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BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the Matter of:) Docket No. 15-AAER-05
)
Appliance Efficiency Rulemaking)
for Residential Lavatory)
Faucets and Showerheads)

LEAD COMMISSIONER PUBLIC WORKSHOP

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
1ST FLOOR, ART ROSENFELD HEARING ROOM
SACRAMENTO, CALIFORNIA

TUESDAY, July 28, 2015
1:00 P.M.

Reported by:
Peter Petty

APPEARANCES

Commissioners Present

Andrew McAllister, Lead Commissioner, IEPR Committee
Robert B. Weisenmiller, Chair

Staff Present

Kristen Driskell, Appliance Efficiency Program
Sean Steffensen

Speakers

Ed Elliott, Pacific Gas & Electric Company (PG&E)
Sarah Schneider, Energy Solutions
Jerry Desmond, Plumbers Manufacturers International
Jay Burnett, Delta Faucet Co.
Joel Smith, Kohler
Tracy Quinn, Natural Resources Defense Council (NRDC)
Pamela Boyd Williams, California Retailers Association
Marc Kimball, Home Depot
John Bertrand, Moen

Public Comment (Via WebEx or Phone)

*Dann Holmes, NSF International
*Ed Osann, Natural Resources Defense Council (NRDC)
*George Nesbitt, HERS Rater
*Bach Tsan, Southern California Edison (SCE)

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1 P R O C E E D I N G S

2 JULY 28, 2015 1:00 p.m.

3 MS. DRISKELL: Good afternoon everyone.
4 My name is Kristen Driskell, I'm the Supervisor
5 of the Appliance Efficiency Program at the Energy
6 Commission.

7 Just a few housekeeping items before we
8 begin. For those of you not familiar with this
9 building, the closest restrooms are located over
10 there, inside the building, but outside of this
11 conference room. There is a snack bar on the
12 second floor under the white awning. And in the
13 event of an emergency if the building is
14 evacuated, please follow our employees to the
15 nearest exits, they're here and over there.

16 This meeting is being recorded, so please
17 give your name or a business card to our Court
18 Reporter sitting over there before you speak. I
19 will invite everyone up to speak, and then have
20 your presentation loaded.

21 Commissioners, if you would like to make

1 some opening remarks?

2 COMMISSIONER MCALLISTER: You bet.

3 Thanks, Kristen. Let's see, thank you all for
4 coming. We planned this workshop a couple weeks
5 ago, a few weeks ago, and really happy to have it
6 now coming to fruition.

7 You know, just a little bit of context
8 quickly. The urgency of the drought has not let
9 up, if anything it continues unabated and more
10 so. I was just down in San Diego and they
11 actually had the tail of a hurricane down there a
12 couple weeks ago and got a lot of rain, but no
13 fundamental change in where we're going, it's all
14 very, I think, unpredictable and moment to
15 moment, but we really know that the long term
16 situation has not changed.

17 The Governor continues to focus on this
18 issue, it's at the top of his priority list, and
19 the agencies that he's tasked with doing things
20 are clicking through their responsibilities and
21 making sure that we're aligned and moving forward
22 on getting all the water savings we possibly can.

23 You know, we have an existing Regulation,
24 so everybody, I think, is clear on that, we did
25 that at the Governor's behest expeditiously, I'll

1 say, and it's in place and January 1 is the date
2 we'll be talking, I think, about that centrally
3 today.

4 But the reason I think we wanted to have
5 a workshop, I certainly wanted to have a
6 workshop, is to express the fact that we really
7 are listening to all the stakeholders, certainly
8 industry and, you know, the Energy Commission
9 needs to push the envelope on savings on energy
10 and water, but also do so in a way that is indeed
11 workable in the marketplace, and so we need to
12 create the forums to work through those issues on
13 a sound basis. And if changes are needed in
14 direction, then we have the ability and authority
15 to do that.

16 So we've gotten a lot of stakeholders
17 chiming in on this issue after adoption of the
18 Regulation, and I think it became clear we needed
19 to air out some of these issues in a public
20 forum, build a record, and move forward and
21 utilize our process as appropriate, so happy to
22 be doing that today. I really thank you all for
23 coming and I'll pass the Dais to Chair
24 Weisenmiller.

25 CHAIRMAN WEISENMILLER: I'll be brief and

1 just follow-up. I think, as Commissioner
2 McAllister said, I think in the case of the
3 drought, we are all hoping for the best, but
4 planning for the worst case, and the worst case
5 would be a continuation at least through next
6 year, if not the Australian example, 12 years.
7 Certainly when you look at the impact of the
8 drought on our citizens, it's pretty severe, you
9 know, we fallowed a lot of fields, have had major
10 impacts on California Agriculture, you know,
11 which has really resulted in people losing a
12 livelihood and us having to bus food and water
13 into some of the towns in the valley.

14 At the same time, certainly if you look
15 at the impact on wildlife, it's been also fairly
16 severe. We are likely to lose the salmon runs
17 this year, I always go back to the statistic of
18 the number of bears moved out of Bakersfield in
19 December as basically animals are looking for
20 food and water.

21 So the bottom line is it's a pretty
22 serious situation. We took emergency action; at
23 the same time, whenever we adopt Standards, we
24 always, well, we always hear a lot of problems
25 from industry and we always do the reality check

1 as we go forward. We're obviously hoping things
2 will get better, but we want to get some data
3 today on what is the situation in the area of the
4 faucets, and I guess there's a creative situation
5 on the plate trim of the showerheads. So again,
6 looking forward to comments today.

7 MS. DRISKELL: Great, thank you. So we
8 have several presentations. We'll start off with
9 staff's presentation. I'll invite Sean
10 Steffensen up here for that. After each
11 presentation we'll have an opportunity to ask
12 just clarifying questions and we'll have a
13 discussion later in the afternoon to address more
14 substantive issues. So if you have a very
15 substantive question, hang on to it.

16 MR. STEFFENSEN: Hi. Good afternoon. My
17 name is Sean Steffensen, I'm a Mechanical
18 Engineer here at the Efficiency Division. I work
19 on a number of water-related initiatives and I'm
20 somewhat new here.

21 So we're facing a drought and water
22 emergency as shown in the picture above. That's
23 Folsom Lake, 2013 and 2014. The lake levels are
24 less than half of average, snow and rainfall
25 runoff is predicted to be at its lowest level in

1 a generation, that's the graph on the right with
2 the big arrow pointed at 2015, that's what the
3 USGS is predicting.

4 And we're also asking everyone, as the
5 Commissioner said, that we must conserve water,
6 we must do that now.

7 Governor Brown has recognized the urgency
8 of the drought and has granted the Energy
9 Commission emergency powers to adopt regulations
10 to improve the efficiency of water appliances.
11 The Energy Commission acted through the recent
12 Toilet, Urinals, and Lavatory Faucet Standard
13 that we'll begin saving water in January of 2016.
14 Today we are here to discuss what we can do to
15 further water savings through lavatory faucet and
16 showerhead efficiency standards.

17 So this is a graphic I borrowed from one
18 of the reports. This graphic shows a breakdown
19 of how urban water use is in California. Each
20 sector, whether it's commercial, which is the
21 orange part, industrial, or residential
22 outdoor/indoor has great potential for water
23 savings. Today we're going to focus on the
24 residential indoor water use and that will be
25 specifically faucets and showers.

1 On April 8th, the Appliance Standard
2 Rulemaking realized significant water savings as
3 shown on these graphics here. The rulemaking
4 covered both residential and commercial toilets,
5 urinals, and kitchen and lavatory faucets. When
6 all the appliances meet the new standards, 105
7 billion gallons of water will be saved annually,
8 that's one out of every four gallons that
9 toilets, urinals and faucets use today.

10 Plumbing Manufacturers International,
11 they'll be speaking today, it's a trade
12 organization of plumbing products and
13 manufacturers, has expressed concerns regarding
14 the availability of residential lavatory faucets
15 at the 1.2 gallons per minute level, as of
16 January 1, 2016.

17 Specifically, PMI has claimed that few
18 models currently exist that meet the standard and
19 provide a timeline for when they believe they
20 could make their noncompliant models into 1.2
21 gallon per minute models. This timeline showed
22 the design, certification and manufacturing
23 processes extending to January 1, 2017.

24 Energy Commission staff has reviewed the
25 product availability and met with Manufacturers,

1 Certifiers and Retailers to verify PMI's claims.
2 The results are shown here on this slide. While
3 we have found several of PMI's claims reasonable
4 such as the lack of available product today and
5 long design and production timelines, we also saw
6 opportunities to streamline certification process
7 or utilize existing 1.0 GPM to modify some faucet
8 models to ensure availability.

9 The Energy Commission would like to
10 review the faucet topic today to determine how
11 best to further water savings while ensuring
12 faucet availability.

13 So I have a graphic here that shows some
14 of the ways in which we may amend the Lavatory
15 Faucet Standard. The goals, of course, are water
16 savings, faucet availability, ease of
17 implementation and enforcement, and drought
18 savings, meaning we want to get the water savings
19 as quickly as we can because the drought is
20 happening today.

21 We looked at three areas that
22 individually or together present opportunities to
23 meet these goals and that would be the faucet
24 flow rate, the effective date for the Regulation,
25 and whether sell-through would be permitted.

1 So this shows the staff proposal. Staff
2 proposes extending the effective date for the 1.2
3 gallon per minute faucets to July 1, 2016, while
4 adding a September 1, 2015 effective date for 1.5
5 gallon per minute faucets. Both effective dates
6 would offer sell-through, or the ability of
7 retailers and manufacturers to sell-through
8 inventory manufactured before the effective date.
9 We believe this proposal meets the goals for
10 water savings while ensuring faucet availability.

11 And then changing topics, we also are
12 looking at showerheads as an opportunity to
13 extend significant water savings. The table
14 presents a comparison of existing Showerhead
15 Standards. In Title 20, the existing Appliance
16 Standard is set at 2.5 gallons per minute.
17 CALGreen, the Title 24 New Construction Code, the
18 California Plumbing Code, and WaterSense, which
19 is a voluntary industry standard, are set at two
20 gallons per minute. Setting the Title 20
21 showerhead standard to two gallons per minute
22 would align standards while achieving water
23 savings.

24 The proposal would set both efficiency
25 and performance standards. The maximum flow rate

1 would be two gallons per minute at 80 PSI, which
2 is typically the highest water pressure in a
3 home. Reducing the maximum flow rate would
4 achieve the water savings. There are two minimum
5 flow rate requirements proposed to address
6 consumer acceptance and thermal shock, a safety
7 concern when a change in water pressure may cause
8 a change in shower temperature. These minimum
9 flow rates would avoid this issue by allowing
10 consumers to match showerheads and automatic
11 compensating shower mixing valves. The effective
12 date is January 1, 2016 with sell-through of
13 inventory manufactured before that date.

14 This graphic here shows what we would
15 cover, it's shown as the thick showerhead shown
16 from above, the hand-held showerhead, and also
17 body sprayers which are devices used to spray
18 water horizontally in some showers.

19 This slide shows which test procedures
20 would be utilized. The next flow rate is a
21 Federal test method that is currently in effect
22 and would be unaffected. The minimum flow rate
23 procedure would be per the ASME Plumbing Supply
24 Fittings Standard, the 2012 edition, specifically
25 section 5.12 for the high efficiency showerheads

1 and handheld showers.

2 The benefits of the showerhead efficiency
3 include 24 billion gallons of water annually at
4 full stock turnover. Consumers will save energy,
5 water and money with the change-out of a two
6 gallon per minute showerhead. There will be
7 alignment to the existing standards and studies
8 show consumer acceptance and the minimum flow
9 rate would address thermal shock concerns.

10 The Energy Commission encourages public
11 comment on these topics. There will be a public
12 comment period at the end of today's workshop.
13 We also accept written comments. Please provide
14 your comments by this Friday, July 31st.
15 Instructions are shown on this slide, Slide 14.
16 The e-Commenting link is an easy way to make a
17 comment. We will also accept hard copy comments
18 at the address shown on this slide. Please note
19 the docket number, we have updated it, it's now
20 15-AAER-05.

21 And thank you again. I would be happy to
22 answer any clarifying questions regarding the
23 proposal at this time, although we have allocated
24 time for a more in-depth discussion at the end.
25 So at this point I've completed my presentations,

1 Commissioners.

2 COMMISSIONER MCALLISTER: I think that
3 was very clear, pretty simple proposal, and let's
4 move through the agenda I think expeditiously.

5 MR. STEFFENSEN: Okay, thank you.

6 COMMISSIONER MCALLISTER: Thanks a lot,
7 Sean.

8 MS. DRISKELL: Thank you, Sean. Next up
9 I would like to invite Sarah Schneider from
10 Energy Solutions on behalf of the California IOUs
11 to present.

12 MR. ELLIOTT: Good afternoon, Chairman
13 Weisenmiller, Commissioner McAllister, and
14 Kristen Driskell and members of the staff. My
15 name is Ed Elliott. I'm a Senior Engineer with
16 the Codes and Standards Department of PG&E, and
17 speaking on behalf of the California Investor-
18 Owned Utilities, we would like to thank you for
19 this opportunity to present these case studies on
20 showerheads and faucets. At this point, I would
21 like to introduce Sarah Schneider of Energy
22 Solutions.

23 COMMISSIONER MCALLISTER: Thanks for
24 being here.

25 MS. SCHNEIDER: Thank you. I echo

1 everything that Ed Elliot just said. My name is
2 Sarah Schneider, I'm with Energy Solutions and
3 I'm going to be presenting on behalf of the
4 Statewide Utility Codes and Standards Team, which
5 is comprised of the four California Investor-
6 Owned Utilities. We will be presenting our
7 proposal for showerheads, as well as our
8 recommendations for the recently adopted Lavatory
9 Faucet Standards.

10 MS. DRISKELL: Just let me know when you
11 want the slide, or you can come over here and do
12 it yourself, your choice.

13 MS. SCHNEIDER: I'm okay right here, I'll
14 just point to you, Kristen, thank you.

15 So next slide, please. Thank you. So
16 before I dive into our proposal on Showerheads, I
17 wanted to provide a little background on the role
18 of the Statewide Codes and Standards Team in
19 advocating for Water Efficiency Standards and why
20 we're in support of updating the Title 20
21 Showerhead Standards.

22 So as you know, water resources
23 management in California uses a lot of
24 electricity. Electricity is used for pumping,
25 conveying, and treating both drinking water and

1 wastewater. Energy is also used for heating
2 water at the end use.

3 So in response to this energy/water
4 nexus, as well as the shrinking water supplies,
5 the IOUs were directed by the California Public
6 Utilities Commission to pursue water efficiency
7 activities as part of their energy management
8 portfolios. As such, the Statewide Codes and
9 Standards Team has been active in advocating for
10 Water Efficiency Standards for Appliance and
11 Building Standards over the past few years.

12 So the Title 20 Showerhead Standard was
13 first established in California in 1978 and the
14 maximum flow rate at that time was set at 2.75
15 gallons per minute. The Standard was last
16 updated just slightly to 2.5 gallons per minute
17 in 1992, and has remained at that level since
18 that time largely because the state was preempted
19 by the Federal Government from establishing its
20 own or more stringent standards.

21 So in December of 2010, the U.S.
22 Department of Energy waived preemption for
23 plumbing products, allowing California and other
24 states to pursue more stringent standards. So
25 though California is just now pursuing updates to

1 the Showerhead Standards, the City of Los Angeles
2 has had a mandatory requirement for showerheads
3 since 2009. That standard had established a
4 maximum flow rate of two gallons per minute at 80
5 psi, which is very similar to water sense. In
6 addition, New York City also has had a similar
7 standard of a maximum two gallons per minute that
8 has been in effect for showerheads since 2012.

9 By amending the Title 20 Standards for
10 showerheads, California has an opportunity to
11 save a significant amount of water and energy
12 while reducing utility bills for citizens. Next
13 slide.

14 So as you know, the state has been in an
15 ongoing drought for going on four years. Every
16 region, including those that have historically
17 experienced an abundant supply of rainfall is
18 currently experiencing extreme drought. The
19 situation is so severe that the Governor has
20 mandated a statewide reduction in water use by 25
21 percent, and this is unprecedented.

22 Aside from the emergency drought and
23 shrinking water supplies, it is inherently
24 valuable to move toward adoption of more water
25 efficient Codes and Standards. And the Energy

1 Commission has an opportunity to adopt feasible
2 standards that will result in significant
3 reductions in water and energy use.

4 On average, California consumes about
5 three trillion gallon of water per year for urban
6 uses alone, this is both indoor and outdoor water
7 uses. This is the equivalent to about 2.6
8 terawatt hours of embedded electricity. Showers
9 are one of the largest residential indoor water
10 uses, comprising about 20 percent of indoor water
11 use. Moreover, 73 percent of shower water is hot
12 water and water heating accounts for one of the
13 largest uses of natural gas in California homes.

14 So the Statewide Codes and Standards Team
15 is proposing the adoption of a two-tiered
16 standard for showerheads. Tier 1, which would go
17 into effect January 2016 would establish a
18 maximum flow rate of two gallons per minute at 80
19 PSI, along with establishing minimum flow rates
20 at both 45 and 20 PSI to ensure that performance
21 meets consumer satisfaction, even if the water
22 pressure is low in a home.

23 In addition, we're also proposing
24 performance standards for spray coverage and
25 spray force. This proposed Tier 1 -- my

1 apologies, I'm not used to talking into a
2 microphone, sorry for those of you on the phone,
3 as well -- the proposed Tier 1 standard that we
4 are proposing aligns with WaterSense and is very
5 similar to what's been required in New York City
6 and in L.A. Tier 2, which would go into effect
7 two years after Tier 1, would establish a maximum
8 flow rate of 1.8 gallons per minute with no
9 changes to the requirements for minimum flow
10 rates and performance.

11 Additionally, we're also proposing
12 requirements for reporting of the minimum flow
13 rates, as well as a labeling requirement to
14 display the shower mixing valve flow rate to
15 improve compatibility with showerheads.

16 Additionally, we're also proposing a packaging
17 labeling requirement that would prevent
18 instructions from being printed on packages or
19 labels that show the user how to alter the
20 maximum flow rate of the showerhead.

21 So the proposed 2.0 gallon per minute
22 maximum flow rate, or Tier 1, harmonizes with
23 existing State laws and regulations that Sean had
24 pointed out in his presentation. For example,
25 both the California Plumbing Code and CALGreen

1 require a maximum flow rate of two gallons per
2 minute for new construction.

3 In addition, California Senate Bill 407,
4 which was passed in 2009, requires that all
5 plumbing fixtures installed in residential and
6 commercial buildings that are built before 1994
7 be replaced with water conserving fixtures by
8 2017 and 2019, respectively. The current
9 standard of 2.5 gallons per minute for
10 showerheads is no longer as water conserving as
11 many other products that are available on the
12 market today.

13 Additionally, there is widespread
14 industry support for WaterSense products as seen
15 in this April 10th article headline stating that
16 PMI urges immediate use of EPA WaterSense
17 products in California. And to reiterate, the
18 proposed Tier 1 Standard is aligning with the
19 WaterSense voluntary specification of a maximum
20 flow rate at 2.0 gallons a minute at 80 PSI,
21 along with performance requirements for spray
22 coverage and spray force and minimum flow rate
23 requirements.

24 WaterSense is vetted by industry players
25 and the program has helped drive the market

1 toward efficiency, as evidenced by the widespread
2 availability of showerheads that are rated two
3 gallons per minute or less.

4 The Statewide Codes and Standards Team
5 analyzed the United States Department of Energy's
6 Compliance Database and found that about 45
7 percent of the showerheads meet the proposed Tier
8 1 level of two gallons per minute. This is over
9 2,100 unique models, or almost half of the
10 showerheads in the DOE's database. As such,
11 there is widespread availability of qualifying
12 products on the market today.

13 The Statewide Codes and Standards Team
14 also estimated the annual savings per showerhead,
15 so based on our analysis, the proposed Tier 1
16 level would result in a savings of approximately
17 2,175 gallons of water per year, per showerhead.
18 The annual per unit energy savings from the
19 reduced water heating load would be either 13
20 therms of natural gas, or 250 kilowatt hours per
21 year, depending on if the home is using natural
22 gas or electricity to heat the water.

23 Additionally, there is an annual embedded
24 electricity savings of approximately 11 kilowatt
25 hours per showerhead and a reduction of peak

1 demand of 33 watts. The Tier 2 standard of 1.8
2 GPM would result in an additional annual savings
3 of approximately 900 gallons of water per
4 showerhead, per year. In total, moving from the
5 current standard of 2.5 gallons per minute to the
6 proposed Tier 1 standard of 1.8 gallons per
7 minute would result in a savings of over 3,000
8 gallons of water per year, per showerhead.

9 I do want to note that the analysis that
10 we did didn't include commercial buildings or, to
11 be clear, showerheads installed in commercial
12 buildings. So the estimates that are presented
13 here are conservative.

14 The estimated annual statewide savings
15 for moving from the current standard of 2.5 to
16 the proposed Tier 2 standard of 1.8 gallons per
17 minute, after full product replacement, is nearly
18 38,000 gallons of water saved or the equivalent
19 of water use in over 277,000 California homes.

20 Additionally, there are annual savings of
21 about 200 million therms and 450 gigawatt hours
22 from reduced water heating load. Additionally,
23 there is an annual savings of 182 gigawatt hours
24 of embedded electricity, and an annual peak
25 demand reduction of 61 megawatts.

1 The Statewide Codes and Standards Team
2 also calculated the avoided greenhouse gas
3 emissions from the adoption of the proposed
4 standards.

5 So shifting from the current standard of
6 2.5 gallons per minute to the proposed Tier 2 1.8
7 gallons per minute will result in an estimated
8 reduction of approximately 1.5 million metric
9 tons of carbon dioxide equivalence after full
10 product replacement.

11 So based on our analysis of cost to
12 benefits per showerhead, we found that there are
13 no additional costs to the manufacturer or the
14 consumer for a 1.8 GPM or 2.0 GPM showerhead as
15 compared to a 2.5 GPM showerhead. There are cost
16 savings, however. The total cost reduction per
17 showerhead for a building using electric water
18 heating is about \$879.00, and roughly \$458.00 for
19 a building using natural gas to heat water.

20 Statewide, the total lifecycle benefits
21 of the combined Tier 1 and Tier 2 Standards is
22 approximately \$585 million from first year
23 shipments and nearly \$6.8 billion after full
24 product replacement. I do also want to point out
25 that the benefit cost ratio is not applicable for

1 showerheads because there is no incremental cost.

2 So in conclusion, we recommend that the
3 Energy Commission adopt a two-tier standard for
4 showerheads. To reiterate, Tier 1, which would
5 be in effect January of 2016 would establish a
6 maximum flow rate of two gallons per minute at 80
7 PSI, along with requirements for minimum flow
8 rates, and requirements for performance,
9 reporting and labeling.

10 Tier 2, which would go into effect two
11 years later would establish a maximum flow rate
12 of 1.8 gallons per minute with no change to the
13 requirements for minimum flow rates reporting,
14 performance, or labeling.

15 The proposed Standards are feasible and
16 cost-effective. As a significant number of
17 brands and models are available on the market
18 today to meet both the Tier 1 and Tier 2
19 Standards, utility incentive programs have been
20 promoting water showerheads for several years
21 now. To reiterate, the WaterSense specification
22 is a maximum flow rate of two gallons per minute,
23 80 PSI. This has helped drive the market towards
24 higher efficiency products.

25 Right now, the Energy Commission has an

1 important task and an incredible opportunity to
2 adopt meaningful and cost-effective standards
3 that will save California a significant amount of
4 water and energy.

5 So I would like to conclude this
6 presentation by presenting the Statewide Codes
7 and Standards Team's recommendations on the
8 recently adopted Lavatory Faucet Standards. Next
9 slide, please.

10 In summary, the Statewide CASE Team
11 supports PMI's proposal for the Energy Commission
12 to adopt a 1.5 gallon per minute standard
13 effective immediately. However, we support that
14 the Energy Commission maintain the January 1,
15 2016 effective date for the 1.2 gallon per minute
16 faucets and aerators.

17 Our rationale is that there are available
18 products on the market today that currently meet
19 the 1.2 gallon per minute flow rate; for example,
20 according to DOE's Product Certification
21 Database, there are six manufacturers that
22 produce 92 unique models of faucet aerators that
23 are rated at 1.2 gallons per minute or less.
24 Further, the full faucet redesign is not
25 necessary to meet the 1.2 standard as aerator

1 sizing and threading have generally been
2 standardized. Further, the major aerator
3 manufacturer, which is NEOPERL, is prepared for
4 increasing shipments of the 1.2 gallon per minute
5 to meet the January 1st, 2016 effective date.

6 Additionally, the product certification
7 process, we've learned, can be completed fairly
8 quickly, either in 90 days, or at an expedited
9 rate of 30 days. Next slide, please. Thank you.

10 So the Statewide Codes and Standards Team
11 developed this alternative product development
12 schedule based on conversations we held with
13 third party certification bodies. The activities
14 highlighted in grey indicate the estimated time
15 required to design, test, manufacture, assemble,
16 and ship faucet assemblies. If manufacturers use
17 the expedited third party testing and
18 certification schedule, which is 30 days versus
19 90 days, and if the Energy Commission is able to
20 expedite the review and registration of
21 qualifying products for sale here in California,
22 then manufacturers should have about seven and a
23 half months to design, test, manufacture, and
24 ship products in order to meet the January
25 deadline.

1 I do also want to point out that we will
2 be docketing our proposal for the Showerheads
3 Proposed Standards this week, so you can find
4 more detailed information about our analyses and
5 our assumptions through that case report. And
6 thank you.

7 COMMISSIONER MCALLISTER: Thanks very
8 much. The documentation of those assumptions
9 will be really important to have because I think
10 a bunch of the discussion here is about what's
11 actually doable in the marketplace and, you know,
12 certainly about this single aerator manufacturer
13 that seems to be kind of one of the issues, so
14 any documentation about the reasonableness of
15 your assumptions would be really helpful.

16 MS. SCHNEIDER: Yes, definitely. Thank
17 you.

18 CHAIRMAN WEISENMILLER: Yeah, docketing
19 soon would be good since we're asking parties to
20 respond, you know, comment in an expeditious
21 fashion, such to the extent that other parties
22 will want to respond to your report. It's really
23 important to get it in fast.

24 MS. DRISKELL: Okay, great. Thank you,
25 Sarah. Next, we'll have a presentation from

1 Plumbing Manufacturers International.

2 MR. DESMOND: Good afternoon,
3 Commissioners. Jerry Desmond on behalf of the
4 Plumbing Manufacturers International. Is it okay
5 if we have like a three-party presentation?
6 Could we just grab a seat here? Is that out of
7 order?

8 COMMISSIONER MCALLISTER: Sure, go for
9 it.

10 MR. DESMOND: Okay, well thank you.
11 Thanks for the help with the slides. Plumbing
12 Manufacturers International (PMI), as Sean
13 mentioned, is the International trade association
14 of the Manufacturers of approximately 90 percent
15 of the plumbing products manufactured in the
16 United States and sold in California, as well.
17 And for the past two years, PMI has been an
18 active participant in the Appliance efficiency
19 Regulations and Title 20 as they were under
20 development by the Energy Commission. We
21 participated in the April 8th Business Meeting
22 where the Emergency Regulations were adopted and
23 we've been engaged throughout.

24 To preface our comments, we'd say that we
25 certainly acknowledge the Executive Order on the

1 drought on April 1 and the direction in that
2 Executive Order. You know, the situation, the
3 dire situation we find ourselves in today, in the
4 recent past, and possibly in the future in terms
5 of the drought and the imperative to drive
6 towards water efficiencies and water savings and
7 we're engaged and committed to try to do what we
8 can as an industry.

9 Here today with me, I have four
10 representatives of PMI member companies. With me
11 at the table here, I have Joel Smith with Kohler
12 and Jay Burnett with Delta, and we also have John
13 Bertrand with Moen, and Mike Hannigan with
14 American Standard, who are all here today to
15 participate. Again, showing our commitment as
16 PMI to the process and also the look that you're
17 giving today in your workshop. And perhaps with
18 that, I'll hand off to Joel to take it -- Jay is
19 next, okay. Jay, perhaps the slide after next.

20 MR. BURNETT: Thank you, Jerry. Good
21 afternoon, gentlemen. I am Jay Burnett with
22 Delta Faucet Company. I have worked for them for
23 31 years; as I tell everyone, my entire
24 professional career has been with Delta and I'm
25 grateful for that.

1 First of all, I wanted to review the
2 proposal that PMI had proposed, first of all on
3 Lavatory faucets was to implement the 1.5 gallons
4 per minute immediately because, two-fold, first
5 of all the products are readily available, but
6 also the considerable water savings that can be
7 had immediately and I think has been justified by
8 a number of other constituents.

9 In terms of the 1.2 gallons per minute,
10 we had proposed the January 2017 and it's really
11 driven by a couple of factors, first of all there
12 are some technical challenges, I will admit they
13 are not highly technical, but there are some.
14 Sarah had mentioned that it's a matter of
15 changing an aerator, which in many cases is the
16 case, but there are other faucets that it's a
17 little bit more complex, that you're into the
18 geometry of the faucet, changing a flow control
19 rather than an outlet device. So that drives
20 some of the technical challenge in changing over
21 to achieve the additional 1.2 gallons per minute
22 flow rate.

23 As for showerheads, we propose the July
24 1, 2016 and my colleague will allude to some of
25 the technical challenges in a little bit as to

1 what's involved on showerheads, and I have a
2 supporting timeline to present to you for that,
3 as well.

4 Just for the record, we wanted to
5 document that we concurred with the new
6 requirements for the kitchen faucets, the
7 toilets, and the urinal flush valves.

8 And one ending note in the proposal, I
9 just wanted to mention that the offer for sale
10 language is really a driver in some of the
11 complexity with managing the field inventory.
12 And I would just ask that you think beyond the
13 immediate retail channel. We also have a trade
14 wholesale channel in our business. And
15 oftentimes the complexity to reach out to
16 wholesalers and their second tier plumbers, and
17 specifiers, and showrooms, just requires a little
18 bit more effort in terms of collecting product
19 and getting the communication and message of any
20 substantial change like this is. Next slide,
21 please.

22 I think Sean had referenced this in his
23 presentation, the timeline, which I think many of
24 you have seen before, especially the top half,
25 which is in support of our proposal for the

1 lavatory faucets. The bottom half is the same
2 construction for the showerheads, and you will
3 see the proposed dates of January of 2017 for the
4 lavatory faucets, and July of 2016 for the
5 showerheads. And a major constituent of that
6 timeline is that which I mentioned previously
7 about the management of field inventory.

8 I will now pass it over to my colleague,
9 Joel Smith.

10 MR. SMITH: All right, if you can go to
11 the next slide, please. As mentioned, I'm Joel
12 Smith with Kohler Company. Thanks for having us
13 here. In this slide, we just wanted to compare
14 what the CEC staff had recommended just a few
15 days ago and where we were at and talk a little
16 bit about how those line up. So first off, on
17 the residential lavatory faucets, the
18 recommendation was September 1st to go to 1.5 GPM
19 for lavatory faucets. As you know, we are on
20 board with that and have been since the
21 beginning, so we think that's a good move and a
22 way to quickly start saving water.

23 The second item was to extend the
24 effective date for the 1.2 GPM flow rate faucets
25 to July 1, 2016. And coupled with that was a

1 change in the language to allow the sale of the
2 product manufactured prior to that July 1, 2016
3 date. So as we reviewed that and Jay talked you
4 through the timeline a bit, it's difficult for
5 us, there are going to undoubtedly be some stock-
6 out issues or places where there is not stock
7 available for sale; however, we do feel like this
8 is a workable solution. We will have some
9 disruption, no doubt, but it will be limited and
10 we feel like this is a workable solution that can
11 meet the needs of California and help us get
12 through this drought quickly and it's something
13 the manufacturers can work with.

14 COMMISSIONER MCALLISTER: So a quick
15 question, I guess. So you mentioned the supply
16 chain, Jay, right? You mentioned supply chain
17 issues and the complexity with wholesalers. Was
18 that sort of assuming there was no sell-through
19 in that channel, and that's what generated the
20 complexity?

21 MR. SMITH: Yes.

22 COMMISSIONER MCALLISTER: So does the
23 allowing of sell-through completely by and large
24 solve that complexity for you, if you can kind of
25 just start shipping new product and putting it in

1 the end of the chain?

2 MR. SMITH: You're spot on, it's a big
3 benefit because then we don't have to reach out
4 to all these constituents and organize any type
5 of return of product and replacement so that
6 their business can go on, so sell-through is a
7 big advantage.

8 COMMISSIONER MCALLISTER: What's your
9 sense of what timeframe of inventory they
10 actually tend to keep on hand? I imagine it
11 varies quite a bit, but just sort of typically?

12 MR. SMITH: It really does vary and I
13 will describe it this way. In retail when we
14 make a change, we can do it what we call
15 "quickly," like within three to six months. In
16 the wholesale channel, it's sometimes six months
17 before we actually get the inventory managed and
18 replaced.

19 COMMISSIONER MCALLISTER: Okay. I'll
20 stop there for now, but I want to let you
21 continue.

22 MR. SMITH: Moving on to the next item
23 which was showerheads, the CEC proposal was that
24 all showerheads manufactured on or after January
25 1, 2016 should not exceed 2.0 GPM max flow. That

1 one, definitely more difficult for us, definitely
2 a date sooner than we would like, as Jay
3 referenced, we were proposing a date of July 1st,
4 2016 for that. I will say again that having the
5 sell-through option definitely helps us, that's a
6 big part of making this work. But I think this
7 is a case where, you know, there will be product
8 available, but would only undoubtedly have some
9 out-of-stock conditions on certain models as we
10 hit the new year, but that's something that we
11 can probably all manage through to get through
12 this time.

13 Just again to reiterate what was said,
14 having the sell-through makes a big difference
15 from the standpoint of return, managing what our
16 customers and distribution has, and also making
17 sure that everyone has that product back in time.
18 So that's a big benefit to the manufacturers to
19 have that.

20 Now, if we go on to the next one, I just
21 want to touch briefly on the 2.0 GPM max
22 showerheads. We certainly support a flow rate of
23 2.0 GPM. As was referenced earlier, showerheads
24 must be balanced with the valves in order to
25 protect the bather from thermal shock and

1 scalding, and right now there are very few
2 automatic compensating valves on the market
3 certified to flow rates below 2.0 GPM, so 2.0 is
4 a flow rate where the showerheads will be able to
5 have matching valves for that one.

6 The other thing is, with showerheads at
7 2.0 we achieve 20 percent savings over Federal
8 Standards. They meet strict performance
9 guidelines. More importantly, we know that the
10 showering experience is still acceptable to the
11 bather. One of the largest risks is if we go to
12 a point where it's no longer acceptable to the
13 end user, that's when customers start tampering
14 with the products, start drilling out or yanking
15 out flow regulators to get a better shower. So
16 we feel like showering is a very user experience
17 defined item and we need to make sure that we get
18 full adoption. And we believe the 2.0 GPM
19 showerhead will indeed make sure that there's
20 still satisfaction with the consumers when we
21 would make this change.

22 COMMISSIONER MCALLISTER: So what
23 percentage of the showerhead market is at or
24 below, or around at 2.0 or below right now?

25 MR. SMITH: It varies. I would say it's

1 probably on the order of 30 to 35 percent right
2 now.

3 COMMISSIONER MCALLISTER: Okay. Is that
4 about right? Okay.

5 And then I also wanted to - I'm sort of
6 asking as I've noted down here, just to make sure
7 we get our questions answered, but so I really
8 have two questions, I want to get your response
9 to the Case Team 1.8, and you're probably getting
10 there. Then the other is talking about sort of
11 digging a little bit deeper into the aerator
12 supply chain and, you know, I think, Jay, you
13 mentioned there was some portion of the
14 marketplace you can kind of pop in and out and
15 sort of it's an easier change, and other you have
16 to redesign. I want to sort of get more of a
17 sense for the portions of the marketplace and
18 sort of what those scenarios might look like.

19 MR. BURNETT: Okay. Do you want to take
20 the 1.8?

21 MR. SMITH: Sure. We'll start with the
22 1.8. I think the worst thing that could happen
23 for manufacturers is if we ratchet down the flow
24 rate .1 GPM every year, not because it's
25 undoable, but because it's a logistical nightmare

1 to try to manage that, to go through all the
2 packaging changes, all the literature changes,
3 updating all of the website information, that
4 makes it extremely difficult when we tweak and
5 tweak year after year. We'd much rather go with
6 more of a long term plan to say, "Okay, maybe
7 four years out we hit a 1.75 GPM," or something,
8 but leaving some space in there helps minimize
9 the amount of scrap if we have -- often retail
10 boxes are purchased in the tens of thousands, and
11 if we get to a point where they need to be
12 scrapped out, it's a lot of wasted money and
13 wasted material. So we would much rather have it
14 spread out so that it's not constant tweaks for
15 the supply chain.

16 COMMISSIONER MCALLISTER: Because their
17 proposal was two years after, do a 1.8, right?

18 MR. SMITH: Right. So we would say two
19 years is still a pretty tight timeframe, we would
20 much more recommend going something further out
21 and let's see how the 2.0 gets adopted and what
22 the market reaction is to that before we make a
23 decision on that.

24 COMMISSIONER MCALLISTER: Okay, thanks.
25 So the other part of my question?

1 MR. BURNETT: Okay, the second question
2 related to the ease of change in aerators. What
3 I alluded to, through the evolution of faucets we
4 now have faucets that have what's called "open
5 channels." I don't know if you -- you've seen
6 them, but the water actually comes through the
7 top of the faucet, and it doesn't go through an
8 aerator end device, so that flow control is
9 actually administered within the spout and/or the
10 body that's underneath the deck, the mounting
11 surface. So I mention that in the best example
12 of it takes a little bit more of a technical
13 challenge to achieve not only the flow control,
14 but then the aesthetics, or the flow pattern that
15 comes through that channel, that's something that
16 is the reason our consumers buy them, for
17 example. Does that answer your question as to
18 --?

19 COMMISSIONER MCALLISTER: Yeah, I think
20 so. What percentage of the marketplace, I mean,
21 I imagine those are kind of high endish fairly --

22 MR. BURNETT: They've really been growing
23 over the last five years and they're probably
24 around the five to seven percent of our product
25 line are open channels.

1 COMMISSIONER MCALLISTER: Okay.

2 MR. BURNETT: And if I could go back, you
3 had previously asked about the percent of
4 showerheads currently at 2.0, and I think Joel
5 said around 35, that's probably a good answer for
6 our coalition of representation. I know for us
7 it's slightly over that, but it's 40-some
8 percent, so I think that's a very good estimate.

9 MR. SMITH: One additional item on the
10 aerators, I think it is important to point out
11 that it's not just one or two aerators that
12 manufacturers are dealing with, I'll speak for
13 Kohler, we have 27 different aerators that go
14 into our lab(lavatory) faucet, so there was
15 reference made to NEOPERL who is the sole
16 supplier of all 27, so for them it's not just a
17 matter of tweaking one aerator and shipping that
18 out, there's 27 different models that they need
19 to design and test and certify before they can
20 ship those out. So there's quite a bit of work
21 involved in that, as well.

22 MR. SMITH: And for clarity, NEOPERL does
23 belong to PMI, they're a --

24 COMMISSIONER MCALLISTER: Yep, I knew
25 that. I think you'd said that at the last

1 meeting. So I believe it was in the IOU case
2 presentation, there was some assertion really
3 that some of those were currently available and
4 that NEOPERL will be ready to ship, is ready to
5 ship some, and will be ready soon on the others.
6 What does that look like to you?

7 MR. BURNETT: Yeah, right. We have not
8 received any production orders from NEOPERL of
9 any 1.2 aerators yet, and they have given us a
10 schedule that still extends out through the fall
11 right now, so it's -- we don't have them coming
12 in yet. I think the other thing to also talk
13 about is the fact that, besides the aerator
14 itself, all of our products are marked with the
15 flow rate, so many are marked on the spout,
16 they're either laser engraved or there may be a
17 stamping that's put into the faucet body. So
18 besides changing out the aerator, we also need to
19 go back and change hard tools like stamping tools
20 and things like that to update with the new flow
21 rates. So there's multiple parts to this
22 project, not simply changing out the aerator.

23 COMMISSIONER MCALLISTER: Yeah, I'm
24 trying to get a sense for the logistics. I mean,
25 these are things that you typically do as a

1 business and we're asking you to do it faster,
2 but I'm just trying to get a sense of like is it
3 doable or not. I mean, I'm not saying it's easy.

4 MR. BURNETT: Right, and I think the date
5 that was proposed by the CEC staff, as I said,
6 it's a stretch to get that done and there may be
7 some disruption, but it would be limited. We
8 think we can get that done.

9 COMMISSIONER MCALLISTER: Okay, thanks.
10 Any questions? Okay. So you have a conclusion,
11 okay.

12 MR. BURNETT: So the conclusion is simply
13 a request that you review our proposal and
14 hopefully it was explanatory by itself enough.
15 And thank you again for the chance to speak
16 today.

17 COMMISSIONER MCALLISTER: All right,
18 great. Thanks a lot.

19 MR. BURNETT: Thank you.

20 MS. DRISKELL: All right, thank you. The
21 next presentation is from Natural Resources
22 Defense Council.

23 MS. QUINN: Good afternoon. My name is
24 Tracy Quinn. I'm a Civil Engineer and Policy
25 Analyst with the Natural Resources Defense

1 Council. I'm going to talk a little bit today
2 about the lavatory faucet standard and then I
3 just have one slide on showerheads and some
4 suggestions for potential other products that the
5 CEC staff might want to look at for future
6 standards.

7 I'd like to start off by saying that NRDC
8 is still in support of the standard for lavatory
9 faucets that was adopted under the emergency
10 rulemaking. We think that the 1.2 GPM standard
11 with the January 1, 2016 effective date is
12 achievable and it's important for us to work
13 towards this.

14 As Sean mentioned earlier, you know,
15 while 1.2 GPM faucets and aerators might not be
16 the majority of the market right now, we do have
17 quite a few products current on the market that
18 meet this, and a lot of those fall at 1.0 GPM.
19 One gallon per minute does meet the standard that
20 was adopted, and we need to keep that in mind as
21 a probably more appropriate interim level than
22 just going to the 1.5.

23 As noted up here, there are hundreds of
24 models, I think we noted 378 faucets and faucet
25 aerators rated at 1.0 GPM. That was from the case

1 report that happened during the emergency
2 rulemaking. There's also plenty of evidence that
3 was applied during the Title 20 rulemaking that
4 suggest that 1.0 gallon per minute lavatory
5 faucets provide a satisfactory customer
6 experience.

7 Standards have been behind some of our
8 biggest efficiency success stories, but every
9 time a tough standard is imposed, industry
10 instantly claims that the sky is falling and
11 compliance will be impossible, or too expensive.
12 Then, you know, they often go out and solve the
13 problem and everybody is better off. I provided
14 a few examples that I think everyone in the room
15 is familiar with, the refrigerator energy
16 efficiency, television energy efficiency, and of
17 course automobile fuel efficiency.

18 Energy Standards have played a major role
19 in saving energy and water and reducing utility
20 bills. In a recent ACEEE and ASAP report,
21 impacts of these standards on customers were
22 analyzed over time. The study found that
23 performance generally stay the same or improved,
24 Manufacturers offered new features to customers,
25 and prices declined or stayed the same for five

1 of nine products, and they observed prices for
2 the other four products was less than the
3 electricity savings.

4 Delaying the implementation of this very
5 reasonable standard would also set a terrible
6 precedent.

7 As previous presentations have shown, you
8 know, we're in an epic drought right now. 2012-
9 2014 was the driest three-year period in the last
10 1,200 years. Many water suppliers have been
11 asked to reduce their water demand by 25 percent;
12 for each individual supplier that ranges from
13 eight to 36. Maintaining the January 1st date
14 for 1.2 will really help suppliers to meet this
15 limit.

16 I know there's been a lot of talk about
17 having an El Niño year this year and a lot of the
18 media is talking about how it's going to be a
19 drought buster, but this is the creation of the
20 media and it's not based in science or data. I'd
21 like to remind everyone that last year was also
22 El Niño conditions, and we still set temperature
23 records and had a very dry winter. And just for
24 everyone's edification, we've had 23 El Niños in
25 the last 65 years, and only nine of them have

1 resulted in wetter than average years. And El
2 Niños often bring rainfall to Southern
3 California, not where we need it most in Northern
4 California, so something to keep in mind when
5 we're all praying for rain and hoping for a good
6 El Niño.

7 That being said, we need to do as much as
8 we can right now. Given the status of the
9 drought, it makes a lot more sense to allow the
10 1.0 faucets to fill the market gap for 1.2 GPM
11 faucets for the next seven and a half months,
12 rather than 1.5 GPM faucets, which according to
13 PMI already makes up about 90 percent of the
14 market share in California and therefore would
15 provide no real additional savings.

16 NRDC believes the adopted Standard of 1.2
17 GPM for lavatory faucets with a January 1, 2016
18 implementation deadline is appropriate and
19 doable, and it's important to note the delay of
20 this standard would have long lasting ripple
21 effects as the faucets sold in 2016 will likely
22 be in use for the next 10 years or more. This
23 also applies to sell-through, so it's important
24 to think of that when we consider some of these
25 other alternatives.

1 If the Commission does decide to delay
2 implementation, NRDC would support the revised
3 schedule recommended by the staff that provides
4 an additional six months to manufacturers to
5 bring the product to market.

6 The Plumbing Manufacturers' request for a
7 full year's delay on top of the seven and a half
8 months provided in the Emergency Rule would be
9 excessive.

10 Many -- oh, I forgot my props -- many new
11 lavatory faucets rely on threaded aerators to
12 achieve flow control. PMI has placed a timeline
13 of transition activities into the Commission
14 docket that shows that 1.2 GPM aerator products
15 should be available by January 1, 2016, or
16 shortly thereafter. If that is the case, then
17 compliant lavatory faucets with threaded outlets
18 should also be available in this timeframe, or
19 shortly thereafter. Thus, the staff proposal
20 could reasonably be strengthened by maintaining
21 January 1, 2016 for aerator products and faucets
22 with threaded outlets. To show you how easy it
23 is to comply, this is a 1.5 GPM faucet and a 1.0
24 GPM aerator. This cost me \$4.00. It's harder on
25 stage. Well, here you go. You have to be

1 smarter than the threading. But now it's
2 compliant.

3 I urge the Commission to uphold the 1.2
4 GPM Standard with a January 1, 2016 deadline, but
5 if a delay is granted, it should be for no more
6 than six months. Thank you.

7 COMMISSIONER MCALLISTER: So you said
8 that was a 1.0 aerator? And where did you buy it
9 and who made it?

10 MS. QUINN: It's a NEOPERL and I bought it
11 at Home Depot for \$4.00 about two hours ago.

12 COMMISSIONER MCALLISTER: Is that a
13 residential faucet?

14 MS. QUINN: It is.

15 COMMISSIONER MCALLISTER: Okay, thanks.
16 So just to be clear, your proposal is 1.2 by
17 January 2016 for all faucets that have threaded
18 aerators? Or just all open like aerators
19 themselves at the store, or both?

20 MS. QUINN: Well, yeah, I think we would
21 support, if you guys see a reason for delay, for
22 a January 1, 2016 deadline for 1.2 aerators and
23 threaded faucets.

24 COMMISSIONER MCALLISTER: Okay, but so
25 that's the proposal?

1 MS. QUINN: Yes.

2 COMMISSIONER MCALLISTER: Okay. Thanks
3 very much.

4 MS. DRISKELL: Thanks, Tracy. Our next
5 presentation is from the retailers, Pamela
6 Williams from the California Retailers
7 Association, and Mark Kimball from Home Depot.

8 MS. WILLIAMS: Thank you, Commissioners.
9 I won't be using all the allotted time, so I
10 wanted to give an opportunity for Home Depot to
11 address some technical questions or issues you
12 might have.

13 On the issue before us, the way we
14 approach it from the retail industry is obviously
15 different than the Manufacturers would. We look
16 at basically three issues. First of all, will
17 there be sufficient product available for
18 consumers to purchase? Obviously we're in the
19 business of selling, so which one we're selling
20 is not as important as the fact that we have
21 product to sell. And so if we are out of stock
22 or the shelves have nothing on them, or there's
23 not a lot of sufficient choices for consumers,
24 we've not only potentially lost the sale, we've
25 lost potential consumer loyalty, which is really

1 important to retailers.

2 Secondly, we look at whether or not we
3 can sell-through existing product. Often, the
4 Legislative or regulatory changes have a
5 definitive date by which we have to be compliant,
6 and the problem with this is obviously sell-
7 through, in many cases the retailer ends up
8 eating the existing inventory that they've paid
9 for, and now as of a certain date have to get rid
10 of and eat the cost.

11 And thirdly, we look at whether the
12 change can be operationally accomplished at the
13 retail level within the allotted timeframe
14 because you have to remember, we're looking at
15 one or two or six or 100 products out of 10 to
16 100,000 products at the average big box retailer.

17 So looking at this, the quick summary is
18 on the proposal before you, are these questions
19 answered favorably from our perspective? And the
20 answer is generally, yes. We also support PMI
21 and the staff recommendation about the 1.5 GPM
22 faucets being offered immediately, or as of
23 September 1, which is what's proposed. We
24 support the 1.2s being available July 1 of 2016;
25 truthfully, we would have liked January 1 of 2017

1 because it allows more time in the distribution
2 channel, but the Manufacturers tell us they can
3 get it to us, and if they can get it to us, then
4 we can sell it. So we are willing to agree to
5 that July 1, 2016 date for the 1.2s, especially
6 in light of the fact that the change you all made
7 in the staff proposal about sell-through. So as
8 long as we can do the sell-through of the
9 existing, we're good.

10 And then lastly, for the showerheads
11 manufactured on or after January 1 of 2016, yes,
12 we accept this, as well. I will just add an
13 unscheduled comment in response to some of the
14 testimony you've heard. The proposal to move to
15 1.2s by January 1 is four months away, and we've
16 certainly not had any discussions with PMI in
17 terms of whether Manufacturers could even get us
18 that, but the idea that retailers would be able,
19 you know, it's August 1 this week, to be able to
20 completely turn it around with four months when
21 you look at that we order six to nine months, in
22 some cases 12, ahead of time, sometimes we're
23 ordering globally, internationally, they have to
24 get here, they have to arrive on a container
25 ship, or be shipped across the United States, and

1 they have to go to our warehouses or distribution
2 centers first, and then get distributed out to
3 the stores. So a 120-day window for the change
4 sounds to us a little bit terrifying at this
5 point in time.

6 COMMISSIONER MCALLISTER: Although, you
7 know, we talked a little bit about sell-through
8 and this is a manufactured by date essentially if
9 we're talking sell-through, not a "be on the
10 shelves" date. Right?

11 MS. WILLIAMS: Yes, this is if the
12 manufacture date is manufactured before the
13 effective date, we would be allowed to sell it
14 through, but not order any new ones as of that
15 effective date.

16 COMMISSIONER MCALLISTER: Correct. So I
17 guess I'm -- the pinch point you just described
18 seems to be get in on the shelves by January 1.

19 MS. WILLIAMS: Correct.

20 COMMISSIONER MCALLISTER: Whereas the
21 pinch point we're really talking about with the
22 proposal that's on the table now is a manufacture
23 by date by January 1. So I want to just make
24 that clear.

25 MS. WILLIAMS: True. That's correct.

1 COMMISSIONER MCALLISTER: So could you
2 sort of talk about your supply chain with that
3 January 1?

4 MS. WILLIAMS: And that's a good segue,
5 I'll introduce Mark Kimball, who is the Regional
6 Merchandising Manager for Northern California for
7 Home Depot.

8 MR. KIMBALL: Like she said, my name is
9 Mark Kimball. I've been with Home Depot 17
10 years. I've been in the home improvement
11 industry 35 years, virtually all of it in
12 California. We recognize the drought like
13 everybody does. We put a phenomenal amount of
14 effort and myself personally in re-merchandising
15 for the drought. If you look at programs that
16 are national programs with us, we've done switch-
17 outs in all the California stores that had to do
18 with toilet laydowns, switching out fertilizer,
19 switching out herbicides, and putting in product
20 that would be more conducive for the drought, and
21 it could be artificial turf, it could be drip
22 systems, you know, water timers, water heater
23 timers, and those kind of things. So again, when
24 you look at making those switch-outs, we did this
25 a year ago anticipating what the drought would be

1 this year and we were able to get that turned
2 around in all the stores in California.

3 If you look at when it comes to water,
4 the frustrating part for us and to be able to do
5 signage and things like that is that it's really
6 based off of hundreds and hundreds of water
7 districts. And it really makes it tough to do a
8 lot of things in that respect. We offer a
9 website for the consumers, we've done drought
10 kits that we've given to the consumers, but in
11 respect to the water in some cases, you know,
12 we'll say there's a water rebate at this
13 particular County, but they run out of money and
14 then things they purchased a month or two months
15 ahead of time that they're coming back for that
16 particular rebate.

17 So a little bit of frustration in dealing
18 with that. But that being said, we've taken time
19 this year, we've already anticipated a drought
20 next year and already put these things in place,
21 and there's a lot to it. If you look at the
22 amount of drought tolerant plants that we put in
23 place, we had those growers start this well over
24 18 month ago. If you look at the succulents that
25 took the place of a lot of the other shrubs and

1 things that we have, so there's a lot of planting
2 that goes into that.

3 If you look at the scope and just kind of
4 complexity around lab(lavatory) faucets, we have
5 232 stores in California, brick and mortar
6 stores. There is on average 188 stocking units
7 or models of lab faucets in this California area.
8 The average store stocks about 100 of those
9 models. That is right now today, there's 154,000
10 of those models throughout the chain in Home
11 Depot in California.

12 Now, to add to that, there's over --

13 COMMISSIONER MCALLISTER: Just so I
14 understand, just to clarify, so 154,000 units?

15 MR. KIMBALL: Units, yeah.

16 COMMISSIONER MCALLISTER: Sitting on the
17 shelves in California, okay.

18 MR. KIMBALL: 154,000 units, \$11.4
19 million.

20 CHAIRMAN WEISENMILLER: I just wanted to
21 understand 150,000, what sort of inventory does
22 that represent? Three-month sale, six months?
23 Roughly.

24 MR. KIMBALL: It varies a lot, you're
25 probably looking anywhere on average from 10 to

1 16 weeks of supply in the stores, but further
2 when you look at that, if you look at .com,
3 there's over 2,500 units and there's over 2,000
4 stocked in our Distribution Centers. And so,
5 again, the sell-through is extremely important
6 because we found, I mean, if you didn't have that
7 you end up with shortages on the shelves, then
8 all of a sudden, you know, you kind of lose that
9 ability for people to adopt these things, you
10 know, pretty quickly. So, again, that will be a
11 major point and I think if you think of the
12 dot.com, you think of all the packages. You
13 know, now you're actually managing two sets of
14 inventory, but you think of the packages that you
15 would have to change, and then you think about
16 operationally in a store for returns, that you've
17 got to have this pop up, that, okay, this faucet
18 is no longer available, maybe it's brought back
19 three months from now, six months from now, or
20 nine months from now. So that gives you kind of
21 a level of the complexity on that.

22 And I will say that, you know, being
23 through some droughts, being in California
24 virtually all my working life, that if you look
25 at product, that if the product isn't as good as

1 what you're used to using, you can go get a
2 backlash very quickly, especially today when you
3 look at the Internet and all the ability of
4 Social Media and all that, so what I say is,
5 whatever you do the product really has to be
6 designed right, or I think you get a backlash
7 where the adoption would be far worse than what
8 you would. So, don't know, I mean, you get the
9 Manufacturers that deal with that, but whatever
10 you do that you have to have a comfort level that
11 the designs you're going to get, what you're used
12 to using, and designed and engineered, to where
13 you can get that really good adoption throughout
14 the consumers.

15 COMMISSIONER MCALLISTER: Thanks for your
16 insight, I really appreciate it. For you and
17 also for the PMI members that presented before, I
18 guess I've not heard that from the thread of the
19 aerator side of things about this service
20 equivalency. And I'm wondering if that's really
21 any different, depending on no matter what the
22 date is. Like, you know, is there a redesign
23 process there that is any different from just
24 popping in a new aerator, you know, or not.

25 And then also trying to still get my head

1 around the fact that the relatively simple
2 aerator retrofit products are the vast majority
3 of the marketplace and if we can do the vast
4 majority of the marketplace sooner rather than
5 later, then why wouldn't we? So a couple
6 questions along those lines.

7 MR. SMITH: Sure. So as far as the
8 simplicity of it, it does appear simpler, but
9 again the fact of threading it on, it's pretty
10 simple. But the process of going through and
11 changing the markings on the product, updating
12 the packaging and literature all still takes the
13 same amount of time. Just threading the aerator
14 on doesn't mean you have a product that's been
15 listed with the national agencies, with CEC, or
16 with DOE. So until all those listings are done,
17 it's illegal for us to sell that product or ship
18 it. So even though it looks pretty
19 straightforward, it still takes time. As far as
20 what percentage are those threaded on, it's
21 getting less and less because the whole industry,
22 even at the lower end, is moving to more of a
23 aesthetically pleasing faucet where the aerators
24 are threaded up inside the product and it's not
25 just a bulb of chrome plated brass sticking out.

1 So I'd say it's probably -- and this is a very
2 rough estimate -- but maybe like 30 or 40 percent
3 are the ones with it hanging out, and more and
4 more are moving to concealed aerators like that.
5 But again, the simplicity, it's not in just
6 changing out the aerator, it's all of the
7 listings, the testing, everything else that goes
8 with it.

9 COMMISSIONER MCALLISTER: Okay, I guess,
10 you know, just trying to sort of get through the
11 how serial of a process is this versus kind of
12 what can happen in parallel, and you know, good
13 point on the different kinds of connections of
14 the aerators to the fixture. But I guess, you
15 know, from a manufacturing perspective, is that
16 an integral redesign or is that really a sort of
17 putting a different aerator into the
18 manufacturing process?

19 MR. SMITH: Certainly on that one, it's
20 not an integral redesign. That is, changing out
21 the bill of material for the product, putting a
22 new aerator in there. So the place where it
23 would be a redesign would be when the flow rate
24 is marked on the faucet body or something where
25 we have to go and change a hard stamping tool

1 and, you know, grind off what used to say 1.5 GPM
2 and re-burn in the 1.2 GPM and change the
3 stamping. And then the additional part of that
4 is the supply chain, once we make that change,
5 then we've got to make samples, prove out that
6 all the graphics look good, and then start making
7 complete units, shipping all the components in
8 and start manufacturing. So even something on
9 that which appears simple has a lot more to it.

10 CHAIRMAN WEISENMILLER: I guess I wanted
11 to understand from the realtors (*Sic*) retailers
12 the question of assuming we did a two-phase
13 showerhead, the timing on the second phase, the
14 difference between two years, three years, or
15 four years, if any.

16 MR. KIMBALL: I'm sorry, I didn't know he
17 was addressing -- okay. Go over your question
18 again?

19 CHAIRMAN WEISENMILLER: Okay. I mean,
20 there was a discussion, a proposal that we
21 adopted two-phase from the showerheads, one now
22 and then a lower one later. And the question was
23 how long. And so the question is, you know, we
24 had one proposal for say two years and then
25 another one was three or four years. We're

1 trying to understand if that made any difference
2 to you in terms of the timing.

3 MR. KIMBALL: You know, from a timing
4 standpoint, I don't think from our perspective it
5 probably would, providing that the product was
6 there. I do understand if you look at, again,
7 just the amount of products that are in there, I
8 gave you kind of an idea of their supply chain,
9 how many units there are, or how many models
10 there are, and you start looking at the sheer
11 volume of packaging changes and everything else,
12 and it would probably work into that. But from
13 our standpoint, there would be, you know, if a
14 product was there to sell and available, it would
15 be seamless for us.

16 MS. WILLIAMS: The only caveat I would
17 add to that, Commissioner, is that if we had a
18 choice optimum, the effective date would be a
19 July 1 effective date, regardless of the year
20 because it's really difficult -- the January 1
21 dates, because the work has to be done at the
22 holidays, and that's the worst time for retail,
23 we have tax issues, end of year reporting, let
24 alone the holidays. So that's just a preference.

25 CHAIRMAN WEISENMILLER: And also, I just

1 wanted to understand how well things were
2 identified in your stores for different water
3 efficiency. Again, maybe efficient/inefficient,
4 or whatever, just trying to make sure as people
5 go in, particularly when we do the rebate
6 programs, that it's easy for the customer to buy
7 the right one.

8 MR. KIMBALL: Yeah, it's a good question.
9 If the State does a rebate program, it's
10 generally pretty easy for us to really manage
11 that rebate. You know, if the state does versus
12 hundreds and hundreds of water agencies that kind
13 of shift, we can do signing, we can do very
14 quickly we can turn that around, we have it on
15 our websites, we get all the stores engaged in
16 and involved in. Rebates handle on the store
17 level and with us it would be very easy if it has
18 gone through the State. And we've done it
19 before, we did it on appliances. You know, you
20 take 2008, 2009, it was very successful with it.
21 We do it with a signing, you know, and we get
22 absolutely phenomenal adoption when we work in
23 partnership with the State on those rebates.

24 COMMISSIONER MCALLISTER: I'm very
25 familiar with that process and certainly in a

1 past life shared your frustration with how many
2 water districts there are and how difficult, how
3 non-uniform they are in terms of the rebate
4 programs. So I absolutely agree with you that
5 upstream is better and probably statewide is
6 better, or at least utility service territory, or
7 whatever. I guess, have you done those sorts of
8 campaigns and labeling in store, etc. for just
9 product transitions, changeovers, that don't have
10 a rebate attached to them?

11 MR. KIMBALL: Yeah, we have. If you look
12 in the stores now, you look at our Water Wise
13 Plants would be a very big transition, is
14 virtually marked in every single store. We do it
15 on our drip systems, there's just multiple
16 products. If you look at the labeling on a water
17 heater recirculating pump, it's \$199, but it
18 saves 16,000 gallons of water per year. So
19 that's some of the big things. We also have it
20 on the -- even on the aerators, you know, the
21 water saver showerheads and things like that,
22 have a lot of signing on the packages and in the
23 stores. We have a large sign as you walk into
24 the store that really talks in general about
25 faucets and toilets and those kind of things that

1 stand six-foot tall as you walk in the store,
2 that really kind of shout out that. And then in
3 the individual stores themselves, depending on
4 the water districts they're in, they'll actually
5 post the rebates that are available through that
6 County, or from that particularly water agency in
7 those individual stores. Very localized signing
8 on that.

9 COMMISSIONER MCALLISTER: Yeah, okay. So
10 I guess I'm still struggling a little bit with
11 that sort of manufacture date versus the end of
12 the sell-through period, right? Because really
13 what we're talking about from your perspective,
14 it seems to me we're mostly talking about making
15 sure we have product on the back end of the sell-
16 through periods, so you can restock the shelves
17 with a complying product that was manufactured
18 after the date, or that at least you're not empty
19 shelves while you're waiting for new product. So
20 you know, maybe that presents a challenge for the
21 marketing side because maybe your new products
22 are kind of coming out in drips and drabs as you
23 sell-through. The effective date is for
24 manufacturing rather than being on the shelves.
25 So I guess I'm kind of wanting to come back to

1 the Manufacturers, you know, so there's a lot of
2 things that need to happen, you know, the
3 labeling, and if you have to retool and stuff
4 like that. But how many of those things, or
5 which of those things can happen in parallel
6 versus, you know, it's not a serial process
7 necessarily, right?

8 MR. KIMBALL: Certainly the literature
9 can happen in parallel with the packaging and the
10 stamping. I think the thing that gets difficult
11 is, unlike when we introduce a normal new product
12 where we have one, or two, or four or five
13 products, now we're talking for Kohler about 400
14 different lab(lavatory) faucets if we're just
15 going to talk about lab faucets -- 400 when you
16 count all the different stock keeping units and
17 all the different finishes that we're taking
18 through. And the retailers from the Home Depot
19 side, it presents a pretty small subset in that
20 they tend to stock high volume, low number skews
21 that move pretty quickly. It's pretty straight
22 forward with them. When you go to the wholesale
23 side of the business, which is even bigger still,
24 now you're dealing with a much greater variety of
25 products and they don't necessarily move as fast,

1 and they're stocked in a much greater number of
2 different finishes and aesthetics, and that type
3 of thing. So as far as the number of products,
4 it's kind of the overwhelming part of this is
5 hitting the entire product line at one time. So
6 even though we can do things in parallel, it's
7 still we only have so many people that can
8 actually do the work on creating the new graphics
9 for the packaging, or creating the new
10 literature, or doing the conversions of tools to
11 burn out old flow rate markings and put in the
12 new ones. That's what presents the challenge.

13 COMMISSIONER MCALLISTER: Okay, thanks
14 very much. Do we have additional presentations?

15 MS. DRISKELL: We do. We have the end of
16 a presentation. NRDC had a couple more slides
17 that they forgot to present, so I'll have Tracy
18 come back up and present those.

19 MS. QUINN: Just to the showerhead; I
20 think it's slide 6. So I'd just like to say that
21 NRDC strongly supports the IOU proposal for a
22 two-tiered Standard. The two-tier scenario would
23 increase the savings by 60 percent over the staff
24 proposal, that's a really impressive amount. And
25 that's only in the residential sector. We also

1 see additional savings in commercial applications
2 like gyms and spas and office buildings, which
3 will easily garner 10 percent savings, maybe even
4 20 percent additional savings.

5 We'd also like to ensure that the body
6 sprays and hand-held showerheads are included in
7 the standard and we have suggested some language
8 to the Standard.

9 And finally, it would be advantageous for
10 the rated flow of mixing valves to be reported by
11 model number, as well as labeled on packaging.
12 This would allow specifiers to confirm the
13 compatibility of the valve with the showerhead at
14 the design stage, rather than at the jobsite.
15 Such an addition to the reporting database could
16 also be helpful for characterizing over time the
17 market penetration of shower mixing valves with
18 low rate of flows.

19 COMMISSIONER MCALLISTER: So if I'm a
20 homeowner and I'm changing out my showerhead, can
21 I get the rating of the mixing valve somehow on
22 the exterior of the fixture? Like I don't have
23 to bust open my wall, right, to see what the
24 compatibility would be? In a retrofit
25 application?

1 MS. QUINN: Yeah, I think that's probably
2 a good question for the Manufacturers about what
3 they - I think we just like, going forward, we
4 want that labeling to be available on the
5 packaging so when you're doing a new construction
6 or doing the retrofits that you have that data
7 available, and that also that it's reported to a
8 database.

9 COMMISSIONER MCALLISTER: Sure. Yeah,
10 thanks.

11 MR. BERTRAND: John Bertrand for Moen -

12 COMMISSIONER MCALLISTER: No, want to
13 just in general get a sense of this compatibility
14 issue with the mixing valves and the showerheads,
15 and what information one needs to ensure
16 compatibility and whether that's available in a
17 retrofit application.

18 MR. BERTRAND: The answer is no. The
19 person today does not know what type of valve
20 they have in their wall. They absolutely do not.
21 So retrofits is a good topic, it's just being
22 brought up now. When you start to talk about
23 going to lower flow rate showerheads, you
24 increase their risk of scalding, especially with
25 older shower valves, like non-compensating, like

1 a two-handled valve that have no kind of
2 automatic compensating feature whatsoever.

3 COMMISSIONER MCALLISTER: Well, but
4 that's an issue with current showerheads and also
5 would be with new ones, right? I mean, so that's
6 not a change really relative to this discussion.

7 MR. BERTRAND: Well, again, as we talk
8 about going to lower flow rates you start to
9 introduce an increased risk of scald hazard.
10 Labeling, shower valves are labeled today, not
11 the valve itself, but we're required to label the
12 packaging or include literature with the rated
13 flow rate. So that's been out for about three
14 years already.

15 COMMISSIONER MCALLISTER: Uh-huh, okay.
16 Thanks. And I guess, Sean, I want to get your
17 view on this definition addition that NRDC is
18 proposing. I saw in your presentation that you
19 are saying that the body sprays, etc. are already
20 included in our definition we consider. So
21 what's your sort of take on that proposed
22 addition?

23 MR. STEFFENSEN: Yeah. So the current
24 definition talks about a device within a shower
25 use for bathing. I feel through looking at the

1 definition that body sprayers are included, we do
2 find those devices in the Appliance Database, and
3 so Manufacturers are complying and registering
4 their body sprayers. But we certainly look for
5 any sort of clarifying language that may help to
6 ensure compliance.

7 COMMISSIONER MCALLISTER: Sure, okay.
8 Great. Thanks.

9 MS. QUINN: And then we just have one
10 more slide and this is just, you know, as you
11 move to improve the water efficiency of plumbing
12 products and other water using products, we've
13 suggested that this might be a good spot to start
14 for the next phase: tub spout diverters
15 restricting the amount of leakage allowable
16 there, commercial dishwashers, irrigation
17 controllers, and irrigation emitters. And we
18 will be submitting additional information on each
19 of these products to the Commission.

20 COMMISSIONER MCALLISTER: Okay, great.

21 MS. QUINN: Thank you.

22 COMMISSIONER MCALLISTER: Thanks very
23 much.

24 MS. DRISKELL: Next on the agenda we have
25 an opportunity for questions and discussion with

1 all of the presenters, so I'd like to invite
2 everybody who presented up to the table for ease
3 of questions and answers, and I'll begin with the
4 Commissioners' questions for anyone at the
5 tables. We'll turn to questions in the room and
6 then we'll turn to questions on the Web. If you
7 have a question on WebEx, please use the raised
8 hand feature and I will try to get to you, or you
9 may type your question into the chat box and I
10 will read it to the room.

11 COMMISSIONER MCALLISTER: Okay, great.
12 So let's see, this has been a good conversation
13 so far. I feel like I've been sort of giving you
14 all 20 questions, and not that I've really been
15 able to integrate all the answers quite yet, but
16 perhaps staff has, and I wanted to kind of give
17 staff an opportunity with everything that you've
18 heard, sort of what's your reaction as far as
19 what your next steps might be in terms of
20 evaluating the comments that have been made today
21 and incorporating them into the staff analysis.

22 MR. STEFFENSEN: Hi, this is Sean
23 Steffensen with the Energy Commission. Thank
24 you, Commissioners. I think there's been a very
25 good discussion here, a lot of good comments and

1 good presentations, and a lot of good questions.
2 I guess as I look to what I would want to know is
3 I think a lot of this revolves around the dates
4 that have been discussed and I wish I'd brought a
5 score card to understand who said what exactly
6 about which dates, whether it's January, July or
7 somewhere in between. And so that's one thing
8 that I'll be looking through in the results is to
9 see exactly where everyone is falling on this.

10 But it really does come down, I think, to
11 the feasibility. And so we had that very
12 informative discussion with PMI and their
13 Manufacturers back on June 9th. I'm wondering if
14 there's been any update from NEOPERL since June
15 9th as far as that could be offered today.

16 MR. DESMOND: Well, Jerry here in a
17 recent conversation with NEOPERL, what we do know
18 is that the time period that PMI has been talking
19 about here, they are supportive of that and
20 believe it would work, which in the dates that I
21 think Joel was testifying to, or talking about,
22 were really a July 1, 2016 date for the 1.2 Res
23 Lab(lavatory) Faucets, and the 2.0 GPM
24 showerheads. And I know in terms of NEOPERL, we
25 were talking as we were sitting back there, there

1 aren't a whole lot of NEOPERL supplied Aerators
2 provided to Manufacturers or getting products
3 over to the retailers as we sit here today. And
4 the particular companies can talk about it, but
5 we do think that they have a workload issue.
6 They're committed to it, they're going to try,
7 they've staffed up, but I think their analysis is
8 the dates to get to the Manufacturers to get the
9 products, to get by the manufacturing date
10 deadline of January 1 -- I mean of July 1, 2016
11 is the best timeframe.

12 MR. BURNETT: If I could elaborate, we're
13 making faucets today in the thousands. We're
14 currently not making any at 1.2 because we're
15 waiting on supply of aerators and we're still a
16 couple months away from that, so as you heard
17 from the retailers, those orders would have been
18 placed, we would be shipping today for sale of
19 product in January, so that's a pacing item for
20 us.

21 COMMISSIONER MCALLISTER: Are you
22 producing any 1.0s for the residential market?

23 MR. BURNETT: We have a very limited
24 offering of 1.0s, yes, we do. And they're used
25 mainly in the commercial setting, not in the

1 residential.

2 MR. DESMOND: Our analysis of the
3 database, again, I think we've talked about it in
4 different sessions, is that we think there are
5 about 16 compliant 1.2 GPM Res Lab(lavatory)
6 Faucets, or less. We note that the staff report
7 talked about 64 or so, and I know I was at the
8 April 8th Business Meeting where the Emergency
9 Regulation was adopted and there were hundreds
10 that were thought to be out there, and we have
11 found a variety, that maybe some of our members
12 could discuss, a number of reasons why just the
13 numbers that aren't in the database aren't
14 necessarily reflective of the certified level of
15 what a faucet is manufactured for.

16 COMMISSIONER MCALLISTER: Go ahead.

17 MR. STEFFENSEN: Okay, I guess my next
18 question would be to go for the showerheads.
19 What's been talked about today is looking at 2.0,
20 I think there's broad agreement for 2.0. Looking
21 ahead, though, there's been some discussion as to
22 1.8, and I would like to ask the question, again,
23 I know it's been somewhat discussed as to what
24 would be the challenges to implementing something
25 like that. I heard there's been a timeline for

1 1.8, whether it be two years or four years down
2 the line, but there's also the issue of thermal
3 shock and I guess what proof or what could be
4 offered to say that 1.8 would be an option that
5 could be pursued, and I could just open that up
6 to I guess whoever would like to jump in.

7 MR. SMITH: I can take one answer on
8 that. And that is one of the challenges is that
9 when the WaterSense Standard was developed, 2.0
10 was the maximum flow rate, and it included
11 performance requirements like coverage and force.
12 And it was designed to get good performance at
13 2.0. As we go down to a lower flow rate, let's
14 say 1.8 or 1.75, whatever that is, we need to
15 reevaluate what are the right performance
16 requirements such as coverage and flow. That
17 investigation hasn't been done yet at lower flow
18 rates at below 2.0, so to say that we can use
19 those same ones, I think, is jumping the gun on
20 that. And again, as Marc from Home Depot
21 referenced, we don't want to start putting out
22 products that draw a backlash. And when it comes
23 to showering, that's a prime candidate because
24 people really care about their showers and what
25 they feel like, so I think we need to proceed

1 cautiously as we go to lower flow rates below 2.0
2 because they have not yet been proven out from a
3 customer satisfaction standpoint.

4 MR. DESMOND: Sean, you talked about
5 thermal shocks, specifically. The compensating
6 valves are one of two methods, either a pressure
7 balance mechanism or a wax element. Those that
8 we manufacture and sell today were designed
9 around two and a half gallons per minute.
10 There's an operating tolerance within that two
11 and a half, and when you go down to 2.0, they
12 still operate properly; when you go below 2.0, it
13 causes a redesign of the mechanical aspect that
14 controls that. So that is a design change that
15 we would have to do. That complexity is
16 typically several months to do.

17 COMMISSIONER MCALLISTER: Is it that that
18 hasn't sort of -- it's off the radar in terms of
19 the testing? Or it has been tested and does not
20 perform?

21 MR. SMITH: It has been tested.

22 COMMISSIONER MCALLISTER: Okay, so it's
23 been tested down below the 2.0 and above the 2.5
24 just to see how it functions?

25 MR. BURNETT: Yes, and we know that when

1 you get below 2.0, you're really going beyond the
2 extremes that the compensating mechanism was
3 designed for, so it causes for a redesign.

4 COMMISSIONER MCALLISTER: I wanted to
5 just go back briefly and talk about the aerators.
6 So we've been to all these meetings and NEOPERL,
7 as far as I know, hasn't been at the meetings,
8 but yet they're sort of the topic of
9 conversation. So maybe, you know, I would like
10 to understand that, or at least have staff
11 understand that more just to get a sense of what
12 their reality is. I mean, it's a little odd to
13 have essentially what sounds like virtually a
14 monopoly entity kind of not engaged in this
15 discussion if that's really where the critical
16 point is.

17 MR. DESMOND: We know that NEOPERL and
18 Fred and Marie would be pleased to engage, I
19 thought they already had directly with staff.

20 COMMISSIONER MCALLISTER: Oh, maybe they
21 have.

22 MR. DESMOND: If they have not, I know
23 they would be willing to directly. They're not
24 saying they've got to go through us, they would
25 be pleased to engage directly with you and have a

1 one-on-one conversation.

2 COMMISSIONER MCALLISTER: Yeah, maybe
3 they had with staff already, I don't know, Sean.

4 MR. STEFFENSEN: The last update was June
5 9th and what they stated at that meeting was that
6 they thought they would have products at the
7 certification phase at this point, and they felt
8 that would take two to three months of pressure
9 to certify those, and then they would start mass
10 quantity shipments December, January and February
11 of next year. That was their last status. So I
12 think I do want to follow-up with NEOPERL
13 directly to understand their current situation.
14 There's been an update in the last seven weeks or
15 so, six weeks.

16 COMMISSIONER MCALLISTER: Okay, great.
17 So any other reactions from staff on either
18 faucets or showerheads?

19 MR. STEFFENSEN: I guess just one follow-
20 up. The current -- this goes back to WaterSense
21 and looking below 2.0. The WaterSense Standards,
22 as I understand it, is set up to have a maximum
23 of 2.0 GPM for showerheads, so I guess to say
24 that perhaps we need to study the consumer
25 acceptance below that, does that mean the

1 WaterSense test standard would have to be updated
2 with a future study? I see WaterSense
3 showerheads below 2.0 that are certified.

4 MR. SMITH: Right, or it could be that
5 maybe, as you did in the current CEC staff
6 recommendation where you didn't include the
7 WaterSense requirements, maybe that would be the
8 right answer, that those don't apply. So we can
9 certify below that, but it really narrows in what
10 exactly that showerhead needs to feel like it
11 really limits the options as far as the different
12 types of sprays that you can provide, or the
13 variety that the consumers could have at that
14 point. What I don't want to do is end up where
15 we go to 1.8 and everyone gets the exact same
16 spray, and for some people they think it's good,
17 and for everyone else they don't like it because
18 showering is very experiential and different
19 between genders and between ages, it's very
20 different between what people like.

21 MS. QUINN: Sean, I would agree that we
22 wouldn't need to look for WaterSense to revise
23 their -- oh, sorry -- I agree that we wouldn't
24 need to look to WaterSense to revise their
25 testing requirements or their Standard. Not

1 including the WaterSense certification as a
2 requirement of the Standard is one option, but I
3 definitely think that we can move to the 1.0
4 without waiting for WaterSense. And as you
5 mentioned, there are products on the market now
6 below 2.0 that are WaterSense certified, so there
7 is that availability if the Commission chooses to
8 go in that direction.

9 MR. STEFFENSEN: I think there have been
10 a lot of good questions today. I think I've gone
11 through my list of questions and I guess I'd open
12 it up to Kristen to see if there are any
13 questions either in the room or on the phone.

14 COMMISSIONER MCALLISTER: Let me ask just
15 one more question, or maybe a suggestion to
16 staff, actually. When we do engage NEOPERL
17 directly again to get an update, maybe we can ask
18 about, I mean, we'll be asking them to produce a
19 lot of aerators in the compliance realm, 1.2, but
20 what is their production and potential
21 production, manufacturing lines, for example, for
22 1.0s? How many of those could they get on the
23 marketplace?

24 MR. STEFFENSEN: The specific follow-up
25 with what is their production capacity -

1 COMMISSIONER MCALLISTER: Yeah, just sort
2 of see what that part of the market looks like
3 right now. Maybe some of the Manufacturers have
4 an idea of that already, but who knows, maybe
5 they're shipping that sort of product to other
6 places. I mean, I don't know. But if that's a
7 mature product line, then it's worth knowing.

8 MS. QUINN: If possible, I'd just like to
9 make a comment about the thermal shock that came
10 up earlier. An additional solution to address
11 those temperature shifts would be the temperature
12 actuated flow reduction valves, the TAFR valves,
13 which are ANSE and ASSE listed products. They
14 can protect against those spikes in temperature
15 and it's something that the CEC could evaluate.
16 There is a cost associated with those valves, but
17 something that the CEC could evaluate in its
18 cost-effectiveness evaluation.

19 MR. SMITH: I think one thing to keep in
20 mind on those, those are specifically meant for
21 scald issues, and so if the temperature goes too
22 far, it will shut the water off completely. What
23 they don't protect against is thermal shock, so
24 if the temperature moves by let's say five
25 degrees or six degrees, it won't shut off, and

1 the risk then is especially if you have elderly
2 or disabled, you get a slip and fall situation
3 where it becomes hot, they become nervous, they
4 slip and fall, and then if there's hot water it
5 can go on. So I would just caution that that
6 might not be the right answer for every issue
7 we're facing on this.

8 COMMISSIONER MCALLISTER: Okay.

9 MS. DRISKELL: Okay, we have a couple of
10 questions on the Web. The first is through the
11 Chat Box. "If the 1.8 gallon per minute for
12 showerheads is not adopted now for implementation
13 at a set timeline, whether two or four years from
14 now, during the Emergency Rulemaking, when will
15 be the next chance to implement a 1.8 gallon per
16 minute standard? I think that's a question for
17 us.

18 COMMISSIONER MCALLISTER: For the Energy
19 Commission? Go for it.

20 MS. DRISKELL: I will do my best. If we
21 don't adopt it within the Emergency Rulemaking
22 period, our statute typically requires us to wait
23 five years before changing a standard up or down.
24 So it would be five years from when the Standard
25 was adopted, if not during the Emergency period.

1 We also have a hand raised, so I'm going
2 to unmute Dann Holmes. Hopefully this works.
3 Dann, are you on the phone?

4 MR. HOLMES: Yes, I am. Can you hear me?

5 MS. DRISKELL: Yes, we can. Go ahead.

6 MR. HOLMES: Okay. Hello, everyone. My
7 question was in regards to I believe it was
8 Sarah, in her presentation she talked about
9 certification bodies could certify aerators
10 within a 30-day timeframe. And being a
11 certification body, I was just kind of curious on
12 where she might have obtained that information.
13 I know that we had talked to some people.
14 Normally 90 days would be extremely fast, but on
15 a rush we thought we could do something within 60
16 to 70 days, that's providing that all the
17 information that we received was technically
18 accurate, including literature, paper, you know,
19 flow rates and such. So I'm just kind of curious
20 on where the 30-day period came from.

21 MS. SCHNEIDER: Hi, Dann. Thanks for the
22 question. This is Sarah who presented earlier.
23 I'm curious, which certification body are you
24 with?

25 MR. HOLMES: NSF International.

1 MS. SCHNEIDER: Thanks. So I personally
2 did not reach out to certification bodies, we
3 have a team of analysts working on this, so I am
4 unfortunately unable to answer that question
5 specifically at this moment, but I can follow-up
6 with you and I probably can get your contact
7 information from the Energy Commission. So I do
8 apologize, but I was not personally involved with
9 conducting outreach to third party certification
10 bodies.

11 MR. HOLMES: Well, that's fine, it's just
12 that with the timeframe that they're looking at
13 and, again, we're neutral in this entire thing,
14 obviously everyone wants to try to resolve the
15 water issues in California, but I'm just not so
16 sure that the timeline that was given on 30 days
17 accurately represents certification bodies as a
18 whole. So that's the only point I guess I'd want
19 to make.

20 MS. SCHNEIDER: Okay. Thank you for the
21 clarification.

22 MS. DRISKELL: We also have a hand raised
23 from Ed Osann, sorry if I've mispronounced your
24 name, but you're unmuted.

25 MR. OSANN: Thank you. Can you hear me

1 all right?

2 MS. DRISKELL: Yes.

3 MR. OSANN: Okay. Yeah, my name is Ed
4 Osann. I'm also with the Natural Resources
5 Defense Council and I just wanted to make
6 observations on a couple points that came up.
7 One is, because it did seem a little bit unclear
8 from the discussion, there are mixing valves with
9 rated flows below 2.0 that are on the market
10 today. There are mixing valves clustered around
11 with 1.5 GPM as the rated flow. So they're
12 available today and I think this kind of
13 underscores the potential value the state could
14 find from not only requiring the labeling of the
15 rated flow of mixing valves, but also the
16 reporting and the compilation of these models
17 into a publicly available database.

18 The other point I wanted to mention that
19 hasn't come up today is the potential for
20 variable orifice showerheads to really be a key
21 enabling technology for showerheads flowing at or
22 below two gallons per minute. A variable orifice
23 showerhead has, in effect, a pressure
24 compensating restrictor so that it's designed to
25 maintain the flow at or close to the stated

1 maximum across the full range of likely water
2 pressures that would be encountered in a
3 residential or commercial installation. And this
4 has the effect of really bolstering consumer and
5 customer acceptance because a customer that has a
6 low pressure location is not likely to see their
7 performance drop by 30 or 40 percent as might be
8 the case in a fixed orifice showerhead, and also
9 this tends to mitigate the issue of temperature
10 spikes because it's maintaining that higher level
11 of flow across the full range of pressure that
12 would be encountered at various locations. I
13 just wanted to make a couple of those points.

14 COMMISSIONER MCALLISTER: Thanks.

15 MS. DRISKELL: That's it on the phone.
16 Are there any additional public comments in the
17 room, or questions and discussion in the room?
18 Go ahead.

19 MS. WILLIAMS: I just wanted to ask, what
20 is the Energy Commission's procedure from this
21 point forward? Just curious as to your timetable
22 under consideration. In terms of making the
23 amendments, is there, regardless of what you
24 decide on, is there a timeframe by which you
25 intend to act?

1 CHAIRMAN WEISENMILLER: Well, we'd like
2 to act by the next Business Meeting which is
3 August 12th.

4 MS. WILLIAMS: Got it. Thank you.

5 MS. DRISKELL: We have a couple more
6 phone comments. From the chat box: "Has there
7 been any thought about requiring Laminar flow on
8 bath faucets? The .5 gallon per minute spray
9 aerators are horrible."

10 COMMISSIONER MCALLISTER: Who is that
11 question to? It sounds like that's more --

12 MR. SMITH: Yeah, I'm not sure who it was
13 to. The .5 GPM spray is horrible, don't
14 disagree, it's the regulation, and I don't think
15 anyone really likes the feeling when the water
16 trickles out in a commercial bathroom. There is
17 a laminar spray and it's, to be honest with you,
18 it's not a lot better, it's still a very small --
19 I wouldn't say it's that much better. So
20 unfortunately when you get down to that flow
21 rate, it's hard to make a spray really feel
22 great.

23 MS. DRISKELL: We also have a hand raise,
24 so I'll unmute George.

25 MR. NESBITT: Yes, can you hear me?

1 MS. DRISKELL: Yes, we can.

2 MR. NESBITT: Yeah, I guess, well, most
3 bath faucets and, well, faucets in the past have
4 had screw-in, screw-out aerators. It sounds like
5 some of the new fixtures, they maybe still have
6 them, but they're more recessed, or are the
7 Manufacturers going to essentially have a built-
8 in aerator that is part of the spout? I guess
9 that's sort of, you know, certainly -- I'm a HERS
10 Rater, or Green Rater contractor, and as a Green
11 Rater, if we're verifying flow for a fixture if
12 it has an aerator that's labeled for that flow
13 requirement, even if the fixture is not rated and
14 certified at that, that's perfectly acceptable.

15 COMMISSIONER MCALLISTER: Thanks. So we
16 have not gotten any blue cards up here. Is there
17 anybody in the audience? Is there anybody else
18 on the phone or Web? Anybody in the audience
19 inclined to ask a question or need any
20 clarification?

21 So anything else on the agenda for us,
22 Kristen?

23 MS. DRISKELL: That's it. That was part
24 of the public comment period, I think, it just
25 kind of blended together. So if the

1 Commissioners would like to deliver any closing
2 remarks - oh, I take it back, there is a blue
3 card.

4 COMMISSIONER MCALLISTER: Oh, hey, okay.
5 Great.

6 MS. DRISKELL: This is Bach Tsan from
7 Southern California Edison.

8 MR. TSAN: Good afternoon. I'm Bach
9 Tsan, an Engineer from Southern California
10 Edison. First of all, I'd like to thank the CEC,
11 Chairman Weisenmiller and Commissioner
12 McAllister, for your strong leadership and
13 responding to California's severe drought that we
14 have been experiencing for four consecutive
15 years. As a partial means to address the severe
16 drought, SCE is part of the California IOUs, or
17 Investor Owned Utilities, to submit a case report
18 proposing a maximum level for flow rate for
19 shower heads. Our proposed limit for shower
20 heads is well aligned and harmonizes with
21 WaterSense, California Plumbing Code, 2013
22 CALGreen, and the City of Los Angeles Water
23 Regulations. The proposed limit not only saves
24 water every time someone takes a shower, but it
25 also saves energy transporting water to homes,

1 reduces water heating needs. This proposal
2 demonstrates another example of California's
3 leadership in environmental stewardship.

4 SCE is part of the California IOU Codes
5 and Standards Program and fully supports the
6 CEC's proposed limit of two gallons per minute,
7 and would like to suggest the Commission consider
8 these Standards improvements as presented by the
9 Energy Solutions teams for the IOU.

10 We also like to confirm our support for
11 the CEC and their proposed revision on faucets.
12 Faucets are the third largest use of residential
13 water use, reducing the amount of water for use
14 from faucets is key to California's water
15 reduction strategy.

16 SCE, along with the Statewide Utility
17 Codes and Standards Team supports this
18 recommendation as California is in the midst of
19 this severe drought as we stated. In response to
20 the California Energy Commission participating in
21 2013, we submitted a proposal for faucets which
22 proposed a maximum for this product. SCE, we
23 fully support the CEC's proposed limit of 1.2
24 gallons per minute flow rate for residential
25 lavatory faucets to be effective January 1, 2016,

1 and we encourage the CEC to review the docketed
2 IOU response for faucets. Once again, thank you
3 very much for this opportunity to show the
4 support for showerheads and faucets. Thank you.

5 COMMISSIONER MCALLISTER: Thanks for
6 being here. I saw one more question there.

7 MS. DRISKELL: You were right, we have
8 another question on the chat. "Was consideration
9 given to requiring technology that allows users
10 to temporarily stop flow while soaping up?

11 COMMISSIONER MCALLISTER: Right now
12 that's in the moral upper ground category, I
13 think. I have one on my shower, you know,
14 certainly. But what about staff requiring it?

15 MR. STEFFENSEN: No, we have not
16 considered that. I think that goes along with
17 some of the thermal shock concern that perhaps
18 the temperature could change, but that wasn't a
19 part of what we were considering for this near
20 term.

21 COMMISSIONER MCALLISTER: Manufacturers,
22 do you have any sort of sense of the marketplace
23 for those in terms of voluntary purchase of those
24 and installation?

25 MR. SMITH: They are pretty widely

1 available because, for ADA requirements, there
2 has to be what we call a trickle or pause feature
3 where it actually takes the flow down to roughly
4 .5 GPM. And so what that does is it allows
5 enough water to keep running, that you don't
6 build up a lot of cross flow where there's a big
7 slug of hot water waiting in the cold line to
8 burn you, but it does reduce the water flow
9 significantly so that if you want to save water
10 that way, you can. So I think they're already
11 out there. I don't know that they are on many
12 shower heads, it's usually just hand showers, but
13 because it's ADA, it's for an assisted bathing
14 application. So they're out there for people who
15 want them, I don't know that they're the right
16 fit for every application.

17 COMMISSIONER MCALLISTER: Okay, thanks
18 for your questions, everybody. I think we've
19 reached the end of the agenda a little bit ahead
20 of time, which is incredible. Did you want to
21 say something, Chair Weisenmiller?

22 CHAIRMAN WEISENMILLER: Yeah, I was going
23 to make two observations and question just to pin
24 down some of the logistics. One was I was going
25 to note that, you know, 1978 was when Governor

1 Brown was Governor the first time, and that's
2 when we did the first Standards in this area
3 which right now in the middle of the drought, you
4 know, I think it's really helped having those in
5 place, particularly for that period of time, was
6 that when we adopted those Standards the first
7 time, there were more like 20, 22 million people
8 in California, now we have much more, so you
9 could imagine how much tougher the drought would
10 have been if we hadn't taken action then. So
11 again, I think going forward it's going to be
12 really important to really push along the
13 technology because I'm afraid we're going to have
14 more droughts in the future, and we're going to
15 be well prepared for that.

16 There was some reference to El Niño and
17 how that may change things and I was just going
18 to point people to yesterday, we had a joint
19 proceeding with the PUC on adaptation, or
20 resilience. And at that, we had a presentation
21 by Dan Kahan who is one of the Scripps
22 Scientists, and he talked about El Niño, but
23 basically again that was one of those things of
24 saying it looks really strong now, however, that
25 was the story going into this year, so certainly

1 it's not time to assume that the drought is going
2 behind us, but we have to be planning for worst
3 case next year, otherwise I think, again, I loved
4 hearing Felicia Marcus and she was saying the 25
5 percent isn't really to move water from one group
6 in the state to another, but it's so that next
7 year we don't have to cut off all cities. You
8 know, it's basically those cities are saving
9 water that we may need next year.

10 The thing I was just trying to understand
11 logistically, as I said, we have Business
12 Meetings, we have one on August 12th, we will
13 have one in September, we'd obviously like to
14 move on this and give everyone an opportunity for
15 people to provide public comment to us, or
16 written comments to us, and to try to move this
17 on to the Agenda hopefully August, or I guess it
18 was September.

19 But one thing I want to understand is, in
20 terms of the showerhead proposal, when that will
21 be filed in terms of all the documents by the
22 utility group, and then how much time industry
23 will need to review that, if any. So we're
24 talking about, again, to comment basically
25 written -- when do we get the work papers?

1 MR. SMITH: I think one item on that
2 topic is, and we didn't bring it up today because
3 we feel like it's a little bit down in the
4 details, but we are going to submit comments
5 because there's just some things in the proposal
6 where reference numbers of procedural sections
7 don't line up, so we do need a little time just
8 to work out some of those details. We told you
9 clearly our feeling on the overall intent, but we
10 do need to work through some of the things so
11 that everything is accurate and tight when the
12 new regulation gets issued. So I think that
13 would be a matter of a week, you know, once we
14 see the final one.

15 CHAIRMAN WEISENMILLER: Okay, and if
16 necessary, I guess I would encourage the staff
17 and PMI to have a settlement conference or some
18 way of discussing where, if there's anything we
19 need to pin down, just to make sure it occurs
20 before the Business Meeting.

21 MR. DESMOND: We know that there's the
22 comment deadline at 4:00 p.m. this Friday which
23 is a little tough to meet, but we're endeavoring
24 to meet that and to have a comprehensive
25 submittal by that point that's consistent with

1 what we've said today and responsive to all
2 issues, it's a fairly compressed timeframe with
3 the proposal just having come out late Friday
4 afternoon, but we're endeavoring to do that and
5 to move very rapidly. I don't know if we'll be
6 able to address every single issue, but we're
7 bending over backwards to do so.

8 CHAIRMAN WEISENMILLER: Okay. Well, I
9 just wanted to make sure, too, in terms of any
10 other material that goes in the record, if we
11 need reply comments so we build those in, too,
12 but again very fast.

13 COMMISSIONER MCALLISTER: So there are
14 really three sort of general proposals out there
15 it seems like, one is from the Case Teams at the
16 IOUs, the one on the table right now is from
17 staff, right, and so we have sort of the IOU and
18 then the industry proposal, and those are kind of
19 elements of each of those we're talking about
20 today, so kind of pinning down the final proposal
21 from staff that we would take to a Business
22 Meeting is imperative.

23 Okay, great. Well, you know, I don't
24 have extensive further comments. I think it's
25 been really productive. I really thank everybody

1 for keeping your comments to the point and
2 relatively parsimonious and informational. I
3 think it's been really great, so I think we've
4 had a very substantive conversation today,
5 really, not a lot of extraneous details and
6 mostly substance, so I really appreciate that.
7 Very much appreciate everybody bringing their
8 good faith effort in the context of the drought
9 and what we're trying to do and I think we all
10 agree on that, on its importance. So a lot of
11 reasons to keep our sleeves rolled up and working
12 hard to get this to the finish line and, like the
13 Chair said, we're looking to do that as quickly
14 as possible. And I'm sure we will all be in
15 touch for sure, and as we dialogue on it and get
16 to the finish line here. So thanks.

17 CHAIRMAN WEISENMILLER: Thanks.

18

19 (Whereupon, at 2:58 p.m., the workshop was
20 adjourned.)

21 --oOo--

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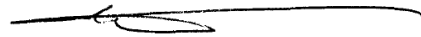
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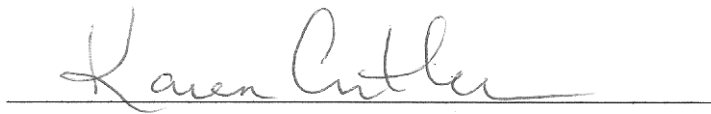
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A handwritten signature in cursive script, reading "Karen Cutler", is written over a horizontal line.

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