a copy of that as Attachment 3 to the testimony. But it was filed in December.

MS. FABRIZIO: And that would fill in the gap for that particular attachment, SDF/BRF-3?

MR. SHEEHAN: Correct.
MS. FABRIZIO: Thank you. That would be helpful.

BY MS. FABRIZIO:
Q. All right. I'm turning now to Mr. Simek and Ms. McNamara's testimony.

Okay. The Company's petition in this proceeding was initially filed prior to the issuance of Commission Order No. 26,122 issued on April 27 in Docket DG 17-048 regarding permanent rate changes; is that correct?
A. (Simek) Yes.
Q. Okay. And then your testimony was revised based on that order and refiled on May 31st,
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2018; is that correct?
A. (Simek) Yes.
Q. Thank you. So if we look at the last three lines of Bates Page 49R, which indicates a revised page...
(Pause in proceedings)
Q. My apologies. If we look the last three lines, 21 -- 20, 21 and 22, Bates Page 49R, and Lines 1, 2, 3 of Bates Page 50R, this states that the revised Attachment DBS/CAM-1 was filed and incorporated into the depreciation study of DG 08-009. Was there a new depreciation study filed as part of DG 17-048?
A. (Simek) Yes.
Q. That new depreciation study in that docket and used by the Commission in its order left the category of mains the same at a 60-year depreciation life, with a negative net salvage value; is that correct?
A. (Simek) Subject to check, yes.
Q. And this translates into a whole-life depreciation accrual rate of 1.92 percent?
A. (Simek) Again, without having that in front \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}
of me, $I$ would just have to say, subject to check, yes.
Q. And do you recall this indicates to Staff there is no change between the depreciation study for DG 17-048 and DG 08-009 for the category of mains? Was that your understanding as well, based on the Commission's order?
A. (Simek) Again I'd have to double-check. I want to point out this is for fiscal year 2018, which is based on items that were placed in service by March 31st of 2018.
Q. And this being your testimony, can you --
A. (Simek) No. All the dollar amounts that were placed in service in this procedure, whereas the rate case depreciation study was not even ruled upon until -- or was meant to be for rates effective, I believe it was June 1st -or May 1st. I'm sorry.
Q. Okay. So with respect to the category of services, and I guess we're relying on your recollection of the Commission's order and the implications for this proceeding, the latest depreciation study changed the life of
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I do want to emphasize that that is the rate that was in place when these capital projects were placed in service.
Q. Okay. Thank you.

MS. FABRIZIO: That concludes my questions for the witness panel. Thank you. CHAIRMAN HONIGBERG: Commissioner Bailey.

INTERROGATORIES BY COMMISSIONERS:
BY COMMISSIONER BAILEY:
Q. I only have a couple high-level questions. One, or first, the door hangers that you said you would rather do than figuring out which customers along the route have service, would you expect maybe to get new customers if you did door hangers?
A. (Frost) We currently use door hangers as part of our -- sorry about that. We currently use door hangers as part of our marketing efforts overall with the Company. So, yes.
Q. So, then, you're asking to eliminate doing something, but you're not doing anything different. You just want to stop having to figure out which customers along the route
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have service and send those individual customers additional information than the general information that you send to all customers?
A. (Frost) If I understand correctly, yes, we'd like to send general information to all households along the route of a CIBS project.
Q. Which you do today.
A. (Frost) And we also complete follow-up marketing with non-customers. We'd like to eliminate the follow-up marketing because of the cost effort shown.
Q. And did your analysis show that not that many customers who -- or not that many potential customers, the people that don't have service, not many of those sign up for service when you are replacing the mains on their street?
A. (Frost) I think it would be hard to characterize "not that many." The Company has a very high saturation rate along the routes where CIBS projects take place, an extremely high saturation rate, in the high $80 s$ to 90 percent. We are able to convert a
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fraction of those customers. However, the number is just a number. It isn't that much, as shown on Bates Page 18, that we converted 16 customers in fiscal year 2018.
Q. Sixteen out of potentially how many?
(Witness reviews document.)
A. (Frost) So, 154 letters were sent to non-customers. This is shown on Bates 16, Line 1.
Q. Okay. Thanks. I get that now.

The second question is about Keene. Do you have cast iron/bare steel in Keene?
A. (Frost) There are currently cast iron mains in Keene.
Q. But that's not part of this program at this point.
A. (Frost) No, it is not.
Q. Okay. Thank you.

CMSR. BAILEY: That's all I have. CHAIRMAN HONIGBERG: Commissioner Giaimo.

BY COMMISSIONER GIAIMO:
Q. Good afternoon. On Bates 8, it says, "The Company remains committed to and is on track \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}

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discussion you had with Commissioner Bailey, you talked about 16 customers had been converted. So that was 16 out of 26 that reached out to you after your initial communication; is that correct?
(Witness reviews document.)
A. (Frost) Yes. As the chart on Bates 17 shows, there were 26 customers that responded to our letter -- or 26 potential customers that responded to our letter. Of those, 16 actually signed up for gas service.
Q. That sounds like a lot to me. Is that a lot? Sixteen out of 26 sounds like a pretty good hit rate.
A. (Frost) Well, that's -- there was 154 prospects that we sent -- non-customers that received letters. Of those, 26 called us back, and of that 26,16 actually signed up for service.
Q. On Page 20, you talk about you don't want to engage in extra time-consuming and extensive efforts to market. If you're getting a 62-percent hit rate on the initial marketing efforts, how much more effort is it?
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A. (Frost) Well, I think the Company's position is that the cost of acquisition of customers along CIBS routes throughout this method is exponentially higher than the cost of acquisition of customers along main extension projects. And the Company feels it's a more prudent use of funds to market more heavily in main extension areas than in CIBS areas. Okay. So I guess where I'm struggling is if the ground is open and there are customers around there, it seems to make sense to try to connect customers, even if the marketing costs are high, because it seems like it's open and available and accessible. Am I wrong?
A. (Frost) Yes. Well, the Company still proposes to make an offer to customers along CIBS routes. The Company would just like to modify the marketing a little bit, to be a little less -- to spend a little less time on it, but to still make that offer. And I think it can also be -- the Company is thankful for the 16 customers we received along CIBS routes. But we also added -- the
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total number of customers added through all means last year was 1,621 . So, as a portion, the number of customers obtained during CIBS is a very small fraction of the total of the Company's marketing efforts for the year.
Q. Okay. I think Attorney Fabrizio asked the panel if they had seen Mr. Knepper's testimony. I think the answer was generally yes; correct?

WITNESS PANEL: Yes.
Q. On Page 24 of Mr. Knepper's testimony, he suggests -- and this is my words -- that Liberty's CIBS planned for 2019 may be a little over-ambitious. I guess I'd like to hear your thoughts on the plan, whether or not you think that's an accurate statement. (Witnesses Frost and Furey confer.)
A. (Frost) The Company does not feel that it's over-ambitious. For the past several years we've continually increased the amount of CIBS mains replaced. We feel that we can work on this. The Company also has high goals each year. Because this is leak-prone pipe that presents a safety risk higher than,
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say, plastic pipe or other modern piping systems, the Company endeavors to get it out of the ground as soon as possible.
Q. And my last question would be, it sounds like the Safety Division, based on Mr. Knepper's testimony, believes it's an appropriate time to re-examine the program. Does the Company think it's worthy of or in need of being re-examined, or should you continue on course through 2024?
A. (Simek) We like the program as it's designed now. Of course, we're willing to discuss with Mr. Knepper and maybe come up with alternatives. But we're happy with the way it is now.

COMMISSIONER GIAIMO: Thanks.
BY CHAIRMAN HONIGBERG:
Q. I just want to return to the marketing issue.

I think I understand your position at a few different levels, that, at bottom, these places have been on a gas line for a long, long time. If they haven't converted to gas by now, there may be a hard sell for a variety of reasons. That's part of what's
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|  | going on; right? |  |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 | A. | (Frost) That is correct. |
| 3 | Q. | Are these customers still moneymakers, |
| 4 |  | though, even when you factor in the costs of |
| 5 |  | getting them onboard? How many years does it |
| 6 |  | take before they're moneymakers for you? |
| 7 | A. | (Frost) Well, I believe we spend |
| 8 |  | approximately, roughly one year's worth of |
| 9 |  | gross profit margin in marketing costs. |
| 10 | 2. | That's overall? |
| 11 | A. | (Frost) On the CIBS customer. |
| 12 | $Q$. | On the CIBS customers. So they're profitable |
| 13 |  | after one year? |
| 14 | A. | (Frost) Well, you would have to add in also |
| 15 |  | the cost of service, installation. |
| 16 | Q. | Right. So, I mean, how many more years does |
| 17 |  | it take? I mean, it may well be this. It |
| 18 |  | doesn't make sense. If it takes 20 years to |
| 19 |  | make one of your customers profitable, then I |
| 20 |  | think we all understand that probably isn't |
| 21 |  | worth it. |
| 22 | A. | (Frost) I don't know the exact figures. It |
| 23 |  | also depends on the length of service that's |
| 24 |  | required to be laid. But the profitability |

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range would probably be out to six to seven years, if I were to estimate.
Q. Okay. I think the other questions I had have been answered.

CHAIRMAN HONIGBERG: Mr. Sheehan, do you have any further questions for your panel?

MR. SHEEHAN: A few follow-up, if I may.

REDIRECT EXAMINATION
BY MR. SHEEHAN :
Q. Mr. Frost, on that last topic, you said, and I understand you're estimating, that the advertising costs, marketing costs, for a CIBS customer is roughly equivalent to one year's margin, $\$ 700$ or $\$ 800$; correct?
A. (Frost) That is correct.
Q. And then by saying six or seven years to become "profitable," if that's the right word, means you have to spend another five or six times 700 for the service and related costs.
A. (Frost) Yes, we have to install the pipe and re-pave the street.
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Q. And the Company's request here is not to cease marketing to CIBS customers, but basically to take a step back and go with the more general notifications that we give all customers along CIBS routes, that we'll be in your neighborhood and, in effect digging up your streets.
A. (Frost) That is correct. We'd like to make a general notification. In the past few years, at the request of Staff, the Company has increased its marketing, gone to more personalized marketing to each of these customers to try to see what the results were going to be. And I think we've determined that it has not resulted in something that is the best use of funds.
Q. Mr. Simek, I think you said it twice, but to be clear, the depreciation rate from 08-009 is what applies to the dollars we're seeking recovery for today.
A. (Simek) Correct.
Q. And the depreciation rate from the most recent rate case would apply to pipes going in the ground today --
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A. (Simek) Correct.
Q. -- and going forward.
A. (Simek) Correct.

MR. SHEEHAN: That's all I have. Thank you.

CHAIRMAN HONIGBERG: All right. Let's go off the record for a minute.
(Discussion off the record)
CHAIRMAN HONIGBERG: We'll go back on the record. We're going to take a break and come back in about 30 minutes.
(Brief recess was taken at 2:53 p.m.,
and the hearing resumed at 3:39 p.m.)
CHAIRMAN HONIGBERG: Would you
swear in the witness.
(WHEREUPON, RANDALL S. KNEPPER was/were duly sworn and cautioned by the Court Reporter.)

CHAIRMAN HONIGBERG: Ms. Fabrizio. MS. FABRIZIO: Thank you, Mr. Chairman.

## DIRECT EXAMINATION

BY MS. FABRIZIO:
Q. Mr. Knepper, could you please state for the \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}

like to admit as Hearing Exhibit 4?
CHAIRMAN HONIGBERG: Well, why don't we get an answer to the question and then you can --

BY MS. FABRIZIO:
Q. Do you have any corrections to make to your testimony and attachments?
A. I have two minor corrections. They're spelling corrections, if you want, just to put them on the record.

Page 13, Bates Page 13, Line Item 1, I spelled "forecast" wrong. And Bates Page 14, Line Item 13, I spelled "three" wrong. Someday I will have testimony that is correct and I can say "zero."

CHAIRMAN HONIGBERG: All right. So you want to have the testimony marked as Exhibit 4.

MS. FABRIZIO: Yes.
CHAIRMAN HONIGBERG: Is it your
idea that the June 19th corrective filing will just be replacing pages, or are you going to mark that separately?

MS. FABRIZIO: In the end, the
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revised testimony was filed in full with the corrected pages, and so I would recommend that we adopt that as Hearing Exhibit 4.

CHAIRMAN HONIGBERG: So the
testimony is from the June 19th filing. The attachments are from whatever date it was when the earlier one was filed?

MS. FABRIZIO: 18th, yes.
CHAIRMAN HONIGBERG: Okay.
(Exhibit 4 marked for identification.)
BY MS. FABRIZIO:
Q. Mr. Knepper, could you please offer a brief summary of your testimony.
A. Sure. I reviewed Liberty's petition. I
looked at their accompanying testimony that they filed. We did, I guess, limited discovery and had one tech session. In regards to reconciling and approving the costs associated with the fiscal year 2018 cast iron and bare steel program -- this is the 10th year of this program, what we call the "CIBS Program" -- I believe following practices which have been done in the past, which should continue on for next year as
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well, should be to submit the final petition by April 15th of each year, continue the cutting out of the physical segments and issuing the reports to us. I still believe that filing of your customer retainment for those customers along the way and conversions is a worthwhile endeavor. I would like their report to go a little bit further in talking about how the hundred-foot free service offer that they used for those who currently don't have gas service was successful in obtaining their customers. And I believe an audit should be done on this every year that the program is in place. And lastly, as I stated in my testimony, I don't believe any excess carryover costs should be included.
Q. Thank you.

Mr. Knepper, on Bates Page 16 of your testimony, Lines 17 to 18 , you state that the settlement allows for recovery of only $\$ 735,802$ unless the Safety Division approves a higher amount; is that correct?
A. That's correct.
Q. And are you familiar with the letter Mr.
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Sheehan filed on June 21st formally requesting recovery of excess carryover costs of $\$ 579,887$, over and above the $\$ 735,802$ that we just referenced?
A. That's correct, $I$ am familiar with it.
Q. And does the Safety Division plan to approve that request?
A. No.
Q. Okay. Thank you.

Do you agree with the Company's
statements that you've heard earlier today regarding municipal paving?
A. Some of them.
Q. Okay. Could you elaborate, please.
A. I believe if you read their testimony, it kind of lumps all the cities and towns' paving restrictions together. And in general, they are very similar to each other. But if there is nothing that prevents Liberty from doing final pavement on projects that are completed early in the season -- and when I say "early," I mean prior to October; so those that are completed in May, June, July, August, September -- they could get those --
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if they could get those final pavements done, especially for Nashua and Manchester, they could be completed, and that would lower the excess carryover costs. I've seen that in both last year's for fiscal year 2017, which are the subject of this year's reconciling, and we also see it in the numbers with the completed projects of fiscal year 2018. So the carryover issue has been discussed in the past. I think we discussed it in the last two CIBS proceedings. And I just think that we're at disagreements between the Company and myself.
Q. Thank you.

MS. FABRIZIO: Staff has no further questions for Mr. Knepper.

CHAIRMAN HONIGBERG: Mr. Buckley, do you have any questions for Mr. Knepper?

MR. BUCKLEY: Just a few, very brief questions.

CROSS-EXAMINATION
BY MR. BUCKLEY:
Q. Mr. Knepper, you mentioned at Bates 7, Lines 10 through 13, "The [sic] delicate balance to \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}
weigh the need to replace aging piping systems as they near... undesirable condition at which leaks... in mains break against premature replacement of pipes that have many years of useful life and pose little risk to the public."

So I pose a question for you here, recognizing that you are, of course, kind of the head of the Safety Division here at the PUC. But I would like to hear your perspective on whether at some point we would reach a point of diminishing returns regarding investment in CIBS replacement.
A. I think conceptually we are starting to see that. So the bulk of the CIBS program over the last 10 years has replaced approximately, I believe, on the order of 60 percent of the inventory that was out there. Liberty has picked up its pace in the last couple years, and the construction season going on this year is another aggressive one. And so that's, you know, been part of that reduction. But when you -- you also want to look at the corresponding leak rates that are
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associated with those pipes and the overall leakage rates on their system, and they've been declining as well. And we're starting to see periods now where the leakage rate isn't really declining in the same relationship as it was. We saw steep curves dropping on the leakage rate, and now we're starting to see it flattening out.

So I think the answer is, conceptually, yes, there is a point where, you know, you're replacing it and you're doing it because it's aged. And it will fail at some time, you just don't know when. But it's not going to be based on the corresponding leakage rates.
Q. And are you aware of instances where other LDCs have partnered with non-governmental organizations to help detect where they might want to target programs like CIBS due to leaks that are detectable in open air?
A. Can you give me an example of what you're referring to?
Q. I'm thinking of the Environmental Defense Fund has partnered with I think Boston Gas. It's the Boston Metropolitan area, and they
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publish maps of various leaks. And I think those maps are used to help target programs like this.
A. Yes, EDF has helped target that. There's been a couple other ones across the country. Liberty's not been one of the candidates selected to do that because, No. 1 , we don't have a huge backlog of 30,000 leaks that are unattended. So we have a much more smaller, confined and smaller-scale program. So they take this technology, put it in cars, and they go around and drive around the cities and they look for leakage rates. The technology that they use is much more, I don't know, at a different level than what the gas company uses. It's at a scale that picks up parts per billion versus parts per million. So they find a lot, a lot, a lot of little leaks. But it doesn't always distinguish if the leaks are coming from the gas system. It's just any leaks that are in town. So it could be useful, but I doubt that they would apply that to a New Hampshire program.
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Q. So, moving on at Bates 25, you discuss -- you express support for a full review of the CIBS mechanism I think prior to fiscal year 2020. Can you just very briefly summarize your thoughts on that matter?
A. Yes. So, yes, on Bates Page 25, I think I list some of the things that we think is worth exploring. So the CIBS program, as I said before, is 10 years old now. I think anything after 10 years is worth going back and looking to see if the parameters that were initially considered when you're designing the program are still valid. And so we think that it may be time to explore that at this point in time. So we're talking about fiscal year 2020. And I think we wanted to give notification to the Company to sit down and have that discussion, and let's explore whether it makes sense to either suspend this or terminate this. And we've done that.

So, in addition to some of the things there, there's precedent here at the Commission for doing that. We did it in
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Northern Utilities in a docket in 2000 that was initially started in 1990s. So after 10 years we put a hiatus on that program, and the company continued to replace bare steel on their own; it just wasn't done with a tracking mechanism or a surcharge or a step adjustment. So it's not something that's never been done here before.

And we're kind of nearing the end. I think at the end of this fiscal year, 2019, I think they're predicting to be less than 70 miles. I think it's going to be somewhere in the mid 60s. I could be precise and look it up. So it's now less than 4 percent. The cast iron/bare steel is less than 4 percent of their total system. So it's now getting into, $I$ don't know, call it the last phase.
Q. And so to follow up on that suggested investigation, we spoke a moment ago about whether maybe there was a conceptual point where we would reach a point of diminishing returns investing in the CIBS program. Is it your expert opinion right now, have we reached that point, or is there more to go?
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A. I think we wrote a letter that said it's worth exploring now. So the answer to that is I can't tell you that right now, but I think it's definitely worth having the discussion. This whole CIBS program has been a collaborative approach from the beginning between the Staff and the utilities and OCA. And I think now we don't want to stop that. We just want to have the discussion and re-examine.
Q. So one final line of questioning here for you related to the targeted marketing to new customer prospects under the CIBS program.

If I recall from your testimony, you -let me ask you. Can you just briefly explain your support for the continued targeted marketing?
A. Yeah, I think I look at it differently. When you pick up 16 out of 26 customers, that's a success. When you're picking up 16 out of 154, I would say that's a success. When you're going by a house, and this is the only opportunity because they're going to change out their heating equipment, which typically
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lasts on the order of 20,25 years, these opportunities don't come by very often. So, comparing, I don't know, hard, difficult customers that it takes to attain -- and I agree there's a reason why they're not already customers to those new main extension programs where there can be new development. It's brand new equipment. I just think it's not even a comparison. I would totally expect those costs to pick up that customer to be higher. And just like any business, you don't get rid of low-margin business and only try to get high margin. You keep a blend of those type of customers and what it takes. So I just think we have differing opinions as to the worthwhileness of it.

I do remember back when they weren't doing that. We would have entire years where they picked up one customer or no customers. And so I believe that those marketing efforts should continue. I think, and I've said it in my testimony, I think it can be even further enhanced the further out you go. The more decision time you give customers, two
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years', three years' notice, and not just the one year, I think you'll have a higher chance of success.
Q. Would it surprise you to know that the Office of the Consumer Advocate has some concern about per-customer marketing costs somewhere around $\$ 750$ to $\$ 1,000$ compared to what those costs are elsewhere on main extensions being closer to $\$ 33$ ?
A. Yeah, I think that they are picking up those ones that are main extensions. But I don't think that you want to make that comparison.
Q. No further questions.

CHAIRMAN HONIGBERG: Mr. Sheehan.
MR. SHEEHAN: Thank you.
CROSS-EXAMINATION
BY MR. SHEEHAN:
Q. Mr. Buckley just asked you some questions about whether the program is reaching a point of diminishing returns. How did you define the meaning of "diminishing returns" when you answered?
A. I don't think I defined it.
Q. Well, in your head, how did you interpret the \{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}
question?
A. I'm starting to look at if you look at -- if you look at -- in my head, I'm starting to visualize curves where the leakage rate is going down and now it's starting to flatten out. So if you picture it very much like a restoration curve for electric customers, you get a lot of customers restored quickly. But the ones at the end take the most amount of effort, the most amount of cost, and you get the fewest on. That's what I'm visualizing.
Q. And are you implying that's a bad thing, that the last few customers are going to take more money to fix, in this case, the leaks on the pipes in front of their house?
A. I didn't imply whether it was good or bad. I didn't imply any of that. Someone asked me is there a point, and that's what you have to examine and you have to look at. Without having the data and discussions with the Company to see if there is, you know, a relationship, I don't know. I don't really know exactly where that would be. But I think conceptually, ideally, probably like
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anything, there's a point where the efforts to do certain things outweigh the costs to do it.
Q. I should preface this line of questioning with the fact that the Company has no problem having these discussions. So please don't take that to be the focus here. I'm just exploring your thinking.

You are aware that the Company selects the cast iron pipes to be replaced by a number of factors, including leak history, where one batch of leaks may be closer to another batch and it may make sense to replace that line, and many other factors in trying to do the most cost-effective replacement earlier and then saving, in effect, the hardest ones for the end. You're aware of that basic mindset.
A. Yes, and I think $I$ kind of summarize that in my testimony as well.
Q. In fact, you've urged that over the years, ways we could do a better job at those sorts of things.
A. Yes. I think that we're doing things more on
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a neighborhood basis. We're getting the smaller pipes. We're getting the ones that are not necessarily the most expensive ones to get at. And so we've been part of that process of selecting candidates. But I don't think anybody here has a crystal ball that says this is the exact candidate. And we try to look at it and review it and see if what you're selecting is appropriate, and I think we give our comments back. And so far we think -- well, even looking at the results of the bare steel, I would say that you have corrosion problems on your bare steel that's totally evident, and they're not getting any better.
Q. And that was going to be my next set of questions. In counsel's examination of our witnesses, they were asking about those samples that we've been providing you over the years. And what I got from the gist of the line of questioning is that pipes we're taking out now are still pretty bad.
A. I think the questions was about active corrosion. And so if you consider active
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corrosion, similar to the questioning that was just going on, where's the point that you consider things active corrosion --
Q. If I may interrupt. What is active corrosion?
A. So, active corrosion by the code says when you have more than 70 percent wall loss, it says you have to remediate it, and it says you must replace it, right. So if the Company says I have active corrosion in my system, they would have to replace it.

Doesn't matter whether there's a program or not. And they have to replace it all, immediately. The problem with that is you don't have an army. You probably can't.

There's pragmatic reasons that municipalities aren't just going to allow you to do certain things. So now we're back into, you know, I don't deny that there's active corrosion, I guess, to get around that requirement, but from my standpoint, we have all the elements of having active corrosion. And so this whole program of cast iron/bare steel is to get rid of the bare steel, right. Not just
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the bare steel mains, but to get rid of those bare steel services. And if we're getting rid of the bare steel services and they're attached to cast iron, it only makes sense to get rid of the cast iron.
Q. Just a couple quick topics. We have discussed carryover costs many times in the past, and I will be brief.

You will agree that the various paving restrictions and requirements of the cities at a high level means that jobs that are completed at some point in the fall simply can't be paved until the next spring; correct?
A. I think that you should take those -- I guess I wouldn't answer the question that way. I look at those as constraints. We have constraints. The city and town have constraints on their paving restrictions. We know that going in, right. We know what we want to get done. We know the resources that we can apply. Liberty's in charge of those resources, how fast they get something done. And that all becomes part of the equation. I
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don't look at it as that's the thing that's causing us not to get it done. I look at it as that's a factor you have to consider as part of what the program is when you present it.

So, for instance, this year alone, there was 45 projects scheduled. I believe it was 7 or 8 -- I have to look at my testimony -that didn't even get started. So that has nothing to do with even the city or town requirements, right. And there was a whole host of ones that never got paved, even though it was well before the paving deadlines of the city. So I look at that and say I'm not so sure it's necessarily that's a constraint that you can't work into the equation.
Q. Can you answer my question now? Would you agree with me that projects that are completed after a certain point in the fall won't be paved until the next spring?
A. Yes, the ones on November 15th, typically, yes.
Q. And you agree with --
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A. And when you say "completed," okay, per Liberty's completion, that just means mains and services installed. You have to have a period where you have to wait to settle, let the temporary pavement get settled, and then you can do that final restoration. Both the settling period and that final restoration are known constraints that the Company knows.
Q. I understand that. But the other constraint is there's only so many miles and so many crews can complete over the course of the season; correct? You have whatever the number of crews on the street. They're only going to be able to do so many miles.
A. Well, it depends how many crews you have and --
Q. That's what $I$ said. You have $X$ number of crews, you're going to get $Y$ number of miles.
A. So if you know what you're targeting, then $I$ think you have to get the resources to get that done.
Q. But Mr. Knepper, you also have a concern about the Company having too many contractors out there that we're not managing properly --
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A. Right.
Q. Then when you say don't have so many --
A. I totally agree. I think that is a constraint that you have to look at, that if your -- crews just don't work on their own. You have to manage them. You have to make them part of your process, right. So you could say I want to do a hundred projects this year. But if you don't have the crews, you're just going to have a lot of unfinished ones.
Q. So, based on the crews that we actually have, if we want to get a good chunk of CIBS miles removed, we have to work late into the year. Would you agree with that?
A. Or you can adjust your other work that crews are working on, new growth or municipal projects. Those are also two other factors that can be looked at.
Q. And those are all competing priorities within our company, or any company.
A. I believe so.
Q. And isn't it the purpose of the CIBS program to try to get CIBS work close to the top of
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Bates 17 , has that table of saturation rates, number of prospects, number of responses and number of conversions. And when you get there, my question is -- the first year in that table was before the upgraded process, and the last three were after. And I guess my question is -- there really isn't that much of a difference, understanding this is a very small sample of a very quirky year-to-year customer base.
A. I think when you go down to even prior to that, that's not part of this table, fiscal year 14 and 13, we were seeing numbers of zero and one for a conversion from.
Q. We have four for the first year of the ramped-up.
A. Right. So it sounds like it's increasing.
Q. But isn't this also a case -- well, we have 15 before it started.
A. Well, the other part of this, Attorney Sheehan, is that, you know, you're doing more work, right. So we're getting the prospects. You can see the numbers increase: 154, 67, 59. So I would think that I would expect
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that there will be more customers in the future. Why would we want to just put door hangers on something?
Q. But the reason would be, Mr. Knepper, is -again, $I$ understand this is a small sample in this exhibit. But in the year without the extra efforts, we got 15 new customers out of 47 possibilities. Three years later, we have 150 possibilities and we get 16 . So the extra efforts -- again, understanding the limitations of this -- did not result in more customers per mile or --
A. Right. So that's why I made my comment of maybe we start in earlier than just the single year and you give those customers more time to do that. That could be a change to do.
Q. But my question is, and I'm asking the questions, is doesn't what we have done -MS. FABRIZIO: Objection here.

Counsel seems to be arguing with the witness. And in part, he appears to be testifying on behalf of the Company. If we could kind of focus and --
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## CHAIRMAN HONIGBERG: Overruled.

You can continue.
BY MR. SHEEHAN :
Q. We could certainly change the tactics. Put that aside for a moment. With the existing tactics, doesn't it show that they're frankly not working?
A. I don't agree.
Q. Okay. Fair enough.

And the increased tactics would cost more money; correct?
A. Yeah, I totally agree that it costs more to try to attract the customer who is not wanting to be on your system all these years than one who's brand new and coming onto your system that is in what $I$ would call a "virgin territory." Because you tend to pick up groups of people, right, versus individually. And so individually, it costs more than with groups.
Q. But isn't that better for all customers if we're picking up more of them more cheaply?
A. I think it should be both is my point.
Q. Fair enough.
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MR. SHEEHAN: I have no further questions. Thank you.

CHAIRMAN HONIGBERG: Commissioner Bailey.

INTERROGATORIES BY COMMISSIONERS:
BY COMMISSIONER BAILEY:
Q. Back to the active corrosion. I'm glad that you explained that term. Do you think that the remaining CIBS pipes are in active corrosion, or close to it?
A. Yes. I haven't seen anything that indicates that it's not.
Q. Okay. So, then, why would we think about stopping the program just because the leak curve -- I'm not articulating the question well -- just because the reduction in leaks isn't as great as it was in the beginning?
A. I'm just saying that's one of the things we need to look at. I'm saying we should explore the possibility. We're not saying we want to -- that we're going to terminate it. But I think we need to look at the data that brought us here and the data that's causing you to examine the candidates. And so I
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think that, in my opinion, that for 10 years of doing these samples, we've seen it. It's not only -- you know, to me, if you have a hundred percent wall loss, that's -- I don't know how the Company can say it's not active corrosion on that pipe. It doesn't get any clearer to me than that. The question becomes how prevalent is that active corrosion. And it looks to me like, after 10 years at different locations all around, I think you could summarize that we have it generally within their distribution systems. And so wherever those concentrations of bare steel are, it seems like we haven't found any that, hey, we're digging up 1920 pipe and it's in nice, pristine condition.
Q. So what I don't understand is it sounds like the bare steel, the cast iron/bare steel pipe needs to be replaced. And if you think that it's in active corrosion, that it needs to be replaced as soon as possible pursuant to the code, so --
A. I think without a CIBS program they would have to do it, and with a CIBS program they
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would have to do it.
Q. All right. That's what $I$ was trying to understand.

I also am having a hard time understanding the argument against the -well, your position that they should continue or even increase the marketing to the non-customers along these routes, especially given this table that we looked at a minute ago, that you looked at with Mr. Sheehan, sort of looking at the same thing. You know, 15 out of 47 is a third; 16 out of 154 is like 10 percent. So it doesn't show that this marketing got --
A. So, 10 percent is very good when it comes to marketing. Typically your responses are 1 to 2 percent.
Q. Right. But if they didn't have that marketing, would they have that 10 percent anyway?
A. All $I$ can say is when they weren't doing that, we were getting zeros and ones.
Q. Except for in 2015 , it was 30 percent.
A. Yeah.
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Q. Was that just a lucky year?
A. Could be. I don't know because I don't I'm not embedded in the Company, so I don't know exactly what they did. I could go back and see if we even requested it.

The whole idea of putting some focus on it came about when, you know, they weren't even attempting to pick up customers, and all they were doing is, you know, I'm going by your house and I put a door hanger. Most people cannot make a capital investment that quickly. It takes time to get quotes. It takes time to plan something like that to make a decision. And so the Company knows what the candidates are. So they can tell the customers -- you know, they may not say, well, it's going to be this year, but they could let them know two years from now or three years from now that we have it on our list of things to do, and that lets people warm up to making that big cost conversion, because cost conversions are expensive.
Q. So I think I understand now that the door hangers don't do any good because it's too
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late. But if they did a generic, hey, we're going to be replacing the main in your neighborhood in the next one to two years, and they sent it to everybody rather than try to target the people that were non-customers, would it be a little less expensive for the Company and provide the same results?
A. So as part of this program, right, they have to tell us what the service is and who they serve, right. And so they're doing that research internally in the Company: This customer has a bare steel service, this customer has a plastic service, this customer has a coated steel service, this customer doesn't have a service.
Q. They tell you that for each customer each year?
A. It's part of the program as to how many services are there, yes.

So my point is they kind of already know what the universe is. The only thing that they're not knowing is the exact dates of when they're going to start and finish.
Q. See, I heard the testimony a little bit
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differently than that, that they don't know, or it costs a lot of money to figure out which customers are not served. Did I misunderstand that, do you think?
A. I'm saying within the Company there's people putting those elements together. That's how they're able to fill out this Bates Pages 43 and 44 of their testimony, and that's how they're able to report to us the services they have. So they have to do that preliminary background work anyways. So, what don't you have. So if you have 23, then 25, 27, then 32, and there's a building or structure there, that would be a candidate. That would be a potential candidate to really go after and try to see if you can convince them that we have a once in a lifetime opportunity to come by and to feed you, because there'll probably be moratoriums put on later by the city, so here's a good chance to take advantage of it.
Q. Okay. Thank you.

CHAIRMAN HONIGBERG: Commissioner Giaimo.
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BY COMMISSIONER GIAIMO:
Q. Good afternoon. So what $I$ heard was after 10 years you think it's appropriate to re-examine the program. So that makes sense. But I just want to clarify. Is the Safety Division recommending suspending the program and then evaluating it or doing it concurrently -- by that I mean continue the program and then while you're examining?
A. So, this hearing is about fiscal year 2018, which is the reconciliation of '17. And they're currently doing '19 right now, fiscal year 2019. So we'll have that hearing next year about the same period of time. And so what we've said is, before you start to just roll out fiscal year 2020, let's take a look. Let's take a breather before you go too far and see is there any changes that we need to make. Do we need to suspend it? Does it make sense? I just think running it to the end into the ground doesn't -- I think now's a good time. And so as you're getting down into the amount of pipe that's left to replace, we think that now's the time to have
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that discussion.
So we would have the discussion, assuming sometime in the fall. We haven't picked a date. We invite the OCA and whoever else wanted to participate and explore it and talk about it. You know, that's really what we have to do. But you have to -- I think we have to have a -- we have to let them know that that's kind of in the back of our minds a little bit to talk about it and then kind of find out is there any super compelling reasons other than getting accelerated recovery. To me, one of the constraints is, you know, they've already committed by saying they want to get it down by 2024. So I think that should be number one if that commitment is still there, or is it a commitment only if we have the CIBS program.
Q. There was a lot in there. I guess I'm struggling because you said we want to take a breather, but then we want to re-examine. So, a "breather" to me connotes suspending.
A. Well, that may be -- we may take a year and suspend it and catch up on these extra paving
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costs, and that's all that gets done. And then the next year you're hitting it hard and there's no constraints of trying to get that. That might be an outcome. It might be, hey, trying to recover all these costs in a single year probably is difficult because they're not incurring it in just one season. Maybe we need to change and lengthen it. Maybe we don't need the program at all if the Company is filing rate cases at a frequency that that lag time isn't even there.

So, these are all things that have changed over 10 years. And I think it's just kind of go back and say -- and not only that, the Company, we've had three predecessors, and the staff has changed and we've changed. I just think it's time to take a good look and say why are we doing this and exactly what is the -- should we continue it. And we may come back and say, no, we need to continue it, maybe make a minor adjustment here or there, or not.
Q. So, on Bates 26 you have -- on Lines 9 to 12, you actually discuss the merits of
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accelerating and having the program accelerated between now and 2024.
(Witness reviews document.)
A. So I'm sorry. Lines 9 through --
Q. Through 12. You talk a little bit about the values, but particularly to the ratepayer savings associated with accelerating the program.
A. Yeah. So, I mean, one of the things about not doing something and putting things off to the future is the costs tend to be more, right, that the costs -- if you extend this and they do it over in five years, is it better to do -- is it cheaper now; right? So that's one of the things you have to kind of consider: What's their cost structure going to be in five years? Don't really know. So far, this is the first year we've kind of seen an uptick in costs. Some of it's due to degradation fees which we weren't having before. Some of it's due to we're getting into the difficult sections. I think in their testimony they talked about, well, we're hitting more asbestos, and we're
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hitting some of these more expensive things. We're getting the larger pipes, 10-, 12-, 16inch pipes, very much more expensive to do. Even though they have a small inventory of them, those are the kind of things that I think you have to consider.
Q. Thank you very much.

BY COMMISSIONER HONIGBERG:
Q. Mr. Knepper, I think the last time, or maybe it was the last time before that, when we talked about the degradation fees, I understood the situation to be that the Company doesn't lose the ability to recover those costs; they just can't do it in this accelerated program. Do I have that right?
A. Yeah, I think anything that they don't get in the CIBS is eligible for cost recovery in a rate case. But it's subject to anything else, prudency, look and review and all those things.
Q. With respect to maybe spending the next year before the next hearing doing a deeper dive into this program, would that be a more appropriate time to discuss changes in
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marketing than doing it in this relatively short time frame that we have to consider it now?
A. I think that would be one of the areas we'd want to look at. The original CIBS program, we didn't even outline anything about marketing. That wasn't even one of the things. That's one of the things that we've kind of grown in the 10 years about that subject. So, yes.
Q. All right. I didn't have any other questions.
CHAIRMAN HONIGBERG: Mr. Sheehan --
I'm sorry. Ms. Fabrizio, do you have any further questions for Mr. Knepper?
MS. FABRIZIO: Just one wrap-up question based on the questioning we just heard.

## REDIRECT EXAMINATION

BY MS. FABRIZIO:
Q. Mr. Knepper, would you be comfortable with the Company recovering its costs for main and service replacements through regular rate cases in the future without the acceleration
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of recovery that the CIBS program provides?
A. Well, we've done it both ways, right. We've done it with Northern Utilities where it was just through rate cases. So we didn't -there was a lot less. We didn't have a hearing every year. There's a lot less administrative by both the Company and ourselves. And they just -- we didn't pick the rate. We let them pick the rate. They just committed to a certain date. That is one way, and it was successful. But prior to that, they did have an accelerated replacement program similar to a CIBS, I guess, without all the reporting for 10 years, and then that stopped. And so it's been done both ways.
Q. And are you comfortable with Liberty going forward using the regular rate case forum to recover --
A. I'm not opposed --
(Court Reporter interrupts.)
CHAIRMAN HONIGBERG: I think the
problem is getting the end of the question. BY MS. FABRIZIO:
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Q. Are you comfortable with Liberty going forward using the regular rate case forum to recover its cost for replacing the remaining cast iron/bare steel pipes in its system?
A. Yeah, I'm not necessarily opposed to that way of recovering. Again, I'm back to the focus should be on the replacement itself, and then the recovery should be secondary aspect of it, not the primary. We quickly jumped to that being the primary discussion every time, and I believe it should be the secondary, as to come to an agreement when you want to expect something out of the ground, when it'll be totally done, and then we can figure out the most appropriate way to do the rates.
Q. Thank you.

CHAIRMAN HONIGBERG: All right. I think, Mr. Knepper, you can probably return to your seat.

There are no other witnesses;
correct?
[No verbal response]
CHAIRMAN HONIGBERG: Any other
business before we do the wrap-up portion?
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[No verbal response]
CHAIRMAN HONIGBERG: All right.
Without objection, we'll strike I.D. on Exhibits 1 through 4. And if there's nothing else, we'll let the parties sum up.

Mr. Buckley, why don't you start us off.

CLOSING STATEMENTS BY PARTIES
MR. BUCKLEY: Thank you, Mr. Chairman.

The OCA is generally supportive of the Company's filing, subject to the caveat that we agree with Staff on several of their recommendations concerning recovery of excess carryover costs, continued auditing of the program on an annual basis, and further examination of the existing CIBS program this fall to determine how that mechanism may continue to provide the best use of ratepayer dollars into the future.

We are sympathetic to Liberty's recommendation regarding marketing to CIBS customers as presented in their testimony, if for no other reason that it's not every day
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that something, or more specifically, Liberty Utilities, comes to the Commission and asks us to spend less money expanding their customer base and associated rate base. The fact that this is occurring here indicates to the OCA that this request deserves deference to the business judgment of the local distribution company itself. However, we do think that the compromised approach suggested just a few moments ago by the Chairman could be a useful compromise on the question of targeted marketing. Thank you.

CHAIRMAN HONIGBERG: Ms. Fabrizio. MS. FABRIZIO: Thank you. Staff requests approval of the Company's petition for recovery of 2018 cast iron/bare steel replacement program costs in this docket, based on the Company's revised petition filings, as well as based on the corrections noted in today's hearings. Thank you.

CHAIRMAN HONIGBERG: Mr. Sheehan, before you start, I just want to say I think you've heard sympathy toward how much it costs to market to the customers along the
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CIBS routes. But $I$ think there's a discomfort, and you heard it from Mr.

Knepper, and I think we feel it, that there's -- it's not an apt comparison to compare those expenses with expenses in new territory. That's not a persuasive way to look at that. You may have a good case here that this is just too expensive when you think about other things you could be doing with that money. But I want you to think about that as you are summing up and see if you have any thoughts on those topics. Clearly you've been thinking about it and you heard the question, so I wanted to make sure you address it in your closing.

MR. SHEEHAN: Sure. I'll address it right off. The reason we raised it so specifically here is that the people most involved in the marketing just don't see it as a useful effort. They spend a lot of time -- it's mostly one woman, Emily, who spends a lot of time doing the research, and the results are as you see. CIBS projects are very -- each are unique. I mean, you
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know Concord. Up in the neighborhood where I've lived the last couple years, that's a very different neighborhood than the south end, which is a very different neighborhood from a low-income neighborhood in Nashua. So these marketing efforts, again, was a great idea to push to see what would come of it. We're just not seeing it. And I think it is a fair comparison to other projects, in the sense that if we have a thousand dollars to spend on marketing and we can get one CIBS customer or 15 non-CIBS customers, it seems wiser to spend the thousand dollars elsewhere. There isn't an unlimited pool of marketing dollars. That being said, we're not proposing here to abandon marketing to CIBS customers. They get the regular mailings. These door hangers aren't the week before we start. They're long before we start. I'm not sure when, but months, at a minimum.

The 100-foot line extension policy we have now allowing it to be free is easier. Customers don't have to replace their heating
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system. They just have to hook up a gas range or hot water heater to become a customer. So all these things help. The amount of work that goes into the marketing, the tracking, everything that we do as part of this spreadsheet all costs money. It's all time spent that isn't spent elsewhere. So it really is, as Mr. Buckley said, a unique situation where we're coming here and saying let us spend less money on a project because we don't think it's working very well. It's really hard to compare them year to year because they're so different. There's no "Aha, we're now getting lots of customers we weren't getting before." So that's why we raise it and are discussing it. In the grand scheme of things, this is not a huge issue, obviously, but we found it was worthy of this discussion, as it has been the last couple years.

I do want to repeat again, the
letter we got from Staff last week asking to have this deep dive is fine with us. Obviously, our inclination is to keep the
program going roughly as it is. There are a lot of good things that flow out of the incentive. I think Mr. Kreis has a great expression for utilities motivated by whatever his phrase is, "Show me the cheese," or something like that. You know, we have a company that, a parent that invests money, and those investment dollars have lots of takers. And an incentive to keep investing those dollars aggressively in CIBS is a real incentive because of the yearly recovery. As Mr. Knepper said, maybe a lot of our pipe is subject to the rule that requires prompt replacement. And this is a good way to get it done, to make sure it gets done with crews that we have.

Then the concept of suspending for
a year or so raises many risks for us. We may lose the crews we have. We don't hire them for a summer, they go elsewhere. It is very difficult to keep the contractors we have. There's a lot of competition. As we just heard, in Boston there are thousands of leaks, and a lot of our contractors would
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pick up and go down there if they had work down there that they could do for a different utility. We are competing hard for these contractors, and if we lose them, we may lose them for good. So there's a lot of moving pieces here that I guess generally militate towards a very slow, careful decision of how we change this.

So I think that's really our
message here today, is we will certainly talk. There's always improvements. A lot of what you see here are improvements suggested by Mr. Knepper and Staff over the years. And we appreciate those, and we will continue the conversation we have.

There has been no real challenge to the request here that we're making for the last year's program. We ask that you approve it. We did raise the carryover costs just to show the numbers out there. We made the request. Mr. Knepper has the right not to approve -- recommend it under the settlement agreement, and we respect that. So, thank you.
\{DG 18-064\} [HEARING ON THE MERITS] \{06-25-18\}

C ERTITICATE
I, Susan J. Robidas, a Licensed Shorthand Court Reporter and Notary Public of the State of New Hampshire, do hereby certify that the foregoing is a true and accurate transcript of my stenographic notes of these proceedings taken at the place and on the date hereinbefore set forth, to the best of my skill and ability under the conditions present at the time.

I further certify that I am neither attorney or counsel for, nor related to or employed by any of the parties to the action; and further, that $I$ am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in this action.

Susan J. Robidas, LCR/RPR Licensed Shorthand Court Reporter Registered Professional Reporter N.H. LCR No. 44 (RSA 310-A:173)
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