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# CALIFORNIA ENERGY COMMISSION IEPR COMMISSIONER WORKSHOP

In the Matter of:	) Docket No. 18-AAER-02
	, ) PUBLIC MEETING
	)
Appliance Efficiency Standards	) RE: Appliance
Rulemaking for Portable Electric	) Efficiency
Spas and Battery Chargers	) Portable Electric Spas
	) and Battery Chargers

LEAD COMMISSIONER MEETING ON
APPLIANCE EFFICIENCY REGULATIONS FOR
PORTABLE ELECTRIC SPAS AND BATTERY CHARGERS

CALIFORNIA ENERGY COMMISSION

THE WARREN-ALQUIST STATE ENERGY BUILDING

ART ROSENFELD HEARING ROOM - FIRST FLOOR

1516 NINTH STREET

SACRAMENTO, CALIFORNIA 95814

TUESDAY, MARCH 6, 2018

10:00 A.M.

Reported By:
Julie Link

#### APPEARANCES

## COMMISSIONERS:

Andrew McAllister, Lead Commissioner on Energy Efficiency

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Jessica Lopez, Appliances and Outreach and Education Office

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Nicholas Timothy, Appliances and Outreach and Education Office

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Michael McCague, Association of Pool and Spa Professionals (APSP)

Charles Kim, California Investor Owned Utilities (IOU)

Chad Worth, Energy Solutions on behalf of California IOU

PUBLIC SPEAKERS (\* Via telephone and/or WebEx)

- \*David Maciel, Sony
- \*Matthew Vartola, Bestway USA Inc.
- \*Jennifer Hatfield, Association of Pool and Spa Professionals

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## 1 PROCEEDINGS

2 MARCH 6, 2018 10:03 a.m.

MS. MOHNEY: Welcome to the Portable Electric Spas and Battery Charger Systems Workshop; I'd like to go over a few housekeeping items before we start the meeting.

There are restrooms outside and to the left. If there's a fire alarm or other emergencies, there are doors immediately to your left and to the right. Exit the building and follow staff to the park that's at the corner across the street. If you need refreshments, there is a snack bar located on the second floor under the awning. There are drinking fountains outside, next to the bathrooms. And I believe that's it.

At this time, I would like to introduce Commissioner McAllister, who would like to make a few opening remarks.

COMMISSIONER MCALLISTER: Hey everybody, thanks for coming. My name is Andrew McAllister. I'm the Lead Commissioner on Energy Efficiency under which this proceeding falls and I won't take up much of your time. I know there's some substance to cover here, but I wanted to just highlight the importance of this activity in general.

You know, we know that plug loads are a big deal.

And we know that California plays a leading role in

developing them. We have invested a lot over the last 40 years, the last few decades. And it's just so clear that this activity brings a massive amount of positive impact to ratepayers, to our environment, to California at large and our economy. So updating these two standards is a part of that bigger picture.

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And certainly, on the battery chargers it's kind of more of a cleanup and a streamlining of activity, which is pretty straightforward in my view.

And then the portable electric spas is an update of existing standards and having to harvest available cost effective savings.

So obviously, we really want to get it right. I think one of the hallmarks of our process here, certainly over the last six or ten years has been to work as closely and as collaboratively with industry and all the other stakeholders, as good as we possibly can. So that we end up with a result everybody can live with, but that still achieves the goals that we need to and that we statutorily have to and that really do achieve the goals, the ends, that I refer to before.

So with that I will pass it, let's see, Leah are you going to continue? So our MC, Leah, can take it over from there and get the agenda rolling. So thanks everybody again for coming. I really appreciate your input and

1 helping us build the record, such as it'll support a 2 decision that's in everybody's best interest. So thanks for that. 3 4 MS. MOHNEY: Thank you, Commissioner McAllister. 5 Okay, with that we will get on with the presentation. Today's agenda will have our opening 6 7 reports. I'm going to go over the background and overview of the portable electric spas rulemaking. Then will have 8 9 Jessica Lopez present our portable electric spas proposal. We'll have a short break. Then we'll have some stakeholder 10 11 presentations. And then at the end we will have open 12 discussion and public comment. 1.3 Just a reminder if you are going to speak, for 14 the public comment, to announce your name and if you 15 represent an organization to announce the organization that 16 you represent. 17 If you've just recently joined us, we have been 18 working on spas for a long time. In March 2012 we ordered 19 an order instituting a rulemaking. March 25th, 2013, we released an invitation to 20 participate to collect data on efficiency standards for 21 2.2 spas. 2.3 In May 2013, we hosted public workshops. 24 In June 2013, we released an invitation to submit

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proposals.

1 In May of 2014, we requested additional 2 information on network equipment, commercial dryers, portable electric spas and pool pumps and motors. 3 4 In January of 2016, we published a draft staff 5 report, proposing standards for portable electric spas. In February of 2016, we held a first staff 6 7 workshop. In June 2016, we published a revised staff 8 9 report, proposing standards for portable electric spas. 10 In July of 2016, we held a second workshop. 11 In July of 2017, we published a second revised 12 staff report, proposing standards. 1.3 In August, we held a third staff workshop. 14 January of this year, 2018, we released the 15 Notice of Proposed Action, Initial Statement of Reasons and the Proposed Regulatory Language for Portable Electric Spas 16 17 and Battery Charger Systems. 18 February, we released the regulatory notice that 19 was published on February 2nd. We also published the final 20 staff report. 21 On February 8th, 2018, we released the Initial 2.2 Study, a Negative Declaration for Portable Electric Spas 2.3 and Battery Chargers. 2.4 And that brings us to where we are today. We are 25 at the public workshop to hear your concerns, your

comments, your support for the proposal that we have put out. This is one of the many opportunities for public comment that we have at the Energy Commission. We want to hear from you. We want to understand what your concerns are, if there are any. And that's what we're doing today, is we're listening to comments, we're addressing those comments.

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The next step will be to present the proposal at a business meeting, so comments for the workshop today are due on March 19th, by 5:00 p.m. There are a number of ways to submit comments. You can submit them electronically, at the address on the board. You can send a hard copy. Or you can send a digital copy to the dockets. Please make sure that you include docket number 18-AAER-02 in the title of your document, so that it is posted to the right place.

If you have specific questions, please contact

Jessica Lopez. She is the Lead on the Battery Chargers and

Portable Electric Spas Rulemaking. This is her contact

information. And with that, I would like to introduce

Jessica Lopez.

MS. LOPEZ: Good morning, everyone. My name is Jessica Lopez. I am an Associate Energy Specialist here at the Energy Commission. And today's presentation will cover both portable electric spas and battery chargers.

So here's the agenda for today's presentation.

The presentation will cover both portable electric spas and battery chargers. For spas, we'll review the proposed regulations. And then follow with our analysis on technical feasibility, cost effectiveness and statewide energy savings. For battery chargers, we'll review the proposed regulations.

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Following that we'll continue on in providing a summary of the Initial Study and Proposed Negative

Declaration. And then continue on with the Next Steps that are following this presentation.

So the purpose of this meeting is to review the proposed regulations for spas and battery chargers and to seek comments from the public and stakeholders regarding the proposed regulations. It is also an opportunity for interested parties to comment on the Initial Study and the Proposed Negative Declaration.

So beginning with spas we'll cover the proposed regulations. The current regulations state that portable electric spas must comply with testing, efficiency, marking and certification requirements under Title 20 in the California Code of Regulations. The proposed regulations would clarify the scope, update the performance standard, create a separate standard for inflatable spas, update the test procedure to accommodate exercise spas and clarify the test procedure and certification requirements for

combination spas and add a labeling requirement, all of which I will review throughout this presentation.

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So beginning with the scope, portable electric spas are factory built freestanding electric spas or hot tub units that can be ridged, flexible or inflatable, as the examples shown here on this slide. They are characterized as above ground units that are electrically heated and not permanently installed in the ground or attached to a pool. They are supplied with pumps, heaters and jets for heating, circulating and filtration and maintenance cycles. Our analysis indicates it is technically feasible to maintain the current scope. Thus, the scope for spas will remain the same.

So before I go in to reviewing the proposed definitions that we have, I wanted to provide everyone with a chart that shows how the new spa type definitions are organized. The term and definition for portable electric spas will be the base of the new spa-type definitions. So for each of the proposed spa-type definitions that we are proposing, the term "portable electric spa" will be incorporated in each definition encompassing the definition of portable electric spas.

And the new spa-type definitions that we are adding are standard spas, exercise spas, combination spas and its two sub-definitions, and inflatable spas. And

these definitions are necessary to implement the new performance standard, the test procedure requirements.

They also support the new labeling and certification requirements and ensures clarity within the regulations.

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So here's the first set of definitions that we are proposing. The definition for portable electric spas will be amended to cover products where the equipment for heating and circulating water may be supplied at a time other than the point of sale. And this is mostly targeted at inflatable spas. It ensures spas with detachable and heating and circulating equipment are a covered product.

The definition for a combination spa means a portable electric spa with two separate distinct reservoirs, where one reservoir is an exercise spa; the second reservoir is a standard spa. And then each reservoir has an independent water temperature setting control.

The definition for exercise spa, also known as a swim spa, means a portable electric spa that includes specific features and equipment to produce water flow for water physical therapy or physical fitness activity, including but not limited to swimming in place.

And again, these definitions support the proposed updates and provide clarification within the regulations.

The definition for inflatable spa means a

portable electric spa where the structure is collapsible and is designed to be filled with air to form the body of the spa.

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The definition for standard spa means a portable electric spa that is not an inflatable spa, an exercise spa or the exercise spa portion of the combination spa.

And the definition for the exercise spa portion of a combination spa means the reservoir of the combination spa that is an exercise spa.

The definition for standard spa portion means the reservoir of a combination spa that is a standard spa.

And again, these definitions support the proposed updates and provide clarification within the regulation.

Continuing on, the definition for standby mode of a portable electric spa means that only the default settings as shipped by the manufacturer are enabled, except the water temperature, which may be adjusted to meet the test conditions. No manual operations are enabled.

This definition supports the proposed regulation, since the efficiency standards are based on this type of heating cycle.

The definition for fill volume means the water capacity of the portable electric spa in gallons, at the halfway point between the bottom of the skimmer opening and the top of the skimmer opening. In the absence of a

skimmer, the fill volume is six inches below the overflow level of the spa as defined in the test method Section 1604(g)(2)(B)(1). And this definition is necessary to define the variable in the performance standard and to correct the procedure for filling spas as referenced in the test procedure. The referenced test procedure states for spas that have a skimmer, the spa shall be filled to the halfway point between the bottom of the skimmer opening and the overflow level of the spa. Following this procedure may submerge the skimmer resulting in an inaccurate fill volume that is not representative of the fill volume during regular operation.

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The definition for a skimmer means a suction opening intended to remove floating debris from the water surface and installed where part of the water intake opening is open to the atmospheric pressure. And this definition supports the procedure for filling spas and the definition for fill volume.

Next, we are removing the term and definition for spa volume and replacing it with a new term and definition for fill volume for consistency within the regulations.

The definition for rated capacity of a portable electric spa means the number of people capable of fitting in a portable electric spa, as specified by the manufacturer. The definition for rated volume of a

portable electric spa means the voltage in volts as it appears on the nameplate of the spa.

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Now these terms are not new, but a definition was needed to support the certification and labeling requirements.

The definition for rated volume means the water capacity of a portable electric spa in gallons, as specified by the manufacturer on the spa, on the spa packaging or the spa marketing materials. This definition is necessary to distinguish it from the term "fill volume" and to support the labeling and certification requirements. It also makes it easier for consumers to compare spas.

Since the rated volume is typically a rounded whole number, representative of the water capacity, whereas the fill volume which is representative of the test procedure may result in a slightly different number.

So that covers all the definitions that we are proposing.

Next, we move on to test methods. We are proposing to adopt the industry accepted test procedure, APSP/ANSI/ICC-14 Version 2014. We are excluding Section 8.2, which sets a less stringent performance standard for exercise spas. Our analysis indicates it is technically feasible to set a more stringent standard, thus excluding the section from the reference test procedure.

We have also made four modifications to the test procedures. Only two are listed on this slide and continue on to the next slide. One states the procedure for filling a spa. And this change is necessary to correct the procedure for filling a spa, as I mentioned earlier.

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The remaining sections 2 through 4 state the specific water temperature testing conditions for each spatype we have defined, eliminating any confusion as to which conditions apply. For example, 2 states the water temperature conditions for standard spas and inflatable spas. Note that the water temperature testing conditions are taken directly from the referenced test procedure.

Again, for exercise spas and combinations, we have taken the water temperature testing conditions directly from the test procedure, from the referenced test procedure.

And for exercise spas, we made a conditional test procedure. Since we know some exercise spas are incapable of operating at a temperature of 100 degrees Fahrenheit, preventing them from following the current test procedure and restricting them from certifying to the Energy Commission, and then unintentionally prohibits them from being sold in California. Thus the proposed regulations will accommodate these exercise spas that operate below 100 degrees Fahrenheit. But we also want to ensure that

exercise spas that can operate above 100 degrees Fahrenheit are tested accordingly as to not mislead the consumer.

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For combination spas, we are clarifying that each reservoir shall be powered on simultaneously and that the total energy use shall be recorded for each reservoir.

Again, this ensures the highest standby water temperature settings can meet the standby power limit.

And the last part of the test methods in this section is the test lab report requirements. This is not a new requirement, but we are updating the requirements to match our proposed regulations. We are asking the test lab report include the requirements from the reference test procedure, Table X, and then other additional requirements listed on this table.

Note the underlined requirements are new requirements. And the proposed requirements are necessary to verify compliance and the new efficiency standards and labeling requirements.

So now we'll move on to Section 1605.3, which covers our state standards. The proposed standards will apply to the spas manufactured on or after June 1st of 2019. The data in the Energy Commission's Appliance Efficiency Database indicate manufacturers have improved the efficiency of spas. The proposed regulations will update the performance standards to align with the

efficiency of spas currently in the market and ensure continued development of more efficiency portable electric spas.

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Thus for standard, exercise and combination spas we are proposing a performance standard of  $3.75V^{2/3}+40$ .

The inflatable spa industry recently developed and tested two prototype inflatable spas that are approximately 1.5 times the current standby power limit for a spa with a water capacity of 210 gallons by simply improving the spa cover or the structure of the spa. This recent development and discussions with the inflatable spa industry led to a separate standard for inflatable spas. Thus, for inflatable spas we have proposed a separate standard of  $7\,(V^{2/3})$ . The proposal will provide the inflatable spa manufacturers time to innovate, develop and test inflatable spas that will meet the proposed standard.

We have also clarified the normalized standby power conditions for each spa type we have defined. The normalized standby power normalizes the measured standby power to eliminate any temperature bias. This also eliminates any confusion as to which conditions apply.

Next, we move on to Section 1606, which covers data submittal requirements. There are new requirements and some requirements have been expanded to accommodate exercise spas and combination spas. Note the underlined

requirements are new. These changes are necessary to determine what standard and testing conditions apply and to determine the data that yielded from the test, to implement and verify the labeling requirements. And to ensure manufacturers are complying with the efficiency requirements.

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Here are Table X requirements continued. As you can see, we have duplicated or expanded some of the requirements to provide manufacturers a clear pathway to certify combination spas. Again, these changes are necessary to verify compliance.

And now we'll cover the Declaration Statement. So when certifying to the Energy Commission's Appliance Efficiency Database manufacturers sign a declaration stating they followed all the requirements, per the appliance efficiency regulations. This language will be added to the declaration to ensure manufacturers are marking each spa and that the spa cover, which is an important key factor in the spa efficiency is sold with the spa. This assures the consumer that the spa will have the same energy efficiency as reported.

Next, we'll move on to Section 1607, which covers the marking of appliances. This section establishes and describes the labeling requirements for all portable electric spas.

a) Indicates the label applies to spas manufactured on or after June 1st, 2019 where the label shall be located and that the label can only be removed by the consumer.

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b) Indicates the label shall follow the label specifications we have set. And if the spa has been tested with multiple spa covers, the label shall display the spa cover unit combination that yielded the maximum normalized standby power.

First, this provides manufactures a clear direction on how to develop the label. Second, this ensures the consumer sees the label and becomes informed about the energy performance of the spa. Also labeling a spa with the spa unit combination that yielded the maximum normalized standby power creates a less burdensome way to update the label and allows retailers to better inform customers what the opportunities are while presenting the worst-case scenario.

So continuing on, this part states how the label should appear and directs you to Section 2 for instructions on formatting the label. Each requirement in the label is necessary to ensure consistency between the labels, allowing a consumer to quickly and easily compare spas. And to ensure that the spa model they chose is sold with the cover that yielded the efficiency results on the label.

a) through e) are general requirements such as font color, the minimum dimensions of the label and the color of the graphic on the label.

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- f) and g) indicates which title shall be used for the various spa types and the format. The title informs the consumer which spa type the label is describing and informs the consumer this label is about the energy performance of the spa.
- h) states the formatting for listing the manufacturers name, model number and capacity of the spa.
- i) and j) states the formatting for listing the rated volume. Again, this allows the consumer to easily compare spas.
- k) requires the label to state the resulting normalized standby power from the test.
- 1) states the format of the normalized standby
  power value on the performance scale.
- And m) states the format of the performance scale. These help the consumer to quickly, easily and compare spas and inform the consumer of the energy performance of the spa.
- 22 n) states the format of the performance bar range 23 values.
- And o) requires the label to state the volume
  that applies to the maximum standby power value of the

standby power range on the performance scale. For example, on the portable electric spa's label the performance bar scale has a range from 50 watts to 450 watts. A spa with a water capacity of 1,145 gallons has a standby power limit of 450 watts. This gives the consumer an idea of the spa sizes that fit within this range, which is another way to compare the efficiency of spas.

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p) covers the format and the statement that should read on the label. The main take away from this part is that the maximum standby power allowed, the duty cycle, an estimate of the total power consumption, the tested cover manufacturer and the tested cover model should be listed on the label.

And these requirements help the consumer identify the standard limit, understand how the total annual power consumption was derived, allows them to estimate the cost to operate the spa and informs them which spa cover yielded the results on the label.

- q) states the format of the resulting maximum standby power value and the total annual power consumption value.
- r) states the label to state the power calculated based on standby mode testing.
- s) requires the label to state that the label can only be removed by the consumer.

Parts 3 and 4 indicate that the label should be easily removed and printed on a white polymer label or the equivalent.

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And so here's an example of the proposed labels. The portable electric spa label is applicable to standard, inflatable or the standard spa portion of combination spas. The exercise spa label is applicable to the exercise spa portion of combination spas and exercise spas.

And now we'll cover our analysis on technical feasibility. The feasibility of our proposal relies on the data we received in our Appliance Efficiency Database. The data on the chart represents entries certified to the database, as of March 2017. During this time, more than 1,300 entries were in the database, however only approximately 960 entries were used for this analysis due to anomalies in the data set.

More than 94 percent were standard spas, 5
percent were exercise spas, and less than 1 percent were
combination spas. The chart displayed on this slide shows
the feasibility of these models against the proposed
standards. The blue curve is the current standard and the
red curve is the proposed standard. And the green dots
symbolize the data certified in our database. Noncompliant
models are those above the red curve. And compliant models
are those below the red curve.

For standard spas, approximately 79 percent are compliant with the proposed standard. For exercise spas, 58 percent are compliant with the proposed standard. And for combination spas, about 44 percent are compliant with the proposed standard. So taking a closer look at the chart, the picture on your right shows the proposed standard provides some relief for smaller spas, with a volume capacity of less than 180 gallons.

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And now we'll move on to the technical feasibility for the inflatable spas. The feasibility for this proposal relies on docketed test lab reports provided by the inflatable spa industry. The green dot on the chart is the resulting normalized standby power of an inflatable spa currently in the market. It is 2.7 times the current standby power limit. That model was tested with all its contents, which includes an external pump, heater and blower system, a PVC vinyl cover, an inflatable bladder, and a ground cover mat. The purple squares are two prototypes the inflatable spa industry has developed that are approximately 1.5 times the current standby power limit, by improving either the spa cover or the structure of the spa.

This recent development and discussions with the inflatable spa industry led to a separate standard proposal for inflatable spas. The blue curve on this chart is the

current standard. And the yellow curve on this chart is the proposed standard. Noncompliant models are those above the yellow curve and compliant models are those below the yellow curve.

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Presently there are no compliant inflatable spas, but we estimate 33 percent will be compliant when the standard goes into effect. The proposal will provide inflatable spa manufacturers time to innovate, develop and test inflatable spas that will meet the proposed standard.

At this moment, I would like to recognize the inflatable spa industry for their commitment and effort on developing these prototypes and for working with the Energy Commission to reach this proposal.

Staff still believes based on the data set that we have in our database and discussions with the inflatable spa industry that improvements can be made. Products may increase their efficiency by using better insulating practices and insulation materials, improving the pipe layout, improving spa cover designs and the insulation materials within the spa cover, incorporating radiant barriers and improving the controls.

In addition, the proposed standard and test method are performance based and technology neutral and are accepted by the industry.

Now, we'll cover the cost effectiveness of our

proposed regulations. Our methodology for cost effectiveness is still based on reports and studies of the differences between a noncompliant spa and a compliant spa. It is also based on comments provided by the spa industry.

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Table 3 shows the life cycle cost and benefits per unit. The life cycle costs include the incremental cost to produce a more efficient spa and the labeling costs. The life cycle benefit is the profuct of the energy savings per unit, the life of the unit and the average retail price of the electricity.

The incremental cost for standard spas is \$100.34. The incremental cost for exercise spas is \$230.34. And the incremental cost for combination spas is \$231.51. And for inflatable spas, it is \$100.83. As you can see, the benefits exceed the life cycle costs, making this proposal cost effective.

Now we'll cover the statewide energy savings for this proposal.

Beginning with standard spas, exercise spas and combo spas, the estimated total is 18.6 gigawatt hours after the first year and approximately 218 gigawatt hours after complete stock turnover. The energy savings includes the savings between a noncompliant and a compliant spa and the potential savings for applying a label.

Here are the energy savings for the inflatable

spa proposal. The estimated savings total 7.4 gigawatt hours after the first year and approximately 24 gigawatt hours after complete stock turnover. Again, these savings include the savings between a noncompliant and a compliant spa and the potential savings for applying a label.

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So that covers our presentation for portable electric spas. I'll now continue with battery charger systems.

The current regulations require manufacturers to mark all battery charger systems with the letter BC inside a circle. The proposed regulations would modify the current regulations by making the BC marking requirement applicable to only state-regulated battery chargers, eliminating the need to provide the BC mark for battery chargers that are federally regulated consumer products.

Here is the proposed language for battery charger systems in Section 1607, which covers marking of appliances. We will be amending the marking requirements for battery chargers by adding "state regulated" to the marking requirement language.

Federal efficiency standards for battery charger system stake effect for products manufactured on or after June 13, 2018. The federal standards do not include a marking requirement for these products. This proposal removes the marking requirement for federally regulated

battery chargers and insures the requirement only applies to state regulated battery charger systems. Thus, this change is necessary to align the state and federal marking requirements for battery chargers.

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And that covers the presentation for battery chargers. Now, we'll continue on with the Initial Study and Proposed Negative Declaration.

As part of the formal rulemaking process, we have prepared an Initial Study to assess the potential significant effects of the proposed regulations on the environment. The Initial Study demonstrates that the proposed energy efficiency regulations for spas and battery chargers will not have any significant adverse effect on the environment. Therefore, a Negative Declaration is the appropriate environmental document. The Initial Study includes an environmental checklist supporting this finding. Comments regarding the Initial Study and the Proposed Negative Declaration are due by 5:00 p.m. on March 19, 2018. Today's comment period is also an opportunity to comment on the Initial Study and Proposed Negative Declaration.

To obtain a copy of the Initial Study and the Proposed Negative Declaration you can go to this link, which is the link to our docket, or you can contact our office technician to obtain a copy.

Now we'll go on to the next steps following this presentation. So currently we are at the 45-day comment period, symbolized by the blue box and the green box. The blue box highlights the first step in the formal rulemaking process by publishing the Notice of Proposed Action, the Initial Statements of Reasons, the 45-day proposed language and the Final Staff Report. The NOPA was published on the Notice Register on February 2nd, beginning the 45-day comment period. And we are here discussing the proposed regulations to seek comments from the public and stakeholders regarding those proposed regulations.

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The next step is to analyze and address the comments we received and if we determine there is a need to change the proposed the regulations. And then we will present the proposed regulations in front of the Commissioners for a vote to adopt the regulations.

Here are all the available documents. Again, they are available on our docket log at this link, or you can contact our office technician to obtain any copies of these.

For just a reminder, comments are due by 5:00 p.m. on March 19. There are various ways to submit comments. You can submit them electronically, using the link on this slide. Of you can send a hard copy to the address on this slide, or a digital copy to the docket

email. Just be sure to include the docket number and the correct title in the subject line.

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The adoption hearing is scheduled for April 11, 2018. If we continue the rulemaking without 15-day language this is the schedule of date for the adoption. And if we determine there is a need to initiate a 15-day comment period and change the proposed regulations, we hope to still make this adoption hearing. If there is a delay, we will move it on to the following adoption hearing and provide a notice to the public regarding that.

And at the adoption hearing oral comments will be accepted, but will be limited to three minutes per speaker. And then again, just a reminder for today's meeting oral comments will be accepted at today's meeting, but may be limited to ten minutes per speaker. Interested parties may also comment on the Initial Study and Proposed Negative Declaration. And all comments will become part of the public record of this proceeding.

This concludes my presentation. My contact information is on this slide. Feel free to contact me with any questions or concerns. At this time, I will take any questions regarding this presentation. Substantial comments and general statements should be saved for the comment period, after the remaining presentations.

I'll start with the room. Does anyone have any

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1
    questions on the presentation? No? How about online?
                                                             No?
 2
               (No audible response.)
 3
              Oh, if you have a question, for those online
 4
    please raise your hand so we can unmute you.
 5
              COMMISSIONER MCALLISTER: How many people do we
    have online?
 6
 7
              MR. TIMOTHY: I'm counting 32.
              COMMISSIONER MCALLISTER: Thirty-two, okay.
 8
9
    encourage people to ask any clarifying questions if they
10
    have them. Don't be shy.
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               (No audible response.)
12
              MS. LOPEZ:
                          I guess we don't have any questions
    right now, so we'll just go on a break for five minutes?
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    Wait, we do have a question?
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              COMMISSIONER MCALLISTER: I'm wondering if it was
    so crystal clear that it's just absolutely no doubt as to
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    what's being proposed or if people are stunned into
18
    silence, so I guess it's hard to tell sometimes.
19
              But we tend to have a lot of knowledgeable
    stakeholders in a proceeding like this. So sort of I think
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21
    there's some who have got to be here to sort of keep tabs
2.2
    on what the Commission is doing and make sure we're not
2.3
    doing something crazy egregious from your point of view.
    All of this to me, to my mind sounds pretty reasonable.
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25
    And obviously the paybacks if anybody has questions about
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how -- you know, the assumptions underlying those, because those are pretty stellar cost effectiveness numbers.

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But look any concerns, certainly now clarifying questions, but later on in the day more concerns and substantive questions, you're more than welcome. That's what we're all here for.

MR. TIMOTHY: All right. Jason Sin do you have a question? You've been unmuted.

MS. LOPEZ: In the chat box, he has a question about battery chargers, "Not sure what the difference is between state regulated and federally regulated are."

MS. DRISKELL: Okay. This is Kristen Driskell with the -- I manage the Appliances and Outreach and Education Office. The difference between a state regulated and a federally regulated battery charger is pretty simple. A battery charger that is regulated under federal law, the standards take affect June 13th, 2018. So if you're covered under those efficiency standards you'd be federally regulated. If you're not and you meet the definitions of a state regulated battery charger, then you're state regulated. So the marking requirements would no longer be required for those products that are covered under a federal battery charger standard, as of June 13th.

MS. LOPEZ: There's also another question.

"Where is the new energy label template located?" So the

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new template will be located as part of the proposed
 1
 2
    regulations when printed by the Secretary of State.
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              MR. TIMOTHY: Kevin, are you available for a
 4
    question?
 5
               (No audible response.)
 6
              MS. LOPEZ:
                          Okay. So I guess that covers all the
 7
    questions right now.
                          I guess we'll take a five-minute
    break and return for stakeholder presentations. Wait.
 8
                                                             We
9
    have another question.
10
              MR. TIMOTHY: Okay. David, you're unmuted.
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              MR. MACIEL: Yes, hi. Can you hear me?
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              MS. LOPEZ: Yes.
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              MR. MACIEL: Yeah.
                                  My questions is to what
14
    degree has the BC mark been instrumental for the Commission
15
    to demonstrate compliance or to verify compliance, so that
    the Commission feels that the BC mark must remain for state
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17
    regulated battery charging systems?
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               MS. DRISKELL: Hi, David. Thanks for the
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               This is Kristen Driskell with the Appliances
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    Office.
21
              The mark has been instrumental for our compliance
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    and enforcement efforts related to battery chargers,
23
    providing a quick way of checking whether a battery charger
    on the shelf complies with the battery charger standards,
24
25
    which is why we are proposing to maintain that mark for
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1 state regulated battery chargers. 2 For our federally regulated battery chargers, because the standards would be effective nationwide and 3 4 enforced at the point of import, we feel it was unnecessary 5 to have a separate mark that would just apply to California when the standards were the same. 6 7 DAVID: Okay. Thank you. Any more questions? I'll just wait 8 MS. LOPEZ: 9 a minute. You can also submit your questions through the 10 chat box and we can answer them during the comment period as well. 11 12 All right, so let's just take a break and return at 10:50. 1.3 (Break taken at 10:55 a.m.) 14 15 (Back on the record.) MS. LOPEZ: So I just want to remind everyone 16 that's online if you could lower your hands, just so we can 17 18 start fresh when the comment period starts. Our first 19 stakeholder presentation is APSP, The Association of Pool 20 and Spa Professionals, presenting would be Mike McCaque. 21 Mike, you should be unmuted. 2.2 MR. MCCAGUE: Mike McCague is here. 23 MS. LOPEZ: Okay. So Mike, just let me know what 24 page you want to start with.

(No audible response.)

25

1 Mike? Hello, Mike? 2 COMMISSIONER MCALLISTER: We seem to have lost 3 you, if you could reconnect. You're still unmuted. MS. LOPEZ: Mike, you're unmuted. 4 5 (Off mic colloguy re: audio.) MS. LOPEZ: Let's move on to the next stakeholder 6 7 presentation and give Mike some time to adjust. So we have the next stakeholder presentation is from the IOUs. 8 9 begin with Charles Kim. MR. KIM: 10 Thank you. I'm Charles Kim. 11 you, Commissioner. I'm Charles Kim of the Southern 12 California Edison Company. I'm speaking on behalf of the California investor owned utilities today. 1.3 14 This has been a long, very long journey. 15 started this journey in the year 2012. And looking back, I 16 know the reason why it took so long. Because of the CEC's 17 incredible efforts that has been put on this particular 18 measure. We looked at the definitions together, updated 19 and defined and fine-tuned and that is what is presented 20 here today. 21 The year 2014, ANSI updated its test procedures. 2.2 CEC examined and embraced those test procedures and that is 2.3 what is presented today as well. 2.4 Our customer has choices. And CEC has spent an 25 incredible amount of time looking at the labeling

requirements in a way that regular consumers, when they look at the label, a choice would be energy efficient choices by simply looking at the labels. So when you look at those slides that were presented today there are many, many, many pages of requirements. And one needs to be there — even the scale needs to be there, so that when people look at those labels, they can compare which one is better one and which one they can afford.

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So that level of detail has been given on this rulemaking, not to mention there were several workshops presented. In the year 2014, there was a one workshop. The year 2016, there were two workshops. And the year 2017, there was one workshop. The reason was CEC is listening and incorporating comments to come up with sensible, reasonable regulations.

In my opinion, stakeholders had ample amount of time to understand the intent of CEC's direction here, to establish and update the energy efficiency regulations on spas. And then when this one is updated manufacturers are going to have a one additional year to modify their designs, if their product doesn't meet the updated standards.

Staff's incredible report: easy to read, well documented and it demonstrates the three key elements. It demonstrates that the proposed regulation is technically

feasible, cost effective and not to mention, there will be 218,000 kilowatt hours per year of energy savings when all the existing stuff is overturned -- turned over, so this one brings savings and benefits to California. Not to mention that in California we have an incredible charter and mission to reduce GHG, greenhouse gas reductions.

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And this measure is going to certainly help that while people, our customers, enjoy a spa on a daily basis or on their regular basis, either a big spa or a small spa, doesn't matter.

So what I want to say here is that I stand here and support what is proposed broadly. And I wanted to take a moment to say thank you for staff for this long journey, but necessary journey, because you pay attention to details and not to mention that you listen to all the comments, incorporate those comments, update the definitions, and would reach this far. So I'm incredibly thankful for all your efforts.

So once again, I'm standing here broadly supporting proposed language on behalf of the California IOUs. And my partner is going to give a presentation that goes a little bit more in detail into it. Thank you very much.

COMMISSIONER MCALLISTER: Great. Thanks for coming.

MS. LOPEZ: Thank you, Charles.

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Now we'll move on to Chad Worth, from Energy Solutions, who's representing the IOUs.

MR. WORTH: Thank you, Jessica; thank you, Charles; Commissioner McAllister and CEC staff and those on the call, thanks for the opportunity to present today.

Just to do a little bit upon what Charles has said or detailed the California IOU's thoughts and we'll certainly be providing more detail in writing, in a couple of weeks.

Like has been mentioned before, the IOUs have been very involved in the development of portable electric spa standards from the original standard that took effect in 2006, to being engaged with some of the testing that followed, up until the point of working with CEC to begin a new rulemaking to update the standard years later.

This has been said before. We've been through many staff meetings. I'll just point out at a high level this measure started out as just a labeling initiative.

And CEC asked, looking at the data, "Hey, why don't we look at updating the standard level as well?" We took that, as the IOU team and reached out to our colleagues with the Association of Pool and Spa Professionals-14 Committee, which does their hot tub and spa work and engaged them in negotiation in 2014. That ultimately led to most of the

proposal that we see here today. We've appreciated that collaboration with the APSP-14 Committee and working with CEC staff at all the workshops since.

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Like Charles mentioned the IOUs broadly support this proposal. It's going to deliver a cost effective, achievable and significant statewide energy savings on the order of 242 gigawatt hours, after stock turnover. I believe the June 1st, 2019 date is very reasonable.

And really there's four main changes that this staff report and 45-day language makes. It clarifies the definition scope of portable electric spas. It provides an updated standard, specifically new is the inflatable spas. There's the label, which is a really innovative and key part of this effort. And then there's some new reporting requirements I'll go into more details on.

As has been mentioned, the definitions for spas needed updating. I think when the first spa standard was passed inflatable spas weren't really a thing, or at least most of us had not heard of them. And so there's been some needing some updating to a definitions and I commend CEC staff on their framework they've developed for definitions. And I think we've done a good job encapsulating all that is out there in the market appropriately.

The standby standard for traditional spas or standard spas, more than 75 percent of the models in the

CEC database will meet this standard. I believe it was yield a roughly shipment-weighted savings of about 8 percent per spa, if I remember correctly. I think this is very reasonable in a strong but modest update to the existing standard.

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The inflatable spa standard level, the IOUs understand the utility provide by these spas, especially those that may not be able to afford a larger, standard spa. And certainly commend CEC for taking the leadership and working with industry. And also, the industry partners have been, I know, thinking and working and pushing hard on how to get the standby demand for these spas down. And I think they did reasonable job of that in creating an achievable but a stretch level for these spas to achieve.

As mentioned, the label is a key part of this overall rulemaking. This is broadly the consensus label that we worked with the APSP-14 Committee on. We still support it. I have a few slight modifications and suggestions I'll get to in the next slide.

As far as the suggestion for improvement to the label these are very minor things, but when we get to the 45-day language we really start going through with a fine-tooth comb. One suggestion would be to spell out U.S. gallon somewhere on the label. USG is not perhaps apparent to all consumers if it's a consumer facing label, a very

minor issue. And this, I think relates to some of the other comments that industry has regarding the tested cover manufacturer and model. Right now, in the staff report it's plural as we understand.

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The standard, the label will reflect the cover manufacturer and the model number for the spa cover combination that uses the most energy or is least efficient. So listing multiple manufacturers and multiple models of covers is not applicable under the current standards framework.

For the standard exercise and combination spas, we'd like to see the label actually on the shell of the spa, perhaps vertically oriented six inches from the top, not on the skirt. And I put a picture up here just to show often spas on showroom floors get very compact. As someone who used to work on a spa showroom floor we try to squeeze as many in as possible. And putting the label on the spa skirt is very -- there's a good perhaps a three in four chance that it's either facing a wall or another spa and may not be visible. Putting it on the shell six inches from the top, I think, would ensure the intent of the label.

And finally, for inflatable spas they come in a box. Putting it on the shell is likely not to influence any consumer purchasing. We'd like to see if there's a way

1 to require that to be on the box. So if either the 2 consumer is shopping at a Walmart or Target, they can see 3 it there before putting it on their cart or online. At 4 least it would be somewhat visible on the box and encourage 5 more efficient inflatable spas. As far as the reporting requirements, not a whole 6 7 lot has changed. I do want to commend CEC for clarifying and reporting both the fill volume and the rated volume. I 8 9 think that's useful information to have when looking 10 through the data set. And I suggest adding because they're 11 going to be collected, if it's not too much additional work 12 anyways, to report the minimum and maximum water 1.3 temperature to Table X, as well as they're already proposed 14 to be collected in the report. It would just provide 15 another data point for consumers and those of us that look 16 through that data on a regular basis. 17 So with that I will be providing more comments in 18 detail. And again, thank CEC and the Commissioner for the 19 opportunity to present today. 2.0 2.1 2.2 COMMISSIONER MCALLISTER: Thanks for your being 2.3 here. 2.4 MS. LOPEZ: Thank you, Chad. 25 Now, we're going to go back to Mike from APSP.

1 MR. MCCAGUE: Hi, this is Mike McCague with APSP.

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MS. LOPEZ: Hi, Mike. Let me know what page you want to start with.

MR. MCCAGUE: Okay. Let's go to the beginning of the comments. While that's being found, I am representing the International Hot Tub Association today as well as APSP-14, the Standard Rating Committee. We should also have Angelo Pugliese on the phone, who is the Chairman of the APSP-14 if additional questions come up.

I want to take just a quick second to thank the CEC for an invitation to comment on the language. We've been working with the group, as Chad pointed out, for quite a long time. And it looks like we're near the end of this update, which is very good.

So we have a few comments from the latest language and I think more editorial in regards to how this is all coming together. But one thing we noticed as we reviewed this is in the first Comment 1, that the intent is to adopt the APSP-14 Standard nearly as a whole. And we found that the number of definitions are new, which can be added to APSP-14 or they were altered from APSP-14 and we felt that there might be some confusion if you're reviewing the CEC definitions versus the APSP-14 definitions as you go through this. And we're hoping to harmonize the definitions where at all possible.

So that would be Comment 1 is basically just interpret -- you know, taking these APSP-14 definitions as they are.

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Comment 2, if you can then just stroll down? So Comment 2 is the combination spa. We recognized that that has not been formally defined in the APSP-14 and we will make an effort. And again, we'll get with the committee offline here and add this language to the APSP-14 Standard.

The recommended language that we have, which I believe is different than what is proposed by the CEC is:
"Combination Spa: Variant of a spa and swim spa consisting of the combination of two separate basins with independent water temperature controls. One side is dedicated for exercising at a lower water temperature and the other for elevated temperature soaking/hydrotherapy massage." And that will basically cover both sides and I will cover part of the other rationale in a moment here.

Comment 3 was the exercise spa, it is only an abbreviation in the CEC language and we do recommend adopting the full APSP-14 definition or referencing it in some manner.

Comment 4 is the exercise spa portion. We feel that that's not necessarily needed, given that we have a definition of an exercise spa is and what a combination spa is. That there's a section for swimming and a section for

hydrotherapy at a higher temperature and we feel that adding this is unnecessary.

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Comment 5, APSP does not have a definition of the inflatable spa. We will be working -- we have been working actually with the inflatable group for the past two years and also will look at adding this information to the standard, hopefully this year depending on what the schedule is. Next page?

comment 6 is the definition of the portable electric spa. We had a question, which can be followed up later, but it was noted that as part of the definition the equipment could be sold separately for subsequent attachment. And we felt that was confusing, which would suggest that you can buy kit spas with multiple different pieces and then put them together. And that kind of defeats the purpose of having a factory built portable electric spa, whether it be a swim spa, a conventional portable hot tub or even the inflatable. These need to be complete kits at the time of purchase, so that the data can be proper and they can be tested as complete units. And so we don't understand the need for that additional language in there, because it adds confusion.

Comment 7, a standard spa not well defined. We don't believe that's needed. I understand what the intent was with all of what the CEC has proposed, but adding the

term "standard spa" now suggests that there's something different than the spa. And so when we consider spa as being, I think as Chad had in his definition matrix there of the different spa types, spa being a hot body of water. And then of those there are subsets: exercise spas, combination spas, inflatable, we don't feel that it's necessary to have the standardized spa definition. Especially because it's really only used in relation to the combination spa definition, which can be adjusted.

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Comment 8 was the standard spa portion. Again, that is affiliated with the standard spa. It's taken that this is the hydromassage section, the high temperatures section of the combination spa. And again, we don't believe the definition is required.

Comment 9, new language is capping. This is something we found interesting, to maybe be discussed at another point. But when we originally created the labels for the portable electric hot tubs and spas we kind of arbitrarily set a maximum volume, maximum energy for the exercise spas and then an energy level for the portable electric spas. And when that calculates out under the new formulas we now have caps on the volume of water. And we're a little concerned, the industry is, that that's potentially eliminating large regular hot tubs from the portable electric spa label. If you have a hot tub that's

over 2,000 or 1,200 gallons, which is conceivable to have a very large unit, where does that now lie? And so that's something that I think we need to look at.

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Comment 10 standby mode definition, to summarize again we'd recommend using the APSP-14 definition in full.

A quick comment on the test methods, the -- we understand in terms of noting the serial number in the test reports, but are we -- it looks like the serial number is also required to be submitted to CEC as part of the data submission. We're just curious for the need on that.

Obviously it's for tracking, but is it really necessary?

There is a reference in the standard to Section 8.2 in the language. And I believe we've had this discussion in the past that that is not the correct reference. It should be 6.3 for the test, actually that is the swim spa energy limit calculations.

Comment 13, what was that? So that was just simply to add this section to APSP-14 with the proper wording to ensure that we attach into this correctly.

We had a couple of quick questions and comments on the marking of the products specifically to the multiple cover scenario. And we understand, I think the way that it's currently written at least in APSP-14 is if there's multiple covers you would then list all those covers and those manufacturers. And then list the highest energy

consumed, worst case on the label. But we're finding that if there's not enough room a) to put all those different covers and the manufacturers and; 2) we're missing an opportunity to advertise different energy options.

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If we're only putting the worst cover on there we couldn't -- we're missing the opportunity to then show that well if there's more efficient covers on there and you can save X amount of energy per year. So we're wondering, thinking about doing either the ability to add the multiple energies for these different covers on the one label. Or maybe simpler is having multiple labels on the spa reflecting the different cover options. This way it's easy to see that okay if I'm buying it with this cover it's 200 watts. If I buy it with this more energy efficiency cover it's 150 watts. And that gives a better visual to the consumer and they can make a better efficiency choice.

Comment 15, let's see we're almost done here I believe. Oh, there was a question then I guess we can think of stuff afterwards on reporting every single combination of cover and spa in the database. I'm just checking to see if that's the intent or if we're only registering the spa and the worst case cover when we're registering these products. Next page?

And the last question was just a commentary in regards to the addition of the user capacity to the label,

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    this being the number of occupants that the spa will hold.
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    We're just questioning the need to have that on there as
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    this is pretty much common language used in all these point
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    of purchase and point of sale literature. And if this is a
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    necessary item to add to a small thing it's not going to be
    easy to see, and we're just questioning the need to add
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 7
    that on the label itself.
              With that, I look forward to continuing to work
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9
    with the CEC on the language and get it into law as soon as
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    possible. Thank you very much.
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              MS. LOPEZ:
                           Thank you, Mike.
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              And for all the stakeholder presentations that we
    have today we will review the comments and the
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    recommendations and address your comments soon. Now we'll
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    open it up to the comment period.
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              Does anyone -- so I'll begin with anyone in the
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          Does anyone want to comment on the proposed
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    regulations or the Initial Study and Proposed Negative
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    Declaration?
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               (No audible response.)
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              All right, let's see if anyone online has a
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    question or comment? Please raise your hand, so we can
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    unmute you.
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              MR. TIMOTHY: All right, Matthew, you've been
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    unmuted
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              MR. VARTOLA: Yes, this is Matthew Vartola.
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    representing Bestway, a manufacturer and distributor of
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    inflatable spas.
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              I just wanted to take this opportunity to thank
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    the Commission, specifically with Ms. Lopez in her
    cooperation and willingness to work with us to develop a
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    standard that is quite fair and reasonable for the
    industry. So thank you.
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              MS. LOPEZ:
                          Thank you, Matt.
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              Are there any other comments? We'll stay on the
    line for a minute.
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              MR. TIMOTHY: David, you've been unmuted
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              MR. MACIEL: I'm sorry, but I already spoke
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    before.
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              MS. LOPEZ: Like I said, I'll just wait a minute
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    to see if anyone else has any comments.
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              MR. TIMOTHY: Jennifer, you've been unmuted.
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              MS. HATFIELD: Thank you. This is Jennifer
    Hatfield. I'm the Government Affairs Director for the
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    Association of Pool and Spa Professionals. And I just want
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    to take a moment to thank you on behalf of all our
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    membership, you know, specifically today the portable spa
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    and inflatable spa manufacturers for working with us.
    we look forward to continuing to work with you all on this
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    rule, but thank you so much.
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MS. LOPEZ: Thank you, Jennifer.

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So I'll just move on to our presentation for the next steps following this meeting as just a reminder.

So again, this is our rulemaking process. We're currently in the 45-day comment period. Following this workshop we will review your comments and recommendations and then continue on to the adoption hearing. We will publish a notice determining whether if we need to change the proposed regulations and initiate a 15-day comment period on that.

After the adoption hearing we will submit our final rulemaking package to the Office of Administration Law. Again, the adoption hearing is scheduled for April 11, 2018. Again, with or without 15-day language we hope to meet this adoption hearing.

So all documents associated with this rulemaking are available online on our docket log at this link. Or you can contact our office technician to obtain any of these copies. And comments are due by 5:00 p.m. on March 19. You can submit them electronically to our online docket or you can send a hard copy to the Energy Commission or a digital copy to the docket email address.

So thank you everyone. Here's my contact information. Please feel free to contact me with any questions or concerns. I thank everyone for participating

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in this rulemaking and that's today meeting.
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               (The workshop was adjourned at 11:22 a.m.)
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## REPORTER'S CERTIFICATE

the foregoing hearing was taken at the time and place therein stated; that the testimony of

I do hereby certify that the testimony in

said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of March, 2018.

Juliana Link CER-830

## TRANSCRIBER'S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of March, 2018.



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