Proceedings

```
1
        BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO
2
3
    In the Matter of the
    Application of Columbus
4
    Southern Power Company to :
    Establish New Experimental:
5
    Rate Schedule
    Classifications for
                              : Case No. 10-0424-EL-ATA
6
    Residential and Small
    General Service
    Time-of-Day Rates and
    Residential Experimental
8
    Direct Load Control Rider.:
9
10
                          PROCEEDINGS
11
    before Chairman Alan R. Schriber, Commissioner
12
    Valerie A. Lemmie, Commissioner Cheryl Roberts,
13
    Commissioner Paul A. Centolella, and Commissioner
14
    Steven D. Lesser, Commission, at the Public Utilities
15
    Commission of Ohio, 180 East Broad Street, Room 11-B,
16
    Columbus, Ohio, called at 2 p.m. on Wednesday,
17
    August 18, 2010.
18
19
20
21
22
                     ARMSTRONG & OKEY, INC.
               222 East Town Street, Second Floor
23
                   Columbus, Ohio 43215-5201
                (614) 224-9481 - (800) 223-9481
24
                      Fax - (614) 224-5724
25
```

APPEARANCES: American Electric Power By Ms. Karen Sloneker and Mr. Matthew J. Satterwhite 1 Riverside Plaza Columbus, Ohio 43215 On behalf of the Applicant American Electric Power. 

Wednesday Afternoon Session, August 18, 2010.

CHAIRMAN SCHRIBER: We'll get started and whatever the court reporter misses, they can take off the webcast for the record.

So with that we can launch into this.

Matt, are you counsel for all of this?

Would you like to introduce who --

MR. SATTERWHITE: I'm just the eye candy oday. That's the trouble we're in. No.

CHAIRMAN SCHRIBER: Yeah. Now, you know why he's not working here any more.

MR. SATTERWHITE: But thanks for having us today. Karen Sloneker is going to do the majority of the presentation here. We have some other people from AEP that can -- and Dan Johnson is apparently going to give some comments as well.

We'll go through this. It's our understanding that since this was pursuant to an order and with the court reporter that makes sense this is all part of the record. What we'll do is we'll provide the court reporter in a PDF a copy of all this so it can be there as well. But I'll be quiet because you don't really want to hear from me,

and I'll let Karen talk.

1.5

CHAIRMAN SCHRIBER: Okay. Good.

MS. SLONEKER: Thanks, Matt. I have probably much more material here today than you have the patience or the time to listen to, but I wanted to give it to you in detail so that you can refer to it later. And obviously we would be available to talk to you in depth on any of the subjects that we cover today that you would like to pursue in more detail.

To begin with we're focusing today on the consumer programs and our engagement plans for those consumers. I'll also talk a little bit about our measurement and evaluation plans. I'm not intending to talk about the total benefits of the gridSMART project but rather to focus on these key topic areas today. And in our view our project success is going to greatly depend upon our ability to increase our customer's knowledge and understanding of gridSMART and the associated consumer programs.

It's also going to be critical that they accept the programs and are willing to participate in those programs with some persistence. If we have all of this great technology available and they do not choose to use it, if they do not view it as

beneficial, then we feel that we will be a failure. So the ultimate goal will be to have informed customers making informed decisions.

1.5

In order to do that we began by conducting market research to identify key messages and preferred communications with our customers. We did that conducting focus groups ourselves as well as looking at market research that was conducted by other utilities so we could leverage their experience.

We've also conducted market segmentation to target messaging and marketing channels for each of the segments, and I'll talk about that in more detail in a moment. We looked at marketing communications that we would use to educate the consumer to create awareness and to drive program participation.

Whoops. It went into hibernation. Oh-oh. It looks like my power cord.

Okay. If it's okay with you, I'll go ahead with the paper copy. We have specific research initiatives that we either have undertaken or that we plan on undertaking. Specifically we had focus groups and those consisted of two residential groups and two consumer groups and in an earlier date we met

with the Commissioners and reviewed that market research and the results of those focus groups.

We've conducted an awareness study in order to have a baseline data point in December of 2009 and we intend to repeat that awareness study annually. Thank you.

1.5

We are also -- have conducted energy efficiency awareness in order to understand our customer's knowledge of activity around energy efficiency, to identify the primary drivers and barriers to their participation, and also to focus on their preferred sources for information and awareness of AEP Ohio's activities.

We've conducted user experience tests in order to determine which kind of a programmable control — communicating thermostat they would be interested in having in their home. We've also looked at IHD preferences focusing on four different devices with an emphasis on two of the four that seem to have more potential, and we showed them screen shots of the device capabilities in order to have their input as to which ones they would prefer.

We'll be conducting enrollment questionnaires as they sign up for the programs to learn why they signed up, to talk to them about basic demographics, that sort of thing, and then a similar

action will occur if they choose to exit the program or at time of exit.

We also feel that it's important not only to understand those who choose to participate but also to focus on those who choose not to participate so we can understand the difference between those and what motivates one versus another.

I feel the desire to advance my slides even though they are not there.

CHAIRMAN SCHRIBER: You want to go -- you can probably take a moment to do it while our court reporter sets up.

MS. SLONEKER: Okay. Great.

COMMISSIONER CENTOLELLA: And,

Mr. Chairman, if I can ask a question as we are getting set up, could you also talk a little more about what was involved in the user experience and IHD studies just — just so we have a better understanding of how those were done.

MS. SLONEKER: Sure. And if I could,
Dave.

MR. TABATA: Yes.

MS. SLONEKER: Would you -- Dave was actually there when that was conducted. Is that all right if he --

COMMISSIONER CENTOLELLA: Sure.

MS. SLONEKER: -- speaks to that?

CHAIRMAN SCHRIBER: Sure.

MR. TABATA: IHD, you are referring to?

MS. SLONEKER: Yes.

MR. TABATA: Yes. We had --

MS. SLONEKER: I think you have to come

up.

1.5

MR. TABATA: Microphone? We had a handful of customers, roughly 10, we brought them in one at a time and we actually showed them various displays or devices to get their feedback and understanding of what would be important for them from an energy information feedback. And we just kind of made it more, you know, in the best world what would you like to see and that's kind of -- we took notes and we're going to be working with the various manufacturers to share with them those notes so they can develop the proper devices that would be beneficial for the consumers.

COMMISSIONER CENTOLELLA: Okay. That was the IHD -- that was the user experience and there was a separate user preference? What's the difference here?

MR. TABATA: Correct. One was primarily

trying to find out exactly what they would like to see -- what that device to do for them and how to manage energy control. So what -- go ahead.

MS. SLONEKER: I'm sorry. I was going to say I think the other difference, Dave, correct me if I'm wrong, was the user experience also focused on the real-time pricing scenarios they would like to see and their preferences for that level of complexity and how — what they would understand.

MR. TABATA: Correct, that is correct.

COMMISSIONER CENTOLELLA: And both of these were with small groups of customers?

MR. TABATA: That is correct and we held them right at 1 RP.

COMMISSIONER CENTOLELLA: Thanks.

MS. SLONEKER: Thanks, Dave. Okay. So then we worked with AXCIOM to come up with potential market segments and this is hard to see and read, but it's really just intended to show you the depth of the information that's available.

AXCIOM could define those customers groups in clusters of 70. And at first we started out trying to develop market segmentation strategies to market the different programs to all of those 70 clusters, and we soon recognized that that wasn't

manageable. And with a group size of 110,000 it wasn't going to give us the information that we needed. So, again, with AXCIOM we took that 70 and combined them into six more manageable cluster groups and there's brief descriptions of what each of those clusters includes so there's the optimizers, the budget stretchers, the big bill customers, the mature seniors, the remaining groups with kids and the remaining groups without kids.

And then we looked at drivers and behaviors and messaging that you would expect to see from those customers and how you would apply that messaging and took all of that and funneled it into our demonstration strata. So the -- the little plates, if you will, or the disks that you see over on the right-hand page show the fact that we have an overall control group. There'll be no contact with that group and they are a representative sample of all the customers in that 110,000 customers.

We recognize that in that control group there may be customers who would be extremely dissatisfied if they didn't get to participate into some of these projects, so we've oversized the control group to allow at request and within reason for those customers to move over and be in a control

group. We're concerned that if a neighbor is able to get some benefit and they are not because they are in the control group, we don't want to have a dissatisfied customer, so we believe that we would allow them to enroll.

The other options that we're looking at, and I won't go through all of these, but there's a standard rate with OPower and I'll talk about OPower in a minute with no program -- I'm sorry, no program marketing, standard home -- standard rate within home devices and then we'll look at direct load control three tier time of use with critical peak pricing and real-time pricing and then there's variations within that.

COMMISSIONER LESSER: Chairman, I would just like to ask a quick question. For the purposes of these control groups what exactly are you looking them to be a control on? The actual -- because if they're not doing anything and if they're just -- they are using it, what exactly is the control factor?

MS. SLONEKER: Well, what we're looking at is having customers who actually reflect how they would use electricity without the benefit of the extra energy knowledge, energy usage knowledge, or

without the additional technology, so they'll be the group that stays stationary with which we'll compare the others who -- who modify their consumption based on that and we'll look at the 15-minute intervals.

COMMISSIONER LESSER: So they are actually representing all other customers.

MS. SLONEKER: Yes. And I believe that we actually have a control group within the demonstration site, but we also have a control group that's outside so that we can make sure that there's no impact as a result of equipment — other equipment outside the home or information outside of the customer that would potentially influence the results as well. So we've got an inside control group and an out of site control group.

if -- can I just get some clarification -- and pardon me if you're going to get to this -- but can you talk a little bit about the hypotheses that you're trying to test? Are you trying to test whether or not customers will enroll in these different programs or are you trying to -- are you assuming enrollment in some opt out and you'll have some customers would be dissatisfied but really trying to test what would be the response assuming we got customers into the

programs or both? And if both, how do you keep from having a self-selection bias on the latter?

1

2

3

4

6

7

8

10

11

12

13

14

1.5

16

17

18

19

20

21

22

23

25

MS. SLONEKER: Okay. The answer is yes, we plan on testing both. We want to see whether there are certain customers who are more likely to enroll or not, and we also want to test our messaging and our marketing channels on those customers to see whether, you know, for example, there might be a marketing channel or a communication message that resinates better with seniors than it does with apartment dwellers. So you want to test those messages so that as we expand the programs to the rest of AEP Ohio and even more globally since we're part of the demonstration project, that other utilities could learn from that as well, we want to make sure that we learn which communications strategies, which education strategies, et cetera, work best with specific cluster groups. But we also want to then test their satisfaction with the programs and ultimately whether the programs themselves motivate them or cause them to change their energy usage pattern.

And I think you're right, I think there's a potential problem with the enrollment of a customer and they may be slightly more inclined to change

their behavior just by virtue of the fact they enroll, but just short of having some sort of an opt out program, we're not quite sure how to get around that.

1.5

COMMISSIONER CENTOLELLA: Are you -- have you considered or set aside a group of customers with which you would test things on an -- on an opt out basis as Commonwealth Edison I think pilots their opt out rather than -- than enrollment and opt in?

MS. SLONEKER: Right. Commissioner, we decided not to do that in 2010 just because we're bombarding — bombarding our customers with so much new information, and we would like to kind of walk before we run. We do believe that with feedback from the appropriate stakeholders and our customers, and depending on the results we see in the early stages, they may not be satisfactory. The enrollments might be too low, and we may be slightly skewing the results, that we might want to consider an opt out program. But that's certainly not something that we wouldn't do without extreme involvement of stakeholders and approval to do so. We're not opposed to it, but it's not in the current plan.

COMMISSIONER CENTOLELLA: Okay. And would -- how would that work in terms of the groups

that you have then in this current, you know, set of studies? Would you -- do you have other customers who have SMART meters who -- you know, who would be part of any opt out experiment, or would you have to go back to these same customers and, you know, enroll them in an opt out experiment?

MS. SLONEKER: I think we have to go back to the same set of customers. We don't have other customers that are simulated -- similarly situated to be able to test those hypotheses with. So we would have to go back at them a second time and in a different way.

COMMISSIONER CENTOLELLA: Okay.

MS. SLONEKER: This next slide talks about some of the challenges associated with our pricing programs and certainly these are all issues that you all are extremely familiar with. But it's some of the things that we're focusing on as we reach out to our customers.

Today's electric customers are used to consuming their energy at the same price all the time. And yet we all know that there are significant variations in the electricity price that exists in the wholesale market and that costs are driven by peaking capacity or system congestion. We also know

that lowering overall energy consumption can be driven potentially by consumer awareness and that it could defer the need for new generation capacity and eliminate some types of system congestion.

So our project is designed and intends to explore a variety of pricing options in an effort to determine several things, first, the customers' understanding and acceptance of those programs; second, the cost and values of the education and adoption of the various options; and, third, the effect of pricing on consumption and peak load requirements.

We currently have filed two pricing programs on April 1. Those are for the time of day rate that has a more consumer oriented on peak and off peak period. It consists of a matinee pricing concept that is familiar to customers, and it's very similar to wireless telephone on peak/off peak pricing, so it's something that could be readily understood. We would expect that it would be the least expensive to promote and adopt. It wouldn't require technology. You could do this to a certain extent just by being aware of when the on peak periods are and to defer your usage until an off peak period. And we refer to that program as our Smart

Shift Program.

The other program we proposed is a direct load control rebate program, that's our Smart Cooling Program, and the intention of that is to provide a rebate to customers who agree to receive price signals from AEP Ohio setting a setback -- signal to the programmable communicating thermostat. They would have override capabilities, and each time they overrode that signal, then the amount of the rebate that they would be eligible for would decrease.

This is a graphic that we're using in communicating with our customers. It's not to scale so those prices we purposely didn't put dollars and cents on the side. We just wanted to show customers that there's a peak period when the rate or the cost of electricity is higher and that by shifting that usage to an off peak period, that they could have that electricity at a lower cost.

The other program that we are planning to file and would like to pursue is a three-tier time-of-day rate with a critical peak price similar to the two-tear time of use but this one has three. And then there's a critical peak period that's there in the center, typically would occur during those on peak hours, again, not to scale but just intended to

educate the consumers they can shift load and use electricity at a cheaper period.

We're also working --

COMMISSIONER LESSER: Mr. Chairman, if I could, in the -- in the Direct Load Control Program, are you using the same peak/off peak periods for determining what their rebates will be?

MS. SLONEKER: We haven't yet completely settled on the conditions with which AEP Ohio would call for a critical peak. We believe that it would be based on a combination of system load and temperature. I think we would normally do it during periods that would require curtailment.

What we found in Indiana was that coincident with the time of year and the weather that year, it wasn't extreme enough to have an actual case where you would send a signal. So for this demonstration pilot we would like to reserve the ability to perhaps artificially call for a direct load control event so that we can study the impact of changing temperature and customers willingness to put — put up with that setback.

COMMISSIONER LESSER: And this will be done entirely with the SMART thermostat.

MS. SLONEKER: I believe so, yes.

COMMISSIONER LESSER: So will these customers still have the advanced meters even though they won't be used?

1.5

MS. SLONEKER: Yeah. They'll have the advanced meters, and we'll give them notification the day prior of when a peak -- critical peak event would be likely to occur. And we feel we can predict that knowing what the system load conditions are, what the projected temperatures are. And we would give them that notice. We would also like to have an emergency provision where if there's some sort of a system condition, that we could provide two hours of notice.

COMMISSIONER LESSER: Okay. Since the direct load would use the SMART thermostat rather than the customer even using the meter, is part of your study determining whether the meters or SMART thermostats are the better appliance?

MS. SLONEKER: I'm sorry. I was looking at my notes to make sure I'm not representing this. For the three-tier -- I'm sorry. Direct load control p.

 $\hbox{ \begin{tabular}{ll} COMMISSIONER LESSER: \\ The direct load is \\ really just the utility communicating with the SMART \\ thermostat. \\ \end{tabular}$ 

MS. SLONEKER: Right.

COMMISSIONER LESSER: There's not even -- there's no need for a SMART meter.

CHAIRMAN SCHRIBER: Excuse me, Steve, on the other hand, Duke has the capability of interrupting my air conditioner compressor for a period of time. I don't think that's related to the thermostat or the meter.

MS. SLONEKER: Right. And I guess I should look back at -- here's my expert. This is Darren Shepard. Thank you, Darren, for bailing me out.

MR. SHEPARD: From a communication standpoint the thermostat is actually using the AMI network as a communication. So it is actually going through the meter into the PCT, into the home.

COMMISSIONER LESSER: Okay. Does that mean appliances could be added to that?

MR. SHEPARD: Yes, and that is part of the demonstration as well.

COMMISSIONER LESSER: Okay. Thank you.

MS. SLONEKER: Thank, you Darren.

COMMISSIONER CENTOLELLA: Darren, before you leave what precisely is being communicated? Is it, you know, turn back -- or turn up my thermostat by two degrees, or is it interrupt on, you know, for

a 15-minute cycle or what -- what's the nature of the control?

1.5

MR. SHEPARD: We set up -- it's capable of doing both. The AEP program is setup where we would either do a 2 or 4 degree offset, so if your home was set at 75 degrees, we would either change your thermostat to 77 or 79. And at certain times we've done it in stages because what we're trying to do is levelize the impact, and you have to be careful because if I have a four-hour event, if I take everybody to four degrees immediately, I could actually move the peak still within that same period.

COMMISSIONER CENTOLELLA: And -- and you're giving people -- at least in most instances are you giving people day ahead notice of the -- you know, of the interruption, or is the interruption without notice in the direct load control?

MR. SHEPARD: Typically it's a day ahead notice and, again, as Karen was saying, from an emergency standpoint we try to give them at least a two-hour notice.

COMMISSIONER CENTOLELLA: Okay. So someone could, for example, precool their home in the morning if they were expecting a load control event in the afternoon.

MR. SHEPARD: Yes.

1

2

3

4

5

6

7

8

10

11

12

13

14

1.5

16

17

18

19

20

21

22

23

24

25

COMMISSIONER CENTOLELLA: Okay.

MS. SLONEKER: Thanks again.

The next tariff that we would like to file or program that we would like to promote is real-time pricing. We're working on this with Battelle, and we're working with them to develop a program that we refer to as real-time pricing dual auction program.

This is going to be the most complex program for us to develop and administer and it's also, I think, going to be the most complex for our customers to understand. In part that's why this is going to take some time, and we look at deploying this at a later date. We believe that this is going to require in depth education of our customers, very potentially -- very well potentially it would require face-to-face communication with them so that they understand the pros and the cons of this, and as well it requires yet a higher level of in-home device, we're referring to it as a residential energy manager, and that is being developed as part of the demonstration project by Battelle. So when that becomes available and we can test it with the other systems, then the applications out at Dolan will be

ready to roll that out into the field.

The next thing I wanted to share with you was the planned launch dates and the filing dates for the programs that I've discussed and there are a couple of additional — additional ones that we don't have as much detail on. As I said, we have the SMART cooling program and the SMART shift program in front of you now.

We're hoping to have the critical peak pricing program with -- with no critical peak until April 1 -- I'm sorry, April of 2011 filed in September with a launch date in December of 2010. We would like to do the real-time dual auction in January or February of 2001 with a launch date of October, 2011, I think I said 2001, January, February, 2011. And the launch date would be in October of 2011.

We're also considering doing a two-tier time of day with an in-home device and then we're also looking at automated dynamic direct load control with water heaters.

These timelines are going to be subject to change in part depending on the ability to get the devices to actually work in conjunction with the meters. They're in testing now at Dolan and I had an

opportunity to go out and look at some of these in-home devices and they don't provision as easily as you would hope and certainly are not ready for exposure to the customers. And so we feel that we have potentially one shot with the majority of our customers, and the last thing we want to do is to put in a device that isn't quite ready and then have them be alienated and not want to participate further. So we want to make sure that it works and that we can have good acceptance from the beginning.

1.5

As I mentioned, the different technologies that would come with each of these tariffs is going to increase depending on the complexity of the tariffs. All of the customers in the demonstration project will have an AMI meter. Those who are on the standard rate would not receive any standard equipment. There are optional equipment that could be available listed on the bottom of the chart.

As you get higher up into the chart, for example, with the three-tier time of use with critical peak, they need to have the meter, the in-home display, and there's a possibility of them also having a PCT, either their own or one provided by AEP Ohio.

And then that goes all the way up to the real-time pricing tariff where you would need that residential energy manager. You could also have a PCT in the water heat control.

As Darren mentioned, the one tariff that we're looking at having with the SMART appliances is the three-tier time of use with critical peak with automation.

COMMISSIONER LEMMIE: Karen, just so I'm clear, what is the PCT?

MS. SLONEKER: Oh, that's the programmable communicating thermostat.

COMMISSIONER LEMMIE: I just didn't know what PCT was.

CHAIRMAN SCHRIBER: Matt just figured out what it was.

MR. SATTERWHITE: What was it again?

COMMISSIONER CENTOLELLA: Karen, if I

could go back just a moment, you refer to the RTP as
a dual auction RTP. What do you mean by dual
auction?

MS. SLONEKER: George has been closer to that. I'm going to use a lifeline. Hey, George, can you describe the dual auction, real-time pricing dual auction?

MR. BJELOVUK: Sure. It's the -- again, as Karen mentioned, it's the most complicated of the pricing structures that we're going to pursue. In the PJM wholesale market there is a 5-minute price that's used to reconcile the energy close, and so we're going to use that 5-minute price, expose that 5-minute price to the technology in consumers' homes, the technology will actually do a bid and an ask to the market four times every 5-minute interval to settle the combs load against the price for that 5-minute interval, and we'll be able to use that as a real-time pricing simulation for these -- for these systems.

COMMISSIONER CENTOLELLA: Okay.

COMMISSIONER LESSER: George, which of what -- of what you just described to us, which I'm not sure I entirely understand it, which of that will be actually translated for -- to the consumers?

MR. BJELOVUK: So one of the things we're working with Battelle on is to simply simplify the user experience so that all of that technology that's happening between the home energy manager and the market is really insulated from the consumer experience. Battelle likes to describe that as a knob that goes from maximum comfort to maximum

savings. And so they'll have the ability in this home energy manager to set up things inside their home and decide to what extent they want to curtail the production of hot water, let's say, if they have an electric hot water heater or the settings on their electric air conditioning in their homes during these periods of time.

COMMISSIONER LESSER: If the consumer decides to override, I think I heard that the rebate decreases. Does this decrease ever get to a point in which the consumer is paying more than they would have?

MS. SLONEKER: The rebate program applies to the direct load control program. The real-time pricing, they actually pay the cost of energy during that period of time so there's not a rebate that's involved.

COMMISSIONER LESSER: Okay. Same question though.

MS. SLONEKER: Yeah. And the -- so I guess does it ever get to zero so there's no difference between the standard rate and the real-time pricing tariff? The answer is it could be depending on what their shape of their usage is and when they use it.

This is one that I think we're going to need to have a lot of conversations with you and with staff and the OCC. It is -- it is very complicated. As we're thinking about it now, we want to make sure that we do this in a way that doesn't negatively impact the experimental design and yet provide some level of protection to the customer.

And so that's something that we would like to pursue with you and, in fact, we have a meeting set up with staff for next Monday to go over the concepts and the business rules between -- surrounding real-time pricing and the three-tier time-of-day with critical peak.

COMMISSIONER LESSER: Well, back to my incorrectly directed question on the -- on the other program on the rebates, could you override so often --

MS. SLONEKER: Oh, I'm sorry, yes, yes, you could. The way we have got it designed is that you would have the opportunity to override as many times as you wanted, but the first time if you don't override, I think it's \$8 that the customer could get as a rebate. If they override once, that drops down to 4 ti -- \$4, and if they override a third time, it's down to 0 so they cannot --

```
1
                COMMISSIONER LESSER: But they can't --
2
    it can't cost them more than it would have --
3
                MS. SLONEKER:
                               No.
4
                MR. BJELOVUK: There's no penalty.
5
                MS. SLONEKER: Yeah, there's no penalty.
6
                COMMISSIONER LESSER: So in general would
7
    you say across the board that participants are held
8
    harmless in their participation?
9
                MS. SLONEKER: Yes, I would. And just
10
    because they override one month doesn't mean they
11
    can't get back into it the next month so, yes, they
12
    would be held harmless.
13
                COMMISSIONER LESSER: Thank you.
14
                MS. SLONEKER: I'm sorry, I misunderstood
15
    your question.
16
                COMMISSIONER LESSER: No, no, no.
17
    Actually you --
18
                CHAIRMAN SCHRIBER: That happens a lot.
19
                COMMISSIONER LESSER: Yes.
                                             You were
20
    correct, not me.
21
                MS. SLONEKER: Okay. So this slide we
22
    don't know -- need to go into detail, but I thought
23
    that you might be interested in knowing our
24
    anticipated deployment schedule of these devices.
25
    We're going to be deploying a little over 16,000
```

30

devices over the period of the program and this slide breaks down the programmable computed — communicating thermostats, the IHDs, the load control switches, and then also the HEM so that is what I referred to earlier as the residential energy managers, so as you can see, we have our own programs with our acronyms even amongst ourselves. We change them as we go along. But there is a deployment phase and an operational phase for all of those devices.

1

2

3

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

The next thing I would like to talk to you about is that in addition to these in-home displays, we wanted to make sure that the customers had ways of knowing what -- how their -- how their energy usage affected their energy bill. And so I had them hand out up there and you should have a mockup of a bill that shows the two-tier -- I think it's two-tier -- it's an on peak and off peak tariff and it shows it for three different tariff classes. But that's not really the important part. important part on this is that I wanted to show you is about three-fifths of the way down it shows on peak generation of 500-kilowatt hours and off0peak generation of 500-kilowatt hours so that bill would be presented to customers and they would be able to see on a monthly basis what their consumption was.

The other thing that we're pursuing is in-home displays both with and without graphing capability and that gets back to the user preferences that Dave talked to you about. There's different levels of sophistication and complexity of those devices and some customers want to see the graphs. Some customers aren't interested in that. But that would be another opportunity for feedback and then we also didn't want to ignore the fact that we're going to have the capability for people to interact with It's not just going to be mail and devices. They can actually talk to AEP Ohio, and we're going to have trained customer solution agents who can answer their questions. If those questions become too complex for the agent to handle or if it requires a field visit, then we have trained customer service representatives that would be able to go out and talk to their customers.

CHAIRMAN SCHRIBER: Yeah, Karen.

MS. SLONEKER: Yes.

CHAIRMAN SCHRIBER: I'm a little confuse here, I don't know if anyone else is, on peak generation for 500-kilowatt hours is significantly less than 500-kilowatt hours off peak.

MS. SLONEKER: Uh-huh.

25

1

2

3

6

7

8

10

11

12

13

14

1.5

16

17

18

19

20

21

22

23

24

```
1
                MS. MOORE: It was when they were
2
    testing, Karen.
3
                CHAIRMAN SCHRIBER: Pardon?
4
                MS. MOORE: When they were running the
5
    test, they mixed the rates up.
6
                                They flipped it up? Okay.
                MS. SLONEKER:
7
                MS. MOORE: It was intended to show what
8
    it would look like.
9
                MS. SLONEKER: Yeah. I think this was
10
    meant to be a representative sample of the bill and
11
    what Andrea said is when they ran the test, they
12
    flipped the rates around in the test environment.
13
    And so I would assume those costs should have been
14
    reversed, the off peak costs should have been
1.5
    cheaper, but you're right, that would train our
16
    customers to use it on the on peak period. That's
17
    not -- that's not what we want to do.
18
                CHAIRMAN SCHRIBER: Right. It just shows
    I read it.
20
                MS. SLONEKER: Well, that's great.
21
    read it too and I didn't catch it and the great thing
22
    is it remains consistently wrong throughout all
23
    three.
24
                CHAIRMAN SCHRIBER:
                                     Okay.
25
                MS. SLONEKER: Thanks for the question.
```

 $$\operatorname{MR.}$  SATTERWHITE: That was me. I put that part together.

CHAIRMAN SCHRIBER: Yeah.

MS. SLONEKER: The next thing that we're doing is AEP recognizes -- AEP Ohio recognizes that we're experts at generating electricity, transmitting electricity, and distributing electricity. What we are not experts at and what we haven't had a need to do in the past is to understand consumer buying behavior or consumer psychology. So we've partnered with OPower which is an energy -- an industry leader in energy efficiency and Smart Grid software to provide a solution that will both engage and educate our customers.

So we're going to be delivering content to our customers in a couple of formats. One is going to be via mailed reports and we'll do that for -- it's not for 110,000, I believe the size for this is 72,000 customers, but those customers would receive individual customized mailed reports to their home that would focus on their -- would analyze their usage, would talk about what their estimated bills would be, and would offer specific energy saving tips based on their -- on their bill compared to customers who are similar to them.

That same information could be available on a web portal and we're going to be doing that for customers, again, segmenting it so we can understand the effectiveness of mail communication versus web communication. We're also testing the frequency with which we mail those reports out. Some customers will only get the information twice a year. Some customers will get it four times a year. And some customers will get that information six times a year.

CHAIRMAN SCHRIBER: Karen.

MS. SLONEKER: Yes.

of these — one of these educational endeavors be something as simple as, again, the sensitize people to the fact that they can interact with the utility? Because I bet there's a lot of people that don't know peak, on peak/off peak, it means nothing to them. Is there anything as primitive, if you will, as — as the ability to get on line and see what my usage has been forgetting pricing and everything else, just see during the course of the day? Could that be a first step or is it a first step?

MS. SLONEKER: Yeah. That is possible and a bit later I'll share some information with you about how we're educating our customers. I think one

of the things that we found out in the focus groups that really surprised us, I shouldn't speak for everybody but surprised me, was that our customers don't know what a kilowatt hour is. And it was — it — so I'm not sure that — I think that relative change would help them. But, again, I'm not sure that they understand how much — it would probably an instant to say they don't understand the difference between a light bulb and a refrigerator but which uses more, a refrigerator or your dryer.

So I think, you know, some of that kind of level of education is going to be important too, and we have a lot of that information on our website today as part of our energy efficiency programs, but we are planning a number of consumer outreach efforts that I think would help us go a long way towards educating on peak and off peak and those other factors that you mentioned.

CHAIRMAN SCHRIBER: Okay.

COMMISSIONER CENTOLELLA: Mr. Chairman, following up on that are there any of the segments in the consumer experiment where you will be using the capability of AMI and perhaps an in-home display to provide near real-time feedback to the consumer so the consumer can see my refrigerator turns on or I

run my dryer and my electricity bill goes up, you know, or, you know, if I use the fluorescents in my kitchen, it's this, but if I turn those off and turn on the halogens under the countertop, you know, it changes. Anything like that?

MS. SLONEKER: I'm not sure it's going to get exactly to that turn on the switch and turn off the switch because there's going to be a certain amount of delay in the information getting there and, you know, that's minutes versus days, but I do think we'll have load profiles that we'll be able to do that, but I don't think it's going to be instantaneous that somebody could walk around their home and turn things on and off and see what the impact of that one device would be.

commissioner centolella: So your model is — is that all of the usage information will go back from the meter to the utility and then into a display as opposed to going from the meter directly through a linkage into the display? Because you could do that in 10 seconds or less, you know.

MR. SHEPARD: We will have -- where we had the in-home displays it will be local from the meter to that display but depending on what the usage is, she is correct in terms of if you use a big load,

you will probably see a difference. I may not be able to differentiate a light -- we may not be able to get down to the resolution where if you turn some lights off, that we will see that level because you're talking watts versus kilowatts, but if I turn a dryer on, I would probably see that in terms of what happens there, so it will matter what size appliance that you turn on or off, so I would say you could see some things definitely locally, but I don't want to say you can see everything you turn -- if you plug your PC in, we're probably not going to be able to pick up.

COMMISSIONER CENTOLELLA: But any time in here where we see an in-home display you're dealing with near real-time --

MR. SHEPARD: Right.

COMMISSIONER CENTOLELLA: -- feedback.

MR. SHEPARD: Correct.

MS. SLONEKER: Thanks again.

So just a little bit more on these reports, they are going to be matched to the lifestyle of the customer and that's based on the demographic data that becomes apparent and the more consumers interact with the website the more information that it will provide to be able to

customize those reports. The tips are supposed to be easy to understand and easy to implement, and customers can create a plan for themselves as to what kinds of changes they want to make, monitor what the impact of making a specific change would be and then keep track of whether they actually make those changes and watch the improvement.

COMMISSIONER LESSER: Karen, on the -have you thought about in that part of the
educational process and on the bill what it would
look like when the hold harmless kicks in when people
have either mismanaged or have not taken advantage
what their feedback will be?

MS. SLONEKER: Yes, we have and with OPower one of the things we're looking at is the ability to compare the rates. If you stayed on the standard rate, this is how much you would pay; if you are on this rate, this is how much you would pay. And we're working with them to see if it's even possible, and I believe it will be, to say if you would switch to this rate, that you would be able to save more. In fact, the language that they use when they communicate with customers is very different, again, back to that consumer psychology, we would be more inclined to be polite and say you could have

saved this much, and OPower kind of flips that around and takes a more aggressive stance and says you've lost the opportunity to save this or you're spending more than your neighbors which is not necessarily something that we would normally do, so we're going to be really interested to see customers acceptance of that.

1.5

COMMISSIONER LESSER: They're really talking about something you're not saving as much as your neighbors. That seems to kick into a privacy issue.

MS. SLONEKER: Well, and we make sure up front that they understand that all of the information is anonymous and it's not an individual customer to an individual customer. You're compared to a group of customers who have similar demographics and similar home size and that sort of thing. It is a possibility. We've allowed for the fact that some customers may want to opt out. They may not want to be participants in that program at all. They have —

COMMISSIONER LESSER: Can they opt out of

even the comparison?

MS. SLONEKER: Oh, absolutely. They can opt out of it totally. They've had a positive experience with this in other parts of the country.

In fact, in our market research in the focus groups I was surprised to hear customers say not only do I want to know how I'm doing, I want to know how I'm doing compared to others who are like me. So I -- I thought that was interesting. I had only first heard that from OPower, that there was an interest in that, and then to hear that confirmed by a customer without being specifically asked, I thought they are probably on to something that we had not been aware of and that we had not the thought of so.

This just talks about the timeline for that. We're in the middle of working with AEP weekly data to feed that to OPower for monthly usage. They are going to be generating and printing home energy reports as part of the energy efficiency program.

We're looking at promoting the program before it goes live on our web page and providing some FAQ information. They'll be looking at having the interval data available to them on October — in October of this year with the web portal for customers to sign up with a single sign on. It will provide more robust analysis than we're currently able to provide. And then in November we're wanting to have that additional rate plan data and comparative analysis available for consumers.

I've referred to our more global consumer education programs, and we have a number of groups that we're -- we're targeting. We're looking at all of our customers' thought leaders in the community so the mayors, the city councils, those sorts of folks. We're looking at teachers and students, employees of AEP, and then the media. And then we have a number of initiatives, some of those are focused just on employees or the media, some of them cross all of those bounds, but we've got web initiatives, collaborative teams. We're working with the Ohio Energy Project. We have event strategies and outreach displays. We're working with the media. We've had customer communications. We have 500 --I'm sorry, employee communications. We have 500 employees who live within the site, and we've had an event to educate them on the program so they can share that information with their neighbors and be more informed than the general public and be able to communicate on our behalf. We have support materials which I'll show you in a minute. And then we're also working on a measurement and evaluation of all those programs.

1

2

3

6

7

8

10

11

12

13

14

1.5

16

17

18

19

20

21

22

23

24

25

We sent out a welcome letter to our customers in mid-December and then had a phone blast

and then we had this door hanger that was installed -- or, I'm sorry, hung on the door after the SMART meter was installed in June, we sent out a communication about learn how your new meter can benefit you so customers would have that. And then I also have some examples of some marketing materials that we put together for the SMART Shift and the SMART Cooling programs that I would like to route. We also have an example of a refrigerator magnet that people could use at home to remind them of when those on peak and off peak periods are.

advisory collaborative that's made up of people within the demonstration site. As you probably know, we have an energy efficiency collaborative that provides valuable insights to us as the company, but we also want to have projects specific representation that's made up of civic leaders, thought leaders, neighborhood associations. We've already attended a number of town hall meetings and shared information about the project there. Have had good attendance, lots of interest, you know, people wanting to volunteer for different programs. We will be holding brown bag lunches, and then we have a monthly electronic newsletter.

The other thing is is that we are at community events, and this weekend we're taking the mobile -- well, we had the mobile at the New Albany Parade of Homes. I don't know if any of you had a chance to see it there, but it's also going to be this weekend at the Reynoldsburg Tomato Festival.

1.5

We're trying something different this time. We want to target it to the customers, AMI customers, and actually have them show up. We're glad to educate the public as a whole, but we also would specifically like to be able to reach out to our AMI customers, our gridSMART customers, so we're doing this mailer to a handful of those — not handful, a segment of those and seeing whether we get more participation from — from these people. And if they bring this postcard in, they'll receive a free CFL bulb which will allow us to understand whether they got this, whether they showed up because of that promotion or not.

There's a lot of information that's available on gridSMARTOhio.com and then we have direct mail and support materials, some of those I have routed around there for you to see.

The next slide shows a picture of our gridSMART from AEP Ohio mobile. It's a -- been a

success. And I had the opportunity to participate at the New Albany Parade of Homes. The day I was there there were probably close to a thousand people, not just on my shift, but I think on my shift there were over 300, 400 people who went through the mobile and there was a significant amount of interest not only from those inside the demonstration project, but I was very pleased to hear other people say when's it coming to my part of the city. So I think that there's a lot of interest there, and the mobile was very useful.

This is just a screen shot of our website that shows you and gives you an idea of some of the information that's available on the website. I mentioned that we're working with Ohio Energy Project, and we have a two-year program with schools that are located within the area. We're providing school kids, teacher development, in-class computer programs, and a take home opportunity.

We've been working with the media to develop specific stories of interest for the gridSMART project. We have a partnership with 10 TV involving Tech Columbus. We're on the Deal Detectives with Sinclair Communications, and we sponsored the Home and Garden Show with the Dispatch

group.

where I probably have more information than we should go through in great detail here today, but I did want to make sure that you understand and know that we are focused on measurating — measuring and evaluating our consumers' response. We want to make sure we provide value to the participants in the way of lower bills, increased satisfaction, and that we lower the overall CO-2 footprint. Not focused in this presentation is the improvements on customer reliability and the other aspects of the broader gridSMART program.

We also want to make sure we provide value to nonparticipating ratepayers and that we understand the impact of lower rates in the long term and increase satisfaction with more rate choices and improved reliability. We want to be able to also measure the value that the program provides to us as a utility.

COMMISSIONER LEMMIE: Mr. Chairman,

Karen, unfortunately I have another commitment and I

will need to leave. But this is exciting and

unfortunately I do not live in the AEP territory so I

don't have access to the van and what have you. I'm

hoping you will be in a position at some point in the future to arrange a tour, whether it's Dolan or to the mobile vehicle, so that we can see what these displays look like, what you have shared with customers, what kind of feedback you have gotten from them, so it's not just the overhead presentation but we can touch and feel it too because this is such an important initiative and will really change the character of how energy is used and priced in the future.

MS. SLONEKER: Well, thank you very much and we'll be sure to do that.

COMMISSIONER LEMMIE: Thank you. I look forward to it. Mr. Chairman, colleagues.

CHAIRMAN SCHRIBER: You're adjourned.

MS. SLONEKER: So the next slide talks a bit about our methodology for analyzing the impacts on demand and energy. As I mentioned before, we're going to be looking at pre-program and post-program -- or post-enrollment participant differences compared to the control group and by segment, whenever that's practical. We will be using pre-program 15-minute usage data that's available for all of the customers in the pilot area and that will be used to establish a baseline. And then the

customers will be segmented based on the demographic and psychographic information.

1.5

The control group customers have been pre-identified in each of the segment. We will not be marketing to those customers, but as I mentioned at the beginning, we have oversized that control group to allow for them to become participants if they hear of it in some way or another and want to participate. There's a secondary control group that's outside of the pilot that will validate that the control group usage was not affected by other aspects of the pilot.

We'll be looking at the marketing and enrollment considerations and being able to compare those who actually make energy usage changes to those who don't. Both of those customers will enroll — will enroll in our programs, some will not change their usage and some will, so we'll be wanting to make sure that we understand how many customers we need to market to and what we need to look at in future enrollments so that we can then take into account that some participants may not change in order to make sure that we have a cost effective program.

This slide just shows graphically a

representation of what the participants 15-minute interview -- interval usage might be based on having the response to the thermostat setback.

1.5

And then we'll be doing similar analysis, again, looking at the pre and post periods in order to look at the time of use and real-time pricing.

We'll be studying the things not only what did they do and how did they do it but what was the effect of -- effectiveness of the marketing programs? How did the program design affect customer enrollment?

I mentioned that we would be looking at those information systems or messages, and we'll be looking at not only the web based information but the hard copy reports and in-home displays and look at the persistence of the usage changes over the entire pilot period, customer bill impacts, customer satisfaction, and identification of small usage changes during — to the program versus normal behavioral change will be a challenge, but we'll be looking at all of those kinds of things.

The program evaluations will be forward projected so that we can estimate the expected program costs and benefits for the most effective full scale program roll-out scenarios so we'll be utilizing this information to transition and progress

not only through the pilot period, but we'll also be looking at what that would -- what impact it would have over the expected program life and the expected utility avoided cost information in up to a 20-year analysis.

1.5

We'll be using the standard benefit and cost methodologies, and we'll look at only looking at the incremental costs associated with the AMI system costs for marketing and program administration, program maintenance, and ongoing program evaluation.

In conclusion we really feel that it's critical that we learn from the market research that we've conducted and that with which we will still conduct. We look at the measurement and evaluation results and recognize the need that we're going to need to adjust incentives, program design, our communication strategies, maybe rework our target groups as we go along through — through this demonstration project. There's a real possibility that we'll need to modify our tariffs and undoubtedly need to design new ones, and we feel that it's important to have flexibility and fast turnaround on the tariffs so that we can increase the demonstration capabilities and the learning potential during the program.

1 We very much appreciate this opportunity 2 to be here today to explain what we're doing to you 3 more fully -- or doing for you more fully. And -and also want to appreciate the fact that you encouraged us to apply to the DOE. We found that to 6 be a positive experience, and it's allowed us to 7 expand what we had originally proposed as our 8 gridSMART Phase 1 project to include some much more exciting things that I think we'll expand our 10 knowledge and the benefit to the customers and the 11 utility.

CHAIRMAN SCHRIBER: Let me ask this question, what if -- and this is the worst case scenario -- you find out that at the end of the day the costs exceed the benefits. What do you do?

12

13

14

15

16

17

18

19

20

21

22

23

24

25

MS. SLONEKER: Well, I think we would have to take a look at that and be very transparent as we've intended from the beginning about what those costs and benefits are. We fully believe that some things might be more cost effective than others, and we would have to adjust. We don't intend at this point to remove any of the capabilities that we're providing for this project area.

I'm hard pressed to see where we might do that with the possible exception of some of these

tariffs and potentially some of the in-home devices. We plan on leaving the programmable communicating thermostats. But if the tariffs don't prove to be cost effective, we would not continue with those and there wouldn't be a need for the in-home displays to stay, but the AMI meters, the distribution automation equipment, I don't see that we would take any of that out.

1.5

COMMISSIONER LESSER: Are -- are you going to be directly addressing the privacy and security issues with customers in your customer programs?

MS. SLONEKER: Yes. Undoubtedly we will. We like most groups are extremely aware of the sensitivity around privacy and security of data. We've been involved in the communications or -- with other groups trying to establish our position and our preference. In general we view customer data as -- as private, and we use it for our business purposes. And, you know, our past practice has been that we would not share it with a third party without the customers' permission. So I think, you know, we need to explore that fully and make sure that we don't do anything that would be offensive to our customers or violate their privacy.

CHAIRMAN SCHRIBER: Karen, what do you see the company getting out of it on their side of the meter?

MS. SLONEKER: Well, I think, you know, the improved customer satisfaction -- are you talking just about the --

CHAIRMAN SCHRIBER: No. I'm talking about electrically, mechanically, operationally what would the company get out of it? Would they be able to see things on their side of the meter that the customers --

MS. SLONEKER: Oh.

CHAIRMAN SCHRIBER: Outages?

MS. SLONEKER: Yes. I mean, we've seen some benefits from that already. And we have been pleased that — and I forget which exact outage it was. I think it was a windstorm that affected central Ohio and hit northeast central Ohio particularly hard out of the four quadrants that we have, and we were able to use the meters to actually ping customers to see whether their service had been restored or not. So we eliminated unnecessary truck rolls. We were able to identify customers that were still off that we might have thought were on, so we've seen that as a benefit already. We've

proactively identified power quality programs -- or problems and have gone out and made changes to our system before the customer even reported that there was a problem.

We've been able to talk to customers about whether their service is on or off. We've identified a couple of cases of fraud without actually making a physical inspection and observing that. So, yes, we have seen a number of benefits, and we're working very hard to capture those specifics and the operational benefits associated with that.

CHAIRMAN SCHRIBER: Good.

COMMISSIONER CENTOLELLA: Just following up on that have you — have you done anything to, you know, to make the public aware of, you know, for example, the reduced outages associated with the windstorm or anything like that at this point?

MS. SLONEKER: Yes, we have. I know that Terry Flora, our communication director, has had some interviews with some folks talking about those specific benefits, and we have shared that kind of anecdotally with customers as they go through the mobile, that kind of thing, and I think that we want to be able to promote those successes with the

advisory group and with the working group as well as capture that fully and report it back to you and the DOE to be able to capture the total benefits.

1.5

COMMISSIONER CENTOLELLA: I have a few more specific questions. The in-home displays that you're looking at using, what are we -- what are you looking at at this point?

MS. SLONEKER: Are you talking about specific vendors or?

COMMISSIONER CENTOLELLA: Well, or even if you don't want to characterize specific vendors, you know, what -- are we talking about, you know, little screens? Are we talking about things that show up on your television? Are we talking about orbs? What are we -- what are we --

MS. SLONEKER: Okay, right. I would rather not talk about specific vendors at this point.

COMMISSIONER CENTOLELLA: That's fine.

CHAIRMAN SCHRIBER: Well, he'd like you to. He would like to buy some stock.

COMMISSIONER CENTOLELLA: We're interested in.

MS. SLONEKER: We are looking at rather small devices. I guess I could probably describe them without giving anything away. They're --

they're small, sleek devices with kind of like little LCD screens. One is more kind of modern looking or contemporary looking than the other. One looks more like an old kind of from my way of describing it perhaps like a cell phone screen, not an IPod. But, you know, just a basic screen with some numbers and things like that on it. The other one has more of a capability of color display and some graphics.

And the customers were interested in both and liked them for different reasons. We did focus on the usability of those — those devices and which — you know, I think it depends which way you think as to how you would like to use that information. Most of them are wall mounted, although some have the ability to be counter displays.

COMMISSIONER CENTOLELLA: Turning now to sort of the testing and evaluation of these different things, you know, can you describe sort of the group size of the, you know -- I mean, you're testing different combinations of pricing and technology, you know, what size group are you testing, you know, typically and, you know, out of that group, you know, if you're selecting a group that you're going after to potentially enroll, what do you expect to see in terms of actual enrollment and how have you set that

up?

1.5

MS. SLONEKER: Okay. If I can talk in kind of ballpark numbers because I don't have those specifics with me, we are interested in having 10,000 customers total involved in some form of time-differentiated rates. We think the majority of those customers will be time-of-use customers, perhaps the direct load control customers.

I probably could go back to that slide that has the device totals on it. That kind of helps a little bit. We're looking at signing up a thousand customers for the real-time pricing with dual auction. I think that's going to be a very challenging thing to do. You know, I think we'll easily get 10,000 customers, maybe I'm an optimist, but I think we'll easily be able to get 10,000 customers. I think we're going to have a more difficult time on the more advanced tariffs, encouraging customers to participate in real-time pricing or the three-tier time-of-day with critical peak pricing.

Let's see, so I think we're looking at a thousand customers with direct load control. Scott, can you -- do you have those numbers?

MR. OSTERHOLT: Yeah, that's the ballpark

numbers, yes.

1.5

MS. SLONEKER: Thank you.

MR. OSTERHOLT: Sure. Some of the -some of the duplications that you see -- because the
numbers there on the screen showed 16,000. We expect
to have some customers that participate in more than
one different thing so, again, the total number that
we're shooting for is 10,000 total customers that
participate in some program, whether that's a tariff
program, whether that's a programmable thermostat,
those types of things. And, again, like you talked
about earlier it's all opt in at this point so,
again, it's based on, you know, what the customers
are willing to partake in and how well and effective
we can be with our marketing.

COMMISSIONER CENTOLELLA: So are -- so just so I understand are you marketing all of these options to all customers or are you sort of saying, you know, I'm going to take this slice of 2,000 customers and try to get a thousand of them on direct load control?

MR. OSTERHOLT: So Dave Tabata here is our expert, and I guess I'll let him talk about it.

COMMISSIONER CENTOLELLA: Okay.

MR. SATTERWHITE: We brought everybody.

COMMISSIONER CENTOLELLA: I appreciate that.

MR. TABATA: Back to the segmentation slide, each one of those strata is equal representation of everyone within that com — within that geographic area. And what we're going to try to do is they'll be — certain households will be assigned one of those strata and they will be marketed a different message as well as a different set of, say, program parameters, so they may get an IHD; they may not. So that's what we're going to measure so each one of those strata does have a specific number of customers within each.

COMMISSIONER CENTOLELLA: So you've got 110,000 customers, 12 strata so, you know, 9,000 customers or so?

MR. TABATA: Ballpark but what kind of changed some of those numbers around is the OPower, our agreement with OPower, some people are going to get the additional energy usage materials at home.

So we had to work with OPower so that there are some buckets that aren't going to be equal in size.

COMMISSIONER CENTOLELLA: Okay.

MR. TABATA: I think the control group is much larger than any of the other individual strata

groups.

my -- in part where I'm going with this is if you wanted after doing this testing of what you can get with enrollment given that you're only going to enroll 10,000 customers in some option, do we have enough customers left over, you know, from a control group or some other way to do a randomized sample of some things on an opt out basis so that we can see what would happen if -- if we were to decide that, you know, the default POLR rate for residential or small commercial was going to be some version of one of these prices. Do we have enough customers left over in the pilot to do that?

MR. TABATA: Yes. We built the stratas so it will accommodate us to move individuals, so as Karen said, we're going to evaluate as we go, and if we're not getting the numbers that we expected to see with each one of the programs, then we're going to make those adjustments to the various strata.

And then our control group we have extra in the control group too, so we can pull some people if we need to into another bucket if we wanted to do an opt out type of program with those folks. And we would do an equal representation within that control

group as well.

at least -- at least from my individual perspective I would be very interested in seeing what an opt out looked like because that's -- you know, that's one of the ways in which you could begin to potentially look at what marketing expenses might be, and they might be very different in an opt out setting and an opt in setting and that would be, I think, a very valuable thing for you to learn.

CHAIRMAN SCHRIBER: And if I might, I agree with Paul that to the extent that if you keep moving people from bucket to bucket because they don't meet certain criteria, pretty soon you lose the statistically meaningness — meaningfulness of an opt out program.

MR. TABATA: Yeah. Our intent is not to move people. I mean, for instance, if someone moves out and someone moves in, that household is going to stay within that bucket until if we do need some additional people for various other programs or marketing messages, then we do have the ability to move some of these folks out of the buckets, but the intent is to keep those buckets hole. The strategy is not to move people around, in and out of different

buckets.

1

2

3

4

5

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

COMMISSIONER CENTOLELLA: Okay. I -MR. TABATA: Go ahead.

COMMISSIONER CENTOLELLA: You know, I guess, you know, just underlying this I want to get to the point where we've got good, randomized, you know, evaluation, design and, you know, are able to go back and look and say, you know, we think this is replicable, you know, for the next, you know, few hundred thousand customers and not -- not have something that, you know, we can't -- we can't learn from and reapply so I -- you know, in particular if we're -- we want to consider, you know, a year or two down the road looking at an opt out tariff, you know, I want to be able to have some data that -- you know, that tells me is this something that makes sense and does it make sense for particular groups of customers and not others. So that's something that I think would be very valuable to -- you know, to learn from this.

MR. TABATA: Okay.

CHAIRMAN SCHRIBER: Excuse me. I do have to get going. I've got -- I'm late already, but I appreciate very much, Karen, Matt, even Bill, et cetera, for coming today, and it was useful, very

useful, got my attention.

MS. SLONEKER: Thank you.

CHAIRMAN SCHRIBER: When you guys are done, just adjourn. Thank you.

COMMISSIONER CENTOLELLA: I had just -COMMISSIONER LESSER: Could I just -you -- I just want to make sure you don't have the
opt out as part of your initial program though.

MS. SLONEKER: That's correct.

COMMISSIONER LESSER: Okay. Because whatever we're working on that I think that brings in much different factors, much different hold harmless, and I think we're going to have a more engaged discussion before we would begin implementing that.

COMMISSIONER CENTOLELLA: Yeah.

MS. SLONEKER: Yeah, I agree with that and all of our programs at this point are opt in. You know, we're willing to consider opt out, but we would agree that that would require much more in depth discussion about the pros and cons associated with going with that.

COMMISSIONER CENTOLELLA: My -- my last question is I know that at the Department of Energy level there has been an effort to try to bring utilities into some, you know, common way of doing

consumer behavior analysis and being able then to look across utilities and do meta analysis based on what different utilities are seeing. How are you interacting with DOE around that and are you participating with -- I know there's work going on through LPNL to try to find a common framework and are you participating in that effort?

MS. SLONEKER: I'm not sure if it's exactly the same effort that you're referring to but as part of the demonstration project, there are specific metrics and data that we're required to report back to the DOE so that they can make those cross utility and cross project comparisons so we're doing that.

Our observation has been that we believe that we need to collect more information that they are asking from us for our evaluation purposes. But, yes, we are participating with them.

I was referring to, I think, is actually providing some technical assistance around the design of the consumer behavior studies, you know, so that those are done in a common framework across utilities. And then, you know, I think the DOE labs are planning on doing some meta analysis based on the consumer

behavior results and, you know, I would encourage you to look into that and, you know, see if there are ways in which both you can contribute and we can benefit from learning what others are -- you know, are finding out.

MS. SLONEKER: Great. Thank you. We'll do that.

COMMISSIONER ROBERTS: Yeah, Karen, thank you so much. This is really helpful in providing the arc of the entire program. But I want to go back to the very, very simplest thing, the request in front of us is to approve these tariffs. And could you one more time walk me through how a customer will experience these two tariffs as opt ins and why they will not in any way find themselves in worse off position if they choose to opt in.

MS. SLONEKER: Okay. With the time-of-use tariff they would receive education -- educational material about the tariff hours, and they would be able to without technology choose when to use energy. So they should be okay with shifting their load. Dave, Dave Roush, could probably answer that better than I can.

While he's coming up the rebate program for the direct load control it just goes from \$8

saving, there is no additional cost, \$8 to \$4 to 0. There is no way that that can cost them any more so that is completely harmless to them and I'll let Dave --

COMMISSIONER ROBERTS: Yeah, that was easier for me to follow. It's this part I'm having trouble with.

MS. SLONEKER: That's why we asked Dave.

I was sure that this would come up.

MR. ROUSH: Sure. On the two tier time-of-use there isn't a guarantee that they won't pay more. The --

COMMISSIONER ROBERTS: That might be why I couldn't find it.

MR. ROUSH: Yes. There is a line. The design of the two tier time-of-use is based on the class of -- the population of customers that could participate and the average customer would basically break even.

Now, there's going to be -- and we've already done some segmentation, I think, to look at customers that we see that would not -- without significant changes in usage would not benefit from that tariff that they are in because we have already collected some time-of-use data, it would be pretty

obvious they are not going to be the ones to select going on that tariff and there are other — it's kind of the average rate making scenario, that the average customer would break in. There's going to be, you know, the traditional bell curve. There's going to be customers on one side that will be natural savers and would save by doing nothing. There's going to be customers that would be natural los — pardon my term losers that would have to totally change their lifestyle completely to achieve savings. And then there's going to be the vast majority of the population that's kind of right around that neutral area where they will have to do something to benefit or may slightly benefit or slightly pay more.

So we didn't put a hold harmless provision in that tariff because of the opt in nature of it but there is kind of a self-selection that if they are not a good candidate, they're not going to elect to go on. If they're a reasonably good candidate, you know, they may be a teeny bit more, teeny bit less unless they do something.

COMMISSIONER LESSER: Does it have a minimum stay?

MR. ROUSH: Yes, it does and that's because of the design of the tariff. It's a one-year

provision because --

1.5

COMMISSIONER LESSER: So somebody could be losing, and you don't even let them off?

MR. ROUSH: As it's currently set up, yes.

COMMISSIONER LESSER: Okay.

MR. ROUSH: Yes. The reason for that is the way the tariff is designed in the months of October through -- and I forget the ending month.

April?

MS. SLONEKER: April, I think.

MR. ROUSH: The months of October through April they are guaranteed to save money. They're guaranteed to save money during that period of time. And in the other — the summer months there's the potential for them to pay more unless they change their usage so there is kind of a payback provision there of somebody could potentially free ride and try to sign up, say, October, stay on through April, achieve all the savings, and then say, okay, well, I'm done, I've saved money this whole time, that was great, and but I don't want to be there for the time when I need to be responsive to the higher price. So the rate was designed to be neutral on average on an annual basis so we really need them to commit for one

year.

1.5

The attractiveness — the other advantage we have since the AMI meters have been in place for a while, we actually have usage data for these customers so they can look at their actual usage during those bucketed periods to make a decision whether to choose to go on it or not.

MS. SLONEKER: And I think that's where -- where I was going is that it's not necessarily a hold harmless guarantee, but I think through communication with the customers about whether this is the right tariff for them and increasing their awareness to not run the dishwasher during the on peak period, for example, with those load shapes and with communication with the customer, we could make sure that only well informed customers chose to participate in the program on an opt in basis.

COMMISSIONER ROBERTS: Thank you. That was the clarification I was looking for.

MS. SLONEKER: Yeah, thank you. I'm sorry I didn't answer you that way to begin with.

COMMISSIONER CENTOLELLA: That -- that last question and answer actually led to one more question I have. Have you done any look at what the

load shapes are for the consumers that you have load shape data on by income level?

MS. SLONEKER: I don't know the answer to that. I would have to get back with you. I know we have looked at the load data as we've looked at the tariff design and as we've looked at laying out what we'd like to see in the programs, but I'm not sure that we've looked at the load data by income level. I would have to confirm that and get back with you.

COMMISSIONER CENTOLELLA: I think it would be very interesting to see how low income customers, you know, look compared with others. Yes.

We don't have anything else. I want to thank you all of you. I appreciate you all coming over and this has been very helpful in terms of giving us an overall comprehensive picture of what your plan is.

The next Commission meeting will be Wednesday, August 25, at the normal 1:30 time. And we are adjourned. Thank you.

MS. SLONEKER: Thank you.

COMMISSIONER LESSER: Thank you very much, Karen.

MS. SLONEKER: Thank you.

(Thereupon, the hearing was concluded at

```
70
1
     3:15 p.m.)
 2
 3
 4
 5
 6
 7
 8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

CERTIFICATE I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Wednesday, August 18, 2010, and carefully compared with my original stenographic notes. Karen Sue Gibson, Registered Merit Reporter. (KSG-5239) 

This foregoing document was electronically filed with the Public Utilities

**Commission of Ohio Docketing Information System on** 

9/1/2010 2:26:19 PM

in

Case No(s). 10-0424-EL-ATA

Summary: Transcript Transcript of Columbus Southern Power Company hearing held on 08/18/10. electronically filed by Mrs. Jennifer Duffer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.