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BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the matter of,)
) Docket No. 17-IEPR-06
)
2017 Integrated Energy Policy)
Report (2017 IEPR))

**2017 JOINT IEPR COMMISSIONER WORKSHOP ON SB 350
ENERGY EFFICIENCY 2030 DOUBLING TARGETS**

CALIFORNIA ENERGY COMMISSION
FIRST FLOOR, ART ROSENFELD HEARING ROOM
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

MONDAY, JANUARY 23, 2017

10:00 A.M.

Reported By:
Kent Odell

APPEARANCES

Commissioners and Presenters Present

Chair Robert B. Weisenmiller, California Energy Commission

Commissioner Andrew McAllister, California Energy Commission

Commissioner Carla Peterman, California Public Utilities Commission

Katie Wu, California Public Utilities Commission

Heather Raitt, Integrated Energy Policy Report (IEPR) Program Manager

Martha Brook, California Energy Commission

Bryan Early, California Energy Commission

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P R O C E E D I N G S

1
2 JANUARY 23, 2017

10:00 A.M.

3 MS. RAITT: All right, good morning. Welcome to
4 today's Joint Agency Workshop on the SB 350 Energy
5 Efficiency 2030 Doubling Targets.

6 I'm Heather Raitt, the Program Manager for the
7 IEPR. I'll go over the housekeeping items, quickly.
8 The restrooms that we normally have available to us are
9 closed, temporarily, for construction, and you can use
10 the ones that are on the north side of the building,
11 sort of under the stairway.

12 If there's an emergency and we need to evacuate
13 the building, please follow staff to Roosevelt Park,
14 which is across the street, diagonal to the building.

15 Today's broadcast is being broadcast through our
16 WebEx conferencing system, so parties should be aware
17 you're being recorded. We'll post an audio recording on
18 the Energy Commission's website in a couple days, and a
19 written transcript in a few weeks.

20 We'll have presentations this morning, both from
21 Energy Commission staff and California Public Utilities
22 Commission staff. And we'll take public comments after
23 each presentation.

24 For this in the room, who would like to make
25 comments, please give a blue card to our Public Adviser,

1 in the back of the room, and we'll call on you when it's
2 time to make comments and you can come to the center
3 podium.

4 For WebEx participants, please use the chat
5 function to tell our WebEx coordinator that you'd like
6 to make a comment during the public comment period, and
7 then we can take phone-in participants at the end.

8 Materials for the meeting are the entrance to
9 the hearing room. They're also posted on our website.
10 And the notice for this meeting provides all the
11 instructions for submitting public comments, which are
12 welcome, and due on February 6th.

13 And with that, I'll turn it over to
14 Commissioners for opening remarks.

15 CHAIR WEISENMILLER: Good morning, welcome to
16 this workshop. I was going to say, actually, in terms
17 of what would help, when you give the Public Adviser
18 your blue cards, if you could indicate whether you're
19 interested in saying something after Martha, after
20 Katie, or at the very end. So, there's three
21 opportunities, so that would help us in terms of just
22 lining you up at the right times.

23 I think today's an important workshop. I mean,
24 we're obviously kicking off the IEPR. We did the
25 Scoping Order last week, or a couple weeks ago.

1 Comments are due this Wednesday. But, obviously, one of
2 the key themes is going to be energy efficiency,
3 particularly the doubling of energy efficiency. We're
4 looking at it both from a programmatic perspective and a
5 forecasting perspective. So, today's an important part
6 of that.

7 Obviously, the Governor set this goal in his
8 2015 State of the State, and that was then ratified by
9 the Legislature in SB 350, also 802. And, so, this is
10 all a backdrop for how we're going to reduce greenhouse
11 gas emissions going forward, particularly the 40 percent
12 below 1990, by 2030. Which, again, was signed into law
13 in SB 32.

14 When we look at, when we talked about that,
15 particularly when the Governor was going forward, the
16 real thinking was that this was a way to really amp up
17 our activities dealing with the existing buildings.
18 Particularly, I'd say, rented space. And, so, this has
19 been a challenge, I'd say, since Brown won, the first
20 time I worked with him.

21 So, this is a good workshop, now, to really move
22 forward on what we're going to do. I would note that we
23 had, the first workshop was held in July, of 2016. Our
24 staff worked hard on a paper, today, to discuss various
25 approaches.

1 And, basically, again, what we need to do is
2 really focus on this project, or this part of our
3 challenges in this IEPR.

4 So, again, thank you for helping us move
5 forward. I certainly want to thank Commissioner
6 Peterman for being here, today. It's really going to
7 take a concerted effort of both our Commissions to
8 really make progress in this area.

9 COMMISSIONER PETERMAN: Thank you, Chair
10 Weisenmiller, and Commissioner McAllister, for the
11 opportunity to participate in today's workshop. Thank
12 you to all the staff at Agency, who have been working
13 collaboratively since SB 350 was passed, to make sure
14 that we're coordinated on doing our respective tasks
15 within the legislation.

16 As Chair Weisenmiller has noted, this is an
17 important part of SB 350, as well as our climate change
18 strategies as a State. And, specifically, regarding
19 today's workshop -- well, first of all, I'll note I
20 appreciate the several workshops that have happened,
21 leading to this point. This is a meaty topic and it's
22 good to have multiple opportunities to discuss things in
23 a public forum, as well as for stakeholders to get
24 together, informally, and share ideas.

25 Regarding the framework for doubling energy

1 efficiency in setting the specific targets, our staff
2 has worked collaboratively with the Energy Commission,
3 and provided comments to the framework presented. My
4 office has also worked closely with the Energy
5 Commission. And, so, we thank you for taking our
6 suggestions and our input. And I look forward to now
7 getting the responses and feedback from all the
8 stakeholders.

9 One of the big things that's happening at the
10 Public Utilities Commission, around energy efficiency,
11 over the next several months, will be our consideration
12 of the utilities, the program administrators' business
13 plans for energy efficiency. These business plans are
14 in response to our development of the 10-year rolling
15 portfolios.

16 And one of the key questions that we'll be
17 asking stakeholders, in our proceedings, is how do the
18 business plans align with the doubling targets? And,
19 so, that's an issue that we look forward to further
20 fleshing out in the months ahead.

21 I will note those are extensive plans. I think
22 the first one I looked at was about 1,500 pages. So,
23 thank you in advance for supporting our work in that
24 area.

25 And then, finally, one of the upcoming workshops

1 that I see the Energy Commission is doing is on setting
2 the subtargets. And the IOUs will have their own
3 subtargets. And, so, we look forward to working with
4 the CEC, again, on setting the targets on -- and the
5 PUC's, what we have to do under our jurisdictional
6 responsibilities, as well.

7 So, with that, thank you and I look forward to
8 your comments today.

9 COMMISSIONER MCALLISTER: Thank you,
10 Commissioner Peterman. It's really great to have you
11 here. And just the partnership, I think, that the two
12 Commissions are engaging in on 350, but really more
13 broadly around energy efficiency, generally, lots of
14 different subtopics there. But, specifically, how do we
15 get at our existing buildings? Obviously, we're both
16 very concerned about that.

17 Our staffs at all levels have really been
18 working closely together to make sure we're harmonized,
19 and using, really, sort of looking at the world in a way
20 that is consistent.

21 So, I want to thank everybody for coming.
22 Certainly, this is among the most important things that
23 we have going at the Commission right now, in my view.

24 So, my name is Andrew McAllister, and I'm the
25 Lead on Energy Efficiency here, at the Commission. And,

1 as well, very involved in our data discussions and
2 evolution of our forecasting work. And all of that is
3 related to SB 350 and, then, AB 802 sort of broadly.

4 But there are lots of threads that really move
5 along together, in parallel, to get our doubling. But
6 more, I think ultimately important, is to get to our
7 carbon reduction goals that we have in the State. So,
8 we have very, I think, clear direction overall.

9 This discussion about doubling, to me, is a
10 really great crucible for having -- for sort of us all
11 getting on the same page, having a really key discussion
12 about what energy efficiency is going to look like going
13 forward.

14 There's a broad marketplace out there. Probably
15 everyone in this room, I hope you have, at least, but
16 I'm thinking a lot of you have read the AB 758 Action
17 Plan, which is about our existing buildings. There's a
18 lot in there. And the Commission adopted the original
19 one a couple years ago, and an update last month, to
20 that Action Plan.

21 And, really, that is the closest thing we have
22 to an expression of what the doubling looks like, in
23 terms of practical, on-the-ground kind of moving
24 forward, programmatically. And it talks about a lot of
25 stakeholders. It's got -- it mentions, probably every

1 organization, you know, that's represented in this room,
2 in some way or another. It's the expression of a lot of
3 joint ideation across our two Commissions. But also,
4 out there in the marketplace there are lots of entities
5 who really need to step up and kind of help achieve the
6 long-term energy performance of our existing buildings.

7 And, so, now that we have a doubling goal, it
8 puts a finer point on all those discussions. And this
9 conversation is really the way we're moving toward
10 getting numbers, putting numbers on everything that
11 we're doing in terms of energy efficiency and trying to
12 figure out, together, what does that whole look like.

13 So, with the Legislature, actually, and SB 350
14 identifies a dozen or so, I think it's 11, categories of
15 energy savings that it will be good if we can unpack.
16 And, so, we've done initial analysis on that to come up
17 with the graphics that you see in the white paper.

18 But there's a lot of -- it's kind of an ongoing
19 discussion and the more information we have, the better
20 we're going to be able to do.

21 So, unpacking the different sources of
22 efficiency is essential for figuring out what the
23 doubling is actually going to look like. So, this
24 conversation is, right now, what are the numbers? What
25 is the doubling? What does that look like over what

1 time frame?

2 But as we go forward, we're going to have to
3 deepen in all of these subcategories, whether it's the
4 PUC portfolio, which is probably the most, you know, and
5 the POU's sort of together, those ratepayer-funded
6 programs, those are probably the biggest sources of
7 savings.

8 But there's a lot out there in the market place,
9 too, and we can't forget about that. And, so, part of
10 the discussion today is, you know, in broad terms what
11 does that doubling comprise. And, then, as we move
12 forward assigning targets, and sort of hopes and
13 aspirations for the different categories of savings, the
14 different sources of savings, including the ratepayer-
15 funded programs, but not exclusive to them.

16 So, this conversation is really key, then, for
17 IRP and everything else that, you know, all of you are
18 familiar with under the broad SB 350, 802 aegis.

19 So, I'm really thankful to have a bunch of
20 engaged stakeholders. I'm really thankful for the work
21 that staff has done to prepare us for today. And
22 hopeful that the conversation will really bring out the
23 best in everyone and get information on the table that
24 we can use to make good policy, to define our targets,
25 and then move forward, proactively, to achieve them.

1 So, thanks, again, all for being here, and staff
2 for putting together this day, and looking forward to
3 hearing what everyone has to say. Thanks.

4 MS. RAITT: Great. Our first speaker is Martha
5 Brook, from the Energy Commission.

6 MS. BROOK: Good morning. Thank you for coming
7 and thank you for those on the phone, who are listening
8 and will, hopefully, contribute later when we have an
9 opportunity to do so.

10 So, my presentation is really an overview of the
11 paper. And, so, hopefully, no surprises here, but just
12 clarification, if needed. Or, if we didn't communicate
13 adequately in the paper, today's a great opportunity to
14 try seek clarification for everyone involved.

15 So, just an overview of the SB 350 Energy
16 Efficiency Statute. On or before November 1st, 2017,
17 the Commission, in collaboration with the Public Utility
18 Commission and local, publicly owned electric utilities,
19 in a public process that allows input from other
20 stakeholders, shall establish annual targets for
21 statewide energy efficiency savings and demand reduction
22 that will achieve a cumulative doubling of statewide
23 energy efficiency savings in electricity and natural
24 gas, final end uses of retail customers by January 1,
25 2030.

1 Our proposed public process going forward is,
2 well, we already started, as we heard from the dais. We
3 have our first workshop on data and analytic needs in
4 July, of 2016. We're having our second workshop today,
5 where we're establishing the policy framework for
6 establishing the annual targets, and setting the
7 subtargets, as we'll talk about.

8 And, then, we plan to have a third workshop, you
9 know, approximate spring timeframe of this year, on
10 investor owned utility and public owned utility savings,
11 contributions to the doubling. And we anticipate a
12 fourth workshop along the same timeframe, in the second
13 quarter of this year, to discuss and understand
14 opportunities for additional savings that are outside of
15 ratepayer incentive, and financing, and technical
16 assistance programs.

17 And, then, we're anticipating a fifth workshop
18 to pull all of that information together. Really, to
19 discuss a staff draft final report. So, the staff will
20 be working to collate all the information for the next
21 several months, in a draft final report, and that will
22 be presented and discussed at a fifth workshop third
23 quarter this year. And with a planned adoption of the
24 targets at a business meeting no later than November
25 2017.

1 So, the next few slides, we're going to present
2 these two aspects of the white paper. We're going to
3 talk about the target-setting metrics that we're
4 proposing to use. And we're also going to talk about
5 the assumptions that we plan to make in terms of
6 cumulative doubling, and also for extending the expected
7 savings that will then be doubled using an average
8 annual growth rate.

9 So, first, the metrics. We are proposing that
10 we use a site energy metric to communicate the overall
11 annual targets for doubling energy efficiency, using a
12 common energy metric of British thermal units.

13 This chart shows the doubling of the 2014 AAEE,
14 and 2013 POU electric and natural gas savings. Those
15 are the -- so, this is doubling of what we've been told
16 to double to establish the baseline for the target
17 setting. And the red line is the natural gas, the blue
18 line is the electricity, and the black, bottom line is
19 the combination of both of those in Btus.

20 As I talk in later slides, we are not proposing
21 to set subtargets using this combined metric. Because,
22 as most or all of you know, energy efficiency is a
23 behind-the-meter event. And in order to identify, and
24 characterize, and then implement efficiency events, it
25 really makes that to do that at the site kWh and therm

1 level. And we'll talk about that in subsequent slides.

2 But for policy reporting and tracking we're,
3 right now, proposing to do that at a common -- in a
4 common unit that combines natural gas and electricity at
5 the site level.

6 And, then, we're also proposing a GHG reduction
7 metric. Again, because of the policy intent of the
8 legislation and the Governor's goals. We are attempting
9 to use energy efficiency in a very deliberate way to
10 reduce greenhouse gas emissions produced by the State.
11 And, so, we intend to track and report GHG emission
12 reductions that are a result of our energy efficiency
13 accomplishments.

14 Now, with this slide, attempts to communicate is
15 that we're not constraining ourselves to the GHG
16 reductions that would result from a literal doubling of
17 the electricity savings that have been achieved to date,
18 and a literal doubling of the natural gas savings. That
19 literal doubling, translated to GHG reductions, is what
20 this black dotted line is.

21 And this is figure 5 in the paper. And what the
22 paper tries to communicate and illustrate is that if --
23 once we do subtarget setting for both kWh and therms,
24 most likely we'll have a different GHG reduction
25 trajectory because, most likely, we will find cost

1 effective, feasible and reliable subtargets in kWh and
2 therms that are different from a literal doubling of
3 electricity and natural gas savings.

4 So, what this chart tries to communicate is
5 that, of course we want to optimize and maximize GHG
6 reductions, but we're still setting targets at the
7 customer level energy metric, and then converting those
8 savings that we expect over time into GHG reductions.

9 And if we're lucky enough to have a huge amount
10 of cost effective, feasible and reliable energy savings
11 that surpass a literal doubling, then we can talk with
12 all of you, and our policy decision makers about ways to
13 optimize and prioritize those savings targets to achieve
14 the GHG reduction that we would like to -- we would like
15 to have under, you know, a strong and robust energy
16 efficiency program in the State. But we're not setting
17 targets using a GHG metric. It's more of a policy
18 tracking and reporting metric for us. At least that's
19 what staff is proposing at this time.

20 So, the next two slides are figure 3 and figure
21 4 in the paper. It's really important to understand
22 that these are illustrations. We haven't done the work
23 to produce these -- this is like a preview of what will
24 be discussed in the staff draft paper in the third
25 quarter and then, ultimately, adopted by the Commission

1 in November, in regards to the subtarget setting.

2 So, what this chart illustrates is that the --
3 we have the literal doubling, with the annual targets
4 illustrated on that top line. And, then, starting from
5 the bottom and working up, we have expectations of
6 electricity savings from current to ongoing efficiency
7 programs. This is that first set of program activity is
8 what we -- what we have to double, in terms of the
9 literal doubling, to achieve those statewide targets, as
10 the baseline for where we start in this target setting
11 exercise.

12 That the middle set of savings wedges is an
13 illustration of additional savings that would include
14 enhanced utility programs, market activity, new programs
15 that are cost effective and feasible, but do not, yet,
16 have a mandate or dedicated resources, but seem like a
17 very practical and successful opportunity to achieve
18 additional cost effective savings.

19 And, then, that top wedge is just an
20 illustration that there may be a quantity of electricity
21 or gas savings that we don't know how to achieve right
22 now, given whatever assumptions and methods that we
23 develop over the coming months for identifying
24 opportunities, proving that they're cost effective.
25 Proving that they're not just cost effective, but also

1 feasible and achievable.

2 So, again, this isn't to -- it's really not
3 included in this white paper as to convey that we're
4 giving up, already, and we don't think we're going to
5 get there. That's not the point of this slide. The
6 point is that it may happen. It may happen, it may not
7 happen. We're going to do the work to figure it out.
8 So, that's what this chart is trying to communicate.

9 As an alternative illustration, the next slide,
10 natural gas savings, illustrates that there might be
11 cost effective and feasible natural gas savings that go
12 beyond a literal doubling of what the State has already
13 accomplished, and plans to continue over time.

14 And, again, if you combine an electricity set of
15 subtargets, with the natural gas set of subtargets, one
16 which falls below a literal doubling and one that
17 exceeds a literal doubling, you'll have a different GHG
18 reduction outcome.

19 And, so, that previous slide that I showed on
20 the GHG topic is just an illustration that we could
21 actually do better, in GHG reduction terms, than that
22 GHG reduction that would -- that results from a literal
23 doubling of each fuel type. That could easily happen
24 and we're going to -- and that's why it's important to
25 track GHG reductions going forward, based on what we

1 actually accomplish in terms of subtarget energy saving
2 opportunities.

3 Okay. So, the next topic, after metrics, is how
4 do we get to establishing the statewide annual target
5 for 2030, in terms of cumulative energy efficiency
6 savings? And what we're proposing, what staff's
7 proposing in the paper is that we interpret cumulative
8 to be a doubling of the -- so, let me back up a little
9 bit.

10 When staff look at the energy savings in the
11 State that are reasonably expected to occur, which is
12 what we've been assigned in SB 350 to double, as a
13 starting point for our target setting, that -- the last
14 year of that set of efficiency savings forecast is 2025,
15 because it was that version of our long-term resource
16 planning and demand forecast activity. And, so, in
17 2025, that's all of the energy savings expected to occur
18 from all of the activities, going back from the
19 beginning of standard setting in the State, and
20 including all of the utility saving programs that happen
21 every year. And, so, the 2025 amount of savings is
22 already cumulative, because it's not just one year of
23 savings -- one year of efficiency program activity.
24 It's multiple years of activity, culminating into one
25 year's worth of energy savings.

1 So, then our assignment is to extend that level
2 of expected savings out to 2030. And, well, that's the
3 annual growth rate chart that's the next. For
4 cumulative doubling, our interpretation is that we
5 double the expectation in 2030. It's a literal
6 doubling, so it's -- so, that's the black line in this
7 chart.

8 And the blue line in this chart is just to
9 illustrate, you know, existing and enhanced program
10 activity that is expected to happen over the coming
11 years.

12 The red line is the additional savings that
13 would be needed to meet a cumulative doubling in 2030.
14 And that's why the red line and the black line meet in
15 2030, is it's the additional savings that's required to
16 meet that doubling in 2030.

17 And the green line is there for illustration
18 purposes, and that's basically illustrating a different
19 interpretation of cumulative that staff is not
20 proposing, but it's here for discussion purposes. That
21 green line, it basically is making sure that the -- all
22 of the early years, where we don't meet a literal
23 doubling, is actually added to the later years so that
24 the area under the curve is achieved, in terms of a
25 cumulative doubling by 2030. And that is one

1 interpretation of cumulative. It is not the
2 interpretation of cumulative that staff is proposing in
3 the white paper. And we can definitely answer any
4 questions that might come up about that.

5 In terms of the annual -- average annual growth
6 rate from 2025 to 2030, we are proposing to use a 3
7 percent growth rate to accomplish the baseline, in terms
8 of the literal doubling for the statewide annual
9 targets.

10 And this chart really is trying to indicate that
11 that 3 percent growth rate is pretty comparable to what
12 we would expect looking at the historical activity in
13 the State, and what we've been expecting that we can
14 accomplish using the technical studies that the investor
15 owned utilities, working with the Public Utility
16 Commission, and the public owned utilities do to
17 understand what their potential for savings going
18 forward is.

19 So, we feel like a 3 percent growth rate really
20 maps well to the technical work that we've done,
21 historically, to identify expectations for efficiency
22 savings over time.

23 The green line, from 2025 to 2030, illustrates a
24 more aggressive growth rate. That's a 7 and a half
25 percent growth rate. And, so, that's an alternate, just

1 it's an illustration of how much different those 2030
2 targets would be if we assumed a different, more
3 aggressive growth rate.

4 So, the red line illustrates where staff is
5 proposing to extrapolate the expected savings from 2025
6 to 2030.

7 All right. So, the next few slides discuss the
8 other aspects of the white paper that are also really
9 important for framing our work going forward. And I
10 think it's really important, and not necessarily clear,
11 that the -- when SB 350 asked us to set annual targets
12 to achieve a cumulative doubling, they also gave us the
13 constraint that those saving targets had to be cost
14 effective, feasible and reliable. And, so, the literal
15 doubling should be thought of as a starting place.
16 That's like that's our -- that's our goal is to get to
17 at least that much cumulative savings. But we are
18 constrained to identify annual targets that are cost
19 effective, feasible and reliable.

20 And this is where staff -- this is ultimately
21 why staff is proposing that we need to do the real work
22 at the subtarget level, because every entity that we
23 know of, that has resources and responsibilities to
24 implement energy efficiency programs in the State, have
25 different assumptions, mostly requirements in regards to

1 cost effectiveness.

2 So, for example, the building standards, by
3 State law, have to use a consumer energy cost over the
4 lifetime of the building and that's -- we're not
5 allowed, as the Energy Commission, to adopt a different
6 cost effectiveness framework. It has to be consumer
7 energy costs and it has to be over the lifetime of the
8 building.

9 Another example is that the Public Utility
10 Commission publishes decisions that define and describe
11 the cost effectiveness test that the IOUs need to use
12 when they're designing, implementing, and then tracking
13 their programs over time.

14 So, we end up -- the extension of that example
15 is that each public owned utility also, you know, has
16 constraints on what they can accomplish based on their
17 adopted assumptions about cost effectiveness.

18 And, then, the other thing that's really
19 important to characterize, I think in this framework
20 setting, is what we mean by reliability. So, SB 350 is
21 very strong in its connection between energy efficiency
22 savings activity and integrated resource planning. And,
23 so, we do expect to use all of our historical and
24 ongoing responsibilities to do integrated resource
25 planning, and to include energy efficiency as a resource

1 in that process. But not every subtarget that we set
2 will have that same requirement to be reasonably
3 expected to occur.

4 So, that's a -- when I say those words,
5 "reasonably expected to occur," that's the
6 interpretation of reliability for the IRP process, as
7 staff understands it. And, so, if we stopped there and
8 said that the annual target setting for SB 350, every
9 single subtarget had to be reasonably expected to occur,
10 we would fall way short of our doubling goal. Because
11 reasonably expected to occur means that there's current
12 and ongoing resources committed to the program activity,
13 and such that you can depend on it as a supply resource.
14 And that will have constraints that are far greater than
15 new program activity, market activity that are cost
16 effective and feasible, and we've identified them as
17 such, but there may be no resources assigned to those,
18 and they could be completely voluntary. And, therefore,
19 we need to understand whether or not they would occur
20 over time with reasonable -- you know, with reasonable
21 liability will be harder to identify and to confirm.

22 But it's still really, really important that we
23 set those targets that are cost effective and feasible
24 so that we -- that's really part of our energy
25 efficiency challenge is here's additional savings that

1 could happen if we did apply the resources to it, and we
2 could commit to it in a way, across the State, to make
3 it reasonably expected to occur. So, we do -- we are
4 going to be identifying both those types of programs.

5 This chart is just trying to illustrate what I'm
6 talking about. It's not in the paper. But as we
7 discussed with stakeholders the draft, internally, and
8 with the Public Utility Commission, it became clear that
9 we had -- we will have to, in our next draft clarify
10 that some subtargets will fall neatly in the IRP bucket,
11 just like we've always done.

12 And what we've illustrated here is the big, blue
13 savings wedge are existing and enhanced efficiency
14 programs that are reasonably expected to occur. We have
15 budget resources assigned. The enhance existing
16 programs. And, so, they're thought to be very
17 dependable and achievable.

18 But there might be additional savings that we
19 prove are cost effective and feasible, but have yet to
20 be commitment to from one responsible entity, from the
21 State as a whole, from -- you know, there's a number of
22 reasons why we can think that new market activity won't
23 have the same level of reliability in terms of a long-
24 term resource plan than the programs all of us are more
25 experienced implementing, and tracking over time, that

1 we have deemed to be very reliable and able to be
2 included in an IRP process.

3 Okay, so the final part of our paper is talking
4 about fuel switching and fuel substitution. We've been
5 challenged by SB 350 to consider both of these types of
6 programs, and to see if they fit, or not.

7 And our proposal is to make a determination
8 about what we think about each of these going forward,
9 as part of our framework discussion.

10 Fuel switching is defined as switches between
11 electricity and gasoline. It's otherwise known as
12 transportation electrification. And staff is proposing
13 that, although mentioned in SB 350 for consideration,
14 we're proposing that it's not in the scope of our energy
15 saving target setting because the definition of energy
16 efficiency, in SB 350, is a reduction in either
17 electricity or natural gas consumption. And
18 transportation electrification doesn't meet that
19 definition. So, it would actually increase electricity
20 use and decrease gasoline use, but it wouldn't decrease
21 electricity or natural gas consumption.

22 So, at this time, we're proposing to not include
23 fuel switching between electricity and gasoline in our
24 target setting exercise.

25 Fuel substitution, on the other hand, between

1 electricity and natural gas, we are proposing that it is
2 in the scope of SB 350. In the paper, we communicate
3 that, ideally, there would also be a Btu energy
4 reduction that takes place because of that switching.
5 But there may also be opportunities to consider fuel
6 substitution between electricity and natural gas because
7 of what it asks us to think about in SB 350, because the
8 energy is saved in the final --

9 UNIDENTIFIED PHONE SPEAKER: How do we see this
10 one? The goal would have the bigger challenge of --

11 MS. BROOK: -- by using --

12 CHAIR WEISENMILLER: Actually, just wait until
13 we're done and then tee up for public comment. Thanks.

14 MS. BROOK: By using cleaner fuels to reduce GHG
15 emissions. So, this, we're going to have to be really
16 careful here, right? Because if we just say all fuel
17 substitution is in scope, then we have to be careful
18 because, for example, a reduction in natural gas use
19 will increase electricity use. And, so, it will be a
20 negative savings wedge in our target setting exercise.
21 And we'll have to be careful and be thoughtful about
22 when it's appropriate to do that.

23 And, so, step one is to identify fuel
24 substitution opportunities that save consumers energy,
25 and save energy on their bill. And there are,

1 certainly, opportunities to do that. And, then, we'll
2 also be considering fuel substitution that results in
3 GHG reductions but, potentially, don't have significant
4 energy savings in terms of a reduction of site Btus.

5 And I -- this probably is, in my opinion, when I
6 reread the paper, this was not clear. I thought it was
7 a little bit confusing that we were saying that we
8 wanted to see a reduction in site energy, as a result of
9 the fuel substitution, but we were also allowing that if
10 GHG emissions are reduced, it's also potential
11 opportunity for target setting. So, we might want to be
12 clearer about that going forward.

13 UNIDENTIFIED PHONE SPEAKER: A site alternative
14 fact, calling Hilary President is --

15 COMMISSIONER MCALLISTER: Could whoever is
16 unmuted, could you please mute yourself, so that we
17 cannot have your -- across the hearing room, your voice.

18 MS. BROOK: So, those are our prepared slides.
19 I don't know if the Commissioners want to take first
20 crack at questions, or do you want to --

21 CHAIR WEISENMILLER: Well, just a couple of
22 observations, we have some comments. One of them is
23 when the Governor came in, as Governor this second time,
24 he set an impressive goal for distributed gen, 10,000
25 megawatts. And if you've been tracking our tracking

1 progress, you know, originally there was a pretty big
2 wedge. We had no idea how to get to the 10,000 number,
3 after adding up our various programs. And the good news
4 is if you look at it, now, we're actually on track. So,
5 in some respects, I tend to imagine it comparable here
6 where, on the doubling, there's a wedge we don't know
7 how to do at this stage. But over a period of time, one
8 of our missions is to really fill in that wedge, or
9 reduce the wedge by tying it to specific programs.

10 So, for those of you who are going, oh, my God,
11 there's this blank space, you know, the good or bad news
12 is we've gone through that before. And, you know, our
13 job over time is to fill that out.

14 The other one, on the fuel substitution, it's
15 actually an interesting question in the sense,
16 obviously, under the first Brown administration we
17 really knocked out electrification. You know, just
18 thinking of the-- not the end use, behind the meter, but
19 thinking of the system. It was pretty clear that, you
20 know, you just waste a lot of energy going to
21 electrification, and then transmitting it, and then
22 going behind.

23 Now, the reality is our good is changing in ways
24 where thinking about the marginal fraction, and for
25 those of who are -- I suggest you work through Ed Kahn's

1 book on electric systems. But that, you know, there's a
2 real difference between marginal fraction and average
3 use. But when you think of marginal fraction, we're
4 getting more and more on the margin, not natural gas,
5 but renewables.

6 And, so, as you put renewables on the margin
7 then, certainly, those concerns about wasted energy go
8 away. And that, certainly, then, affects your behind-
9 the-meter part, or push in a way which if you think,
10 say, natural gas is a hundred percent on the margin, it
11 would be crazy to do.

12 So, again, this is something which will have to
13 evolve over time. You know, certainly, at this stage,
14 natural gas is still on the margin most of the time.
15 And, as we go forward, it's going to be decreasing
16 amounts. And, so, that gets into how one thinks about
17 some of the fuel substitution issues over time. So,
18 again, that's something which I think, over time, this
19 is going to have to evolve.

20 So, there's a couple of areas which are evolving
21 over time, but at least at this point we can start the
22 framework.

23 COMMISSIONER MCALLISTER: Yeah, so, I totally
24 agree. I mean, as sort of a person with an engineering
25 background, back in the day if you were going to talk

1 about, oh, we're going to use electricity for everything
2 under the sun, including heat, that was like sacrilege.
3 You know, those of you who study engineering, I think
4 you can relate to that. You know, we would never do a
5 high quality energy and then dumb it down to be a low
6 quality energy, which is what low temperature thermal
7 is.

8 But we're in a brand-new world. We have a
9 different mix, we have different cost profiles, we have
10 -- as the Chair said, we have a different energy mix at
11 the margin. And, actually, it may make a lot of sense
12 to do things that we wouldn't have done with electricity
13 now, with electricity going forward.

14 And, so, that's a great, that's an incredible
15 situation to be in, so that's positive.

16 On the other hand we have -- you know, we do
17 have the renewables goals, and we have the RPS, as well.
18 And, you know, again, I always say it, but it bears
19 repeating, you know, energy efficiency really is the
20 thing that we need to literally double down on, but also
21 it just makes sense. You know, half of a smaller number
22 is a smaller number.

23 So, if we consume less, then it all gets smaller
24 in terms of the scope of our investment in renewables,
25 and everything else.

1 But I do want to bring up a couple of things.
2 So, I appreciate this discussion. I know some of you,
3 who are more energy efficiency inclined here and on the
4 phone, you know, this is a slightly different tenor and
5 different, you know, tone and content of this white
6 paper. It kind of starts to look more like a
7 forecasting discussion, and that's because it is.

8 When we're talking about moving into the IRP,
9 and we're talking about, you know ow, demand profiles,
10 and energy efficiency being considered as a resource,
11 and it needs to be robust. As Martha said, it needs to
12 be robust enough that we believe it's going to show up
13 then --

14 (Phone line interruption.)

15 COMMISSIONER MCALLISTER: Boy, let's mute
16 whoever that is over there. There we go.

17 Then, that does raise the stakes in terms of
18 being able to show what's going on out there. And I
19 think, you know, the difference here with straight
20 forecasting is that we're trying to link this to
21 programs that, going forward, will increase these wedges
22 going forward. It's not just perceived wisdom of, oh,
23 here's what happened out there in the world and we're
24 going to assume that that continues, and sort of be
25 conservative on the forecasting front. We absolutely

1 want to forecast what we truly believe is going to show
2 up.

3 But we also, I think, have an obligation to
4 chart a path towards a doubling, which is not a
5 traditional thing that the forecasting effort does.
6 And, so, we really are melding bridges here, in a way
7 that I think is very innovative. And it does raise the
8 stakes informationally, analytically, and generates the
9 need for discussion like this. So, you know, as you
10 noticed, this presentation isn't, okay, here's exactly
11 what's going to happen going forward to double energy
12 efficiency, and here's the Energy Commission's, you
13 know, sort of fiat about how we're going to get there.

14 No, this is a market discussion. It's certainly
15 driven by programs, it's driven by policy. You know,
16 that red wedge is we may need legislation, to work with
17 the Legislature on enabling new things. We certainly
18 need market innovation, as well. That upper slice, that
19 upper wedge is, you know, we don't know exactly what
20 that looks like. Innovation, both at this building, and
21 at the PUC, and all of our stakeholders doing what they
22 do, in the marketplace more generally, we depend on that
23 happening, as well.

24 And, so, not only is it here's how we're going
25 to do the calculations, it's we're going to try to work

1 with stakeholders to grow the market, to build these
2 wedges and make them bigger and thicker.

3 We have some time. I mean, you know, 2030 is
4 not that far away, but it's long enough that we can't
5 predict everything that's going to happen. And, so, I
6 think it's really a good opportunity to deepen our
7 discussions, to bring our expertise, collective
8 expertise, and put it on the table and try to chart a
9 path forward for this larger wedge of, you know,
10 "unknown savings."

11 You know, so I certainly believe it's there.
12 And there are a lot of different ways that I can imagine
13 it being there, and a lot of them are talked about in
14 the AB 758 Action Plan. But, you know, we need to roll
15 up our sleeves and make it happen. There's terrific
16 technology, there's a lot of investment in this arena,
17 so I'm very optimistic.

18 But I think that, you know, I'm sure the Chair
19 earlier, before I showed up, my apologies for being
20 late, mentioned the data proceeding. That we had a
21 meeting on data, that the data reg update that the
22 Commission is also perceiving that's happening. So, you
23 know, getting to a better understanding of what's
24 actually happening out there, so that we can define
25 these numbers going forward, is also a key piece of

1 this.

2 So, when we set a set of targets, we also need
3 to make sure that we're creating the information and
4 generating the knowledge that tells us where we are in
5 meeting those targets. And, so, I think that's a
6 critical complement to this discussion.

7 So, I think that's it for now. I'm looking
8 forward to what people have to say.

9 COMMISSIONER PETERMAN: Thank you for the
10 presentation and for the comments by the Commissioners.
11 I'll just note, I think, as you've already highlighted,
12 there's a lot of interest in what goes into our unknown
13 category, but that is a longer process. And, so, I
14 would -- my request would be that we think about what's
15 the process for clarifying that category? How do we
16 make sure we're on the right track to make sure we're in
17 time to meet the targets established in 350?

18 CHAIR WEISENMILLER: Okay. So, we've had --
19 let's start with those who have requested to speak in
20 the room.

21 And, again, those on the line, please mute
22 yourself. We don't need your conversations here.

23 So, let's start with Bryan Cope, SCPPA, please.

24 COMMISSIONER MCALLISTER: In particular, those
25 of you on the phone, it sounds like we're getting a feed

1 from somebody's radio in the background, or something.
2 So, if you could turn that off, that would be helpful.

3 MR. COPE: Thank you, Mr. Chairman, Bryan Cope,
4 with Southern California Public Power Authority. And,
5 Martha, thank you for the presentation and
6 clarification.

7 A couple of just real quick things. The
8 subtarget definitions aren't really expanded upon, but
9 it's kind of expanded that you're looking at,
10 particularly, utility-specific forecasts. And I'm
11 curious if you have any expectation as to when that kind
12 of will be expanded upon, as opposed to in advance of a
13 workshop, the third or fourth workshop that you're
14 planning. How far in advance we're going to know, you
15 know, how we're going to be working with staff to work
16 towards that?

17 MS. BROOK: That's a great question. And, so,
18 as you know, we've met once. And, of course, we met
19 once with the POU's. And, of course, the Public Utility
20 Commission is working, you know, daily, with the
21 investor owned utilities on potential on goals. And,
22 Katie Wu's actually going to talk about that, next.

23 And, Bryan, at the end of our discussion it's
24 going to talk about next steps. And, absolutely, the
25 first order is mapping out the next several months and

1 working with you to prepare for the next utility
2 workshop. You've been very gracious in sharing some of
3 the information that we need to understand what the POUs
4 are planning to do. We're going to look at that,
5 immediately, and then ask you a bunch of questions.
6 Because there's also some additional information we know
7 we don't have, yet.

8 MR. COPE: Right. Thank you. I just want to
9 encourage you that the more in advance that we have to
10 work together, the better we'll do, and I'm sure you
11 know that.

12 The other question that I had, regarding the
13 last section on fuel substitution and fuel switching,
14 you were right. I read it three times and I got three
15 different reads. So, your attention there was
16 important.

17 But at the end there, you had mentioned
18 something about Btu savings, but you also referenced,
19 Martha, something about impact on customer bills. And
20 those are, potentially, two different questions.

21 MS. BROOK: You're right, you're right.

22 MR. COPE: And, so, we need some clarification
23 on that. It's are we looking to try and save the
24 customer money or are we trying to save Btus? Because
25 changing heat pump for a standard water heater,

1 different climates, you can have different impacts.

2 MS. BROOK: Right, right. Yeah.

3 MR. COPE: And, so, it's going to be very site
4 specific.

5 MS. BROOK: Yeah. So, again, just to -- I
6 didn't mean to confuse the metrics discussion by talking
7 about costs. We're talking about energy metrics in
8 terms of target setting, but the cost effectiveness,
9 obviously, that's where the costs will come in terms of
10 the tradeoff between the cost to implement a program and
11 then the ongoing cost to the consumer.

12 MR. COPE: Thank you. I just want to make sure
13 we're on the same page because they're two different
14 analyses, typically. So, thank you.

15 CHAIR WEISENMILLER: Yeah, I had actually one
16 thing for, certainly, following up on yours that will be
17 good. We'll eventually have written comments, I'm sure,
18 in this area.

19 And what we're looking for, particularly in the
20 IRP concept, in the IRP proceeding relating to here, is
21 sort of, obviously, this talks about starting out with
22 what does, say, the SCPPA members see as their baseline
23 energy efficiency, and then what are you doing to double
24 it? You know, so I mean, obviously, again, this is
25 going to be an evolving discussion between now and 030,

1 as we get more and more, you know, fine-tuned on it.
2 But at least where we need to get some understanding
3 from the utilities is what you thought you thought your
4 baseline was in energy efficiency and, then, what you're
5 doing to double it. You know, realizing that, again,
6 we're trying to be pretty clear here that not everything
7 is on the utilities' shoulders. But, again, trying to
8 get an understanding of what you see as your
9 contribution.

10 MR. COPE: Thank you. To expand on that, then,
11 I thought everyone was starting from the same baseline
12 going forward. If we've got a different starting point
13 for one utility versus another, or IOU versus a POU,
14 then we're kind of creating a big problem. So, unless I
15 hear otherwise, I'm suggesting, or I would suggest the
16 analysis needs to remain with the AAEE forecast and go
17 from there.

18 And I do commend you that focusing on an
19 absolute number as opposed to a relative number, not a 1
20 percent of retail sales, or 1.2 percent and double that,
21 that's a non-starter. That's a bad analysis that would
22 create all kinds of difficulties, particularly for the
23 fuel switching issue involved.

24 So, with that, we look forward to working with
25 the Commission.

1 CHAIR WEISENMILLER: Great, thank you.

2 Actually, we have two cards from NRDC, so why
3 don't both of you come up, certainly, sit down and talk.

4 Obviously, start by identifying yourself for the
5 court reporter, then go ahead.

6 MR. CHHABRA: Good morning. Mohit with the
7 NRDC. Thanks for letting us speak. So, to start off,
8 our proposal is that the Commission consider definition
9 of doubling the cumulative goal by 2030 as also doubling
10 the annual incremental targets. So, this is closer to
11 the green line that Martha showed in her presentation.

12 And doing this is an attempt to maximize energy
13 savings and as well the greenhouse gas emissions, which
14 is one of the purposes of the bill. So, you know, we'd
15 urge you to at least try for that.

16 And going for the cumulative goal, the way we
17 are currently interpreting it, there's a danger that
18 savings that are short-lived, for measures that have a
19 shorter life, those get lost if you account like that.
20 And we'd rather not let that happen.

21 So, furthermore, we have a mid-case AAEE
22 additional achievable energy efficiency savings target,
23 and using the double of that to track is in line with
24 the recommendations that we really agree with in the CEC
25 white paper, which wants to compare achievements, and

1 targets, and do an analysis of the gap, why it exists
2 and what can be done to reach that.

3 We recognize the importance of going after cost
4 effectiveness savings -- cost effective savings. But we
5 urge that the long-term of cost effectiveness should
6 limit what we can do in the short term. Parameters that
7 are key to cost effectiveness get more and more
8 uncertain, the further out we go, and so does our
9 estimate of energy consumption trends. So, it's good to
10 have that there, but we shouldn't let that limit what we
11 can do in the short term.

12 And, finally, we agree with CEC that energy
13 savings targets defined by common unit should be rolled
14 out in terms of subtargets. And flexibility in these
15 subtargets is important, as new or potential studies is
16 released and we get a more defined estimate of how much
17 energy can be saved.

18 And Pierre's going to talk, briefly, about a
19 methodology to aggregate gas and electric savings.

20 MR. DELFORGE: Thank you, Mohit. Chair,
21 Commissions, thank you for hosting this workshop and for
22 the opportunity to participate in the discussion.

23 Now, just to step back a little bit, I think
24 scaling up energy efficiency, from NRDC's perspective,
25 you know, beyond what's currently understood to be

1 feasible and cost effective is really critical to
2 achieving our climate targets. Which is why, you know,
3 this conversation is important today.

4 So, I would like to focus my comments, just to
5 follow up on my colleague's, just on the methodology for
6 aggregating gas and electric savings.

7 Mr. Brook's presentation properly recognizes the
8 importance of flexibility.

9 COMMISSIONER MCALLISTER: Could you turn off
10 that other mic, just in front of you? The one to the
11 right of you, actually, right next to you. No, that one
12 right there. Oh, it won't turn off? Okay, it's giving
13 a little feedback. Sorry about that.

14 MR. DELFORGE: So, Ms. Brook's presentation this
15 morning shows, you know, give an example where the
16 flexibility between gas and electric targets is
17 important because, hypothetically, you may have more
18 cost effective savings on one fuel, than you have on
19 the other. And I would suggest that it doesn't have to
20 be that one is cost effective and not the other. In any
21 case, even if both are cost effective or both are not
22 cost effective, it stills makes sense to optimize and
23 prioritize between the two fuels to achieve the most
24 cost effective savings possible.

25 So, from that perspective, having a mechanism to

1 trade or adjust targets, or to implement that
2 flexibility, save a little bit more of the cost
3 effective fuel, and a little bit less on the non-cost
4 effective fuel is important. And the question is what
5 method do you use to do that?

6 And what we believe is that the Commission
7 proposal to use site energy for this is not the best way
8 to do this because it has, first -- you know, within the
9 current RPS level, you know, the 50 percent RPS level,
10 it would have unintended consequences in terms of
11 greenhouse gases.

12 If you use -- you know, for example, if you can
13 save one more therm of gas and you use the site
14 convention metric to determine, you know, how to balance
15 that with electricity savings, you can end up having
16 more greenhouse gases in your 29.3 kilowatt hours of
17 electricity that are equivalent to that therm of gas.

18 And, basically, site energy does not take into
19 account greenhouse gases, and does not take into account
20 the inefficiencies in the thermal generation and
21 distribution of energy of electricity.

22 So, there's a simple solution to this problem,
23 which is to use a source energy metric for conversation,
24 and for -- both for reporting -- and I think my argument
25 is that we can't separate reporting and target setting.

1 Because when you report, basically you show -- you
2 identify a gap and how big that gap is, and you also
3 suggest policy actions to bridge that gap.

4 So, the best metric or, you know, some metrics
5 to consider for doing that, both reporting and target
6 setting, would be a source metric, but not the
7 traditional source metric which considers that all
8 resources are 100 percent fossil, which is clearly not
9 relevant for California.

10 The DOE, last September or October, proposed a
11 new source metric, or a new approach to the source
12 metric, which is called captured. Which, essentially,
13 considers renewable energy as site energy. And still
14 considers fossil resources as source, traditionally.

15 And when you use that metric in the State of
16 California, with the 50 percent RPS, it gives you a
17 better alignment with greenhouse gases --

18 CHAIR WEISENMILLER: Yeah, but again, isn't it
19 average and not marginal? I mean, come on, we're
20 economists in this room. You've got to know the
21 difference between average and marginal, even if DOE
22 didn't.

23 MR. DELFORGE: Absolutely. Well, I mean, this
24 principle can be applied to marginal and should be
25 applied to marginal. You're absolutely correct.

1 But the principle of looking at, you know,
2 what's in the margin and making sure that renewable is
3 not really 100 percent fossil resources.

4 MS. RAITT: And, excuse me, I just wanted to
5 mention that we are past our three-minute timer for --

6 MR. DELFORGE: Okay. Well, let me conclude. I
7 think looking at such a metric, you know, adjusted to
8 California, would not only guarantee higher gas savings,
9 it would be more costing -- achieving that goal in a
10 more cost saving manner. And I think it would also
11 provide a framework for addressing the fuel substitution
12 question that you mentioned earlier on because it would
13 give you a framework for looking at when, you know,
14 substitution is beneficial from both a cost and
15 greenhouse gas perspective. So, that completes my
16 comment. Thank you.

17 CHAIR WEISENMILLER: Thank you.

18 Andrew?

19 Yeah, again, my major, again, as we struggle
20 through, it's like how do we do the marginal stuff. And
21 the complication is, you know, it's not like you go into
22 a utility control room and it's flashing 80 percent
23 marginal. You know, that you go through these
24 complicated models and you have to get those right.
25 Yeah, I mean, it's been something which I think the PUC,

1 in the avoided cost context has thought of for 20 years,
2 with wide ranges. So, again, but I mean that's the
3 right way to do it. And as we increase the system and
4 there's more and more renewables on the margin, it
5 certainly affects these sort of voices in ways which,
6 certainly, in 1978 or '80, you know, just would not have
7 been considered.

8 Carla?

9 Okay. Well, thanks again, we're looking forward
10 to your written comments.

11 COMMISSIONER MCALLISTER: I would just encourage
12 everyone to talk about, you know, how we bridge that
13 sort of discontinuity between quantitative reductions
14 and energy savings. Because that's one approach to do
15 it. I think we're all sort of hearing some merits in
16 that. But I think others will have different viewpoints
17 of maybe what that looks like, and it's really key.

18 Because, you know, 350 did say double energy
19 efficiency, but we also know long term the umbrella
20 policy we have we're trying to get as carbon reductions,
21 or greenhouse gas reductions. So, you know, we need to
22 have that feedback loop to make some sense, so we
23 cannot just do math between the two, and kind of just
24 have it get an answer like that. But actually have some
25 incentive to reduce carbon as we meet the efficiency

1 goals.

2 CHAIR WEISENMILLER: Yeah, PG&E next, please.

3 MR. NICKERMAN: Hi, Luke Nickerman, with PG&E.
4 I'd like to thank the Commissioners for hosting today's
5 workshop, and for the CEC staff for drafting and
6 presenting on the white paper.

7 My comments are a little bit more process
8 focused, as we're still kind of working to understand
9 the white paper, and the implications.

10 The first question I had was whether the
11 underlying spread sheet files will be made available?
12 This would help us in just understanding what is being
13 proposed.

14 MS. BROOK: Thanks. That's a great question.
15 And I think we've -- I've never done the IEPR, so I
16 don't know how often you guys do share the underlying
17 calculations. But, absolutely, we can do that. It will
18 take a little bit of time to make sure everybody can
19 understand the worksheets, but it's a --

20 CHAIR WEISENMILLER: Our goal is, obviously, to
21 be very transparent.

22 MS. BROOK: Yeah.

23 CHAIR WEISENMILLER: So, working through that,
24 with the caveat some of these are more illustrative than
25 literal, and trying to make sure people understand what

1 parts of this process are illustrative versus what parts
2 are solid analytical.

3 MS. BROOK: Right. Okay, so the other thing
4 that I would -- the only other concern that staff has is
5 -- and we talk about it in the paper, but I didn't
6 mention it in my presentation, is that we do have to go
7 through a formal process to correct the 2015 forecast
8 for a couple errors that are already included in the
9 forecasting regime, in your IEPR work, but are not
10 literally included in the data that we were asked to
11 double.

12 And, so, we were proposing to formally make that
13 correction. And, so, I don't know at what point it will
14 be ready.

15 CHAIR WEISENMILLER: Well, actually, probably
16 the simplest way to deal with this is either as a staff
17 workshop, or a JASC event, or something where there's a
18 chance for everyone just to sit down and march through
19 this.

20 MS. BROOK: Okay.

21 CHAIR WEISENMILLER: And sort of make sure that
22 everyone's clear on the concepts. And, again, either,
23 you know, work with Heather, either for a staff
24 workshop, i.e. without us here, so I presume it's pretty
25 easy to schedule, or a JASC event to have that kind of

1 detailed conversation on the spread sheets.

2 MS. BROOK: Okay.

3 CHAIR WEISENMILLER: Great.

4 MR. NICKERMAN: That would be great. And,
5 actually, my second question was related, somewhat
6 related, which the paper does talk about the errors that
7 were uncovered, but doesn't specifically identify what
8 they were. And, so, it would be great to know, you
9 know, what those errors are.

10 CHAIR WEISENMILLER: Yeah.

11 MR. NICKERMAN: Because I know, just in the
12 analysis we've done, we've had some trouble aligning the
13 results from the goals and potential study with the
14 additional efficiency --

15 MS. BROOK: Yeah, yeah.

16 MR. NICKERMAN: So, before we actually set what
17 these goals are, we want to make sure that everyone
18 feels comfortable with what is actually --

19 CHAIR WEISENMILLER: Okay. And, again, let's
20 have that conversation, very detailed conversation,
21 either staff workshop or JASC, or both for that matter.

22 COMMISSIONER MCALLISTER: One thing, just by way
23 of high level context. The full IEPR forecast is on the
24 odd years and, yet, what SB 350 says we need to double
25 is based on an even year, 2014, which is just an update.

1 And, so, you know, just sort of over time things
2 get a little bit out of alignment, and we detected a
3 couple of errors, not huge ones. So, you know, it
4 doesn't make sense to start with a flawed baseline and
5 we want to fix that and make sure it's really robust,
6 and then double that. So, that's really -- it's a
7 little bit technocratic, but that's what's going on
8 there. So, we can absolutely walk through that. But I
9 agree with the Chair that that can be done at the staff
10 level.

11 MR. NICKERMAN: Great. All right, thank you.

12 CHAIR WEISENMILLER: Thanks. Kellie Smith.

13 MS. SMITH: Thank you, Commissioners and staff.

14 Kellie Smith on behalf of the California Energy
15 Efficiency Industry Council. And we sincerely
16 appreciate your efforts here and, of course, your
17 ongoing commitment to energy efficiency.

18 Today, I want to highlight the gap that the
19 staff report has in it, that was referenced at page 8 of
20 the report, and I think on slide 7. It was
21 characterized as an illustration of energy savings not
22 known to be achievable.

23 And we appreciate that it says that it may not
24 exist, because we are concerned that a myth has been
25 created in many corners that there is no additional

1 achievable energy efficiency savings to be gained. We
2 hear in the Legislature for a number of years. We're
3 hearing it right now in the Diablo Canyon proceeding, as
4 it relates to Tranch 1 on energy efficiency. And it's
5 something that concerns us because we think that this
6 has actually been created regulatory. It's a defined
7 gap, it's not a real gap.

8 And we'd like to build on the comments about
9 cost effectiveness, feasible, and reliable efficiency
10 savings. And we ask that you really question the
11 alleged gap as this work progresses, and what can and
12 should be done to address it starting with a few
13 specific areas in PUC jurisdictional programs.

14 The first one being cost effectiveness. Under
15 current policies, although ratepayers are paying cents
16 on the dollar for achievings saved in the program --
17 savings achieved in the program, the current test for
18 cost effectiveness also includes participant costs.
19 And, therefore, you quickly get up to a dollar, even if
20 the consumer is only paying -- or, the ratepayer is only
21 paying 10, 20, or 30 cents for that efficiency.

22 Secondly, there is a process that is called
23 customer view. It's a process that was originally
24 created to be a parallel review process for large
25 projects, where large savings have been designed and

1 applied for. Yet, it's become a parallel review
2 process, now. And, regrettably, somewhat of a black
3 hole where these large projects are held for months, and
4 sometimes longer, preventing customers from moving on
5 cost effective projects.

6 And rather than being parallel, the process
7 causes such lengthy delays in projects that customers
8 drop out and the employees of many of our member
9 companies give up and go elsewhere. Because of their
10 great expertise in engineering, they're very marketable
11 candidates for a lot of other opportunities in this
12 State right now.

13 The other thing is attribution. This often
14 subjected measurement results in savings being
15 discounted because the customer might, would, or should
16 have done it, anyway.

17 For example, we are specifically, my executive
18 director can give you the names of the companies, where
19 our customers who have sustainability plans or language
20 to that effect on their websites, and have been told
21 that that makes them free riders in the programs and,
22 therefore, ineligible for assistance. And we don't
23 think, especially in a State with the great awareness we
24 have about our climate change objectives, that we should
25 really, you know, encourage that kind of a process to

1 continue.

2 We should, of course, look under every rock to
3 achieve our goals and beyond. But decisions not to fix
4 these program issues and, instead, seek savings from
5 subtargets referenced in the staff report, many of which
6 have no rigor, could swing the pendulum back the
7 opposite direction.

8 So, we note that the staff recommends, at page
9 11, biannual reporting to the Legislature, to include
10 options to remedy the gap, should one exists, and we
11 hope that these issues can be addressed as part of that.

12 We recognize that the CPUC is aware of some of
13 these concerns and is actually initiating some
14 workshops. We hope that they are going to be effective
15 and productive, and we'll work with you as much as we
16 can.

17 We also note that in the integrated distributed
18 energy resources proceeding that a review of cost
19 effectiveness is teed up, and it looks like we're
20 heading towards a societal cost test. That, in and of
21 itself, will probably completely eliminate that gap.
22 And we will look forward to working with you to achieve
23 that adjustment, as well.

24 CHAIR WEISENMILLER: Okay, thank you.

25 MS. SMITH: Thank you.

1 CHAIR WEISENMILLER: In terms of just my theory,
2 obviously, when you look there's a lot of studies that
3 go through and have very large technical potential study
4 results. And when you look at, say, our Barriers
5 Report, it's clear there's a lot of, you know, a
6 substantial number of housing units in California, the
7 older ones, which are rented housing. Which gets you to
8 the issue of owner occupied, you know, and then just the
9 gap on incentives.

10 And we've been struggling, you know, since Brown
11 one, trying to figure out how to move the needle there.
12 And that's something which I'm hoping that that's one of
13 the focuses, you know, certainly 758 did, that as we go
14 forward and make some progress there, we can see that
15 gap narrow.

16 But again, you know, and given the benefits
17 where a lot of our lower income customers live in rented
18 housing. But again, if we could actually make progress
19 there, that would have substantial benefits. So,
20 thanks.

21 MS. SMITH: Absolutely, thank you.

22 CHAIR WEISENMILLER: But, again, I'll let the
23 PUC worry about the PUC issues, energy efficiency
24 issues.

25 COMMISSIONER PETERMAN: Sufficiently worried.

1 Thank you for your comments. As you've noted, well,
2 first of all, the concerns you've identified we are
3 aware of, and there are being efforts taken to address
4 them. As you noted, there's work happening on cost
5 effectiveness, as we look to see what type of
6 harmonization we can have on cost effective methodology
7 across the various customer side resources.

8 And, as was noted by Martha, because there is
9 variation in cost effectiveness, statutory direction, as
10 well as regulatory approaches with the IOUs, versus the
11 POUs, and, you know, other programs, it will be
12 important to look at how we're looking at cost
13 effectiveness across all the different potential
14 sources. And not just the IOUs.

15 So, I'm familiar with the IOU process. But,
16 frankly, less familiar with how harmonized that
17 methodology is on the POU side. So, that's something I
18 would be interested in understanding, as well.

19 MS. SMITH: Thank you.

20 COMMISSIONER MCALLISTER: I want to sort of give
21 a flip side of this view, too. Because, absolutely, I,
22 you know, get that there's an industry out there and,
23 you know, incentives, your know, ratepayer incentives
24 are key in a lot of initiatives in that industry.

25 But on the flip side I guess, you know, and I'm

1 going to go to kind of the bigger picture, baselining
2 effort that we're trying to do here, that has to do with
3 the data proceeding.

4 There are a lot of savings that won't, actually,
5 be attributed kind of -- I mean, obviously, we want to
6 put the program monies where they get the bang for the
7 buck, and that they get savings done that may not have
8 happened otherwise or, you know, sort of help the right
9 parts of the industry so it can scale and get market
10 transformation. I think that's very, very important.

11 But, you know, there are many, many projects out
12 there that will move the baseline. That will, you know,
13 upgrade a house and, you know, the contractor's done a
14 project, and maybe it wouldn't be cost effective by sort
15 of an energy-only perspective, but the homeowner, or the
16 business owner is doing a project and it saves energy.

17 We'll detect that. If we put together the right
18 analytical resources, we will detect those energy
19 savings whether or not they are associated with a
20 program.

21 And, so, I think there's a bigger -- you know,
22 there's a bigger goal here where I think we can -- if we
23 can do the baselining right, and then we can determine
24 what those wedges of savings are, really independent of
25 whether or not they are in a program, just the fact that

1 they exist. So, that's really the bigger question for
2 me.

3 And, then, yeah, absolutely attribution to this
4 or that initiative, whether it was PACE, or the
5 portfolio, or whatever, you know, rates as SB 350 calls
6 out, that's sort of complementary question, but it's not
7 the same question.

8 So, I feel like seeing what energy usage
9 patterns look like over time helps us understand what
10 the gross savings are, independent from all these other
11 programmatic questions, and then we also need to be
12 asking the programmatic questions. But I just don't
13 want us to lose track of the overall marketplace and the
14 overall, you know, trends in energy consumption, per se.

15 So, I know it's a little bit not -- you know,
16 it's maybe not directly relevant to you and your
17 members, but I think we need to keep that bigger context
18 in mind as we move forward.

19 MS. SMITH: Thank you.

20 CHAIR WEISENMILLER: Jonathan Changus.

21 MR. CHANGUS: Good morning, thank you. Jonathan
22 Changus, with the Northern California Power Agency.

23 First, want to note our appreciation and thanks
24 for the pre-meeting that occurred at the Chair, and
25 Commissioner McAllister's request. And really

1 appreciate Martha and Bryan taking the time to meet with
2 a number of the POUs, as well as the agencies, and
3 organizations that represent them, to walk through in
4 advance. Normally, we're responding to and really
5 appreciate more of the collaborative, iterative
6 dialogue. I think that's really an important tone to
7 set as we move forward.

8 We'll be following up with more detailed,
9 written comments. But kind of the 30,000-foot level,
10 really appreciate kind of the third subheading, talking
11 about cost effectiveness, and feasibility, and some of
12 the constraints. And noting the difference between
13 resource planning, but also the need to set those
14 aspirational goals and how they work together. I think
15 that was really important clarification to hear, how
16 we're going to differentiate that. I think we're going
17 to continue to refine what that means going forward, but
18 it's a good place to start.

19 I think the other piece that we want to keep
20 track of as we talk about what the State needs as far as
21 GHG reductions, what utilities are looking for as far as
22 resource planning is also, at least for most of NCPA
23 members, is energy service is customer services, and
24 what customers are looking for. They're related, but
25 they have separate and different pushes and pulls on

1 what we choose to focus on.

2 And, so, I think at the end of the day we're all
3 trying to work to figure out what we can do to equip,
4 support, and facilitate customer decisions regarding
5 energy efficiency. And there's definitely a lot of room
6 for improvement as related to the data, as we learn more
7 about like the building level, through AB 802, and the
8 benchmarking program. The AB 758 Existing Buildings
9 Energy Efficiency Action plan not only lays out a number
10 of strategies, but I thought did a phenomenal job
11 assessing the different market segments and what some of
12 the barriers are.

13 We saw more of that with the SB 350, low income
14 barriers piece, too. So, we know it's out there. We
15 also know there's some challenges.

16 And I really think I appreciate most the
17 uncertainty right now. It would be, I think,
18 unbelievable to assume that we knew exactly how we're
19 going to solve all these problems that we're not quite
20 sure we've fully fleshed out.

21 So, I think it sets a good tone and tenor. I'm
22 sure we'll find something to nitpick about, because
23 that's what we do. But it's starting off in a really
24 good space and I'm looking forward to working with you
25 guys more. Thank you.

1 CHAIR WEISENMILLER: Thank you. Let's go on to
2 the PUC presentation, next.

3 MS. RAITT: Katie Wu, from the CPUC.

4 CHAIR WEISENMILLER: Again, can you just mute
5 everyone on the line, so that we're fair.

6 MS. WU: Good morning. Thank you to the Energy
7 Commission for having me, and for everyone in the room
8 and on the phone for being here today.

9 My name is Katie Wu. I'm one of the supervisors
10 at the California Public Utilities Commission, in our
11 Energy Efficiency Branch.

12 (Microphone comments)

13 MS. WU: Oh, is this better. Okay, thank you.

14 So, I'm here, today, to present on the CPUC
15 components of the SB 350 doubling target. Mostly, I'll
16 be providing some background on our Potential and Goals
17 Study, as well as some context around how we're thinking
18 about adopting the study to fit the 350 needs.

19 So, within SB 350, the ones relating to IOU
20 programs notes that energy efficiency savings will come
21 not only from the financial incentives and rebate
22 programs that the investor owned utilities and community
23 choice aggregators run, but also programs that cover
24 energy efficiency retrofits in schools that are required
25 under Proposition 39, energy efficiency savings that

1 will occur through operational, behavioral, and retro-
2 commissioning activities, which are relatively newer to
3 our portfolio, as well as programs that save energy in
4 final end uses by using cleaner fuel. So, that fuel
5 substitution issue that Martha was covering, earlier.

6 And all of these savings, we determined the
7 potential for these savings in the investor owned
8 utilities' portfolio, through our Potential and Goals
9 Study. It's a biannual study that we're required to do
10 every other year under CPUC decision.

11 Currently, where the study for 2018 goals is
12 underway, and we're going through public review process
13 with that. And the next study will cover 2020 goals and
14 beyond.

15 And, so, as has been mentioned a few times
16 during this workshop today, it will be an iterative
17 process to determine what the investor owned utilities'
18 contribution to SB 350 wind up being, and we'll refine
19 as we gain more information moving forward.

20 And, so, the CPUC is required by the Public
21 Utilities Code to work with the Energy Commission to
22 identify all potentially cost effective energy
23 efficiency savings, and establish targets. The PU Code
24 is augmented by Commission decision.

25 Which most recently, in August of last year,

1 required that the Potential and Goals Study be
2 determined to develop annual, as well as cumulative
3 goals, for 2018 and beyond, and to set goals that are
4 net of free ridership. And, so, that addresses some of
5 the -- or, that gets to some of the attribution issues
6 that Kellie Smith mentioned earlier.

7 But we're really trying to ensure that the
8 ratepayer funded programs are going after savings that
9 are beyond what a customer would be doing, anyway. I
10 think, in California, energy efficiency has been around
11 for so many years that much of the low-hanging fruit is
12 gone, now, so we want to make sure that we're getting
13 incremental savings through our ratepayer funded
14 activities.

15 And, so, just some high level background on our
16 Potential and Goals Study, if anyone's not familiar with
17 it. The way that we determine the potential and
18 eventually adopt goals is we start with the technical
19 potential, which is the assessment of total energy
20 savings by end use and sector, relative to baseline of
21 existing energy uses. That's, technically, all of the
22 energy efficiency that's possible within the
23 marketplace.

24 We then apply our CPUC's cost effectiveness
25 framework to the technical potential to determine what

1 the economic potential is, what is cost effective to
2 achieve through the IOU programs.

3 And then, lastly, we make an adjustment for
4 market potential that's predominantly based on past --
5 or program performance in the past, and other
6 conditions, to then determine what is reasonable to
7 achieve through the energy efficiency portfolio, what
8 can we expect to happen.

9 That eventually feeds into goals and scenarios
10 of incremental savings that are disaggregated by climate
11 zone and building type. And these goals are adopted by
12 the Commission through decision.

13 Navigant Consulting is our current contractor on
14 the Potential and Goals Study. And they're currently
15 doing research to refine the inputs and assumptions that
16 are going into the model, that we're planning on
17 releasing a draft version of in May of this year.

18 And, so, some new definitions of energy
19 efficiency potential that works to expand that technical
20 potential that I was just referencing, come from AB 802,
21 which was passed in 2015. This modifies our baseline
22 policy to also include savings that are below code, or
23 below adopted codes. These previously were attributed
24 to the CEC's wedge of codes and standards savings that
25 feed into the forecast. But, now, the ratepayer --

1 sorry, the IOU programs have more flexibility to pursue
2 these savings and they would be attributed to the IOU
3 programs, then.

4 Additional savings may also come from behavioral
5 retro-commissioning and operational activities.
6 Historically, we have not counted these in the IOU
7 portfolios. So, these are another source of technical
8 potential that will be in the portfolio.

9 And lastly, AB 802 requires that we quantify
10 savings using normalized year energy consumption, which
11 helps to support quantification of the savings that are
12 occurring under behavioral retro-commissioning and
13 operational activities.

14 And, so, CPUC policies that are affecting the
15 economic potential, that second tier of potential as I
16 mentioned. As has come up a couple times during this
17 meeting, the Integrated Distributed Energy Resources
18 proceeding is addressing cost effectiveness for all
19 demand side programs at the Commission.

20 In 2016, the Commission adopted an update to the
21 avoided cost calculator, which updated inputs that
22 determine the benefits from demand side savings. The
23 result of -- and this slide is missing this number. But
24 the result in updating the avoided cost calculator was
25 an approximate drop in the value of avoided costs that

1 feed into the calculation of benefits from demand side
2 programs.

3 The drop was predominantly due to the drop in
4 natural gas prices that have occurred since 2011, which
5 was the last time that the avoided cost calculator was
6 updated. There was also a drop in the cost of capital
7 for avoided energy supply. And we aligned the value of
8 greenhouse gas, of avoided greenhouse gas to align with
9 the ARB's auction price, and that also led to a drop in
10 avoided costs.

11 But, potentially, increasing the economic
12 potential would be the use of a societal cost test, or
13 application of a social cost of carbon within our cost
14 effectiveness framework. And that is under
15 consideration in our Integrated Distributed Energy
16 Resources proceeding. So, I would encourage
17 stakeholders to plug into there, if you're interested in
18 following that discussion.

19 So, coming back to the Potential and Goals
20 Study, the Potential and Goals Study will include some
21 scenarios that serve as sensitivity analysis to the
22 energy efficiency potential to better understand how the
23 potential and goals would change under certain
24 conditions.

25 Scenarios currently under consideration for the

1 2018 study include different cost effectiveness tests,
2 including, potentially, the use of a societal cost test.
3 Financing options. Increased customer enrollment and
4 behavioral retro-commissioning and operational
5 activities. Varying levels of marketing and outreach.
6 And varying incentive levels.

7 So, all of these scenarios are conditions that
8 the CPUC has the some ability to manage and control.
9 The final report will include an analysis of these
10 scenarios that will be presented to the Commission for
11 their consideration. And the Commission will then
12 decide which scenario to adopt as the potential and
13 goals for the energy efficiency portfolio.

14 And the timeline for our goals and analysis
15 setting, currently Navigant is working through the
16 Demand Analysis Working Group to develop methodological
17 changes for the 2018 study. I believe all of the DAWG
18 meetings are publicly accessible. Is that correct?

19 Yes. So, stakeholders are welcome to participate in
20 those meetings, as well, if you want to follow the
21 Potential and Goals Study more closely.

22 By May, we'll be releasing a draft version of
23 the Potential and Goals for public comment. And we
24 intend to present -- or, we intend to adopt the goals,
25 by Commission decision, by August in order to feed into

1 the CEC's IEPR process.

2 And, so, my presentation today is focused on the
3 Potential and Goals Study, and how we're working through
4 that study to start to answer some questions related to
5 energy efficiency and SB 350 goals. There are other
6 changes, within the CPUC portfolio, that may end up
7 affecting potential, or goals, or Commission policy
8 around energy efficiency.

9 As Commissioner Peterman mentioned, earlier
10 today, we are currently in implementation of a rolling
11 portfolio cycle, and that guarantees ten years' of
12 funding for energy efficiency activities, until the
13 Commission issues a superseding decision.

14 And, so, that gives the market a little more
15 certainty that these energy efficiency activities will
16 continue and we'll, hopefully, be able to target long-
17 term projects through the rolling portfolio cycle, as
18 well.

19 We're also, currently, working on aligning the
20 rolling portfolio cycle milestones and deadlines with
21 integrated resources planning. This work is just
22 starting to get underway and we're trying to understand
23 how it all fits together. And, so, as we gain more
24 experience with this, as we continue to collaborate with
25 the Energy Commission, and stakeholders, we'll have a

1 better understanding of how our investor owned utility
2 energy efficiency activities fit into integrated
3 resources planning activities.

4 Some more granular changes that are included in
5 the portfolio include modifications to program
6 administration. As Commissioner Peterman mentioned, we
7 just received the business plans from the investor owned
8 utilities that will cover energy efficiency activities
9 from 2018 to 2025. This includes having a single lead
10 program administrator for statewide programs, as well as
11 starting to address this Commission mandate of having 60
12 percent of energy efficiency programs implemented by
13 third parties, by 2020.

14 And, so, it remains to be seen how this will
15 affect the portfolio, but it is a different model for
16 delivering energy efficiency savings than we've used in
17 the past.

18 And, lastly, this question of how energy
19 efficiency forecasting fits in with integrated resources
20 planning still needs to be answered. As I mentioned,
21 we're just starting to understand the question and the
22 scope of the issues that need to be thought through.
23 And, so, we'll have more information as we continue to
24 work on this question.

25 And, so, if you have any questions about the

1 Potential and Goals Study, Paula Greundling is our staff
2 lead on that, and our CPUC contact information is here
3 for reference, as well. So, I'd be happy to take any
4 questions.

5 MS. RAITT: Thanks. So, do you want to go ahead
6 and do another public comment period?

7 CHAIR WEISENMILLER: Why don't we have Bryan
8 talk about next steps, and then we'll take public
9 comments across the board.

10 MR. EARLY: Good morning, everyone. My name is
11 Bryan Early. I work as an advisor to Commissioner
12 McAllister.

13 I just wanted to thank everyone for coming and
14 participating in the workshop, today. The goal of which
15 was really to discuss both the analytical framework for
16 having the Commission adopt targets by November of this
17 year, but also the policy and timing process.

18 I just want to reiterate that this is going to
19 be an ongoing process. We're not going to stop this
20 work in 2017. SB 350 does reiterate that in 2019, and
21 every two years thereafter, we revisit the subject in
22 the IEPR. But the fact remains that between now and
23 November, you know, we do have a limited amount of time.

24 And, so, please in your written comments, which
25 are due February 6th, that's when we're asking for them,

1 highlight to us if there are issues that you would like
2 us to tackle between now and the Board adopting targets
3 that we have not yet proposed.

4 And just to make sure everyone is sort of clear
5 on our, just the nitty-gritty of our next steps here,
6 the goal is that prior to the -- prior to the Commission
7 adopting targets, likely in the October Business
8 Meetings, we'll publish prior to that a final staff
9 report, which contains the information distilled here,
10 the comments that we receive, the iterative process that
11 we'll be engaged with the POUs. And, of course, a
12 discussion on savings that would come outside of
13 ratepayer funded activities.

14 So, that final staff report will come out at
15 some point in the future, and then we'll have a workshop
16 on that, and that will be the document that will end up
17 going to the full Commission.

18 And, again, to the POUs, I want to thank you
19 very much for coming and participating. And a meeting
20 we had a couple of weeks ago, sort of teeing us off.
21 You know, expect to hear from us soon. Really look
22 forward to working with you, both in discussing your
23 current Potential and Goals Study, and getting ready for
24 a workshop and a subsequent analysis of savings that can
25 be expected to be achieved through POUs. So, that's all

1 I have on next steps.

2 COMMISSIONER MCALLISTER: Yes, thanks, Bryan.

3 And I just want to make a couple of points here. You
4 know, just to make sure -- I think, you know, from
5 Bryan's comments, Bryan Cope's comments earlier, I think
6 you get this. But it bears kind of some dwelling on.

7 So, the collaborative process here is really
8 key. Those of you who follow my proceedings know that,
9 you know, I certainly take this very seriously, the
10 Commission does, and the Appliances Standards and the
11 Buildings Standards. In the AB 758 process, you know,
12 really those -- those are -- the last rounds of those
13 efforts have been as robust and, I think, vital as they
14 are because we have come together and everybody's sort
15 of rolled up their sleeves and put in their best, good
16 effort.

17 And we've listened as the Commission. And we
18 hope that you see your comments reflected in the
19 products that come out of those processes.

20 Now, this is another area where, you know, I
21 think even more so that philosophy has to apply to get
22 to goals that are both aggressive, and meet the
23 Legislature's direction to us, but also are doable in
24 reality. Well, you need to tell us what your reality
25 is. And there's really -- and we will be listening to

1 that. So, there's really no substitute for that
2 collaborative process. So, one.

3 Number two, part of the urgency here is that,
4 again, it's sort of been said, but I want to just put a
5 finer point on it, the doubling goal and the IRP process
6 are siblings. They are inextricably linked. And, so,
7 we want the IRP process and the doubling efforts, and
8 the energy efficiency efforts to be in sync, one reflect
9 the other. And be on the same page with everyone who's
10 out there in the world. You know, primary among them
11 the utilities, but many other stakeholders making that
12 energy efficiency transition to a doubling. And, so,
13 that we can see it in the data, so we can see it in our
14 IEPR process and, you know, each round of updates that
15 we do.

16 So, you know, that really is trying to make it
17 as easy as possible on everybody to do what is
18 essentially a pretty difficult thing.

19 And, so, we want to be intentional and we want
20 it to be clear what's going on. And, so, again, the
21 pieces need to fit together here. So, that's really
22 some of the urgency of doing this workshop, now, and
23 then a series later that makes sure that we're all
24 holding hands on this, and marching forward, together.

25 So, anyway, that context, I think, just bears

1 keeping in mind.

2 With that, I'll -- any other comments, I'll wait
3 until the very end after we receive the next round of
4 public comments.

5 CHAIR WEISENMILLER: Great. So, let's start
6 with Eric Rubin.

7 MR. RUBIN: Hi, Eric Rubin, Energy Solutions.
8 And I want to say a couple things. First of all,
9 regarding the 3 percent annual growth rate that's used
10 to extrapolate the savings goal to 2030, I'd suggest
11 that because that savings goal -- because that
12 additional savings, from 2025 to 2030, may be
13 conservatively estimated right now, that it's important
14 that we focus on having a means of reevaluating that
15 growth rate in the future, as there's more evidence
16 about what the savings potential is likely to be.

17 And also want to echo SCPPA's interest in --
18 (Phone line interruption)

19 MR. RUBIN: To echo SCPPA's interest in laying
20 out what is the process by which we can contribute
21 evidence on what will be the savings from various
22 energies that will be contributing to the goal, on
23 spread sheets and whatnot. Thank you.

24 CHAIR WEISENMILLER: Great, thank you.

25 Let's go on to ZYD Energy, please.

1 MR. ZHANG: My name's Yanda Zhang, with ZYD
2 Energy. Thank you, Chairman. Thank you, Martha, for
3 your presentation.

4 Two questions. The first one is regarding
5 definition of cumulative savings. Martha, you talked
6 about in figure 6, in the paper, there's two ways of
7 defining it. One is cumulative at a particular year,
8 and another one is cumulative with all the cumulative,
9 some previous years.

10 I think those definitions have a big impact what
11 will be the actual impact on the carbon reduction. So,
12 my question is, in defining or selecting which
13 definition to use, have you considered or Commission
14 considered how the definition is going to be aligned
15 with the State carbon reduction goals? Well, more
16 specifically, Governor Brown clearly mentioned that this
17 doubling savings is one of the five pillars for the
18 carbon reduction goal. According to that, the ARB
19 Scoping Study for 2030 goals, and what they specified is
20 2.5 of the AEEE savings, not just double. It's actually
21 2.5 in all the scenarios they looked at to be able to
22 achieve 2030 goals.

23 And, also, I'd also like to mention a study, I
24 think this White House released a Midcentury Strategic
25 for De-carbonization. That's a paper issued by the last

1 administration in November. They have some analysis
2 about what will be the expected savings from energy
3 efficiency needed to contributing de-carbonization.

4 So, again, you know, my, I guess, question is in
5 defining what the cumulative savings, I'd kind of like
6 to suggest the Commission to indicate what would be the
7 associated carbon definitions. What's the definition?
8 What's the annual goals to be set? At least to show us
9 if those definitions can be aligned with the carbon
10 reduction goals.

11 MS. BROOK: Okay. I started thinking you had a
12 question, but I think you're just asking us to clarify
13 the GHG impacts of both assumptions in regards to the
14 cumulative doubling. Is that correct?

15 MR. ZHANG: I guess it's also, it's
16 comment/question, comments regarding that is we kind of
17 recommended that the definition, instead of, say, using
18 some kind of interpretation, instead it's based on
19 analysis-based.

20 MS. BROOK: Okay.

21 MR. ZHANG: Based on analysis of what would be
22 the actual -- how it impact? How is that going to be
23 aligned with the 2030 carbon reduction goals, and use
24 that to define the cumulative savings goals?

25 CHAIR WEISENMILLER: Well, again, I think we

1 have to start thinking more and more about GHG. Having
2 said that, the scoping plan that you refer to is a
3 draft staff document. It's not an ARB document,
4 adopted. And in addition, if you really look at the
5 pathways model behind it, it does an incredible job
6 relating like transportation, buildings, power, you
7 know, public -- it does all these things. But it's a
8 very sketchy model on the specifics.

9 And, you know, when you really probe on the
10 details, like the last pathways model had a similar
11 percentage, but when you looked they said LEDs. And it
12 was like, well, gosh, that will get you some of that
13 percentage, but not much.

14 So, again, I think the ARB's certainly
15 expecting, as we go forward, looking more to really
16 detailed analysis, like we're doing today, to help flesh
17 out where they're going, as opposed to us looking at
18 their higher level analysis there. So, thanks.

19 MR. ZHANG: Well, maybe I talk to you later, in
20 more detail, Martha, but in the --

21 MS. BROOK: Yeah, then, please, put your
22 comments in writing because we do have an obligation to
23 respond to those in a very robust way, so that would be
24 very helpful, too.

25 CHAIR WEISENMILLER: Right.

1 MR. ZHANG: Can I ask another question?

2 CHAIR WEISENMILLER: Sure.

3 MR. ZHANG: Okay. The second question is
4 related to the codes and standards. I think it needs
5 some clarification, from some of the descriptions. One
6 is regarding the Integrated Resource Plan, the paper
7 specifically mentioned that IOUs, or different entities,
8 can already include those savings from standards that
9 have already included the AAEE.

10 But I'd like to point out that when AAEE was
11 doing back then, it included standards adopted, as well
12 as standards to be adopted. Some of those standards was
13 thought to be adopted, actually has not been adopted.

14 So, in the AAEE, the AAEE, itself, include
15 standards that has not been adopted.

16 CHAIR WEISENMILLER: Well, in fact, if you look
17 at the Trump action on Friday, there's a number of
18 Federal standards that are now froze that are pending,
19 that were either adopted or pending.

20 MR. ZHANG: Yeah.

21 CHAIR WEISENMILLER: So, anyway, but that's more
22 of a conversation in the demand forecasting area.

23 MR. ZHANG: Yeah. My question, maybe I just ask
24 my question is I think I say one of the things I,
25 hopefully, get some clarification of how that's going to

1 be determined in terms of the IRP and --

2 CHAIR WEISENMILLER: Okay, again, participate in
3 the demand forecast which is either, you know, the DAWG,
4 JASC, as we go through and update the AAEE forecast.
5 But, certainly, it's not here today.

6 MR. ZHANG: Okay, well --

7 CHAIR WEISENMILLER: Well, again, we need to
8 move on. But, certainly, encourage you to do public
9 comment, or written comments.

10 MR. ZHANG: Okay.

11 CHAIR WEISENMILLER: And, you know, again,
12 continue talking to staff.

13 MR. ZHANG: Thanks.

14 CHAIR WEISENMILLER: Okay.

15 MR. ZHANG: Thanks.

16 CHAIR WEISENMILLER: SMUD.

17 MR. CENICEROS: Good morning, Commissioners.
18 Bruce Cenicerros with the Sacramento Municipal Utility
19 District.

20 We're really pleased to hear the consistent
21 support for having this be a carbon-driven goal. You
22 know, it's obvious to everyone that that's what this all
23 about, policy-wise. The trick is making it happen,
24 because it makes things rather tricky.

25 We also appreciate Commissioner McAllister's

1 comments about, and everyone has said this, I think, at
2 some point, that this process needs to be inextricably
3 linked to the integrated resource planning process.
4 That's where the rubber meets the road in terms of what
5 makes sense to do.

6 We like the idea of a common metric and the
7 flexibility to start to support fuel substitution,
8 electrification kinds of measures. It's been mentioned
9 many times this morning that that's going to be a
10 critical additional source of carbon savings to get to
11 the State's aggressive carbon reduction goals by 2030,
12 of 40 percent.

13 And it's also notable that the natural gas end
14 use savings has tended to lag far behind what we've been
15 getting in the electricity side. And looking forward,
16 just saving gas through efficiency is not going to be
17 enough. The various policy reports and analyses have
18 shown that it's going to require electrification of
19 natural gas, efficient electrification to get there.

20 One thing that we'd like to say is that there
21 are a lot of policy barriers to that, and other means of
22 accessing new sources of energy savings to get to this
23 doubling target. And it hasn't been totally clear, yet,
24 how progress will be made on the policy barriers, in
25 conjunction with setting these targets and charting a

1 path forward to achieving them.

2 So, it would be nice to get a little more
3 clarification on how that's going to work. We've got
4 things going on at the PUC. There are other policy
5 forums going on, other proceedings of the CEC, as well.

6 Just one example, here, about electrification
7 is, currently, there's really not any way, you know,
8 clear way for a utility that is doing electrification to
9 claim credit for the gas Btu and carbon savings. And a
10 large portion of the State is covered by one utility
11 delivering gas or another delivering electricity.

12 We've got to craft that, as well as a bunch of
13 other policy barriers here. So, allowing some time at
14 some of the workshops coming up in this proceeding, or
15 coordination with the other proceedings, and making it
16 very clear which policy barriers need to be addressed
17 and in which forum they're going to be addressed would
18 be very helpful. We look forward to providing some
19 written comments.

20 And as part of that, we have started an effort
21 to look at an alternative way to put carbon into the
22 metrics, be more of a specific carbon-based metric, to
23 see if that's really a feasible path. This gets really
24 tricky with the marginal emissions changing over time.

25 We won't have results of that, probably, by

1 February 6th, but we'll share results of that as we
2 proceed with that. And that might be one alternative to
3 look at, along with NRDC's really excellent analysis of
4 some of the options here, which you'll get to see in
5 their comments, coming soon. Thanks.

6 CHAIR WEISENMILLER: That's good. Well, again,
7 this year's not going to get all the solutions. I mean,
8 this is going to be something which so many people are
9 going to be working on, you know, for at least the next
10 decade. You know, hopefully, by then we'll be pretty
11 close to the target or achieving the target.

12 COMMISSIONER MCALLISTER: A couple of --

13 CHAIR WEISENMILLER: Anyone else in the room
14 have comments?

15 COMMISSIONER MCALLISTER: I wanted to just
16 comment on that, just briefly.

17 CHAIR WEISENMILLER: Yeah.

18 COMMISSIONER MCALLISTER: Chair?

19 CHAIR WEISENMILLER: Go ahead.

20 COMMISSIONER MCALLISTER: Yeah, I just wanted to
21 make a quick comment. So, you know, really appreciate
22 Bruce's comments. I guess, any sort of fine point
23 description of those policy barriers that you face, I
24 think would be helpful. Certainly, we're the Energy
25 Commission. We don't make the solutions, necessarily,

1 to those policies -- those barriers. But it helps
2 highlight, you know, put the flag up so that we can
3 start working on pathways to solving them.

4 And, particularly, on natural gas, I mean, I
5 think we all agree it's complicated. I guess, it would
6 be really helpful if, certainly on the energy efficiency
7 side of things, or that the energy efficiency sort of
8 economy, it does -- you know, it's not easy to argue for
9 electrification just because of, you know, we all know
10 natural gas is relatively cheap on a per-Btu basis.

11 And, also, some of the technologies that are going to
12 enable electrification are still new and they're
13 relatively pricey. So, you have sort of an upfront cost
14 and an operational penalty in some cases. Not in all
15 cases.

16 But I think having, you know, some real hard-
17 nosed analysis of what the market path is to get there,
18 and get some scale, would be really helpful from you and
19 from others. You know, ways to support,
20 programmatically, that shift, are kind of in short
21 supply right now. So, I think it would be good to
22 elucidate some real alternatives there.

23 CHAIR WEISENMILLER: Okay. So, again, anyone
24 else in the room have public comments, questions?

25 Actually, let's start with just public comments

1 -- let's figure, is there anyone on the line?

2 MS. RAITT: Yeah, I don't think anyone -- if
3 anyone on the line wanted to make comments, please use
4 the chat function to raise their hand. So far, we don't
5 have anybody.

6 CHAIR WEISENMILLER: Okay. So, let's transition
7 to --

8 COMMISSIONER PETERMAN: Yes, thank you for this
9 workshop and thank you very much to all the speakers for
10 your comments. There were some really good, tangible
11 suggestions, already.

12 I particularly appreciated the comments
13 acknowledging where, in the existing PUC proceedings,
14 the Energy Commission proceedings, work needs to be done
15 and completed in order to inform the target setting
16 here. So, I will go back and pertaining to these issues
17 at the CPUC. And, thank you for your time.

18 COMMISSIONER MCALLISTER: I just want to thank
19 everyone for coming, again. Really looking forward to
20 your written comments. Those of you who did not speak
21 up, live, definitely put your thinking caps on and help
22 us get to a good goal. Really, I would like to get to a
23 point where this is more or less a consensus-based goal.
24 But, you know, we have to do what SB 350 asked us to do.
25 And I think process here is really important. I just

1 can't emphasize that enough. So, really appreciate all
2 your great input today and going forward. Thanks,
3 again.

4 CHAIR WEISENMILLER: Well, again, I also want to
5 thank folks for their participation today. Looking
6 forward to your written comments.

7 And, again, I think those of you who have been
8 following the IEPR for the last, I want to say six
9 years, you know, understand, I think every time we've
10 talked about the demand forecast, I've always been very
11 clear what the long-term vision was, but that you had to
12 go step by step. And you weren't going to achieve it in
13 a single year. And God bless, we haven't achieved it in
14 six years.

15 So, I guess, this is again something where, you
16 know, it's going to -- you know, this first small step
17 and, you know, long-term vision. But there's a lot to
18 do over time. And I think, you know, you have to help
19 us think through the evolution in a way so that it goes
20 smoothly.

21 So, anyway, thanks again for your help. This
22 meeting's adjourned.

23 (Thereupon, the Workshop was adjourned at
24 11:58 a.m.)

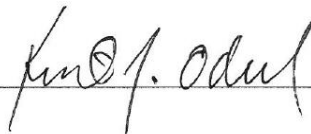
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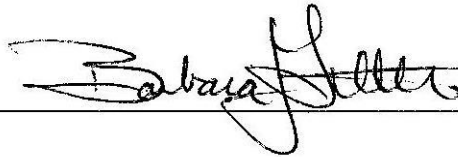
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