

STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

12 APR '17 PM 1:32

March 29, 2017 - 2:08 p.m.  
Concord, New Hampshire

DAY 3  
AFTERNOON SESSION  
ONLY

RE: DE 16-576  
ELECTRIC DISTRIBUTION UTILITIES:  
Development of New Alternative Net  
Metering Tariffs and/or Other  
Regulatory Mechanisms and Tariffs  
for Customer-Generators.  
(Hearing on the Merits)

**PRESENT:** Chairman Martin P. Honigberg, Presiding  
Commissioner Robert R. Scott  
Commissioner Kathryn M. Bailey

Sandy Deno, Clerk

**APPEARANCES:** *(No appearances taken - refer  
to the daily sign-in sheets for  
this date of the proceedings)*

**CERTIFIED  
ORIGINAL TRANSCRIPT**

**Court Reporter:** Susan J. Robidas, NHLCR No. 44

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1                   AFTERNOON SESSION  
2                   (Resumed at 2:08 p.m.)

3                   CHAIRMAN HONIGBERG: I know there's a  
4                   number of people who want to ask questions of  
5                   Mr. Below. Did you all agree on an order, or  
6                   are we just going to work our way around the  
7                   room? Want to start with the Coalition down to  
8                   my left? You guys want to go first? Sure.  
9                   Why not.

10                  MR. EMERSON: I will be asking the  
11                  questions.

12                  CHAIRMAN HONIGBERG: All right, Mr.  
13                  Emerson, why don't you proceed.

14                                   CROSS-EXAMINATION

15 BY MR. EMERSON:

16 Q. Good afternoon, Mr. Below.

17 A. Good afternoon.

18 Q. The first series of questions that I wanted to  
19                  ask you about was if you could describe in a  
20                  little detail both the goals of the City of  
21                  Lebanon when it relates to its energy future,  
22                  and then also some of the specific projects  
23                  that are entailed in fulfilling those goals.

24 A. Sure. We have an adopted master plan which

1 functions as our policy and provides -- guides  
2 our outcome plans that the city administration  
3 uses both for planning and budgeting. And that  
4 calls for the city to be a leader in energy  
5 efficiency, renewable energy reliance and  
6 innovation across municipal, commercial,  
7 institutional and residential sectors. So, key  
8 outcome is specifically stated as the city rely  
9 upon as much local renewable energy as  
10 possible. So that's something of the context.

11 We have been working to inventory our  
12 opportunities. We identified that we have a  
13 megawatt of landfill gas that's ready for  
14 development for electric generation that's  
15 already been collected and flared and analyzed,  
16 and at least 2 megawatts of good PV sites, and  
17 probably as well a bit of hydro, potential for  
18 combined heat and power from renewables.

19 So, our objective I think is to try to  
20 both shift to more renewables and to save money  
21 in the process and perhaps generate some  
22 revenue for the city. Save money just not for  
23 the city and the taxpayers, but also for the  
24 local residents and businesses.

1           So, part of our goal is perhaps through  
2           using the municipal aggregation statute, which  
3           has a purpose of trying to provide  
4           opportunities to smaller customers that larger  
5           customers may have, to enable access for the  
6           city itself, as well as our residents and  
7           businesses, to real-time pricing, both as a  
8           medium for valuing exports on a temporal basis,  
9           as well as giving people the opportunity to  
10          access those relatively low prices in real time  
11          and enable them to respond to those prices.  
12          We've identified that the city has a  
13          significant amount of flexible load where we  
14          can do load shifting and take advantage of  
15          lower price hours with very little investment,  
16          because we already have SCADA systems automated  
17          for our water treatment, for instance. But we  
18          see opportunities to enable that for others as  
19          well. So we sort of see this as an opportunity  
20          to provide some leadership and some innovation.

21                 I know that the Town of Hanover happens to  
22                 be a helpful model because they went to --  
23                 became a direct market participant and went to  
24                 real-time pricing a few years back. So they

1           have a history that is rather persuasive, in  
2           terms of the value proposition. And the fact  
3           is that Dartmouth College is making major new  
4           commitments trying to be an energy innovation  
5           leader. So there's a lot of potential  
6           partnership opportunities for them to help in  
7           both sort of potentially help develop, but also  
8           help research and analyze and try out various  
9           ideas, such as ways to help enable customers to  
10          take advantage of load response.

11        Q.    So, I mean, it sounds like there are a lot of  
12           different components of the City of Lebanon's  
13           plans. But one important part of that is the  
14           production of distributed generation, and so  
15           the -- well, distributed generation is an  
16           important part of that plan.

17        A.    Yes.

18        Q.    And so what happens in this docket is really  
19           important to what the value would be to the  
20           City of Lebanon of performing or doing such an  
21           energy plan.

22        A.    Very much so. And we realize that some people  
23           may not want the risk exposure to real-time  
24           prices, the volatility. So it's also important

1 to us that net metering work for residents and  
2 businesses who just want sort of conventional  
3 net metering without real-time pricing, and we  
4 also don't want to disadvantage residents or  
5 businesses, in terms of unfair cost shifting.

6 Q. So I guess what I'm wanting to explore a little  
7 bit about is this concept that there's  
8 obviously the environmental or societal  
9 benefits which I'm sure are part of the City of  
10 Lebanon's plan. But in addition to that, there  
11 is some economic value to the city in following  
12 through with these types of plans. And, you  
13 know, roughly, who generally are the people who  
14 benefit from those types of economic benefits?  
15 You've mentioned that since it's the city, it  
16 is likely to be taxpayers. So, just -- you  
17 also mentioned that there could be businesses  
18 and other maybe non-business ratepayers that  
19 are also allowed to participate. So this isn't  
20 just limited to the municipal --

21 A. Correct.

22 Q. -- accounts.

23 A. Correct.

24 Q. All right. So those benefits of the system

1 will flow out generally to consumers, whether  
2 they're consumers of electricity or just may be  
3 general taxpayers of the city of Lebanon.

4 A. Correct.

5 Q. So, that sort of model, does that hold true for  
6 many other types of, as you say, non-profits  
7 which could be serving low-income customers or  
8 low-income people, and, you know, maybe  
9 educational institutions which are serving  
10 students? There are economic benefits that can  
11 flow out besides just to the individual  
12 ratepayers or generalized group of ratepayers  
13 from a robust net metering system.

14 A. Yes. Yes, we happen to have a lot of  
15 non-profits because we're a commercial center  
16 for the region. And we see value, both in  
17 terms of reducing cost, both short term and  
18 long term. But part of the long term is to  
19 move in a direction where flexible load can  
20 shift to lower-cost hours and thereby sort of  
21 improve the asset utilization rate or the  
22 capacity factor. You know, if we had a  
23 somewhat flatter load profile than the steep  
24 curve shape that we have now, in terms of the

1 annual load shape, then over time we will be --  
2 hope to avoid capacity additions, in terms of  
3 distribution and transmission to the region, to  
4 meet the area's growth by -- and, in effect,  
5 lower the cost per kilowatt hour by having the  
6 higher capacity utilization rate by having load  
7 respond to prices. And part of that is an  
8 issue for us because we are a fairly high  
9 growth area. We have a very large book of  
10 approved development, and continuing pressure  
11 for more.

12 Liberty has recently made major  
13 investments in increases in capacity, and that  
14 is resulting in a significant distribution rate  
15 case. But we have a pretty robust and reliable  
16 local distribution grid. But with the amount  
17 of housing and office that's scheduled for  
18 future development, there's going to be  
19 continued pressure to add capacity additions.  
20 And I think if we utilize more local renewables  
21 and do it in a smart way, including shifting  
22 demand and providing price incentives to  
23 produce it during the hours that are most  
24 valuable, or develop storage in that regard,

1           then I think it'll benefit the whole regional  
2           economy.

3       Q.    And so I think I've heard you discuss quite a  
4           bit about what might be part of Phase 2 when we  
5           get to time-sensitive rates.  But I would still  
6           imagine that you believe that it's important to  
7           have a good value proposition during Phase 1 in  
8           the short term, to make sure that the benefits  
9           are still available to municipal entities,  
10          non-profit entities, educational institutions.

11       A.   Yes.  Just for example, the Lebanon Housing  
12          Authority has proposed a large PV array on  
13          elderly low-income housing on a building called  
14          Roger's House next to city hall that's been  
15          through the approval process.  They just didn't  
16          have quite the budget to implement it, but  
17          they're hoping to implement it within the next  
18          couple years.  But their analysis was based on  
19          current net metering tariffs.  You know, so we  
20          hope that there's still a value proposition for  
21          them to do that and ultimately help stabilize  
22          their long-term costs for operating that senior  
23          low-income housing.

24       Q.    So I do want to move on to a different topic.

1           And this has to do with more generally your  
2           experience as a Public Utility Commissioner and  
3           ratemaking principles.

4                       So we've had some discussion earlier in  
5           the docket about the importance for gradualism  
6           and stability when it comes to changes in the  
7           rate classes that might avoid rate shock. Do  
8           you have -- are these principles of ratemaking  
9           that you would agree with, you think are  
10          important things to consider when adopting a  
11          new regime for net metering?

12       A.   Well, there's certainly principles that merit  
13          consideration. And I think in particular,  
14          having some predictability or ability to  
15          understand where you're going before you go  
16          there is important. I sort of temper -- in  
17          some ways I think our restructuring statutes  
18          suggest that the opportunity for customer  
19          choice bears at least as much, if not more  
20          weight than the gradualism principle, which is  
21          to say that sometimes, you know, when you're  
22          sort of shifting the way you do things, you  
23          have to make some structural changes that  
24          aren't gradual. And we've -- certainly the

1 nature of restructuring in New Hampshire has  
2 had elements of that. I think the telecom  
3 industry's another example where we went from  
4 sort of a traditional design to something that  
5 was very -- opened up competition and created  
6 opportunities for innovation and savings, but  
7 at the same time was perhaps somewhat less  
8 predictable or gradual than traditional  
9 regulated utilities.

10 Q. In this case, though, what I think you're  
11 referring to is the Phase 2, which is the more  
12 innovative stage of this, both settlements.  
13 Phase 1 is really a bridge to get us to  
14 Phase 2. So I guess the question is aimed more  
15 at Phase 2, if there's is some value to being  
16 incremental and providing stability while  
17 you're shifting, while you're in Phase 2 trying  
18 to make determination as to what Phase 2 --  
19 sorry -- as you're transitioning through  
20 Phase 1, to make a determination of what Phase  
21 2 will look like.

22 A. Yes, I agree that -- you know, in particular, I  
23 think it would not be productive to make a  
24 change that was so significant all at once that

1           it caused a loss of jobs in this industry. I  
2           perceive that it's something that should  
3           continue to grow as the terms of net metering  
4           become more granularly specific rather than  
5           more sort of the rough justice as we move to a  
6           more refined justice, that we need to -- I have  
7           a mixture of impatience. You know, I want to  
8           kind of move to the future quickly, maybe  
9           because I'm getting old and I've sort of been  
10          waiting a long time to get there, on the one  
11          hand. On the other hand, you know, I think we  
12          need to keep building on the success we've had  
13          in New Hampshire, moving towards a more local  
14          renewable, distributed resource system.

15        Q.   Yesterday, I believe on the Utility panel, I  
16           heard that -- and I'm paraphrasing, so I'm not  
17           trying to exactly quote -- that if we  
18           anticipate a problem, a cost-shift problem in  
19           the future, we should be doing something about  
20           it now, even though it's not a problem now.

21                        Is there a ratemaking principle or some  
22           guidance that, you know, you would -- you  
23           wouldn't make decisions based on lack of  
24           evidence in a possible future which is

1           uncertain? You would collect data, try to  
2           analyze the data, make appropriate decisions  
3           and then make the change that the data supports  
4           rather than, like I said earlier, changing  
5           something in anticipation that there might be  
6           some sort of problem or cost shift in the  
7           future.

8       A.    In general, that sounds reasonable. You know,  
9           there is some logic to trying to foresee trends  
10          and trying to change the structure so that  
11          things are moving in sort of a change in  
12          course. But I agree that, you know, in some  
13          respects, a gradual change in course is going  
14          to be less disruptive than a big change all at  
15          once.

16       Q.   And I guess that sort of flows into the next  
17          question, which is: You know, one of the sort  
18          of prime directives of this docket of HB 1116  
19          was to investigate whether there were cost  
20          shifts. And I think the assumption has always  
21          been that the cost shifts are from DG customers  
22          to non-DG customers, although, you know, I  
23          don't see anything in the law that would  
24          actually mean that it was limited to that

1 direction of a cost shift.

2 But have you seen -- is there any  
3 persuasive evidence in this docket? Is there  
4 any evidence at all that there is actually a  
5 net cost shift happening from DG customers to  
6 non-DG customers? And an important term that I  
7 used, "net cost shift," because I know that  
8 potentially -- and some utilities have shown  
9 that there is lost revenue associated with  
10 that, and that is some amount. But that  
11 doesn't take into account other benefits that  
12 could be flowing back to general ratepayers  
13 from DG that everybody is benefiting from  
14 generally.

15 Sorry. I'll just remind you of the  
16 question. Is there any evidence in the docket  
17 that that's the case, that there is a cost  
18 shift from -- a net cost shift from DG  
19 customers to non-DG customers?

20 CHAIRMAN HONIGBERG: I find it odd  
21 that you would ask a witness or party to this  
22 proceeding if there is evidence in the record  
23 of something. That's an argument for you to  
24 make, an argument for the parties to make. I'm

1 a little surprised that no one objected to that  
2 question. I think I might object to the  
3 question.

4 MR. EMERSON: I'm asking him to make  
5 an observation about the evidence that's  
6 presented since he's a former utility  
7 commission and can evaluate evidence as to  
8 whether a certain proposition has been --

9 CHAIRMAN HONIGBERG: Well, I think  
10 that's effectively asking him, "So, former  
11 Commissioner Below, what would you do? What do  
12 you think the state of the evidence is?" How  
13 different is that question from the one you  
14 just asked?

15 MR. EMERSON: I don't think it's  
16 different, but I guess --

17 CHAIRMAN HONIGBERG: And I'm not sure  
18 it's appropriate to ask a witness who's already  
19 testified about what he thinks we should do, to  
20 have him do it again, supposedly putting a  
21 different hat on. That's a strange way to  
22 approach questioning Mr. Below about the City  
23 of Lebanon's position, and even as his -- you  
24 know, in his very impressive, vast experience

1 here, what he thinks we should do. He's shared  
2 that with us.

3 MR. EMERSON: I will withdraw the  
4 question if --

5 CHAIRMAN HONIGBERG: Maybe you --  
6 anybody want to object to that question?

7 MR. EMERSON: I will rephrase it.

8 CHAIRMAN HONIGBERG: Why don't you  
9 try that.

10 BY MR. EMERSON:

11 Q. Do you believe there is a net cost shift from  
12 DG customers to non-DG customers?

13 A. In the greater scheme of things, if we  
14 incorporate sort of all the social cost issues,  
15 I'm not -- I'm skeptical whether there's a net  
16 cost shift. But for various reasons, you know,  
17 as a society we have not made sort of the  
18 political decisions to maybe put the full value  
19 on carbon, the real cost that might arguably be  
20 there. So, you know, sort of net -- I think,  
21 you know, the sort of current scheme has a  
22 rough justice.

23 I think the distribution utilities have a  
24 legitimate issue with regard to their

1 particular slice of the picture, which is, you  
2 know, just very summarily put, you know, when  
3 somebody who has net metering can put power  
4 onto the system and take it back, back and  
5 forth, essentially using the grid like a  
6 battery, if they're not paying anything for the  
7 use of the distribution system on that one  
8 element, there may be some significant cost  
9 shift. Is that balanced off against other  
10 elements? I tend to think that the balance of  
11 evidence indicates that the overall  
12 compensation is probably undercompensated. But  
13 that's when you, you know, put real full value,  
14 for instance, on the cost of carbon emissions  
15 and how renewable net metering systems can help  
16 displace that.

17 So, you know, I have some sympathy for the  
18 distribution utility position, that there is  
19 this somewhat geometric increase in the amount  
20 of solar systems going on and they don't have a  
21 revenue mechanism that's decoupled. So they're  
22 in a situation where the more systems get  
23 interconnected under the current scheme, the  
24 more they have eroding of sales and revenues,

1 and the more frequently they potentially have  
2 to come in for rate cases to make that up, or  
3 implement the lost revenue recovery mechanism.  
4 And even that, with all the evidence -- and I  
5 think there is evidence on both sides of the  
6 issue in this docket -- even with all that  
7 evidence, I'm not sure that recovery of that  
8 lost revenue isn't offset, for instance, by the  
9 value that solar produces, in terms of avoiding  
10 what would otherwise be higher forward capacity  
11 charges, what would otherwise be higher  
12 clearing prices on many, many summer  
13 afternoons. But unfortunately, there has not  
14 been really modeling of exactly what all the  
15 amount of solar that's been developed in New  
16 England, exactly how much that has produced in  
17 savings for all customers, in terms of simply  
18 lowering capacity, FCM charges and market  
19 clearing prices from what they would otherwise  
20 be. I think it's entirely possible that those  
21 savings more than offset the lost revenue  
22 recovery cost shift that may occur. But that  
23 being said, unfortunately, I don't think in  
24 this docket we really have all the evidence to

1           come to a definitive conclusion in that a  
2           manner.

3    Q.    Okay. Thank you. I guess, so that would mean  
4           you do not believe there's an unreasonable or  
5           unjust cost shift.

6    A.    In balance overall, I think there's a problem  
7           on the distribution rate element in particular.  
8           Leave it at that, yeah.

9    Q.    So I did want to talk a little bit about what  
10           you had mentioned at the end of your opening  
11           statement about the distribution credit being  
12           zero and that potentially it wouldn't have a  
13           large impact if you had monthly netting. Do  
14           you remember that statement right before we  
15           broke for lunch?

16   A.    Yes.

17   Q.    So if I understand that, you weren't saying  
18           that there's no benefit to the distribution  
19           system from distributed energy resources.

20   A.    Correct.

21   Q.    What you're saying is that, in the monthly  
22           netting, the difference between imports and  
23           exports netted over a month would be minimal.

24   A.    For residential systems that are sized at

1           approximately or less than the total  
2           residential load, correct.

3       Q.     Right.  So I guess I want to explore that topic  
4           a little bit because -- and you -- my reaction  
5           when you had said that was:  Okay, I get the  
6           concept.  But it seems like the problem may not  
7           be with the fact that you're valuing  
8           distribution -- you're providing distribution  
9           credit, but it may be -- and this is a future  
10          of both settlements -- it has to do with the  
11          fact that every month you are converting  
12          kilowatt hours into dollar credits, and then by  
13          the end of the year both proposals, I believe,  
14          say that you'll pay that out at the -- as a  
15          cash payment or have the option to receive that  
16          as a cash payment; is that correct?

17       A.     Yes.

18       Q.     So, in that mechanism, the combination of those  
19           two things would lead to, in certain  
20           situations, where you have an oversized project  
21           that has a lot of surplus at the end of the  
22           year would be getting more than avoided costs  
23           because it had already been converted to  
24           dollars.  You would be getting whatever the

1 component is of the export credit, which is  
2 greater than avoided costs.

3 A. Yes, potentially for up to 100 kW systems.

4 Q. Okay. Right, for 100 kW systems. But is  
5 that -- what I'm seeing in response to that,  
6 though, is that maybe you're addressing that  
7 problem, but it isn't necessarily a feature of  
8 the distribution credit or crediting for  
9 distribution? That may be a feature, a  
10 difficulty of converting to dollars. But what  
11 I see is that what it's doing is it's creating  
12 a very different value proposition for a  
13 customer that may have the capacity or the  
14 ability to build a solar project that is  
15 adequately sized for their load versus  
16 customers that are interested in net metering  
17 that may not have the ability -- meaning a  
18 group net metering system where you would have  
19 a project that is designed to serve more than  
20 one load, multiple loads, whoever are members  
21 of the group -- and by nature, that's going to  
22 have additional surplus.

23 A. Yes.

24 Q. And, you know, what will happen is that they

1 will have a much different value proposition  
2 for that type of project than someone who has  
3 the ability to essentially build the project on  
4 their own and serve their own load. Would you  
5 agree with that?

6 A. Yes. The difference would be a much, if not  
7 all, of the distribution value.

8 Q. Correct. Meaning that -- and since we've  
9 talked a bit about moderate- to low-income  
10 municipalities, non-profits, group net metering  
11 may be the most economic way in which they can  
12 participate in a group net metering system,  
13 such that, you know, if you're creating --  
14 you're trying to solve this problem that really  
15 relates to the crediting or converting of  
16 kilowatt hours to dollars at the end of the  
17 month, but you're changing the value  
18 proposition to address that, what might be a  
19 very unique situation where someone has  
20 oversized their system so that they have  
21 dollars at the end of the year just --

22 MR. FOSSUM: Mr. Chairman, I'm sorry  
23 to interrupt. I really am. I waited. I  
24 apologize. I'm not sure where the questions

1 are. This seems like an awful lot of -- it's  
2 almost testimony or argument. I'm not certain  
3 what question Mr. Below is being asked about  
4 his thoughts and opinions.

5 CHAIRMAN HONIGBERG: I hear you,  
6 Mr. Fossum. I was going to make sure that Mr.  
7 Below didn't answer whatever question came at  
8 the end of Mr. Emerson's run-up there.

9 I really think it would be more  
10 helpful, Mr. Emerson, if you would shorten the  
11 questions so that we can follow along with you  
12 and Mr. Below can follow along with you without  
13 having to process the entire story that you're  
14 telling as you go.

15 MR. EMERSON: Okay.

16 BY MR. EMERSON:

17 Q. I guess the question can be a simple one, that  
18 the proposal to not provide a distribution  
19 credit would have negative effects on the value  
20 proposition for customers that are interested  
21 in group net metering.

22 A. Compared to the current system or providing  
23 some credit for distribution, that would be  
24 true.

1 Q. And would the same also be true for a customer  
2 that is trying to size their system so that it  
3 may have exports on a monthly basis, but it's  
4 sized to be an annual load, so they don't end  
5 up having excess dollars at the end of the  
6 year? They're trying to match annual load to  
7 production, but it may be lumpy from month to  
8 month.

9 A. Only on the margins. And it looks like if the  
10 exports, annual exports are only on the order  
11 of 10 to 20 percent of the total production,  
12 then we're talking about somewhere on the order  
13 of two bucks, three bucks a month difference in  
14 the total value proposition for what's probably  
15 a \$10- to \$20,000 investment. It's something  
16 on the margins. I don't think it's a  
17 particularly -- it doesn't strike me as sort of  
18 a pivotal point, a major change in the value  
19 proposition.

20 Q. Do you think, though, that a possible way to  
21 address the problem may be in how you account  
22 for the excess dollars at the end of the year  
23 rather than trying to change the way that  
24 systems with significant monthly surplus would

1           be credited?

2       A.    That sounds like it might be administratively  
3           difficult.  And I personally don't see any -- I  
4           wouldn't want to see obstacles -- and when I  
5           say "personally," I'm really saying on behalf  
6           of the City, in terms of our goals.  When we  
7           did our solarized efforts, we found that there  
8           were a lot of residents and businesses who  
9           wanted to put on solar, but they just didn't  
10          have appropriate sites for it.  And there were  
11          other people who had good sites.  And if you've  
12          got a good site that could produce more than  
13          you need, you know, I'd personally like to see  
14          a structure that gives incentives and doesn't  
15          create barriers for people to oversize.  I  
16          don't see a problem with oversizing because it  
17          helps meet the needs of the folks down the  
18          street perhaps.

19                 That being said, I think perhaps a better  
20                 way to deal with the issue is a size -- you  
21                 know, maybe have some distribution credit for  
22                 under 20 kW if you had monthly netting plus  
23                 some distribution credit.  But once you went to  
24                 20 to 100, or if they're actually a group net

1           metering or group host situation, you might  
2           have some credit, but in that 20 to 100, if  
3           you're not a group host, then maybe no  
4           distribution credit with monthly netting would  
5           make sense, for instance. So that might be a  
6           way to, you know, address the issue in both a  
7           gradual way that sort of protects the -- moves  
8           the current value proposition incrementally  
9           slowly, you know, for residential-size systems,  
10          but also doesn't perhaps create a significant  
11          overcompensation where it doesn't exist now for  
12          somewhat larger systems -- which is to say,  
13          presently, if a system that was 25 kW produced  
14          twice as much as the homeowner or small  
15          business needed, right now they -- and they  
16          weren't a group host -- they could cash that  
17          in, but only in avoided costs. If they were to  
18          get the transmission credit plus a portion of  
19          the distribution credit, then they're going  
20          to -- that's going to be a more attractive  
21          proposition to put in a system that's larger.  
22          And again, I don't think that's necessarily  
23          bad, unless it's potentially creating a  
24          locked-in, grandfathered, long-term something

1           that may or may not, but may prove to be a  
2           significant cost shift. And that's where we  
3           are somewhat lacking in the overall data to  
4           come to a definitive conclusion on that  
5           question.

6    Q.    Is the Lebanon proposal to do landfill gas, is  
7           that proposed to be a net-metered project?

8    A.    Yes, we anticipate that.

9    Q.    So, in this docket we've discussed a lot about  
10           solar and the impacts of solar. But I'm sure  
11           you have some concerns that whatever program is  
12           developed provides reasonable opportunities for  
13           all forms of distributed generation and not  
14           just solar?

15   A.    Very much so. I mean, solar's dominating the  
16           net metering market today. But I think there's  
17           other technologies that may emerge as more  
18           significant players.

19   Q.    So I know in the Consumer/Utility Coalition  
20           proposal, part of their value of DER study  
21           proposes to look at the costs of solar, what it  
22           takes to develop it and install a project.  
23           Generally, is that something that you would do  
24           for a competitive industry like solar or other

1 renewable energy generation?  
2 A. No, I think that's more of a throwback to the  
3 cost-of-service regulated model. And I  
4 don't -- I think it's a lot of time and effort  
5 that's not productive or purposeful for the  
6 parties or the PUC to try to analyze what this  
7 should get, as if it was a regulated monopoly  
8 product. I mean, I think we need to set the  
9 parameters, the interface with the regulated  
10 rates, in way that's as fair as we can get them  
11 and move towards more granularity so that  
12 specific projects receive more of their  
13 specific value rather than sort of an average  
14 value. But, you know, if there's certain  
15 technologies or certain entrepreneurs that can  
16 do that more or less cost-effectively at some  
17 level. I think the rest of our business, the  
18 details is to their business proposition. The  
19 fact that consumers have a choice of who's  
20 going to put in their distributed generation  
21 system, and they have a choice of the type of  
22 technologies, I think that, you know, we should  
23 leave the competitive market to offer those  
24 options and, you know, whatever profit margins

1 or loss margins occur, as occurs in any  
2 competitive market.

3 Q. So my last couple of questions just have to do  
4 with what has been referred to as  
5 "instantaneous netting." So, one of the things  
6 that I sort of -- I see how it is a component  
7 of what is likely to be Phase 2, that you may  
8 want to consider something less than monthly  
9 netting when it comes to Phase 2. But do you  
10 think that its implementation now, in Phase 1,  
11 without any other price signals to the consumer  
12 or to the DG customer, does that have any  
13 benefit or possibly even send a negative price  
14 signal towards the customer?

15 A. I'm sorry. I didn't quite follow you. I lost  
16 my focus for a moment.

17 Q. I'll repeat it.

18 So essentially what you're doing is, you  
19 know, it's been described as an "incremental"  
20 step towards price-sensitive rates in the  
21 future. But there's no other change besides  
22 that in the Consumer/Utility Coalition  
23 proposal. That by itself, does that provide  
24 any positive rate incentives, or might it even

1 provide a negative rate incentive just by  
2 itself?

3 A. Right. You know, effectively, with a full  
4 default service and transmission credit, it is  
5 effectively monthly netting, whether -- you  
6 know, just because it's a one-to-one. You can  
7 even think of it as an annual netting because  
8 there's a cash-out or not at the end of the  
9 year. Going to that sort of granularity of  
10 instantaneous flows is -- I know that it's  
11 convenient from a metering point of view  
12 because you don't have to have an interval  
13 meter, so it's incrementally not that much more  
14 expensive than a current meter, and you read it  
15 the same way you do now. So in some ways  
16 that's convenient, but it doesn't match up with  
17 the actual market at wholesale, which is an  
18 hourly market at present. It might move to  
19 five minutes at some point for load. It's  
20 already five minutes for generators. But, you  
21 know, I am concerned that it does send sort of  
22 a perverse, inappropriate price signal, which  
23 is that -- and it's already been referred by  
24 other witnesses, that it's sending a price

1 signal that you're better off trying to match  
2 your load with your production in real time  
3 than what an hourly price signal might send,  
4 which is you're better off shifting your load  
5 to the low-cost hours which is going to benefit  
6 all other customers because it's going to bring  
7 down the demand at higher-price hours and bring  
8 down those prices. And actually, if you shift  
9 load to the low-price hours, including the  
10 negative price hours, that's going to help the  
11 central generation market. They would love  
12 enough load to move to the hours where they go  
13 negative, that they don't have to pay to  
14 generate power. And that's also going to  
15 benefit customers because we're not going to  
16 lose central station generation, you know,  
17 because they're having to pay to generate  
18 power.

19 MR. EMERSON: I have no more  
20 questions.

21 CHAIRMAN HONIGBERG: Thank you, Mr.  
22 Emerson.

23 Any other party of this  
24 Coalition have anything for Mr. Below? Ms.

1           Birchard.

2                           MS. BIRCHARD: Thank you, Your  
3           Honor.

4                           CROSS-EXAMINATION

5   BY MS. BIRCHARD:

6   Q.   Clifton, I'd like to describe -- can you hear  
7           me?

8   A.   Yes.

9   Q.   I'd like to describe two scenarios. Please  
10       assume that both scenarios involve homeowners  
11       with distributed energy resources who  
12       experience load changes. So, in the first  
13       scenario, the homemaker who raises two or three  
14       kids in her home and then decides to return to  
15       work in an office after her children go back to  
16       school; in the second scenario, a retired  
17       gentleman on a fixed income becomes a widower.  
18       As between the two settlement proposals, in  
19       your opinion, which would expose these  
20       customer-generators to greater risk? The  
21       Utility/Consumer Advocate proposal or the  
22       Energy Future Coalition proposal?

23   A.   A "risk," in terms of a change in the value  
24       proposition to their net-metered system?

1 Q. The ongoing value. Correct.

2 A. Okay. I think pretty clearly the  
3 Utility/Consumer Proposal, because they would  
4 be presumably reducing their load if they've  
5 got a solar system, reducing their load by  
6 their change in their lifestyle or  
7 circumstances, their daytime load, that would  
8 be offset in real time. They would see more of  
9 a change potentially than they would in the  
10 circumstance where they're still getting a  
11 significant distribution credit, and/or just  
12 the fact of the monthly netting instead of --  
13 monthly netting would sort of obviate -- they  
14 should be indifferent to the monthly netting  
15 probably because maybe, you know, they're load  
16 just shifts around and it doesn't really matter  
17 in monthly netting, because we already heard  
18 that there's unlikely to be a significant shift  
19 between monthly periods.

20 Q. Thank you. In your opinion, the opinion of the  
21 City of Lebanon, or your personal opinion, was  
22 an initial position in this proceeding of  
23 setting compensation at LMP, locational  
24 marginal price, within the zone of

1           reasonableness?

2    A.    No, not in the overall scheme of things for net  
3           metering, no.

4    Q.    Thank you.  You stated in your opening  
5           statement that you had installed a meter to  
6           track load and solar production; is that  
7           correct?

8    A.    Yes.

9    Q.    And you can look at minute-to-minute data, and  
10           you do so from time to time; is that correct?

11   A.    Yes.

12   Q.    Does your load and production graph look like  
13           Exhibit 67?

14   A.    No.

15   Q.    Can you tell me what's different about it?

16   A.    Well, I was just looking at my load shape a few  
17           minutes ago, and it's quite jagged.  I don't  
18           know exactly why, but something's turning on  
19           and off at my house.  And because it's  
20           overcast, my solar production is quite a smooth  
21           curve right at the moment.

22            You know, suffice it to say that, you  
23            know, the more granular you have of data --  
24            and, you know, I can look at the last thousand

1           one-minute reads, which is roughly 16 hours of  
2           data right now, and there's -- today there's a  
3           very choppy look, a mixture of steps and a  
4           mixture of chop to my consumption, and a fairly  
5           smooth curve on my solar production. I have  
6           looked at it on sunny days with clouds passing.  
7           I have to have micro inverters that are less  
8           susceptible to the cloud-cover effect. So,  
9           sometimes, occasionally the solar looks a  
10          little more volatile than the load. But  
11          generally my load looks more volatile than the  
12          solar production.

13        Q.    Okay. And you're a pretty savvy energy  
14              consumer. Would you deem that to be an  
15              accurate statement?

16        A.    Sure.

17        Q.    But you're not sure what's responsible for  
18              these jagged peaks and valleys in your  
19              electricity consumption; is that correct?

20        A.    Correct.

21        Q.    Could you respond to price signals under the  
22              Utilities proposal?

23        A.    I think we've tried to make a point of charging  
24              our electrical vehicle whenever, you know, the

1 sun's out, make sure we plug it in right when  
2 we come home rather than waiting until later in  
3 the evening. I think we make more of an effort  
4 to run the clothes dryer when it's sunny out  
5 than when it's not sunny out, or at night.

6 Q. And what affect would that have on the overall  
7 costs of our electric system, in your opinion?

8 A. Well, shifting my load onto high demand hours,  
9 which, you know, a sunny afternoon often is in  
10 the summertime, you know, that would have the  
11 effect of making less of my exports available  
12 to otherwise decrease the wholesale demand,  
13 which has a very small, incremental, upward  
14 pressure on the wholesale clearing price from  
15 what it would otherwise be.

16 Q. Thank you. How high a priority do you believe  
17 it to be, for purposes of lowering all New  
18 Hampshire customer bills, to put DG and non-DG  
19 customers, either or both in the state, on a  
20 trajectory to time-of-use rates?

21 A. I think that's very important ultimately for  
22 two reasons. One, we have a somewhat  
23 dysfunctional wholesale market. And this is  
24 sort of Economics 101. To have good price

1 formation and market efficiency, efficient  
2 prices meaning, you know, lower prices, you  
3 have to have supply and demand, and where those  
4 curves meet is where the price clears. But if  
5 only generation or sort of large-scale,  
6 wholesale --

7 (Pause in proceedings)

8 CHAIRMAN HONIGBERG: Do you remember  
9 where you were mid-sentence?

10 MR. BELOW: Not exactly.

11 BY MR. BELOW:

12 A. The supply and demand curves. We have a market  
13 in which mostly just supply responds to the  
14 day-ahead or real-time price signal. If we  
15 engaged load in responding to the same price  
16 signals, I think we could produce a lot more  
17 savings for everyone. And part of that comes  
18 from this notion that very high demand hours  
19 tends to be very high-price hours. And if we  
20 move load away from -- move flexible load away  
21 from those high-price hours, people can save  
22 money, but more importantly, we change the  
23 ratio of energy consumed to the amount of fixed  
24 capacity that we have to buy. And ultimately,

1           there's a lot of potential savings there. And  
2           of course I put in my testimony the fact that  
3           we've seen a 10-percent decline in New  
4           Hampshire and in New England in our capacity  
5           factor over the last 15 years or so, and the  
6           current projections will continue that decline  
7           in capacity factors. So we're buying more --  
8           supporting more and more distribution,  
9           transmission and generation capacity for fewer  
10          kilowatt hours, which means more expensive  
11          kilowatt hours. If we can reverse that trend  
12          by engaging load in responding to real-time  
13          price signals, or anytime variable rates, then  
14          that's going to produce value.

15                 And the same thing -- even though there's  
16          not a wholesale market, the same thing  
17          translates to transmission and distribution  
18          because, there again, all of the capacity --  
19          and I would note that in Liberty Utilities'  
20          recent marginal cost study in their recent rate  
21          case, it's pretty clear that the bulk of  
22          marginal costs are capacity-related. So there  
23          are savings to be had there, especially in the  
24          long run, if we can have a better

1 asset-utilization rate.

2 Q. Thank you. In your opinion, do data- and  
3 value-based rates have the potential to enhance  
4 competitive markets in New Hampshire?

5 A. Yes.

6 Q. And in your opinion, do data- and value-based  
7 rates have the potential to help us -- meaning  
8 consumers and the state at large -- make  
9 investments that are wiser with our eyes wide  
10 open?

11 A. Yes.

12 MS. BIRCHARD: That's all my  
13 questions. Thank you.

14 CHAIRMAN HONIGBERG: Going to take a  
15 two-minute break and see if we can get  
16 Commissioner Scott back on the line. Don't  
17 move.

18 (Pause in proceedings)

19 CHAIRMAN HONIGBERG: All right.  
20 Mr. Fossum, you wanted to proceed?

21 MR. FOSSUM: Thank you. I have just  
22 very few questions.

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CROSS-EXAMINATION

BY MR. FOSSUM:

Q. Mr. Below, in your opening remarks, you spent some time discussing potential impact on competitive suppliers. Do you remember those remarks?

A. Yes.

Q. Are there any competitive electric suppliers participating in this docket?

A. Within the definition of "competitive electric supplier," I don't think so. Freedom Energy Logistics has an affiliate that's a competitive supplier, I believe, or two.

Q. Do you think it is -- does lack of participation indicate anything to you about their interests in serving net-metered customers, or net metering generally?

A. Yeah, I think that it's not barely on their radar screen, apparently, or it's certainly not worth spending time to deploy paid personnel to participate in this proceeding.

Q. Switching now to -- you had made a number of remarks about potential tax consequences during your opening remarks. Referring to, I guess

1 the term we've been using, the "instantaneous  
2 netting" or a "buy/sell" model, to your  
3 knowledge, is there anyplace in the country  
4 where such a model is being employed presently?

5 A. I have the impression that -- well, the Co-op  
6 right here in New Hampshire is using  
7 instantaneous metering, if you want to call it  
8 that, or bidirectional no netting. I was  
9 looking at all of their language in their -- or  
10 at least some of their language. They're very  
11 clear in terms of structuring it as a credit.  
12 And I think that they are in fact -- it  
13 appears, because they are self-supplying their  
14 default service load, that they're using it to  
15 offset the load that they have to acquire for  
16 their default service customers. So it appears  
17 that they are treating it as an offsetting  
18 netting for the customer and offsetting netting  
19 for themselves as the default service  
20 suppliers.

21 Q. And are you aware of any places outside of New  
22 Hampshire that are doing it?

23 A. I've heard of places where they're considering  
24 things like that. You know, I think Hawaii has

1 something like it. There's something pending  
2 in Arizona. Those are the two that come to the  
3 top of my head. I guess I don't really know  
4 specifics of other states.

5 Q. Well, I guess the reason for me asking is, to  
6 the best of your knowledge, in any of those  
7 places where they're either doing it or are  
8 contemplating it, has there been any  
9 tax-related impact to customers that you're  
10 aware of?

11 A. Not that I'm aware of, no.

12 Q. And my last question is a follow-up to a  
13 question you answered from Mr. Emerson.

14 Do you recall he asked you a question  
15 about whether it's worth the time to look at  
16 the cost of installing solar panels, the cost  
17 to installers and customers? Do you remember  
18 that question?

19 A. Yes.

20 Q. And your response, if I remember correctly, was  
21 basically, no, it's not worth their time.

22 A. Right.

23 Q. Isn't one of the purposes of this docket to  
24 determine what rate of compensation is

1           necessary to ensure that customers have a  
2           reasonable opportunity to install distributed  
3           generation?

4       A.    I don't really read it that way, per se.  It  
5           does -- certainly there's the continuance of  
6           reasonable opportunities for customers to  
7           invest in and interconnect self-generation and  
8           receive their compensation.  But to my mind,  
9           the opportunity gets created by the regulatory  
10          and rate structure for that.  It's not so much  
11          a function of the profitability, or lack  
12          thereof, of the industry itself.  I mean,  
13          clearly we're still at fairly low penetration  
14          rates in New Hampshire.  So I don't think this  
15          is something that's wildly lucrative for  
16          customers or installers at this point.

17       Q.   Be that as it may, I guess my question is:  
18           Wouldn't knowing the cost of one of these  
19           systems help inform what level of compensation  
20           is necessary to ensure that customers have  
21           reasonable opportunities to participate?

22       A.    Not especially, because I think that's sort of  
23           a dynamic question.  And the type of system --  
24           and installers are going to have quite

1 different, quite possibly different cost  
2 structures. You know, I know that, for  
3 instance, you know, tracking systems versus  
4 fixed-panel systems have significantly  
5 different costs.

6 But, you know, I don't think we're trying  
7 to design a rate structure to try to get a  
8 particular path for development based on the  
9 cost of the competitive market; rather, we're  
10 trying to create a structure that sends  
11 appropriate price signals all the way around  
12 and is fair to people on both sides. And if it  
13 works out that what is fair either makes it  
14 uneconomic or much more economic, that's almost  
15 beside the point. The question is getting the  
16 structure so that it is fair to the utilities  
17 and the customers, sort of independently of  
18 what the economics of a particular technology  
19 at a particular point in time are, and then  
20 either the technologies will fit the economic  
21 opportunity or not. And, you know, there's  
22 external policies that say, "We want to give  
23 you additional incentive for this, such as the  
24 federal tax credit." For instance, just

1           because the federal tax credit goes away  
2           doesn't mean we should necessarily, as a matter  
3           of rate design, make up for that to keep the  
4           economics the same for installers.

5                       MR. FOSSUM: Thank you. That's all I  
6           have.

7                       CHAIRMAN HONIGBERG: Who's next? Mr.  
8           Sheehan?

9                       MR. SHEEHAN: Thank you.

10                                       CROSS-EXAMINATION

11 BY MR. SHEEHAN:

12 Q.    Mr. Below, I just have a couple questions about  
13        the pilot program that you discussed with Ms.  
14        Tebbetts yesterday.

15 A.    Yes.

16 Q.    Will the City's pilot include a municipal  
17        aggregation program where the City will become  
18        the NEPOOL-direct participant and will look to  
19        sign up net-metered customers to receive  
20        real-time pricing for energy service --  
21        basically, be acting as a third-party supplier  
22        providing real-time pricing?

23 A.    Essentially, that's how we are conceiving it at  
24        the moment. The Town of Hanover, which is

1 already a NEPOOL participant, has expressed  
2 interest through their manager and public works  
3 director and their energy committee in  
4 collaborating with the City. RSA 353-E  
5 specifically provides for municipalities to do  
6 this jointly. So there is the possibility that  
7 we may not become a NEPOOL participant if we  
8 can use Hanover's account. But we may well do  
9 that on our own as well.

10 Q. And if this is the case, will this require the  
11 participants to be billed only for energy  
12 service by the City rather than by Liberty, so  
13 that the City can bill real-time prices?

14 (Court Reporter inquiry)

15 CHAIRMAN HONIGBERG: Mr. Sheehan, if  
16 you could move the microphone closer, that  
17 would help.

18 MR. SHEEHAN: Sure.

19 A. Yes. You know, we've talked -- I've talked  
20 with Ms. Tebbetts, that, you know, Liberty  
21 doesn't have the ability to do that. And we  
22 don't expect that, you know, they would try to  
23 develop that ability. So we would expect, for  
24 the energy component, that the municipal

1           aggregation, or somebody we contract with,  
2           would be responsible for billing the energy  
3           component.

4    Q.    And so would the customers receive real-time  
5           pricing credit from the City for the exported  
6           power?

7    A.    Yes.

8    Q.    If that's so, and if the Commission approves  
9           the Energy Future Coalition's proposal, do you  
10           believe you can get participants to sign up for  
11           real-time pricing if the customers are being  
12           paid full default service for exports rather  
13           than the real-time credit that you would be  
14           offering?

15   A.    Yes.

16   Q.    You think you could?

17   A.    Yes, and I'll be happy to explain why.

18   Q.    Sure.

19   A.    First of all, I think that there's going to be  
20           significant interest from the potential energy  
21           savings -- for the cost savings from accessing  
22           real-time prices. But more significantly, I  
23           think that having those prices, there's the  
24           opportunity for customers, or the city, at city

1 sites, to provide systems that could actually  
2 produce at higher-than-average price hours,  
3 such that even -- you know, when you sell,  
4 there has to be some mark-up to cover RPS  
5 compliance costs, as well as billing and  
6 administration. But even with those adders,  
7 tentatively looking at this, it looks like  
8 people could actually get, you know, more than  
9 the average price for their production and pay  
10 less than the average price for what they  
11 consume. So they could actually end up better  
12 than one-to-one that just the default service  
13 credit would give. So I think that is a  
14 potential attraction.

15 The other attraction -- I've already had a  
16 number of people say "Sign me up." People that  
17 can't put in PV at their home site are very  
18 interested in the concept of maybe buying, for  
19 instance, a 5-kW tracker that could be on a  
20 city site, and that's how they could -- you  
21 know, essentially, if they own it and they're  
22 taking it remotely, they'll get compensated for  
23 real time when it goes out, and they'll pay  
24 real time plus a retail adder when they

1 consume. But again, you know, tracking,  
2 particularly in my own analysis for the year  
3 that I presented in my direct testimony,  
4 tracking systems were producing at between 120  
5 and 144 percent of the average load-weighted  
6 average real-time price all around. So there's  
7 a significant margin there that consumers could  
8 actually end up better off, compared to, say, a  
9 group host situation.

10 Q. Thank you. That's all I have.

11 CHAIRMAN HONIGBERG: Who else from  
12 that group? Mr. Kreis.

13 MR. KREIS: Thank you, Mr. Chairman.  
14 I remembered to turn my microphone on.

15 CROSS-EXAMINATION

16 BY MR. KREIS:

17 Q. Good afternoon, Councilor Below.

18 A. Good afternoon.

19 Q. I want to make sure I understand your position  
20 completely. I have heard you offer up a  
21 lengthy set of critiques of the  
22 Consumer/Utility proposal. I'm wondering if  
23 you could just help me by explaining in about a  
24 hundred words or less what it is you don't like

1           about the Energy Future Coalition proposal.  
2           Why shouldn't the Commission just stamp that  
3           "approved"?

4       A.    One point was the 75-percent and 50-percent  
5           distribution credit on monthly exports.  In  
6           considering it for someone who's sizing the  
7           system to meet their own load, with the very  
8           limited data we have, it looks like they may be  
9           able to achieve on the order of 75 percent or  
10          more, certainly probably more than 50 percent  
11          of distribution credit offset just by virtue of  
12          the monthly netting.  That additional 50 or  
13          75 percent may be excessive and unnecessary.  
14          And perhaps there could be a slight  
15          unintentional effect of, you know, if that --  
16          once we have the data, if that proves to be  
17          somewhat excessive compensation, then you could  
18          end up with a situation where you have a number  
19          of systems that could develop -- that are  
20          developed specifically for the purpose of  
21          creating cash value to be cashed out at the end  
22          of the year, that could be grandfathered for a  
23          long period of time that we'd be locked into.  
24          So that's probably my biggest concern with that

1 proposal.

2 CHAIRMAN HONIGBERG: That was about  
3 120.

4 MR. BELOW: Okay.

5 MR. KREIS: Still, though, he did a  
6 really good job I thought. Sorry about the  
7 editorial.

8 BY MR. KREIS:

9 Q. Did you finish your answer?

10 A. Well, just, you know, there's more detail in  
11 the Utility/Consumer Proposal and a number of  
12 areas that aren't there in the other proposal  
13 that -- so I think that's sort of a weakness of  
14 the other proposal. But by drawing from both,  
15 that could be reconciled.

16 Q. I understand. I want to ask about House  
17 Bill 1116. You're familiar with House Bill  
18 1116, which is Chapter 31 of the New Hampshire  
19 laws of 2016; correct?

20 A. Yes.

21 Q. You participated in the legislative hearings  
22 and work sessions that led to the passage of  
23 that bill?

24 A. Yes.

1 Q. So you're familiar with its specific language,  
2 and you probably have some personal subjective  
3 views about what the intent of that language  
4 is. Would that be a fair statement?

5 A. That's fair.

6 Q. In House Bill 1116, it says, and I quote, "In  
7 developing such alternative tariffs and any  
8 limitations in their availability" -- and let  
9 me just say parenthetically, that's the purpose  
10 of this docket, according to the legislature --  
11 now reading again, "the Commission shall  
12 consider... an avoidance of unjust and  
13 unreasonable cost shifting."

14 A. Yes.

15 Q. What does that phrase "avoidance of unjust and  
16 unreasonable cost shifting" mean to you, given  
17 your experience both as a legislator and a  
18 utility commissioner?

19 A. Well, the conditions of unreasonable and just  
20 indicate that some cost shifting may be  
21 occurring. And I think that's sort of the  
22 nature of the many rough justices that exist  
23 with regulated rates. But we want to avoid a  
24 structure that unfairly, unjustly creates

1 shifting of costs between consumers,  
2 customer-generators, utilities. You know, you  
3 want to have a balance of benefits and costs  
4 that are, you know, proportional to the  
5 customer's situation and ultimately their cost  
6 causation.

7 Q. So is a -- hypothetically, is a lack of hard  
8 evidence about present-day unjust and  
9 unreasonable cost shifting, does that mean the  
10 Commission can or should just ignore that issue  
11 and wait for some future proof that there's  
12 unjust and unreasonable cost shifting?

13 A. No. I think they have to -- they and we -- or  
14 they have to make their best judgment based on  
15 the available evidence as to sort of the  
16 probability of whether there may or may not be  
17 a significant cost shift, and if that's  
18 unreasonable or not.

19 Q. You would agree with me that commissioners make  
20 those probability-related judgments all the  
21 time about future events; do they not?

22 A. All the time.

23 Q. Maybe not all the time, but often.

24 I want to make sure that I understand the

1 pilot proposal that is the subject of your  
2 original testimony.

3 My first question is: To what extent are  
4 you asking the Commission to approve that pilot  
5 project in the present proceeding?

6 A. That's a good question, because I did sort of  
7 ask for that in my direct testimony.

8 At this point, I'm sort of looking for the  
9 Commission to provide some encouragement that I  
10 can take back to the rest of the City. You  
11 know, I've already been encouraged by Liberty,  
12 the fact that they've indicated that they're  
13 quite willing to work with us and try to work  
14 through these fairly challenging and complex  
15 issue, because the reality is nobody has been  
16 able to deploy a significant amount of interval  
17 metering to enable this kind of option for  
18 customers. So it's no small undertaking.

19 So, essentially, I expect that with some  
20 encouragement, we'll go ahead and try to work  
21 through those things, and if there's a pilot  
22 task force set up, work in that context. But  
23 we have a certain timetable that we'd like to  
24 move ahead of pace on, and with the hope, you

1 know, with the expectation that we'd need to  
2 come back to the Commission either as an  
3 extension of this proceeding or perhaps a new  
4 docket. I don't really want to start from  
5 scratch. But, you know, we may have to come  
6 back to address some tariff, some pilot  
7 tariffs, some possible rule waivers or rule  
8 changes, although that's sort of generic to  
9 this whole docket. The current rules don't fit  
10 anything that's likely to come out of this  
11 proceeding, so there's going to have to be work  
12 there.

13 Q. You mentioned a timetable. Do you have an  
14 anticipated start of the pilot?

15 A. In general, we are -- the City happens to have  
16 entered into a two-year, fixed-price contract  
17 with a competitive supplier a while back.  
18 Those prices run out in November. So we're  
19 contemplating possibly moving to real-time  
20 pricing at that point. We don't expect that  
21 the aggregation would be ready to launch at  
22 that point. But we'd like to launch it  
23 possibly, you know, roughly a year from now.  
24 Early next spring is when we might like to be

1 signing folks up and beginning to offer the  
2 service. And in that time frame, we expect our  
3 own landfill gas project to get constructed,  
4 hopefully next year, and potentially some of  
5 the solar projects, so that we can actually  
6 offer some actual net metering opportunities  
7 not just for the City, but also for other  
8 customers, because in a fairly short period of  
9 time we could be producing more than the City  
10 itself needs to consume. And so we'd be  
11 looking for customers, essentially in the form  
12 of community net metering, to absorb all that  
13 production and also create opportunities for a  
14 number of -- we just had a very strong vote to  
15 change our zoning throughout the community that  
16 in effect allows for communities to get scaled  
17 solar throughout all the districts. So we've  
18 kind of set the regulatory structure that  
19 enables this at a local level.

20 Q. Your testimony mentions RSA 53 -- or your  
21 testimony mentions Section 6 of RSA 53-E, which  
22 is the statute that refers to electric  
23 aggregation plans. That's the statute under  
24 which the City intends to proceed?

1 A. Correct.

2 Q. Is it the City's position that, if it proceeds  
3 under RSA 53-E, it requires Commission approval  
4 before moving forward?

5 A. Not strictly speaking, I don't believe.

6 Q. So is it the City's position that it doesn't  
7 need Commission approval?

8 A. To initiate a municipal aggregation?

9 Q. Yes.

10 A. Correct.

11 Q. RSA 53 -- well, the second paragraph of  
12 RSA 53-E:6 -- that is to say, Section 6 of  
13 Chapter 53-E -- says, "The plan," meaning the  
14 municipal aggregation plan, "shall provide  
15 universal access." How does what you are  
16 planning provide universal access?

17 A. Well, the convenient feature for us is that  
18 only Liberty serves in Lebanon. So if we can  
19 work out our issues with Liberty, then, when we  
20 roll this out as required by the statute, once  
21 we adopt a plan -- and because we're a city, we  
22 don't have to go to a town meeting; we can do  
23 it through the city council -- we would be  
24 sending a letter to every resident and

1 business. The statute doesn't exactly provide  
2 for where we get the addresses of all utility  
3 customers, but maybe -- but it does expect that  
4 we would open it up to any, it appears, to any  
5 resident or ratepayer perhaps within the city,  
6 so that this would go beyond -- you know,  
7 obviously, this would be more than just a net  
8 metering pilot. There's aspects where we would  
9 need, you know, Commission approval to do  
10 certain aspects of this, in all likelihood.  
11 But the idea would be that it would be open to  
12 any citizen. They wouldn't have to participate  
13 in net metering to join the aggregation. And  
14 I'm assuming the parameters of the plan would  
15 be that we're offering real-time pricing.

16 Q. And I think when you were talking about the  
17 letter that would go out to all the citizens of  
18 Lebanon, you were referring to the explicit  
19 requirement to that effect in Section 7 of the  
20 statute; yes?

21 A. Yes.

22 Q. Who's going to write that letter?

23 A. I haven't crossed that bridge. We did  
24 authorize the creation of a full-time energy

1 facilities coordinator for the City, and the  
2 City administration is preparing to put that  
3 position out to hire. So we will hopefully  
4 have somebody on board to help on all of these  
5 projects.

6 CHAIRMAN HONIGBERG: Mr. Kreis, I'm  
7 feeling a little dense. Where are we going  
8 with this?

9 MR. KREIS: We're about to go  
10 somewhere else.

11 CHAIRMAN HONIGBERG: All rightie  
12 then.

13 MR. KREIS: I'm good at reading the  
14 room.

15 BY MR. KREIS:

16 Q. I think the -- actually, I have just one more  
17 question. I have to ask about this.

18 Your testimony talks about a pilot that  
19 runs through 2040. That is, by my math, 23  
20 years. Isn't that a long time for a  
21 Commission-approved pilot project?

22 A. It is. I think the key elements of this are  
23 going to be the metering question, as well as  
24 the question of transmission credit for actual

1           avoided marginal costs for transmission, where  
2           we can actually -- a meter coincident of DG  
3           with -- net-metered DG with monthly peak,  
4           coincident peaks on which the wholesale  
5           transmission charges are based. So the statute  
6           allows for either time- or size-limited pilots.  
7           This would be somewhat time-limited. But more  
8           importantly, it would be size-limited by the  
9           nature of the number of municipalities,  
10          initially probably just Lebanon and maybe  
11          Hanover, that might participate in this. But  
12          at some level it goes beyond a pilot to perhaps  
13          trying to be a pioneer.

14                 But I think the real point is if we are  
15          able to figure out a way to get the interval  
16          metering in place and the transmission credit  
17          tariff and so forth, we have -- and enough  
18          participants -- we sort of have a test bed to  
19          do additional pilot work.

20                 I've already had a brief conversation with  
21          Liberty about a way that we could pilot a  
22          time-variant distribution rate, but hold  
23          Liberty whole, in terms of what they would  
24          otherwise get from revenue from our customer

1 base, and do it through our use with interval  
2 meters. And I think, particularly Dartmouth's  
3 potential participation and involvement, you  
4 know, helps provide it to be a potentially  
5 useful sort of research test bed for how --  
6 enabling people to, you know, respond to  
7 prices, analyze what's going on and so forth.  
8 Plus, being big users themselves could end up  
9 coming into the fold of being part of a larger  
10 effort to develop local renewable resources.

11 Q. It would be tempting to go on about this, but I  
12 won't.

13 I want to move over to a subject that  
14 Mr. Fossum raised with you, and I wanted to ask  
15 you a few more questions about it. It has to  
16 do with tax issues.

17 If I understood your testimony correctly,  
18 you are concerned that at least the  
19 Consumer/Utility proposal raises the  
20 possibility that customers could incur taxable  
21 income and/or lose the investment credit that  
22 they would otherwise receive under the Internal  
23 Revenue Code; is that a fair statement?

24 A. Fair enough, yes.

1 Q. You are not an attorney; correct?

2 A. Correct.

3 Q. And you are not a CPA?

4 A. Correct.

5 Q. You mentioned in your testimony that you've  
6 prepared over 100 tax returns in your life.

7 Are those tax returns that you have prepared  
8 for clients or others who have hired you to do  
9 their tax work for you -- for them?

10 A. Some of both. I did spend part of a tax season  
11 working for my uncle who had a tax-return  
12 preparation business, and I prepared many  
13 returns there. But in subsequent years, I've  
14 also continued to prepare business tax returns  
15 for businesses that I'm involved in, where I  
16 also do all the accrual-based, double-entry  
17 bookkeeping. And none of them have ever been  
18 subject to audit that I know of.

19 Q. That's good.

20 You offered into evidence Exhibit 66 as an  
21 analysis that the Commission might consider of  
22 some of these issues. Do you have that exhibit  
23 in front of you?

24 A. I do.

1 Q. Who's Kayci Hines, the author of the exhibit?

2 A. Well, there's a footnote on the front page that  
3 gives a little bit of information about her.

4 Q. Well, you mentioned that you spoke with her.  
5 Where did you reach her?

6 A. I Googled her name and I got a phone number and  
7 I called up and left a message and she tracked  
8 down my e-mail and e-mailed me. So we didn't  
9 actually end up speaking, but we e-mailed back  
10 and forth.

11 CHAIRMAN HONIGBERG: Mr. Kreis, I've  
12 let you go a little ways here, but you know  
13 this is a topic, as you acknowledged, that  
14 Mr. Fossum covered. I had understood there was  
15 some informal ground rule that attorneys on the  
16 same side of this wouldn't duplicate topics.  
17 Do you feel like we're going to give undue  
18 weight to former Representative/Senator/  
19 Commissioner/current Councilor Below/not a  
20 lawyer's opinion about federal income tax law?

21 MR. KREIS: No. But what I am  
22 concerned about is that you might give undue  
23 weight to a law student note that was written  
24 by a law student, who now works at a law firm

1 in New York City, not practicing tax law,  
2 written under the supervision of a gentleman  
3 who is currently the policy advisor to the  
4 California Solar Energy Industries  
5 Association --

6 CHAIRMAN HONIGBERG: And edited by a  
7 law student, as we established earlier.

8 MR. KREIS: And edited by a law  
9 student. So that is sort of by way of a mini  
10 offer of proof. Now, I have the author's  
11 little mini bio from her law firm in New York  
12 City that I can introduce into evidence, or I  
13 can ask the Commission to take administrative  
14 notice of the facts that I just rattled off, or  
15 I can ask Commissioner Below about them. It's  
16 up to you, of course.

17 CHAIRMAN HONIGBERG: Well, I guess  
18 the more general point is that I understood  
19 that there was a ground rule that counsel on  
20 the same side wouldn't cover the same material  
21 twice, and we are covering an area that  
22 Mr. Fossum dealt with a little bit. And I  
23 understand that there's more, certainly more  
24 that could be done with this. I'll let you

1 follow this down if you want to introduce that  
2 exhibit and ask Mr. Below a few more questions.  
3 You may proceed.

4 MR. KREIS: Well, let me try it this  
5 way.

6 CHAIRMAN HONIGBERG: We have a lot of  
7 people who can help you distribute things.  
8 Mr. Aslin is raring to go, right next to you.

9 MR. KREIS: Okay. Great. We can do  
10 it that way.

11 (Mr. Kreis distributing documents.)

12 MR. BUXTON: Mr. Chairman.

13 CHAIRMAN HONIGBERG: Mr. Buxton.

14 MR. BUXTON: Would it be appropriate,  
15 Your Honor, for the record to note that that  
16 criticism was by a law professor?

17 CHAIRMAN HONIGBERG: Oh, always.

18 MR. KREIS: So I just handed a piece  
19 of paper to Commissioner Below that ought to be  
20 marked as an exhibit, but I don't know what the  
21 next number is.

22 CHAIRMAN HONIGBERG: Eighty-seven.

23 (Exhibit 87 marked for identification.)

24 BY MR. KREIS:

1 Q. Okay. Directing your attention to what has  
2 been marked as Exhibit 87, Commissioner Below,  
3 and asking you to accept my representation to  
4 you that it is information that I downloaded  
5 earlier today from the Worldwide Web, from the  
6 web site of the New York City law firm of  
7 Windels, Marx, Lane & Mittendorf, LLP, what do  
8 we know about the author of Exhibit 66's,  
9 Attorney Kayci Hines?

10 Well, let me ask you this: Did she write  
11 the article that you're relying on while she  
12 was a law student?

13 A. This appears to say that.

14 Q. And is she practicing tax law now?

15 A. Well, it says the practice includes business,  
16 but not specifically tax, no.

17 Q. So she isn't representing herself as an expert  
18 on tax matters for hire to clients in New York.

19 A. No. I don't know.

20 Q. Fair enough.

21 MR. KREIS: Mr. Chairman, those are  
22 all my questions for Commissioner Below.

23 I would move the admission of  
24 exhibit -- I've forgotten the number now --

1 CHAIRMAN HONIGBERG: Eighty-seven.

2 MR. KREIS: -- 87.

3 CHAIRMAN HONIGBERG: All right.

4 Without objection, we'll strike the I.D. of 87.

5 It's a full exhibit.

6 (Exhibit 87 admitted.)

7 CHAIRMAN HONIGBERG: And when Ms.  
8 Hines Googles herself, she will have no idea  
9 this was going to happen.

10 MR. KREIS: She'll be moving to New  
11 Hampshire, I'm sure. She's a celebrity here  
12 now.

13 CHAIRMAN HONIGBERG: All right.

14 MR. KREIS: Of course, Mr. Fossum  
15 will have to decide if she can pass the bar  
16 exam.

17 CHAIRMAN HONIGBERG: Mr. Aalto, do  
18 you have a questions for Mr. Below?

19 MR. AALTO: A few brief ones.

20 CHAIRMAN HONIGBERG: Find a  
21 microphone, please. Looks like next to Mr.  
22 Sheehan.

23 MR. AALTO: Thank you, Mr. Chairman.

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CROSS-EXAMINATION

BY MR. AALTO:

Q. Mr. Below, I thank you very much for your testimony. I found it very instructive and a source for more work to be done in the future.

An area of concern was your assessment of distribution value, or lack thereof. If I as a customer reduced my load by one kilowatt hour, I reduce the amount of generation, transmission, distribution to get the power to my neighborhood, and I don't pay anything for the power that I didn't use. If I export a kilowatt hour, my neighbor uses it. Except for the transmission of a few hundred feet to my neighbor's house, the system behaves exactly the same as the deferred kilowatt hour that I didn't buy by saving it. And it would seem that your sense is that there is an unjustifiable transfer -- let me back up a bit.

If I'm given a credit of that full value of that kilowatt hour that my neighbor paid to the utility, who did not provide that service, then your sense is that the distribution portion of that is perhaps unfairly being paid

1 to me and is in fact unfairly ending on the  
2 other customers. Why is that any different  
3 from the same kilowatt hour that I just saved  
4 by turning out the light when I left the room?  
5 Why shouldn't I be paying a distribution  
6 charge, because the effect is exactly the same?

7 A. I don't see that it's exactly the same. It's  
8 going through the utility meter and out to the  
9 street and using some poles and wires and maybe  
10 a transformer to provide energy somewhere else.  
11 I mean, just to take it to an extreme, let's  
12 say we just had -- let's say the City of  
13 Lebanon had enough distributed generation to  
14 power the whole city all the time, combined  
15 with storage and such. We'd still need a  
16 distribution grid to power -- to move that  
17 power around.

18 Q. Would the payment for that by -- would the  
19 generator then essentially assume a  
20 hundred-percent responsibility for paying for  
21 it, which would happen under those conditions,  
22 or would that be divided 50/50 between the  
23 buyers and the sellers? I guess what I'm  
24 trying to get at is currently the distribution

1 charges are the same whether the power is  
2 coming from Canada or next door.

3 A. That seems to be true.

4 Q. Then the question would be: Should there be  
5 perhaps a difference in price between how far  
6 it travels, where it is on the system or  
7 something like that; or, as I think you pointed  
8 out, as the voltage or the loading on a wire  
9 changes, perhaps the price should be different  
10 to the buyer? Perhaps a credit should be there  
11 also in exactly the same way that the credits  
12 are there for displacing generation on a sort  
13 of market basis is what I hear you asking for,  
14 but not for distribution.

15 A. Maybe theoretically. But, you know, as a  
16 practical matter, it's difficult to make all  
17 the measurements and calculations and billing  
18 to get that granular.

19 Q. I guess the main thing that I'm looking for, I  
20 think you might have mentioned it earlier,  
21 perhaps if the amount of power is small, then  
22 we could have a higher credit for distribution  
23 displacement, and if it's really large, it  
24 would be a lot smaller. Would something like

1           that --

2       A.    I think there's some logic to that.  And in  
3           fact, both the current and the proposed rate  
4           structures, or at least some of them, proposed  
5           that, in that greater than 100 kW is treated  
6           differently than smaller than.

7                       MR. AALTO:  I think that's all I  
8           have.  Again, thank you very much.

9                       CHAIRMAN HONIGBERG:  Anyone else  
10          before I turn it over to Mr. Wiesner?

11                      [No verbal response]

12                      CHAIRMAN HONIGBERG:  Mr. Wiesner, you  
13          may proceed.

14                      MR. WEISNER:  Thank you, Mr. Chairman  
15          I just have a few clarifying questions.

16                      CROSS-EXAMINATION

17       BY MR. WIESNER:

18       Q.    I just want to go back up to your testimony  
19           earlier, before we broke.

20                      Is it your testimony that monthly netting  
21           results in a greater or lesser quantity of  
22           exports than instantaneous netting?

23       A.    Less.  By its nature, I think the longer  
24           periods you net over, the less, you know, the

1           less churn or difference you're going to have  
2           between imports and exports.

3    Q.    And does that depend on the type of metering?  
4           If the metering is the same for both monthly  
5           netting or instantaneous netting bill  
6           treatment, let's say, does that affect the  
7           quantity of the exports?

8    A.    I'm not sure I understand your question.

9    Q.    If a bidirectional meter is recording imports  
10           and exports, isn't monthly netting really just  
11           a bill credit calculation?

12   A.    It's certainly -- you could certainly do  
13           monthly netting, as apparently Eversource is  
14           now doing with bidirectional meters. Just by  
15           taking the amount of imports, less exports,  
16           you've got either net imports or net exports  
17           for the month.

18   Q.    So was your reference previously to monthly  
19           netting based on a different type of metering  
20           technology, such as running backwards?

21                   (Court Reporter inquiry)

22   A.    No. I think what I was trying to refer to as  
23           monthly netting is, since that's the billing  
24           period for the customer, and functionally the

1 billing and reconciliation for the supplier  
2 load, obligations and wholesale, even though  
3 they pay more frequently, that monthly netting,  
4 whether done with an instantaneous meter or a  
5 meter that runs backwards and forwards, that  
6 just gives you the net for the month. Those  
7 are essentially the same concept in alignment  
8 with the PURPA definition of net metering.

9 Q. Okay. Thank you. And you testified at some  
10 length about retail/wholesale load obligation  
11 allocation issues, in particular with respect  
12 to competitive suppliers participating in that  
13 net metering. And my question is whether that  
14 analysis is affected by whether the crediting  
15 is done based on monthly netting or  
16 instantaneous netting.

17 A. Well, that would certainly affect it. The  
18 Utility/Consumer Coalition proposal would  
19 seemingly create perhaps very different  
20 apparent retail sales and apparent retail load  
21 requirements for competitive -- for default  
22 service or competitive supplier, potentially  
23 because they would be -- with instantaneous  
24 metering they would simply be getting the

1 revenue or ascribe the kilowatt hours of sales  
2 for all instantaneous imports to the customer  
3 without any offsetting from exports; whereas,  
4 if you did monthly netting, then that would be  
5 greatly reduced. Their sales -- before even  
6 figuring out what their monthly sales or  
7 revenue from that customer were, you have  
8 already subtracted out the kilowatt hours. Or  
9 you could do it on a dollar basis. But the  
10 point would be that they would be less apparent  
11 sales, less apparent kilowatt-hour sales, and  
12 less, potentially less apparent wholesale  
13 obligation. But that gets obscured by the fact  
14 that all of the exports somehow end up in the  
15 load-adjustment factor between retail and  
16 wholesale and in a way that's not proportioned  
17 to each supplier based on their customer base,  
18 but rather the benefit of reduced wholesale  
19 procurement, load requirements. It gets -- as  
20 was testified to yesterday by Mr. Davis and Mr.  
21 Labrecque, it gets socialized to all suppliers  
22 uniformly, with the possible exception of  
23 settlement-only generators, which might be  
24 handled differently somehow.

1 Q. Thank you. Given the issue that you've  
2 described regarding retail/wholesale load  
3 obligation allocation, do you have a sense of  
4 what the magnitude of that issue represents in  
5 terms of dollars? Are we looking at tens of  
6 thousands of dollars? Hundreds of thousands?  
7 Millions?

8 A. I don't have a sense of that, in part because I  
9 have -- except for my one data point, which I  
10 have no idea how representative that is of  
11 other potential net-metered situations, I just  
12 really don't have any idea how differently  
13 instantaneous metering could be from monthly  
14 netting, except that it appears that it might  
15 be quite significant from my few data points.  
16 And that would have to scale to all the  
17 additional new net metering systems that are  
18 added over time until, you know, things  
19 changed. You know, I just have a sense that it  
20 could become a problem. But we don't really  
21 have a sense of it because we can't quantify it  
22 at this point.

23 Q. Okay. Thank you.

24 And there was some discussion earlier

1           about value-based rates and value-based rate  
2           designs. Can you explain your understanding in  
3           that context of who the value accrues to,  
4           whether it's customer-generators, other  
5           customers, society as a whole?

6       A.    I think the notion of value-based rates  
7           suggests that the product, which is the power  
8           from net-metered systems when it's exported,  
9           should be -- the compensation for that, the  
10          credit for that in an offsetting situation  
11          should be based on the value that it is  
12          providing, such as in avoiding, you know,  
13          various costs.

14                 There is, I think predicated in Senate  
15                 Bill 1116, and in general New Hampshire  
16                 legislative policy, the notion that we want to  
17                 make changes and enable these things in a way  
18                 that hopefully provides some benefit to all  
19                 customers. And I think ultimately that is  
20                 fair. And at some level that's why I'm not too  
21                 terribly concerned about trying to precisely  
22                 quantify the sort of "but for" case of what  
23                 would markets have cleared at, the energy  
24                 markets and the forward capacity market, what

1           would they have been but for all the solar  
2           that's put in the region. I think that's  
3           probably a very significant number. There's  
4           some evidence in my testimony that points to  
5           the fact that those may be very significant  
6           numbers. I think they should be recognized.  
7           But ultimately some of that value should accrue  
8           to the benefit of all ratepayers. Although,  
9           you know, a significant portion of that value  
10          should also go to those who cause that benefit  
11          to be created, which is why I think it's  
12          ultimately important even for larger systems to  
13          recognize that if they actually turn down the  
14          meter at the wholesale transmission point and  
15          reduce transmission charges from what they  
16          would otherwise be, that there be some credit  
17          for that, where that doesn't now exist, for  
18          instance, for over a 100 kW systems.

19        Q.    So, both at market price you described, as well  
20            as the transmission cost-allocation effect  
21            should be considered in a value of DER study --

22        A.    Yes.

23        Q.    -- is that what I understand?

24        A.    Yeah.

1 MR. WEISNER: No further questions.  
2 Thank you.

3 CHAIRMAN HONIGBERG: Commissioner  
4 Bailey.

5 INTERROGATORIES BY CMSR. BAILEY:

6 Q. Good afternoon.

7 A. Good afternoon.

8 Q. As an energy-savvy customer that you are,  
9 assume you don't have a rooftop solar system  
10 right now and you're looking at investing in a  
11 rooftop solar system, and we have approved --  
12 and the Utility/Consumer proposal is in effect.

13 A. Okay.

14 Q. Can you give me an estimate of how likely you  
15 would be to invest in solar under those terms?

16 A. Well, I'd certainly want a sense of how much of  
17 my load was going to be offset.

18 Q. Can you figure that out?

19 A. No, not without the meters that I've put in,  
20 which if I didn't have a system I wouldn't have  
21 done that.

22 Q. Yeah.

23 A. No, I'd really be puzzled by that, in part  
24 because I don't -- if I didn't have a system, I

1 wouldn't know, you know, exactly what's going  
2 on, on a moment-to-moment, instantaneous basis  
3 with the PV production, much less when my load  
4 occurs and how that's going to add up over the  
5 course of the year. It's hard to get anything  
6 more than a very rough sense. And if there was  
7 some range of experience, that to me would be  
8 very helpful if they could say, well, you know,  
9 a hundred other customers, this is the average  
10 and, you know, this is the range that people  
11 tend to consume in real time. Then, at least I  
12 would have a handle. Because I did, you know,  
13 work on the numbers, look at the payback  
14 period. I looked at the assumptions. And I  
15 think many savvy people would. You know, it's  
16 a pretty big choice, a pretty big decision to  
17 invest, even with prices coming down. It's  
18 still a big investment. It's like buying a  
19 car. And so, you know, it takes a while -- it  
20 took me a number of years before I was ready to  
21 make that leap.

22 Q. And do you think that the analysis would be  
23 easier if we had approved the Coalition's  
24 proposal?

1 A. With the monthly?

2 Q. Yes.

3 A. Yes, because all of the sort of projections  
4 that I've seen for solar systems typically show  
5 it by month. Here's what it's projected to  
6 produce every month. And there's lots of  
7 places online where you can get that. You  
8 know, you can go to the PVWatts that is  
9 referenced at the PUC and put in your own  
10 numbers and run it, and it gives you the  
11 monthly totals. And you've got your -- you can  
12 get your bill history from the utility and know  
13 what you've consumed over each month. So you  
14 could look at that and say, Well, what's my  
15 monthly net going to be? And if I, you know,  
16 put in a different tilt system because it's in  
17 my back yard, you know, what's that effect  
18 going to be? You know, you can really analyze  
19 those things and come to some comfort that, you  
20 know, the payback is really going to be, you  
21 know, 12 years or 14 years or whatever.

22 Q. Do you think the solar industry, if we approve  
23 the Utility model -- or proposal could come up  
24 with some kind of modeling that, you know, asks

1           you questions like: Do you work during the  
2           day? Do you have a hot water heater that's  
3           electric or gas? I mean, could they come up  
4           with some model to help customers figure out,  
5           although it wouldn't be as precise?

6       A.    If there was already a database they could go  
7           to of experience so that they could correlate,  
8           you know, when you do your laundry, with how  
9           much that results in instantaneous offsetting  
10          of PV production.

11                 But part of the problem here is that  
12           utilities have the metered data, although they  
13           don't have it on an instantaneous basis. But  
14           with the bidirectional meters, for instance,  
15           that Eversource has now, if they also had the  
16           production data, you could evaluate that. But  
17           right now, neither party has both sets of data.  
18           And through this process, even with all the  
19           discovery, which included a lot of spreadsheets  
20           with a lot of data, that data never came out.  
21           And I'm not sure -- I'm not even sure if it's  
22           available except on a customer-by-customer  
23           basis. But it could be collected and  
24           understood.

1 Q. But that would only work for sometime in the  
2 future?

3 A. Right. There has to be a deliberate effort to  
4 collect that data and make it available for  
5 analysis.

6 Q. Okay. Thank you.

7 CHAIRMAN HONIGBERG: I have no  
8 questions, Mr. Below. This would normally be  
9 the time when a witness would be redirected by  
10 his or her counsel. In light of the answers  
11 that you have given to the questions that folks  
12 have been asking you, is there anything you  
13 feel you want to clarify or follow up on,  
14 understanding that you're going to have another  
15 crack at summing up?

16 MR. BELOW: No, I don't believe so.  
17 Thank you.

18 CHAIRMAN HONIGBERG: All right.  
19 Let's go off the record.

20 (Discussion off the record)

21 (WHEREUPON, STAN FARYNIARZ was duly sworn  
22 and cautioned by the Court Reporter.)

23 CHAIRMAN HONIGBERG: Mr. Wiesner.  
24

1 DIRECT EXAMINATION

2 BY MR. WIESNER:

3 Q. Mr. Faryniarz, for the record, would you please  
4 state your name, title and affiliation.

5 A. Stan Faryniarz. I'm a principal consultant  
6 with Daymark Energy Advisors headquartered out  
7 of Boston, Mass.

8 Q. And was Daymark engaged to provide consulting  
9 services to Commission Staff in connection with  
10 this proceeding?

11 A. It was.

12 Q. And did you file prefiled rebuttal testimony in  
13 this proceedings which has been premarked as  
14 Exhibit No. 65?

15 A. I did.

16 Q. Was that testimony prepared by you or under  
17 your direction?

18 A. It was.

19 Q. And do you have any changes or corrections to  
20 that testimony?

21 A. I have one.

22 Q. Please describe that change.

23 A. On Page 29 of my testimony, which I believe is  
24 Bates 30, Line No. 6, there's a reference to

1 the 1990s. I would like to change that to the  
2 1980s.

3 Q. You may be the only person who wants to go back  
4 to the '80s.

5 And with that correction, if I asked you  
6 the same questions today, would you provide the  
7 same answers?

8 A. I would.

9 MR. WEISNER: Mr. Chairman, I move  
10 that Exhibit 65 be entered into the record of  
11 this docket.

12 CHAIRMAN HONIGBERG: Without  
13 objection, that's now a full exhibit.

14 (Exhibit 65 admitted.)

15 BY MR. WIESNER:

16 Q. Mr. Faryniarz, could you please provide a brief  
17 overview of your rebuttal testimony and provide  
18 some summary comments regarding the two  
19 settlements that have been filed in this case.

20 A. Good afternoon, parties, counselors and  
21 Commissioners. My firm and I entered this case  
22 on behalf of the Commission Staff in August of  
23 2016. Working with Staff, I came to understand  
24 the parties, who have been represented by

1 smart, committed people who, it is my  
2 contention, acted in good faith in this  
3 process. The Commission can take some comfort  
4 that it has the benefit in this proceeding of a  
5 robust group of experts, many with national or  
6 multistate experience. Of course, with that  
7 experience comes disparate viewpoints on many  
8 subjects.

9 I was asked to prepare rebuttal testimony  
10 for Staff with two overriding priorities:  
11 Identify the strengths and weaknesses in direct  
12 testimonies filed by the parties at the outset,  
13 from a neutral position, with the intent to  
14 help develop an appropriate record that spoke  
15 to the House Bill 1116 requirements.

16 The rebuttal testimony I submitted is  
17 intended to assist the Commission in creating  
18 the next phase of New Hampshire's net energy  
19 metering program. In reviewing the direct  
20 testimonies of the parties, I found that, while  
21 no party got it all right, neither did any  
22 party get it all wrong. My rebuttal testimony  
23 addressed the cost and benefits of distributed  
24 generation, cost shifting between customers,

1 tariff and rate design issues, potential pilot  
2 programs, and data collection to inform future  
3 net metering tariff revisions and refinements.

4 The rebuttal was drafted in recognition of  
5 the following: A) there is currently a  
6 relatively low penetration of DG in New  
7 Hampshire, and consequently there is not yet an  
8 unreasonable cost shift or lost revenue problem  
9 compared to other non-distributed generation  
10 influences; B) the record on benefits and costs  
11 of distributed generation to the distribution  
12 and transmission systems of the utilities,  
13 consumption and export patterns for NEM  
14 customers, and how DG could be integrated to  
15 lower system costs is insufficient to create at  
16 this time a final NEM tariff; and C) the  
17 ratemaking principle of gradualism suggests  
18 incremental reforms -- for instance, taking the  
19 system benefits charge and stranded costs, also  
20 referred to as "non-bypassable charges," out of  
21 grid export compensation and conversion of  
22 kilowatt-hour banking to monthly monetary  
23 credits.

24 Staff has recognized that significant

1 additional data collection from more advanced  
2 metering data on T&D system benefits and costs  
3 of DG integration, potential pilot programs and  
4 studies, such as we and others have  
5 recommended, would all help to better develop a  
6 record for establishing a more durable NEM  
7 tariff. However, a bridge is needed to get to  
8 that point and allow those pilots and studies  
9 to bear fruit. Our recommendations for such  
10 studies were intended to inform future  
11 Commission decisions on the construct of future  
12 DG rate design to ensure proper price signals  
13 and adherence to ratemaking principles.

14 I am pleased to report that the two  
15 competing settlement proposals filed with the  
16 Commission and discussed this week overlap in  
17 more areas than not, and both are consistent on  
18 many points with Staff's rebuttal  
19 recommendations. It is important to recognize  
20 the good faith shown by two competing sets of  
21 parties, as it is clear they have moved from  
22 more extreme initial positions. The settlement  
23 process resulted in some substantial progress  
24 in developing a subsequent tariff for the next

1 phase of New Hampshire's NEM program and  
2 guidance in charting a path forward.

3 Finally, allow me to express my gratitude  
4 to the Commission and Staff in allowing me to  
5 appear before you today.

6 MR. WEISNER: The witness is  
7 available for cross-examination.

8 CHAIRMAN HONIGBERG: Is there any  
9 agreement as to who's going first?

10 MR. EMERSON: I'm going to go first  
11 from --

12 CHAIRMAN HONIGBERG: Mr. Emerson.

13 MR. EMERSON: And I do have a series  
14 of exhibits to propose, and they're all in the  
15 binder. They're EFC Exhibits 157 through 166,  
16 and they're all discovery responses.

17 CMSR. BAILEY: Did you say 157  
18 through 166, or 157 and 166?

19 MR. EMERSON: Through.

20 CHAIRMAN HONIGBERG: Do you  
21 anticipate using all of them? That's 10, I  
22 think.

23 MR. EMERSON: Yes. Essentially what  
24 they are is just clarification as to what

1 should be included in the studies.

2 CHAIRMAN HONIGBERG: Okay. So we  
3 want to mark them as the next 10 exhibits  
4 because you're going to use all 10 of them?

5 MR. EMERSON: Yeah. And I actually  
6 don't intend to ask many questions. I figured  
7 it would save time just to enter them into the  
8 record and --

9 CHAIRMAN HONIGBERG: As long as you  
10 make sure he gets a set and make sure that he  
11 authenticates them for us so there's some basis  
12 for us to admit them into the record as full  
13 exhibits.

14 MR. EMERSON: Okay. So we're going  
15 to go 88 through 97.

16 MR. EMERSON: Actually, it includes  
17 156 as well. I'm sorry. I said -- it starts  
18 at 156.

19 CHAIRMAN HONIGBERG: Okay. So  
20 it's --

21 MR. EMERSON: It's 11 exhibits, 156  
22 through 166.

23 (Exhibit 88-98 marked for identification.)

24 CHAIRMAN HONIGBERG: Mr. Emerson, I

1 think you can proceed.

2 MR. EMERSON: Thank you, Mr.  
3 Chairman.

4 CROSS-EXAMINATION

5 BY MR. EMERSON:

6 Q. Good afternoon.

7 A. Good afternoon.

8 Q. I just have just a few questions. It won't  
9 take long. I first just wanted to discuss a  
10 little bit about your testimony and your  
11 recommendations for the value of DER study that  
12 would be conducted in anticipation of Phase 2.

13 I think in your testimony some of the  
14 characteristics of the study you mentioned  
15 should be -- it should address marginal cost  
16 concepts; is that correct?

17 A. That's correct. Long-term marginal cost  
18 concepts.

19 Q. So you anticipated my next question. So your  
20 recommendation is for long term.

21 A. That's correct.

22 Q. We had some discussion yesterday about what the  
23 difference between short term and long term  
24 would be. What is your meaning by the use of

1 "long term"?

2 A. Well, let me start by suggesting an economist  
3 would define "long term" as "that period in  
4 which all costs, including capital costs, are  
5 variable and could be altered by decisions made  
6 now." With that said, there's clearly a  
7 difference of opinion on the term of such  
8 studies. Utilities seem to have a shorter,  
9 more limited view of the value of DER study  
10 horizon, while the Energy Futures Coalition  
11 group appears to be in favor of a much longer  
12 term of up to 25 years. I have a few comments  
13 about that gap.

14 The short term may miss the opportunity  
15 for DER to be constructive in avoiding or  
16 deferring the investments beyond that horizon,  
17 mostly because much of the transmission and  
18 distribution plant is already embedded and  
19 couldn't necessarily be avoided by distributed  
20 generation.

21 Too long a term is problematic for a  
22 number of reasons, most prominently because of  
23 technological changes during that period of  
24 time and exogenous market reforms and other

1 forces that influence or alter the input  
2 factors and production. And the other problem  
3 with the ultra long-term approach is it  
4 severally discounts the out-year effects in  
5 present-value calculations.

6 I think, finally, I'd like to state we  
7 need to remember that planning itself is a  
8 cyclical process. No one study is going to  
9 ensure we get it right for the long term. So,  
10 revisitation of items like export credit,  
11 valuation, location, valuation of DER is never  
12 inevitable.

13 Q. I think you also said in your testimony that in  
14 these studies it would be okay to include the  
15 cost and benefits of externalities, so long as  
16 you're not double-counting those costs or  
17 benefits; is that correct?

18 A. I suggested the Commission could consider them,  
19 to the extent that they're documentable and not  
20 double-counted through some other valuation  
21 technique.

22 Q. And I think I heard you say that the study  
23 should also include a locational element,  
24 especially for costs and benefits to the

1 distribution system?

2 A. That's correct.

3 Q. Thank you. Do you have before you what have  
4 been --

5 MR. EMERSON: Remind me what the  
6 exhibit numbers are?

7 CHAIRMAN HONIGBERG: Starting with 88  
8 up through 98 I think.

9 BY MR. EMERSON:

10 Q. Okay. Do you have before you what have been  
11 marked as Exhibits 88 through 98?

12 A. I haven't been able to go through them all, but  
13 I believe I have them, since you supplied them  
14 and are about to ask me questions about them.

15 Q. Yes. Do you recognize those as your responses  
16 to discovery questions in this docket?

17 A. I do.

18 Q. And are they addressing questions about what  
19 you would recommend to be components of the  
20 various studies that would take place prior to  
21 Phase 2?

22 A. That's my recollection, yes.

23 MR. EMERSON: So I would move the  
24 admission of Exhibits 88 through 98.

1                   CHAIRMAN HONIGBERG:   Seeing no  
2                   objection, we'll strike the I.D.  Those are  
3                   full exhibits.

4                   (Exhibit 88-98 admitted.)

5  BY MR. EMERSON:

6  Q.   Just a quick question on Page 42 of your  
7       testimony.  This is, at least on the version I  
8       have, it's actually Bates stamped 43, and it's  
9       Line 1.  Starts on Line 1.  And you say it's --  
10      I'll let you get there first.

11  A.   I believe I'm there.

12  Q.   Okay.  You say, "A seemingly extreme position  
13      is that there are no avoided cost benefits of  
14      DG on the distribution system, only costs from  
15      additional wear and tear on equipment due to  
16      reverse power flows."  Could you elaborate a  
17      little bit on why you characterize that as "a  
18      seemingly extreme position"?

19  A.   Well, I think that the record created,  
20      including up to the last couple of days,  
21      suggests that the distributed generation could  
22      in fact potentially avoid late-year or  
23      later-year distribution system investments.  It  
24      has potentially the effect of helping to

1           utilize more fully the distribution system. So  
2           I think those are a couple of good examples why  
3           I believe it's somewhat extreme to suggest  
4           there are no benefits, at least without further  
5           study. I'm not here suggesting that ultimately  
6           the conclusion of Phase 1 and the outcome of  
7           Phase 2 is that it's decided that there are no  
8           distribution system benefits. But to prejudge  
9           it seems extreme.

10        Q.     Okay. Thank you.

11                        So, lastly, I just wanted to discuss in  
12           your prefiled testimony, and this is -- I think  
13           there's a reference to it on Bates Stamp  
14           Page 109, at the bottom -- you discuss the  
15           National Association of Regulatory Utility  
16           Commissioners tariff manual on DER. And I  
17           think -- well, I'll let you get to the page.  
18           But you're familiar with that manual?

19        A.     I am.

20        Q.     And you've relied on it in a number of  
21           instances in your testimony to help guide  
22           decision-making in this docket?

23        A.     It appears to be a resource upon which the  
24           Commission could rely.

1 MR. EMERSON: So I would move that  
2 the Commission take administrative notice of  
3 the tariff manual.

4 CHAIRMAN HONIGBERG: Mr. Fossum.

5 MR. FOSSUM: I haven't looked at the  
6 administrative notice rule in a few days, but  
7 I'm not certain that that's a document of which  
8 the Commission can take administrative notice.

9 MR. EMERSON: I could respond with  
10 my -- I am relying on 203.27(a)(4), that "The  
11 Commission shall take administrative notice  
12 when a party presents one or more of the  
13 following: Codes or standards that have been  
14 adopted by an agency of the United States, of  
15 New Hampshire or of another state, or by a  
16 nationally recognized organization or  
17 associated," which I would imagine NARUC falls  
18 under that definition. And these are  
19 guidelines for how a regulatory commission  
20 could approach dealing with the issues in this  
21 docket and one which the Staff's expert has  
22 relied on.

23 CHAIRMAN HONIGBERG: Mr. Wiesner.

24 MR. WEISNER: I think that's an

1 appropriate interpretation. We don't object to  
2 the administrative notice.

3 CHAIRMAN HONIGBERG: Mr. Fossum.

4 MR. FOSSUM: My only question -- I  
5 believe it's a draft manual is all. I don't  
6 believe that it's a code or standard that has  
7 been adopted. And feel free to correct me if  
8 I'm wrong, but I do understand that to be a  
9 draft document.

10 CHAIRMAN HONIGBERG: Mr. Faryniarz,  
11 what can you tell us about the document  
12 referenced at the bottom of Bates 109 of your  
13 testimony?

14 WITNESS FARYNIARZ: My understanding,  
15 Mr. Chair, is that it started as a draft, but  
16 there's now a final version of that manual.  
17 And my further understanding is the differences  
18 between the draft and the final were  
19 substantial due to stakeholder comments.

20 CHAIRMAN HONIGBERG: Do you know if  
21 it's gone through the NARUC process of being  
22 adopted formally?

23 WITNESS FARYNIARZ: I can't speak to  
24 that, Mr. Chair.

1 CHAIRMAN HONIGBERG: Hmm.

2 WITNESS FARYNIARZ: I recollect a  
3 press article I read --

4 CHAIRMAN HONIGBERG: I'm not sure  
5 that does it for me.

6 WITNESS FARYNIARZ: Okay.

7 MR. KREIS: Mr. Chairman.

8 CHAIRMAN HONIGBERG: Mr. Kreis.

9 MR. KREIS: Mr. Chairman, I have  
10 access to the Web here in the hearing room.

11 CHAIRMAN HONIGBERG: Technology is a  
12 wonderful thing.

13 MR. KREIS: It surely is. NARUC did  
14 issue a press release on November 10th that  
15 says, "The National Association of Regulatory  
16 Utility Commissioners has released a final  
17 publication of its manual," and then gives the  
18 title. The manual was an undertaking of NARUC  
19 Staff Subcommittee on Rate Design. So I think  
20 it might turn on whether you think the NARUC  
21 Staff Subcommittee on Rate Design is a body  
22 whose work the Commission can take  
23 administrative notice pursuant to the rule Mr.  
24 Emerson quoted. The OCA has no objection to do

1           whatever determinations you want to make.

2                       CHAIRMAN HONIGBERG: Well, NARUC  
3           process usually goes through subcommittees that  
4           then make recommendations to the full body, and  
5           then the full body votes at one of its meetings  
6           whether to adopt whatever it is the  
7           subcommittees have recommended. So it  
8           wouldn't --

9                       MR. KREIS: Well, sorry to interrupt,  
10          but just reading on in that press release, "The  
11          NARUC Board of Directors will take up a motion  
12          to formally accept the manual on Tuesday,  
13          November 15, during the annual meeting." I  
14          wasn't at the annual meeting. Maybe one of you  
15          remembers.

16                      MS. BOYD: I have an article from  
17          November 17th that says --

18                      (Court Reporter inquiry)

19                      CHAIRMAN HONIGBERG: Who's talking?  
20          Okay. Ms. Boyd.

21                      MS. BOYD: "NARUC formally adopted a  
22          manual this week on the compensation of DER."

23                      MR. WEISNER: Mr. Chairman, my  
24          understanding is that what is attached --

1 excerpts of that manual are attached to Mr.  
2 Faryniarz's testimony and that that is the  
3 final version, not a draft version.

4 CHAIRMAN HONIGBERG: All right.

5 MR. EMERSON: And that is fine by me.

6 CHAIRMAN HONIGBERG: All right. Then  
7 we will take administrative notice of the  
8 manual. Interestingly, our board member --  
9 there is a NARUC board member who is a member  
10 of the Commission. He's listening on the  
11 phone, but kind of a one-way communication.

12 MR. EMERSON: That was the last  
13 question that I had. So we can move on to the  
14 next.

15 CHAIRMAN HONIGBERG: All right.  
16 Thank you, Mr. Emerson.

17 Who else had questions over  
18 here? Ms. Birchard.

19 MS. BIRCHARD: Thank you,  
20 Commissioners and Mr. Faryniarz. I have just a  
21 few questions.

22 CROSS-EXAMINATION

23 BY MS. BIRCHARD:

24 Q. First, in your opinion, do you have any

1 concerns that the nature of the Utility/OCA  
2 proposal might lead to constraints on this  
3 Commission's authority at some point in the  
4 future, in light of the QF-related issues  
5 raised by Mr. Below earlier today?

6 A. I'm not an attorney, and I have not had a  
7 decent chance to absorb Mr. Below's testimony  
8 on the PURPA issues. Further, I have not been  
9 able to match that and process understanding  
10 with the Utility/Consumer Coalition proposal.

11 Q. Thank you. Regarding the Utility/OCA  
12 recommendation for instantaneous netting, in  
13 your opinion, would that recommendation put New  
14 Hampshire -- place New Hampshire as an outlier  
15 among the states regarding netting?

16 A. Well, my understanding of what other states are  
17 doing has been largely informed by testimony  
18 over the last couple of days. And if the  
19 Energy Future Coalition witnesses are to be  
20 taken at their word, particularly as I recall  
21 Mr. Phelps, most states, probably the  
22 predominant majority of them, are still using  
23 monthly netting in terms of how net metering is  
24 actually implemented.

1 Q. Thank you. Mr. Faryniarz, in your opinion,  
2 which of the two proposals before the  
3 Commission today better ensures the opportunity  
4 for small customers to choose interconnected  
5 self-generation in accordance with PURPA's  
6 declaration of purpose in the state?

7 A. I'm sorry. In recognition of what?

8 Q. Trying to avoid reading the statutory citation,  
9 but it's LEEPA 362-A:1, Declaration of Purpose,  
10 I believe. Are you familiar with the  
11 requirement for a reasonable opportunity for  
12 small customers to choose interconnected  
13 self-generation?

14 A. I'm familiar with that requirement. I'm not an  
15 attorney. I couldn't offer an opinion of how  
16 well either proposal comports with that  
17 statute.

18 MS. BIRCHARD: That's all my  
19 questions. Thank you very much.

20 CHAIRMAN HONIGBERG: I've forgotten.  
21 Did anyone in the Utility/Ratepayer Coalition  
22 have questions for Mr. Faryniarz?

23 [No verbal response]

24 CHAIRMAN HONIGBERG: All right.

1           Seeing none, I believe -- Representative  
2           Oxenham or Mr. Aalto, did you have questions  
3           for Mr. Faryniarz?

4                     MR. AALTO:   None for me.   Thank you.

5                     MS. OXENHAM:  I thought I did, but I  
6           think it was answered by other testimony.  
7           Thank you very much.

8                     CHAIRMAN HONIGBERG:  That's wonderful  
9           when that happens, isn't it?

10                    Mr. Below, do you have any  
11           questions for Mr. Faryniarz?

12                    MR. BELOW:   No questions.   Thank you.

13                    CHAIRMAN HONIGBERG:  Anybody else  
14           before -- yes, Representative Oxenham, you've  
15           changed your mind.

16                    MS. OXENHAM:  Rather than a question,  
17           I would just like to commend the expert.  I  
18           read his testimony with great interest and  
19           found it balanced and very, very helpful in  
20           summing the procedure.  I just wanted to issue  
21           that thanks.

22                    CHAIRMAN HONIGBERG:  If I'm not  
23           mistaken, Representative, you actually did that  
24           in a public hearing of your committee; did you

1 not?

2 MS. OXENHAM: As a matter of fact, I  
3 did.

4 CHAIRMAN HONIGBERG: I was there  
5 quite a few times before your committee this  
6 year, and I heard you do that.

7 All right. I think, then,  
8 Commissioner Bailey, do you have questions for  
9 Mr. Faryniarz?

10 CMSR. BAILEY: I'll give it a shot.

11 INTERROGATORIES BY CMSR. BAILEY:

12 Q. Can you point out the strengths and weaknesses  
13 of each of the proposals?

14 A. Well, it's important to note how much they  
15 overlap, again, not just with each other, but  
16 with Staff's recommendations. And I think the  
17 strengths are in where they overlap. And that  
18 runs the gamut from everything from an  
19 agreement that data is lacking, that pilots  
20 should be done. There is a mechanism to try to  
21 address RECs management from these distributed  
22 generation facilities.

23 There is -- well, so, first of all, let me  
24 just say in the areas of overlap, I find almost

1 all of those proposals to be strengths of the  
2 two proposals. We do believe -- let me just  
3 say before that, these were developed in  
4 settlement negotiations I can't disclose. But  
5 as I indicated earlier, the parties made  
6 good-faith attempts to move off of their  
7 initial positions.

8 Now, with that said, I mentioned earlier  
9 that one of the key principles of the Staff  
10 review and my review was the ratemaking  
11 principle of gradualism. And I do believe one  
12 proposal has more in the way of merit on that  
13 score.

14 Q. Can you identify which one that is?

15 A. That would be the Energy Future Coalition  
16 proposal.

17 The other area that I consider to be a key  
18 lens through which Staff evaluated both  
19 proposals is the extent to which they convey  
20 appropriate, clear, efficient price signals to  
21 all system participants, ratepayers, the  
22 utilities, and even solar developers. And I  
23 think my judgment on the two proposals would be  
24 rendered through that lens of how well they

1 meet the gradualism principle and how well the  
2 price signals are actually conveyed.

3 Q. And which proposal meets the second point, the  
4 clear, efficient price signals? Which is  
5 better?

6 A. The Energy Future Coalition proposal, which for  
7 now suggests maintaining monthly netting, does,  
8 in my view, because as an economist or an  
9 analyst, ratemaking analyst, I would want to  
10 make sure that the price signal effect  
11 recognizes that the netting period quite likely  
12 ought to follow or be commensurate with the  
13 rate period. So at this point, we have a flat  
14 rate. The only -- I don't believe either  
15 proposal sends a great price signal to  
16 customer-generators. But the netting period of  
17 a monthly look at net production seems to be  
18 more consistent with the rates we have in place  
19 currently.

20 Q. So what you're saying is that the Energy Future  
21 Coalition proposal to net the production over a  
22 month is better than -- I mean, I think that  
23 the Utility proposal is netting the monetary  
24 credits over a month.

1 A. Hmm-hmm.

2 Q. But that's not what you mean by "netting over a  
3 month"? You mean you're specifically talking  
4 about netting the production?

5 A. Yes. So we're -- if we were to go overnight,  
6 as Mr. Below would like, and to study in his  
7 pilot real-time pricing, then a more real-time  
8 netting regime would be consistent with the  
9 price-signaling criteria I mentioned earlier.

10 Q. And do you have an opinion about whether  
11 distribution costs should be credited at some  
12 amount or zero?

13 A. Well, the principle of gradualism comes into  
14 play there. Moving overnight from close to  
15 full retail net metering, which by definition  
16 means 100-percent distribution credit, to zero  
17 would be less consistent with the principle of  
18 gradualism than a movement, say to 50 percent  
19 of the distribution credit. So my opinion is,  
20 given the principle of gradualism, that that  
21 type of -- that proposal makes more sense.

22 Q. Okay. As an economist, do you have -- can you  
23 give me a period of years that a good  
24 incremental, long-run incremental marginal cost

1 study should cover it? Is it 25 years? Is it  
2 15 years? I think you think it's more than  
3 five.

4 A. Yes. I think the planning horizon ought to  
5 focus really on system planning as opposed to  
6 the needs of either customer-generators or  
7 solar developers. And it's my understanding  
8 that the least-cost plans in New Hampshire that  
9 the utilities prepare take look at a horizon in  
10 the range of approximately 10 years. So,  
11 again, with my earlier commentary on what might  
12 be too short a period of time and what might be  
13 too long a period of time, I think myself and  
14 Staff would be much more comfortable with  
15 something in that range that allows for the  
16 potential to recognize or view avoided  
17 distribution or transmission investments beyond  
18 a shorter-term horizon, but it doesn't end up  
19 being so long that so many other influences  
20 like technological changes, like market changes  
21 or other factors, including potentially  
22 distributed generation technology change, and  
23 we're left with a lot more speculation and  
24 potential to get it wrong with such a long-term

1 horizon. And I think the witnesses for the  
2 Utility Coalition, particularly Mr. Harrington,  
3 but others, identified some of the ways in  
4 which we've gotten it wrong in the past.

5 Q. Can you explain to me how the -- well, you  
6 don't need to explain it to me.

7 Do you think that predicting the cost of  
8 energy out 10 years is -- we're sure to get it  
9 wrong, like Mr. Harrington said?

10 A. If you did a point forecast, absolutely, given  
11 I've been there before.

12 Q. A what kind of forecast?

13 A. A point forecast, without a range. My firm and  
14 other economists would be loathed to do that,  
15 however, and instead would attempt to do  
16 something more along the lines of a simulation  
17 of how energy prices could behave over that  
18 period, oftentimes informed by how they've  
19 behaved over a past period of approximately  
20 equal amounts of time.

21 Q. But you think it could be done to give us  
22 information if we are only looking out 10  
23 years. That would be useful in determining  
24 what these avoided costs might be.

1 A. It could. But what would be key are the  
2 assumptions. For instance, does carbon enter  
3 the picture as a price determinant, say through  
4 federal legislation or not? Do additional  
5 regulations on fracking affect natural gas  
6 prices? Those are the kinds of things that  
7 are -- they're not imponderable, but they're  
8 certainly something that suggests you should  
9 look at these things through simulations and,  
10 you know, allowing for the potential for  
11 influences like that to affect energy prices.

12 Q. And that's why you would update the study  
13 periodically, to make sure that the longer you  
14 look out, the less time you keep that study --  
15 the results of the study in place?

16 A. Absolutely, Commissioner.

17 Q. Okay. Thank you very much.

18 INTERROGATORIES BY CHAIRMAN HONIGBERG:

19 Q. Mr. Faryniarz, I just have a couple of things I  
20 want to touch on. One is to pick up the issue  
21 of the distribution, credit for the  
22 distribution charge.

23 Roughly what percentage of a bill does the  
24 distribution portion represent?

1 A. Well, I'm going on memory, Mr. Chair. As I  
2 remember from the composition of full retail  
3 rate distribution, on average over the three  
4 utilities, represents maybe 4 or so cents out  
5 of 17 cents. So if you were to translate that  
6 into, you know, an average bill, it would look  
7 something like that range.

8 Q. And there are also non-bypassable charges.  
9 They make up a portion of the bill. Do you  
10 recall roughly how much the non-bypassable  
11 charges make up?

12 A. Yes, a pretty small fraction. Something like  
13 half a cent out of a full retail rate of 16, 17  
14 cents.

15 Q. And the other rate elements that are in the  
16 full retail rate are unchanged by the Coalition  
17 proposal, as I recall; is that right?

18 A. Could you clarify which coalition proposal  
19 you're referring to?

20 Q. Actually both, I think.

21 A. Yes, I believe they both overlap in that area.

22 Q. So your concern about moving gradually on what  
23 is a portion of the bill is still enough, even  
24 though it is less than a quarter, or around a

1 quarter of a total bill? You feel that going  
2 from 100 percent to zero of a quarter is too  
3 much to be consistent with the gradualism  
4 concept?

5 A. Well, that is a determination that you  
6 ultimately get to make, you as the  
7 Commissioners. Let's face it, the record here,  
8 we don't know whether the proper distribution  
9 credit is zero percent or 100 percent. The  
10 record in this docket would be insufficient to  
11 make that determination. So, something in the  
12 range of 50 percent might minimize the error or  
13 the regrets going forward into, you know,  
14 Phase 1, and then let's get it right in  
15 Phase 2.

16 Q. Well, that's a different concern than the  
17 gradualism concern. That's try to minimize the  
18 damage we might do by getting it wrong, isn't  
19 it?

20 A. Yes, sir.

21 Q. Do you feel comfortable that, at this point,  
22 based on what you know and what you've heard  
23 and what you've read and your own work, that  
24 zero probably is not the right answer?

1           Certainly Monday's panel felt very strongly  
2           that zero is not the right answer.

3       A.   Well, again, the time horizon weighs heavily  
4           here on a determination like that.  If you have  
5           embedded distribution investment that takes  
6           care of the utility system needs over the next  
7           five years, and you're not going to avoid any  
8           of that with DG resources, then you would come  
9           to the conclusion, potentially, that there is  
10          zero distribution credit.  If you go out far  
11          enough, and you could identify certain  
12          circuits, substations, other elements of the  
13          distribution system where potentially  
14          investments could be either deferred or avoided  
15          entirely, you may come to a different  
16          conclusion about that.

17       Q.   It's your view that we shouldn't be looking  
18           just five years out, though.

19       A.   Correct.

20       Q.   All right.  That's helpful.  Thank you.

21                   I've got -- I guess I'll express a concern  
22                   and then ask a question.  I'm concerned about  
23                   whether we have enough information in the  
24                   record from the parties to tell us how to

1 direct them in developing their studies going  
2 forward. I think, based on what I've heard, we  
3 probably have enough to decide what pilots  
4 should be run. We've heard a lot of  
5 specificity about those. And I think people  
6 have a pretty good handle on the types of  
7 things they want to engage in pilots on. But  
8 in terms of the overall studies of the systems,  
9 I'm a little concerned about what we heard  
10 yesterday and the day before in inviting  
11 further litigation about what studies need to  
12 be done.

13 Do you feel, based on what you've read and  
14 heard, that you know most of what we would want  
15 to learn from studies going forward?

16 A. That's a tough question, Mr. Chair.

17 Q. I was afraid of that.

18 A. Yeah, first of all, not just me, but I believe  
19 Staff shares your concern, particularly with  
20 regards to the components of the time horizon  
21 of how granular and the location specific of a  
22 value of DER study. It's clear that the  
23 arguments are not over.

24 Q. I do want to be fair to the parties. I mean, I

1 think that each of them has in their own minds  
2 what they think will work. But this is an area  
3 where there's not a perfect overlap; is there  
4 not? You agree with me there's not a perfect  
5 overlap there?

6 A. I would agree.

7 Q. And I take it, then, that you, and speaking for  
8 Staff, are also concerned that if we issue  
9 something general to direct the parties to work  
10 together and work with Staff on developing  
11 study criteria, we'll be back here in a few  
12 months deciding what the study should be?

13 A. Potentially. And I think this is where the  
14 Commission will have to deliberate on how --  
15 what kind of rails or guideposts they put on  
16 any order they issue. For instance, they could  
17 put in deadlines. They could suggest that,  
18 while the stakeholders work it out and provide  
19 recommendations, that the Commission itself may  
20 direct such a study, or hire a consultant  
21 directly that would perform the study in order  
22 to keep the process fair and objective. So I  
23 think, you know, your concern is quite clearly  
24 shared by Staff. And the parties have a slog

1 still to go here.

2 Q. Do you agree with the assessment I introduced  
3 the question with, that we probably know enough  
4 about the pilots that the parties feel is  
5 appropriate?

6 A. Yes. And I would observe that the grid mod  
7 docket presents another opportunity for some of  
8 the pilots that have been proposed. For  
9 example, the Futures Coalition's Smart Home  
10 Pilot, that looks interesting and may not be  
11 appropriate in a net metering context.

12 Q. And then circling back to the studies, are  
13 there studies that you can think of that the  
14 parties have proposed that are "shovel-ready,"  
15 as it were, that we have enough specificity  
16 with what's been proposed that we could say yes  
17 to the study that's identified in Paragraph 13  
18 of someone's proposal?

19 A. I can't say that, Mr. Chair.

20 Q. Okay. I think that's all I have. I thank you  
21 for the work you've done on this, and thank  
22 Staff for the work all of them have done on  
23 this.

24 Mr. Wiesner, do you have any further

1 questions for Mr. Faryniarz?

2 MR. WEISNER: No further questions,  
3 Mr. Chairman.

4 CHAIRMAN HONIGBERG: All rightie  
5 then. Let's go off the record for a sec.

6 (Discussion off the record)

7 CHAIRMAN HONIGBERG: We're back on  
8 the record. Mr. Wiesner, why don't you recap  
9 where we are with the exhibits.

10 MR. WEISNER: Just looking at the  
11 exhibit list, there's a long list of exhibits  
12 which were premarked, and this consists  
13 primarily of the prefiled testimony of various  
14 parties. I believe they were all entered into  
15 evidence, except for those for which we are  
16 waiting for affidavits to be submitted by  
17 witnesses who did not appear during the  
18 hearing; and in particular, those witnesses  
19 are: Dr. Overcast -- we had his affidavit;  
20 Mr. Johnson of Eversource, whose affidavit  
21 requires correction, as I understand it; and  
22 then there's James Bride and Richard Normand,  
23 who are witnesses for New Hampshire Sustainable  
24 Energy Association; and OCA witnesses, Lon

1 Huber and Elizabeth Doherty.

2 I will also note that Attorney Buxton has  
3 indicated that a number of exhibits we had  
4 premarked, I believe yesterday, which were  
5 discovery responses from Unitil, were not  
6 actually referenced in testimony and so should  
7 not be entered into evidence. And those are  
8 numbers 74 through 80.

9 And on further review, we are also  
10 deciding that the two exhibit numbers which we  
11 had reserved for affidavits of absent  
12 witnesses, and those are numbers 68 and 69,  
13 which have been reserved for Dr. Overcast and  
14 Mr. Johnson, that those affidavits will not be  
15 entered into the record. So those numbers --  
16 those premarked numbers will not be used for  
17 that purpose. And I believe the only other  
18 question that we had was with respect to  
19 Exhibit 72, and I think Mr. Hinchman may have a  
20 request to make for you.

21 CHAIRMAN HONIGBERG: Mr. Hinchman.

22 MR. HINCHMAN: Mr. Chairman, I move  
23 the Commission take record notice of the "Grid  
24 Modernization in New Hampshire Report to the

1 New Hampshire Public Service Commission," Grid  
2 Mod Working Group final report in Docket IR  
3 15-296.

4 CHAIRMAN HONIGBERG: Please tell me  
5 that the final report refers to us as the "New  
6 Hampshire Public Utilities Commission."

7 MR. HINCHMAN: I think that's one of  
8 the corrections they made in the final report.

9 CHAIRMAN HONIGBERG: I'm getting some  
10 confirmation that it is. So we will take  
11 administrative notice of that filing.

12 MR. KREIS: So, Mr. Chairman.

13 CHAIRMAN HONIGBERG: Mr. Kreis.

14 MR. KREIS: Just so I'm clear, with  
15 respect to the Exhibit 17, which is the direct  
16 testimony of Witness Huber, who, the Commission  
17 can take administrative notice, is currently on  
18 his honeymoon, sitting on a beach in Cabo --

19 CHAIRMAN HONIGBERG: I think we need  
20 to see the pictures.

21 MR. KREIS: I will be happy to  
22 provide them if you would like to reserve an  
23 exhibit number for them.

24 So with respect to that exhibit

1 and Exhibit 18, which is the direct testimony  
2 of Witness Elizabeth Doherty, who is not on a  
3 beach somewhere, and Exhibit 44, which is the  
4 rebuttal testimony of Mr. Huber, the OCA  
5 requests that those three exhibits be entered  
6 into evidence as full exhibits. And as I  
7 understand it, the answer I'm getting back from  
8 the bench is we will do that as long as you  
9 furniture affidavits from those witnesses that  
10 adopt those filings as sworn testimony.

11 CHAIRMAN HONIGBERG: That was my  
12 understanding of the agreement of the parties  
13 as to how we were going to deal with that. So,  
14 yes, when the affidavits come in, we will  
15 strike the I.D. on those exhibits, and also the  
16 others from the witnesses whose affidavits are  
17 not yet in.

18 MR. KREIS: Fabulous.

19 CHAIRMAN HONIGBERG: All right. Any  
20 other business we need to transact before we  
21 break for the day?

22 [No verbal response]

23 CHAIRMAN HONIGBERG: All right.  
24 We'll come back tomorrow at 2:00. The first

1           order of business will be public comment, and  
2           then those parties that want to do oral  
3           closings will do it at that time.

4                           All right. Thank you all very  
5           much. We'll see you tomorrow.

6                           (Whereupon the Hearing for the Afternoon  
7           Session was adjourned at 5:11 p.m.)

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**HEARING ON THE MERITS - DAY 3 AFTERNOON SESSION ONLY - March 29, 2017  
DE 16-576 ELECTRIC DISTRIBUTION UTILITIES NEW ALTERNATIVE NET METERING TARIFFS...**

	<b>87:2</b>	<b>adopting (1)</b> 12:10	<b>allow (2)</b> 89:8;90:3	<b>42:19;74:13</b>
<b>\$</b>	<b>acting (1)</b> 47:21	<b>advanced (1)</b> 89:1	<b>allowed (1)</b> 8:19	<b>appear (2)</b> 90:5;119:17
<b>\$10- (1)</b> 26:15	<b>actual (3)</b> 32:17;58:6;61:24	<b>advantage (2)</b> 6:14;7:10	<b>allowing (2)</b> 90:4;112:10	<b>appears (7)</b> 43:13,16;60:4; 68:13;77:14;93:11; 97:23
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