# Meeting Notes: 3/17 AM 2026

*Posted April 9, 2026*

These notes summarize the content from the 2028 Title 24, Part 6 Code Cycle Utility-Sponsored Stakeholder Meeting on **Pool and Spa Heating and Process Steam**

If you are interested in providing input on any of the topics covered in this meeting, please email your comments to info@title24stakeholders.com by May 7th. Comments received after then may not be incorporated into the final version of the CASE Report.

## Quick Links

- ***Key Points from Meeting*** – Read through highlights from each measure and review feedback requested from stakeholders.
- ***In-Meeting Questions / Comments*** – Navigate directly to questions asked during the meeting and responses from CASE Authors
- ***Zoom Polls & Responses*** – Review the Poll Questions asked during the meeting and see the responses from stakeholders.
- ***Meeting Materials*** (available on Title24Stakeholders.com) – Review slides, measure summaries, proposed code language and more on our website.

## Meeting Information

**Meeting Date:** 3/17/2026

**Meeting Time:** 9:00 am – 11:00 am

**Meeting Host:** California Statewide Utility Codes and Standards Team

## Meeting Agenda

| Time | Topic | Presenter |
|---|---|---|
| 9:00 AM | Introduction | |
| 9:15 AM | Solar Pool Heating | Melissa Schellinger Gutierrez |
| 10:00 AM | Process Steam: Flash Steam Reduction and Recovery and Condensate Return | Ryan Swanson |
| 11:00 AM | Conclusion / Wrap-up | |

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## California Energy Commission

**Contact for 2028 Code Cycle:**

Any questions for the CEC can be sent to: EnergyCodeUpdateInquiries@energy.ca.gov

**CEC Docket**

Comments on the 2028 Energy Code update can be formally submitted to the docket: **https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=25-BSTD-03**

## Key Points from Meeting

The purpose and benefits of each measure presented at this meeting are noted below. Specific topics we are looking for feedback on are highlighted.

To provide input, email the CASE Authors noted above or send to info@title24stakeholders.com.

**Solar Heating for an Existing Pool and Spa**

- **Purpose**: Add a mandatory requirement that would require any existing nonresidential pool replacing an existing heating system to comply with one of the following: solar thermal pool heating, heat pump pool heaters meeting specified COP, gas heaters meeting specified thermal efficiency, or on-site renewable or site-recovered energy. Supplemental gas heaters are allowed after meeting any of the compliance requirements.
- **Benefits**: Significant reduction in energy use with large greenhouse gas emissions reductions. Cost-effective lower utility cost savings.
- **Feedback requested**:
  - Information on specific experience for solar collector product lifetime.
  - Experience with condensing gas pool heaters.

**Process Steam #1: Flash Steam Recovery**

- **Purpose**: Add a mandatory requirement that would require any newly installed process steam boilers with capacities at or above 10 MMBtu/h that are served by a pressurized deaerator to recover and route flash steam from blowdown to the deaerator or another steam load, with two exceptions.

- **Benefits**: Significant energy and water savings from process steam boilers, with energy savings approximately equivalent to 1-5% of baseline boiler system fuel consumption.
- **Feedback requested**:
    - Feedback on cost and market share assumptions.

**Process Steam #2: Condensate Return**

- **Purpose**: Add a mandatory requirement for qualifying newly constructed process steam systems and newly added process steam loads that use indirect-contact heat exchangers to return all uncontaminated steam condensate to the boiler for reuse.
- **Benefits**: Significant energy and water savings from process steam loads, equivalent to up to 8% of baseline boiler system fuel consumption.
- **Feedback requested**:
    - Feedback on cost and market share assumptions.

## In-Meeting Questions / Comments

During the meeting, questions and comments were submitted in the Q&A pane in Zoom as well as asked aloud. Answers are provided below.

Attendees were also asked to respond to polls. Navigate directly to the ***Zoom Polls & Responses*** by clicking the link.

Due to time limitations, not all written questions and comments were discussed during the meeting, but all have responses available in these meeting notes.

### Introduction

1. **Question asked via Zoom question pane by Craig Williams:** With climate change issues being important to respond to in meaningful and effective ways, on what basis can it be objectively argued to not updating the energy code applicable to residential

dwellings till 2031? Its seems there's an important opportunity that is deliberately being avoided for reasons that have not been expressed. Please explain.

   a. Payam Bozorgchami: We understand your concerns; however, at this time, AB 130 imposes strict requirements that prevent us from proposing any measures affecting Group R occupancies until 2031.

## Solar Heating for an Existing Pool and Spa, Melissa Schellinger Gutierrez

1. **Question asked via Zoom question pane by Steve Rosenstock:** Do you allow electric heat pump pool heaters as an alternate option (along with condensing gas)?
   a. Diana Burk: Yes, electric heat pump pool heaters as a primary heating system with a supplemental backup heating system is a compliance option in this proposal.
2. **Question asked via Zoom question pane by Craig Williams:** Related to my prior question, why have all R occupancy group pools been exempted from energy code update compliance till 2031? Transient lodging pools comprise a significant energy demand.
   a. Mikey Shewmaker: AB 130 imposes strict requirements that prevent us from proposing any measures affecting Group R occupancies until 2031.
3. **Question asked via Zoom question pane by Will Giese:** Hello, this is Will Giese with Soalay. I believe you spoke with my colleague Adam Chrisman. I want to point out that while condensing gas heaters are a good efficient option for gas, it should not be considered equivalent to heat pumps or solar pool heaters from an efficiency standpoint.
   a. Chris Uraine: Will Giese / Adam Chrisman. Thank you for comment. The Statewide CASE Team proposed this option to lower incremental first costs. We will provide analysis to show the savings provided by the condensing gas heater option.
4. **Question asked via Zoom question pane by Adam Chrisman:** We're also supportive of CALSSA's comments regarding creating a 6th compliance pathway when there is both inadequate SARA and on a case-by-case basis where the local enforcing authority (AHJ or otherwise) has determined that compliance is not possible through other pathways.
   a. Chris Uraine: Thank you for your comment. Please reach out to us with more details on your proposal.
5. **Question asked via Zoom question pane by John Norwood:** Why do you not have an exemption for commercial pools that do not have either the adequate roof space for solar or have the space to place heat pump water heaters outdoors?
   a. Diana Burk: Thank you for your comment. Commercial Pools that do not have adequate roof space for solar may be able to install heat pump pool heaters or condensing gas pool heaters. Commercial pools without the space for heat pump

pool heaters will be able to install either solar thermal pool heaters or condensing gas pool heaters.

6. **Question asked via Zoom question pane by Adam Chrisman:** Do nonresidential systems consider glazed collectors as well?
    a. Chris Uraine: Yes, glazed or unglazed collectors would be meet the requirements for the proposal.
7. **Question asked via Zoom question pane by Steve Rosenstock:** What size pumps do these assume? 1 hp? 5 hp?
    a. Diana Burk: For an Olympic size pool, 13 HPPH were assumed with a capacity of 140 kBtu/h.
8. **Question asked via Zoom question pane by Lisa Zarda:** Cost with being closed during installation?
    a. Chris Uraine: Hi Lisa please follow up with the Statewide CASE Team so we can discuss your comment in more detail.
9. **Question asked via Zoom question pane by Adam Chrisman:** Typically you wouldn't use a glazed collector for a residential pool, but you could for a larger pool volume (Olympic size).
    a. Diana Burk: Thank you for your comment. The Statewide CASE Team is aware that glazed systems can be used to provide solar heating for pools.
10. **Question asked via Zoom question pane by Dan Sizelove:** Performance trade-offs like condensing gas should be disallowed unless SARA assessment fails.
    a. Diana Burk: Thank you for comment. The Statewide CASE Team proposed this option to lower incremental first costs and to accommodate circumstances for certain existing pools based on comments we received. We will provide analysis to show the savings provided by the condensing gas heater option.
11. **Question asked via Zoom question pane by Craig Williams:** Will there be voluntary measures for R occupancy group to incentivize carbon emissions reduction / energy conservation, that if implemented by a pool owner / operator, effective programs such as carbon cap and trade and other financial incentives would be available?
    a. Payam Bozorgchami: Because of AB 130, there will not be any updates to the Voluntary measures Title 24, Part 11. For financial incentives, these are done through the local utilities.
12. **Question asked via Zoom question pane by John Norwood:** To expand on this question, most commercial pools have pool equipment in a mechanical room. In order to convert to heat pumps, the pool owner would have to place multiple heat pump water heaters outside and do the appropriate remodeling work to plumb the heaters. If the pool owners do not have access to additional floor space outdoors, it seems they should qualify for an exemption.
    a. Diana Burk: Pool owners without sufficient space for heat pump pool heaters could install solar thermal with gas back up or a gas condensing pool heater.
13. **Question asked via Zoom question pane by Lisa Zarda:** How does lifetime savings calculate for high temperature pools?
    a. Chris Uraine: Hi Lisa, the Statewide CASE Team performs an analysis to capture energy savings between the baseline gas heating system and the proposed solar

heating system with supplemental gas. The savings are summed over a 30 year period of study and compared to costs over that time frame.

14. **Question asked via Zoom question pane by Dan Sizelove:** Since a non-residential pool must maintain a specific flow rate, there is typically a booster pump for a non-residential pool to make up for the pressure drop of the solar loop. For a 60,000 gallon pool, a 3 hp pump should be adequate - cost about $2,500.
    a. Chris Uraine: Hi Dan, Thank you for your comment on assumptions for the incremental costs of the proposal.
15. **Question asked via Zoom question pane by Jorge Torres Coto Ruiz:** Every project that i have worked on that has a pool is always lacking a cover that is a mandatory requirement. Who is supposed to enforce this?
    a. Sean Steffensen: The authority having jurisdiction is responsible for enforcement and compliance with Title 24 requirements.
16. **Question asked via Zoom question pane by Dan Sizelove:** Use of San Francisco weather data for a typical northern CA non-residential pool is a poor choice - why not use Sacramento?
    a. Sean Steffensen: The CEC provides 16 climate zones to perform the energy savings and cost analysis. There are several climate zones in N. Cal. to capture difference in climate
17. **Question asked via Zoom question pane by Gregory Ceton:** Cost of heat pump pool heater installed square footage has not been included in previous studies? As CA land

costs in populated areas (where pools typically are) tend to be high, those costs must also be included in any cost analysis.

    a. Diana Burk: Thank you for your comment. Typically the cost of land is not included in the cost effectiveness analysis as it is assumed that land would have had to be purchased in both base case and proposed case scenarios.

18. **Question asked via Zoom question pane by Steve Rosenstock:** Is the pump energy included in the analysis (pump energy using solar versus pump energy using supplemental, or both in combination).
    a. Sean Steffensen: Enerpool – the tool used by the Statewide CASE Team - provides an input for the assumption of pool pump power.
19. **Question asked via Zoom question pane by James Phillips:** Olympic pool depth from slide 25: 6.6 ft is the minimum allowed, but 3m is recommended.
    a. Chris Uraine: Thank you for your comment on our assumption used in the analysis.
20. **Question asked via Zoom question pane by Dan Sizelove:** In an indoor pool, the air temperature is typically maintained at 2 degrees F over the pool water temperature to control humidity.
    a. Sean Steffensen: Thank you for your comment on our assumption used in the analysis. We chose 82 F air temp for the 80 F pool. We chose 85 F for the 90 F pool due to comfort constraints. Please provide additional to us.
21. **Question asked via Zoom question pane by Amie Lewis:** What is the deadline for commenting on the restructured code? Thank you
    a. Sean Steffensen: Comments are requested by April 13.
22. **Question asked via Zoom question pane by Gregory Ceton:** @Adam - many pool uses do not function well with solar thermal as primary energy source. Gas as a compliance pathway is needed.
    a. Diana Burk: Thank you for providing your clarifying comment. We agree that especially for existing buildings, allowing condensing gas pool systems is an important compliance pathway.
    b. Adam Chrisman: '@Greg - I get that, but the compliance pathway does not account for a case-by-case basis. It's just an equal compliance option regardless of any of the factors that you mentioned. I don't disagree that certain applications could use one heating technology over another, but that's not what this pathway is contemplating.
    c. Sean Steffensen: Will Giese (Adam Chrisman): Hi Adam Thank you for comments. Let us know if you would like to follow up with a discussion on this topic.
23. **Question asked Verbally by Steve Rosenstock:** On the savings, you showed numbers for the gas savings, they were site energy savings, and then you had a source number, and the source number was lower than the site number. I wasn't sure how that was calculated because on a national basis, the source multiplier for natural gas is

anywhere from 1.09 to 1.23, and you're showing a reduction compared to the site savings, so I just wasn't sure what was happening in that calculation.

a. Melissa Schellinger Gutierrez: Thanks, Steve, for your comment. I will have to look into that. I'm not sure if I have the answer on top of mind
b. Sean Steffensen: Yeah, Steve, yeah, thank you for your comment. We are using multipliers for natural gas use, so we'll look into it to verify these numbers.

24. **Question asked Verbally by Will Giese: This is kind of a follow-on to Dan Seislov's question in this Q&A, which is that, is the intent of the condensing gas heater compliance pathway** irrelevant to the SARA that comes out of any particular installation, or is it if that can be a compliance pathway, if and only if the site doesn't meet the SARA requirement. So, for instance, if the site meets the SARA requirement for a solar pool heater. The compliance pathway that exists is just a solar pool heater, since it can meet requirement, or can you just choose a condensing gas heater, regardless of the space on the roof?

    a. Melissa Schellinger Gutierrez: Yeah, thank you for your comment, Adam. The way that, the code is currently written up is condensing gas heating is a compliance pathway that's not necessarily related to SARA, in that you can choose condensing gas heating, if that is the preferred option.
    b. Will Giese: I have one follow-up to that, then, which is that, from an lifetime energy use standpoint, then, the code is viewing condensing gas the same as a solar pool heater, essentially, even though one would be using gas, and the other one would be using thermal energy from the sun. See them as equal.
    **c.** Melissa Schellinger Gutierrez: Yeah, we understand that solar has, higher energy savings than condensing gas, and the way that, I guess, the code is currently written up, it has solar as a preferred option, number one, and then it has heat pump and then condensing, so it's kind of in this list form
    d. Will Giese: Yeah, but you're ranking them all equally, is my point, right? That's what I understood you said. I'm just trying to clarify. If you say one is listed first, then you have to choose that one, and then you go down if you don't meet other requirements, but it sounds like you could just choose condensing gas.
    e. Sean Steffensen: That's correct. We're trying to build in flexibility into this proposal to respond to stakeholder feedback regarding the initial proposal, but we are seeking additional feedback today and through the April 13th, so I look forward to your comments.

25. **Question asked Verbally by Gregory Ceton:** I just wanted to respond to Adam's, mention of solar being or the idea of condensing gas only being, or suggestion that it only be a pathway if SARA could not be met. And, part of the issue is really use cases. I've talked about this quite a bit with Diana Burke, who put together the proposal that was approved by the IECC, in which condensing gas is a pathway on its own. And the reason really is, to a large extent, it's very difficult for some pool uses to achieve set point heat that is sufficient using only solar. This is especially true in something like a permanent spa, where getting that temperature of heat into a permanent spa, the typical temperature being upwards of 95 to 104 degrees. It's difficult. It's just solar only. So that's the main reason why. It's also because we have a lot of demand for some form of gas heat, given its, lower space requirements, and also itsability to provide, strong

heating capabilities with limited, installation costs. So, that's really it. It's just the main reason, but I just wanted to give a little bit of that background.

**a.** Melissa Schellinger Gutierrez: Thank you, Greg, for your comments.

26. **Question asked Verbally by Dan Sizelove:** A thought back on the condensing, we've gone from what started out as if a pool is built or heated for the first time with gas, that it should have some other form of heating that's the primary. So I feel like we're kind of leapfrogging over what it was intended to be, if you want to heat a pool, whether it's non-residential or residential with gas. You just have to have solar, or heat pump, or one of the other compliance pathways. And now we're back to just allowing gas. I think there's a really key misconception with some on this call that solar's intended to replace the entire load of gas, and that couldn't be farthest from the truth. So the gentleman that was just saying that solar couldn't achieve the high temperatures of gas, that was never the point. That's like judging a fish by its ability to climb a tree. The point is that you keep that pool at a higher baseline temperature. Maybe it's 10 degrees, maybe it's 12 degrees, but whatever that is, it's 10 or 12 degrees that that gas heater does not have to run. And so we're going from saying, well, because we don't think that solar's going to be able to achieve what a gas heater can, which, again, it's not meant to say, let's just throw the baby out with the bathwater, and put a condensing gas heater in, and just heat it with gas. It seems like we've gone full circle to now just allowing gas again. Without any kind of supplemental, or I'm sorry, primary.
    a. Melissa Schellinger Gutierrez: Yeah, thank you for that, Dan. We agree the intent of solar thermal is effective when paired with gas pool heaters, and can meet pools to higher temperatures, like 90 degrees, while still providing cost-effectiveness. As Sean had mentioned, we had added the condensing gas heating option as a response to some feedback that we had, but we would love to get more comments in from other point of views, too, so thank you, Dan.
    b. Diana Burk: Thanks, Melissa, and I'll just interject, we talked about this quite a bit at the national level, and a lot of the committee members on both the 2027 IECC, and it was discussed also at ASHRE 90.1, that it was very important to provide the flexibility of adding a gas option. The point of the proposal is not to require solar thermal, it's to make the system more efficient overall, and make it more efficient in a cost-effective way.
27. **Question asked Verbally by John Norwood:** I guess it wasn't so much a question, it is a follow-up, on this idea of solar versus gas. You know, if there was no considerations of cost, you know, maybe you could do both. But, you know, what we've heard from a lot of people is that, you know, in the situations of, you know, swim schools and a number of other things, you know, you basically would have to have a duplicate system at a huge cost in order to meet the kinds of temperatures and things that are required. And this came from people that have experience in the area, so I just wanted to add that as a factor that mandating complete duplicate systems doesn't make sense either.
    a. Diana Burk: John, I'll take that question. That's another reason why we added condensing gas, because we didn't want to require a duplicate system. But I will say that the duplicate system of adding solar thermal and heat pump pool

heaters are cost-effective, so that additional cost is paid back through utility cost savings over time. Thank you.

## Process Steam #1: Flash Steam Recovery, Ryan Swanson

1. **Question asked via Zoom question pane by Craig Williams:** Have agency stakeholders considered coordinating with CalGreen water conservation measures to make water reclamation opportunities more effective?
    a. Emma Conroy: Thank you, Craig - we will follow up with you on this point.
2. **Question asked via Zoom question pane by Roger Baker:** I appreciate the changes to the Flash Recovery proposal, which is more restrained than what was outlined last year. The original proposal, while aspirational, would've been difficult to implement. The current proposal seems much more realistic.
    **a.** Emma Conroy: Thank you, Roger – we are glad to hear your thoughts that the current proposal is realistic and improved.
3. **Question asked Verbally by Emma Conroy:** Is there a specific percentage of flash steam from blowdown that has to be recovered? Do you need to calculate anything to that end?
    a. Ryan Swanson: Thank you, Emma. The answer is no. It's simply to route all flash steam generated from boiler blowdown to the deaerator. There is no percentage requirement, other than that, all of it, 100%, is deep pipe for the deaerator. And, there's no calculation required to demonstrate compliance. with this proposed requirement.
4. **Question asked Verbally by Emma Conroy:** Are there any restrictions on load alternatives to the deaerator if sites want to route their recovered flash steam to another load?
    a. Ryan Swanson: As written, we are proposing that if you route it to serve another steam load on-site, that that then qualifies, so it doesn't go to the deaerator as long as it's serving some other load. That would qualify as complying with this requirement. If anybody else on the team wants to clarify past that, let me know, but I think that captures it.
    b. Shafi Amoni: Yeah, the idea here is that the energy that would go out into the atmosphere is captured so if you have another means of capturing that energy that's more cost-effective, then piping it back into the DA, which we believe is kind of the simplest and most straightforward approach. The facility has the option to take another approach if they choose to.

## Process Steam #2: Condensate Return, Ryan Swanson

5. **Question asked verbally by Emma Conroy:** Hi Ryan, can you talk about how you're going to verify contaminated versus uncontaminated loads for compliance?
    a. Ryan Swanson: Yes, so number one, it will be clear on the drawings what steam is piped to a heat exchanger, and what condensate is piped from a heat exchanger to be returned to the boiler plant. But also, at the time of installation, inspection the task involved, the code enforcement official would be to see where the condensate is generated, so starting at that heat exchanger, then looking to the steam trap assembly just downstream of that heat exchanger, tracing that

piping back to the boiler plant, and seeing we're allowing for flexible design here, but checking that it passes through each step and ultimately makes it back to the boiler plant, so that may or may not include condensate receivers, and also condensate pumps. Could be electrical, could be steam-driven pump traps. We don't have any hard requirements on how the condensate gets back. But that pathway both in the drawings and on-site. It would need to be verified that the equipment is in place to return it to the boiler plant. And, actually, I may ask Shafi Amoni, my team member on the line here. Do you believe that answer fully captures the intent of where we're headed with this?

   b. Shafi Amoni: Yeah, I think you captured it pretty well. The idea is that any condensate that is not contaminated, or direct steam inject not as a result of direct steam injection, which you cannot, you know, return condensate. The dead condensate gets returned back to the system regardless of how it's returned, it could be your typical method of using an atmospheric flash tank, and then pump back, or high pressure return, so the idea is you're returning that condensate unless the distance is longer than shown on that exemption table.

6. **Question asked verbally by Emma Conroy:** Back on that code trigger table about the lengths. Are the lengths in the table referring to installed piping lengths, or the length, or the distances regardless of where the piping is, and can you reiterate what those calculations look like? In terms of figuring out if you qualify per this table.
   **a.** Ryan Swanson: Yeah, thank you, Emma. So, taking us back to this slide, vote trigger slide. Again, we've got the steam flow, there's a new load being added on the left. To see if the requirement applies, and then the linear length, which is the length, between the steam trap serving that load and the nearest condensate return tank or the deaerator, whichever is closer. And to answer your question, the way we have linear length defined here is the sum of all horizontal and vertical pipe runs. Therefore, to see if one qualifies for the trigger or not you would need to have an idea of what that pipe run looks like, and then sum up through the design drawings and starting in design phase all the horizontal and vertical pipe runs, so there is some math involved for both the designer as well as the code enforcement official, if there's a designer claiming that the system does not trigger the requirement. This is what would need to be back-checked. So, there is a summation where you would need to look at all those pipe runs and add them up. Again, we are seeking feedback on this. So if we have anyone listening here live, or who may be hearing this recording after the fact and you have thoughts on this, we do want to hear from you.
7. **Question asked verbally by Craig Williams:** I've noticed that I'm part of a number of different code discussion groups with DSA, and have been in on some of the CalGreen code discussion groups. And one of the things that we've noticed, collectively, is that we've been missing some opportunities to coordinate with other agency stakeholders so as to give some functional effect to cross-referencing. If and where appropriate, to give a better efficiency to how to, for example, with the condensate reclamation for some of the CalGreen water conservation measures that are both generally advisory and voluntary for many of the water reclamation provisions in Tier 1, 2, and 3 types of facilities. But has the California Energy Commission considered including some of those voluntary provisions with incentives for greater efficiency and water reclamation, particularly because in California, we're finding that water scarcity is becoming a more critical issue that is getting difficult to address. I'm just wondering about the coordination between

various bodies of code compliance, and particularly the advisory or the voluntary measures.

   a. Ryan Swanson: Thank you, Craig, for that comment. I don't have a direct answer, but maybe someone else from our team will. I also want to emphasize the point about water savings. Water is pretty cheap, and that's why the cost savings are not a major driver, like the fuel savings are for our analysis on cost effectiveness, but for the well-being of our state, it's a very important area. This may be an area we need to follow up on afterwards.
   b. Amy Droitcour: Yes, we will follow up with you on this, Craig.

8. **Question asked verbally by Roger Baker:** Just want to note that when you had the last meeting on the flash recovery and the condensate return, I had some questions, we had a good long offline discussion about the issues, and I appreciate the changes that you've made to the flash recovery in response to mine and probably other feedback as well. For those in the audience who have never participated in this kind of stuff, I think it was refreshing to know that you guys actually listen and take to heart what the audience members have to say.
   a. Ryan Swanson: Thank you, Roger. And yes, we did speak with other vendors and even end users who shared your perspective.

## Wrap-Up

The meeting concluded with a call for participation throughout the code cycle. Several future meeting dates were presented.

Please reach out to the specific topic lead or info@title24stakeholders.com with input on the measures presented today.

The meeting adjourned at 11:00 AM PST.

## Zoom Polls & Responses

### Solar Pool Heating

1. **What has been your experience with a condensing gas pool heater?**
   a. Craig Williams: No personal experience in specifying specific units. I rely on consultants with expertise for this.
   b. Jorge Torres Coto Ruiz: Positive.
   c. Roger Baker: None - never had such experience.
   d. Dan Sizelove: Condensing gas pool heaters require larger gas piping than standard gas pool heaters - sometimes up to 1-1/2". This may require an upgrade to the gas service.
   e. Isai Ayala: No experience.
   f. James Phillips: DOE estimates are for consumer/residential PHs, not commercial PHs that would be used in non-residential applications.

g. Mike IMEG : Nothing at this time.

**Process Steam: Flash Steam Reduction and Recovery and Condensate Return**

1. **What else should we know? Do you have any feedback on any of the assumptions or estimates made regarding this measure?**
    a. Craig Williams: No comments at this time.
2. **What else should we know? Are there market or technical barriers or solutions we should consider?**
    a. Craig Williams: Coordination with CalGreen code for water conservation efforts relative to condensate reclamation.