

[9:59 AM] Wan, Lisa

Good morning everyone! Friendly reminders: This meeting is being recorded. Please mute yourself. If necessary, I will mute your line if there's excessive background noise. If you are interested in presenting at the next workshop on Wednesday 12/15 on Recap on Slice-of-Day, please remember to contact the co-facilitators by this Friday 12/3 and send presentation materials to the co-facilitators by Friday 12/10. The next set of informal comments are due Wednesday 12/22, on the Need Determination and Allocation and the Recap on Slice-of-Day workshops. If you need to find the call-in information, schedule, or contact information for these workshops, they are included in the emails sent to the service list (scroll down). Housekeeping items: Please note that the Co-Facilitators will be releasing two surveys: one to rank the Elements and another to rank the Proposals. More information to be provided. Please note that the Co-Facilitators have scheduled an additional workshop on Storage for Friday 12/17; more information to be provided. For the Wednesday 12/15 meeting, the Co-Facilitators would like parties to present on their proposal and to provide a deck and a brief to the Co-facilitators.

[10:06 AM] Nancy Rader

Timing of the surveys?

[10:23 AM] Ed Smeloff (Guest)

How many years of historical data would CalWEA recommend for determining the NLR-QC?

[10:26 AM] Ed Smeloff (Guest)

Would the NLR-Based QC be the mean, median or some other value of the historical record?

[10:28 AM] Jose Torre-Bueno (Guest)

From the example NLR does not appear to depend on load is there a further calculation?

like 1

[10:29 AM] David (Guest)

Are today's slides posted anywhere yet?

[10:30 AM] Matthew Barmack

Jose Torre-Bueno (Guest), I have the same question/concern. It seems like NLR is just capturing the output of solar/wind in each hour of a slice. Maybe Dariush is proposing to focus on the high net load hours in each slice?

[10:30 AM] Daniel Drazan

Hopefully slides will be posted

[10:32 AM] Moussa, Effat A

do we have the slides of other workshops?

[10:33 AM] Moussa, Effat A

i mean previous workshops

[10:34 AM] Ric O'Connell (GridLab) (Guest)

Dariush, is it possible to show a comparison of monthly ELCC for wind to 75% exceedance for wind? (your earlier slide).

[10:34 AM] Chris Devon

Moussa, Effat A do we have the slides of other workshops?<https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/resource-adequacy-homepage/resource-adequacy-history>

like 1

[10:35 AM] David (Guest)

Slides from earlier workshops are here: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/resource-adequacy-homepage/resource-adequacy-history>

[10:35 AM] Moussa, Effat A

Thanks

[10:36 AM] Nick Pappas

David (Guest) Are today's slides posted anywhere yet? PG&E served most presentations on Monday; several presentations (incl ours - NRDC) were not ready by then. I will email out to the service list now. Thank you.

[10:37 AM] David (Guest)

Thanks

[10:38 AM] Daniel Drazan

Thanks

[10:41 AM] Colbert, Cathleen

Nick Pappas (External) PG&E served most presentations on Monday; several presentations (incl ours - NRDC) were not ready by then. I will email out to the service list now. Thank you. I just circulated Vistra & Gridwell's presentation to the service list as well. Thanks for everyone's understanding about the holiday!

like 1

[10:45 AM] Bridget Sparks (CAISO) (Guest)

Under slice of day, we are already restricting the samples to a certain slice of hours (whether 4 or hourly) for month or season. I see the NLR as taking the mean of that sample, whereas exceedance is selecting a different percentile of that sample. Is this the wrong way to think about each of these methods?

[10:51 AM] Jose Torre-Bueno (Guest)

The problem with this middle ground is it gives LSEs no incentive to flatten their load. All solutions that shape load are disincentivized.

[10:51 AM] Matthew Barmack

Bridget Sparks (CAISO) (Guest) Under slice of day, we are already restricting the samples to a certain slice of hours (whether 4 or hourly) for month or season. I see the NLR as taking the mean of that sample, whereas exceedance is selecting a different percentile of that sample. Is this the wrong way to think about each of the... I agree with you. It seems like a resource's contribution to net load is just its output, so I don't understand how NLR for an hour is different than a resource's output in an hour, and I am not seeing a clear proposal to aggregate those hourly values other than by averaging.

like 2

[10:53 AM] Steve Keehn

Differences in load profiles are likely more dependent on location (coastal v. inland) than customer classes.

like 3

[10:55 AM] Nuo Tang

but it seems that the worst day load for different LSEs could be on different days and different than the CEC's forecast of the worst day.

[10:57 AM] Jose Torre-Bueno (Guest)

This means that an LSE that encouraged its customers shift load would benefit other LSEs in general but would not receive any benefit to their own RA cost.

[10:58 AM] Olson, Scott

It would be good to hear from Lynn Marshall and CEC on if validating individual LSE load shapes is administratively too burdensome. Her presentation in the last workshop I thought implied that this was manageable.

like 1

[11:00 AM] Scott Murtishaw

Jose Torre-Bueno (Guest) This means that an LSE that encouraged its customers shift load would benefit other LSEs in general but would not receive any benefit to their own RA cost. I don't think this is necessarily true since the load shape is pegged to each LSE's actual contribution to the peak hour.

[11:09 AM] Paul Nelson-CLECA (Guest)

The Residential Baseline amount is based upon climate zones, Residential load shapes could be based upon those climate zones.

[11:10 AM] Scott Murtishaw

What matters for system reliability is contribution to coincident worst day.

like 2 heart 1

[11:14 AM] Ed Smeloff (Guest)

Coincident system peak would be determined for worst day (hours) in each month. Peninsular would have a different % contribution in August than it would in Feb.

like 1

[11:15 AM] Sue Mara (Guest)

I can't see the presentation

[11:19 AM] Barbara Barkovich (Guest)

Sue, I just emailed it to you.

[11:27 AM] Ed Smeloff (Guest)

A dry run in 2022 of the 2023 would make a lot of sense.

[11:32 AM] Nick Pappas

Ed Smeloff (Guest) A dry run in 2022 of the 2023 would make a lot of sense. I agree, it could be a beneficial (non-binding) assessment to include in LSE IIRP filings in the upcoming cycle.

[11:43 AM] Brent Buffington

Dariush Shirmohammadi, so NLR is hourly average production by month

like 1

[11:45 AM] Ed Smeloff (Guest)

NLR sounds like 50% exceedance.

[11:50 AM] Brent Buffington

Ed Smeloff (Guest) Hourly average wind production will be higher than hourly 50% exceedance due to high outliers.

[11:50 AM] Bridget Sparks (CAISO) (Guest)

It would be helpful to see a larger data set example of the NLR, I think your single data row doesn't provide enough detail and may be causing the confusion among parties

like 5

[11:52 AM] Nuo Tang

it seems to give wind/solar 100% QC value based on some averaging of historic data because it assumes that it's 100% "useful"?

[11:52 AM] Ric O'Connell (GridLab) (Guest)

+1 on Bridget's suggestion.

[11:57 AM] Ed Smeloff (Guest)

Full custom may not be that far off. It could be helped by a test run of 2023 forecasts by LSE.

[12:00 PM] Marshall, Lynn@Energy

CEC would still propose that LSEs submit their own (24) hourly forecast, and we evaluate.

[12:02 PM] Nick Pappas

This is an important point on trading. There is not an ability for two LSEs to share the same MW of a resource within a given month in the current structure, and expecting that the new structure will allow sharing / trading of the same MW within any given month asks a lot.

[12:08 PM] Ed Smeloff (Guest)

Hourly contracts for differences might work as a risk hedge.

[12:10 PM] Colbert, Cathleen

Brent Buffington - when you update your proposals for future can you add text to this point that it prohibits the obligation trading?

[12:11 PM] Nuo Tang

Is obligation trading allowed today?

[12:13 PM] Nick Pappas

Nuo Tang Is obligation trading allowed today? I've never heard of two LSEs showing the same MW of the same resource for the same month...

[12:14 PM] Carrie Bentley

The idea that an individual LSE would have to procure a battery to cover their individual deficiency (when a system deficiency doesn't exist) should be a concern to everyone - that increases ratepayer costs with no additional grid reliability benefit.

[12:14 PM] Nuo Tang

sure, but that's not obligation trading

[12:15 PM] Scott Murtishaw

Nick Pappas I've never heard of two LSEs showing the same MW of the same resource for the same month... It wouldn't make any sense in the current regime when the obligation is a point obligation for one moment in time.

like 1

[12:44 PM] Wan, Lisa

Restarting recording at 12:45PM.

[1:00 PM] Griffes, Peter

How is epsilon calculated and set?

[1:04 PM] Ric O'Connell (GridLab) (Guest)

How is the concern about batteries being dispatched incorrectly by the CAISO different than bad dispatch of other resources? Why are batteries special - do we not trust CAISO to manage state of charge?

[1:15 PM] Carrie Bentley

Hi Ric, I'd be happy to talk this through offline - the real-time scheduling of batteries has been a real struggle due to the mismatch between advisory prices and binding prices as well as inaccurate modeling of batteries round-trip efficiency at different SOCs. There are also some pretty significant price formation issues at the CAISO that aren't sending the right price signals during times of need

[1:17 PM] Brent Buffington

PRM as % of nameplate?

[1:22 PM] Nick Pappas

Some woodworking going on in the background

[1:23 PM] Nick Pappas

Ah sorry thought that was someone else's mic!

[1:44 PM] Carrie Bentley

This is last slide.

[1:57 PM] Navis, Kyle

Will the Gridwell-Vistra slides be sent out today? Or posted somewhere?

[1:59 PM] Nuo Tang

I saw it sent out around 10:45am today

[2:00 PM] Matthew Barmack

Nuo Tang I saw it sent out around 10:45am today I did not receive.

[2:03 PM] Navis, Kyle

Likewise, I did not receive it either. (Or NRDC's.)

[2:03 PM] Matthew Barmack

Navis, Kyle Likewise, I did not receive it either. (Or NRDC's.) Ditto.

[2:04 PM] Nick Pappas

Did anyone receive email from me @ 10:39am with NRDC presentation? I replied to Mia's email Monday.

[2:06 PM] Matthew Barmack

She may have batched, so you may have only responded to the portion of the service list that included you.

[2:06 PM] Jessica Melms

I did not.

[2:06 PM] Barbara Barkovich (Guest)

Yes. I did not get Gridwell/Vistra's.

[2:06 PM] Nuo Tang

Nick Pappas Did anyone receive email from me @ 10:39am with NRDC presentation? I replied to Mia's email Monday. I did not, I only received Cathleen's email reply that tagged Grid-Vistra's slides

[2:07 PM] Paul Nelson-CLECA (Guest)

[2:04 PM] Nick Pappas (Guest) Did anyone receive email from me @ 10:39am with NRDC presentation? I replied to Mia's email Monday.

[2:07 PM] Paul Nelson-CLECA (Guest)

I recieved it

[2:08 PM] Nick Pappas

Matthew BarmackShe may have batched, so you may have only responded to the portion of the service list that included you.Matt, that's right - my mistake. Apologies to anyone who did not receive.

[2:09 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

Actually, I didn't receive either presentation

[2:10 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

Am I correct in understanding is that the energy sufficiency part of the Gridwell proposal hasn't been developed yet?

[2:11 PM] Matthew Barmack

Doug Karpa (Peninsula Clean Energy)) (Guest)Am I correct in understanding is that the energy sufficiency part of the Gridwell proposal hasn't been developed yet?Arguably embedded in the counting rules.

[2:13 PM] Scott Murtishaw

Re different NQC for peak and net peak, don't the effective capacity contributions of wind and solar change each month (i.e. 12 different "NQCs") under SCE's approach?

[2:13 PM] Nick Pappas

Matthew BarmackArguably embedded in the counting rules.Yes, though that would also suggest energy sufficiency is addressed under the current "one slice" framework through ELCC and counting rules.

[2:14 PM] Matthew Barmack

Nick PappasYes, though that would also suggest energy sufficiency is addressed under the current "one slice" framework through ELCC and counting rules.We can probably agree to disagree on that point.

[2:15 PM] Nick Pappas

Matthew BarmackWe can probably agree to disagree on that point.I would agree that it is not currently done well.

[2:15 PM] Chris Devon

Nick PappasYes, though that would also suggest energy sufficiency is addressed under the current "one slice" framework through ELCC and counting rules.the current elcc method is not accurate its a an approximation.... also the current PRM has not been studied or calibrated so this is not accurate

[2:16 PM] Nick Pappas

Chris Devonthe current elcc method is not accurate its a an approximation.... also the current PRM has not been studied or calibrated so this is not accurateChris, I agree, my point was tongue in cheek. Neither today's "one slice" or the proposed "two slice" seem to do much to track energy sufficiency.

[2:19 PM] Chris Devon

Nick PappasChris, I agree, my point was tongue in cheek. Neither today's "one slice" or the proposed "two slice" seem to do much to track energy sufficiency.Fair enough, but I feel this two slice proposal by Gridwell and the input by Vistra on how to actually base the requirements on LOLE analysis is clearly beneficial and better than the current approach or other proposals being made here IF we can be more accurate in the counting and analysis - which is needed in any of these proposals of course

[2:20 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

I do think we'd need to see a proof for ALL proposals that the methodology would guarantee energy sufficiency and that a portfolio that meets the methodology would be a reliable portfolo. What we can't have is a methodology under which all LSEs can meet the minimum requirements, but the resultant portfolio isn't reliable.

[2:20 PM] Carrie Bentley

Nick, I think that it would be really helpful if you could show a realistic example of how the two-slice proposal would not ensure energy sufficiency. I would be happy to provide you any data needed. A lot of work has been put into this proposal to ensure that it does ensure hourly energy sufficiency.

[2:21 PM] Carrie Bentley

And then compare that to hourly exceedance at 75% to an hourly requirement. I think both frameworks are fully capable of ensuring hourly reliability.

[2:21 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

I don't think that is hard to do: Have a LSE that ONLY procures batteries up to their total Peak and Net Peak requirements.

[2:22 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

That LSE would meet the peak/net peak requirements, but under either of the slice proposals, the energy needed for charging would be expressly shown.

[2:22 PM] Carrie Bentley

Our proposal is for a top down approach, Doug. So you have to look at fleet of LSE procurement

[2:23 PM] Carrie Bentley

If there was only one LSE and one requirement and they only procured batteries, the ELCC would be set at like 5%

[2:24 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

If they're small (like we are at 2% of load), it wouldn't shift the ELCC (or we could buy 20x peak requirement in storage) and we would pass. We'd be leaning MASSIVELY on the rest of the system because it is top down

[2:26 PM] Nick Pappas

Carrie Bentley Nick, I think that it would be really helpful if you could show a realistic example of how the two-slice proposal would not ensure energy sufficiency. I would be happy to provide you any data needed. A lot of work has been put into this proposal to ensure that it does ensure hourly energy sufficiency... Carrie, I agree that the two slice framework (like other frameworks) could be calibrated to be reliable and meet charging needs. My comment is in relation to the commission's direction to address energy sufficiency: Principle 2: To balance addressing hourly energy sufficiency for reliable operations with advancing California's environmental goals.

[2:27 PM] Carrie Bentley

Yes, I absolutely believe this meets principle 2

[2:27 PM] Carrie Bentley

and to Doug, its okay to "lean" a little - that is the fundamental principle of a system RA requirement at an ISO.

[2:28 PM] Carrie Bentley

If you tried to lean a lot, 1. it would be hard because of your CPUC IRP requirements, and 2. your costs would be so much higher than PG&Es by buying more expensive assets, your CCA would be in trouble

[2:28 PM] Ed Smeloff (Guest)

The two slice framework seems to set up a dynamic where solar and storage resources compete for the assignment of higher ELCC values in each reassessment period. It also does not appear to take into account the flexibility that is provided by DC couple hybrid projects with high inverter loading ratios for the solar side of the project.

[2:29 PM] Carrie Bentley

Hybrid resources were covered in my last proposal - they have different treatment than stand-alone batteries

[2:29 PM] Carrie Bentley

and depend on whether they are taking advantage of ITC or not. Happy to discuss offline

[2:29 PM] Colbert, Cathleen

Carrie Bentley (External)Yes, I absolutely believe this meets principle 2I completely agree. The requirement proposal ensures not only a single scenario of energy needs but various scenarios of uncertainties impacting hourly expected unserved energy risks under a probabilistic LOLE is more academically robust to capture hourly energy needs factoring in how uncertainties can also influence that need.

like 1

[2:30 PM] Scott Murtishaw

Carrie Bentley (External)Yes, I absolutely believe this meets principle 2The RPS requirements also ensure that all LSEs buy at least X% of their energy supply from renewable resources during any given compliance period.

like 2

[2:31 PM] Ed Smeloff (Guest)

Swings in ELCC values every year or two will create uncertainty for LSEs in managing their procurement requirements

[2:32 PM] Scott Murtishaw

I don't think that's right Nick. LOLE and ELCC cover reliability in all hours.

[2:33 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

That may be practical considerations, but the RA methodology needs to guarantee the system is reliable. It might be other requirements force that reliability, but an RA methodology can't lean on IRP or anything else to ensure reliability. Ultimately the test is whether the fleet of RA resources ALONE can keep the system reliable if no other resources show up. If there is a portfolio that meets the methodology but does not guarantee reliability, then that methodology fails principle 1.

heart 1

[2:33 PM] Ed Smeloff (Guest)

Scott - There needs to be coordination between RPS procurement and reliability resources if the RPS resources are to be used to charge batteries.

[2:33 PM] Brent Buffington

Doug Karpa (Peninsula Clean Energy)) (Guest)That may be practical considerations, but the RA methodology needs to guarantee the system is reliable. It might be other requirements force that reliability, but an RA methodology can't lean on IRP or anything else to ensure reliability. Ultimately the test is whether the fleet of RA resour...This.

[2:34 PM] Carrie Bentley

Guys - the RA program by definition has to lean on the IRP. That's what builds the resources.

like 1

[2:36 PM] Colbert, Cathleen

Doug Karpa (Peninsula Clean Energy)) (Guest)That may be practical considerations, but the RA methodology needs to guarantee the system is reliable. It might be other requirements force that reliability, but an RA methodology can't lean on IRP or anything else to ensure reliability. Ultimately the test is whether the fleet of RA resour...I agree with your principle and just want to remind you of the part of the presentation where I described how the LOLE study would account for risks that undermine reliability in determining the "total generation capacity" needed to meet 1:10. The RA requirement would be set by this value which achieves what you're asking for that the RA fleet is relied on to meet that 1 in 10. It would fall short of this only if the amount of generation, factoring in the improved NQCs, is less than the gross peak or net peak requirements, which if that occurs we provided the deficiency proposal to allow a cure period aligned with CAISO CSP process to have chance to cure prior and then as last resort CAISO would be able to use backstop.

[2:37 PM] Chris Devon

Yeah I don't see how anyone can seriously say the RA program doesn't/shouldn't rely on IRP... that is exactly one of the main intentions of IRP in addition to the policy goals. The RA program in California is not intended to get resources built, it must rely on IRP to ensure enough resources are installed to meet the RA requirements.

[2:38 PM] Olson, Scott

Carrie BentleyGuys - the RA program by definition has to lean on the IRP. That's what builds the resources. When we are working on our IRP, it is the RA and RPS requirements that sets our procurement strategy. I would argue that the IRP analysis should help set the RA (PRM) and RPS (percent target) goals and not the other way around.

like 3

[2:39 PM] Carrie Bentley

100% agree Scott

[2:40 PM] Brent Buffington

IRP sets the resources available for RA. RA ensures enough resources show up.

like 1

[2:40 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

Chris, it's because the fundamental purpose of the RA program is to ensure that there are enough resources UNDER CONTRACT to show up to ensure the system can be operated reliably. IRP ensures resources are build, but does nothing that they are obligated to show up. If IRP is what we are relying to ensure reliability, then the correct answer is that we don't need an RA program at all. IRP will ensure all of it.

like 1

[2:41 PM] Ed Smeloff (Guest)

For LSEs working on IRP procurement GHG reductions are becoming more important than the count of RPS RECS

[2:41 PM] Carrie Bentley

IRP ensures the resources are built, the RA program produces prices and then within a bilateral market, resources that have rolled off their IRP contracts are procured to the RA requirements for local, flex, and system

[2:42 PM] Carrie Bentley

Once we are in RA-space, there are limited options for procurement. Within that set, prices and RPS mandates determine the optimal resource mix to meet the CPUC and CAISO RA requirements

[2:42 PM] Scott Murtishaw

Doug Karpa (Peninsula Clean Energy)) (Guest)Chris, it's because the fundamental purpose of the RA program is to ensure that there are enough resources UNDER CONTRACT to show up to ensure the system can be operated reliably. IRP ensures resources are build, but does nothing that they are obligated to show up. If IRP is what we are rely...So as long as IRP is ensuring that an adequate mix of resources is built, under your example, one LSE could contract with 100% storage to meet its RA obligation, but other LSEs would procure the gas, geothermal, wind, and solar that remain.

like 2

[2:43 PM] Ed Smeloff (Guest)

PRM depends on UCAP, exceedance or ELCC and demand forecast.

[2:44 PM] Nuo Tang

Ed Smeloff (Guest)PRM depends on UCAP, exceedance or ELCC and demand forecast. Agree, if you don't change/update ELCC every so often, PRM has to change to get back to 0.1 LOLE.

[2:45 PM] Cunningham, Patrick

IRP procurement orders have so far not directed for local or flexible RA to be specifically procured. RA requirements at least help influence procurement in those regards.

[2:47 PM] Ed Smeloff (Guest)

There will be a need for legacy local RA for contingencies but those resources will be less frequently for system RA.

[2:47 PM] Sue Mara (Guest)

I did not receive this presentation. Will it be sent out to the service list?

[2:48 PM] Scott Murtishaw

Olson, ScottWhen we are working on our IRP, it is the RA and RPS requirements that sets our procurement strategy. I would argue that the IRP analysis should help set the RA (PRM) and RPS (percent target) goals and not the other way around. I basically agree, although I think a multi-year RA forward obligation combined with cap and trade obviates the need for either RPS or IRP. My comment to Doug about RPS ensuring a large degree of energy procurement simply describes the regime we're stuck with, not the one we should have.

[2:48 PM] Paul Nelson-CLECA (Guest)

sue, just sent it to you.

[2:54 PM] Olson, Scott

Scott MurtishawI basically agree, although I think a multi-year RA forward obligation combined with cap and trade obviates the need for either RPS or IRP. My comment to Doug about RPS ensuring a large degree of energy procurement simply describes the regime we're stuck with, not the one we should have. I agree that there should not be two different programs driving RA procurement. Having an IRP Procurement obligation/PRM assumption that is disconnected from RA showings/PRM assumptions like now is certainly not what NRG would prefer. Setting an RA procurement structure that incentivizes

development with needs defined by the IRP would hopefully eliminate the need for a separate IRP procurement requirement.

[3:10 PM] Scott Murtishaw

Matt, I was going to raise the same point re resources that have limited dispatches per month.

[3:12 PM] Ed Smeloff (Guest)

Let's not let the DR bucket wag the MCC dog.

[3:14 PM] Colbert, Cathleen

Scott Murtishaw (External)Matt, I was going to raise the same point re resources that have limited dispatches per month.It's a really good point. For your consideration of the Vistra-Gridwell proposal, our thinking is that scenarios should be included in the LOLE study for operational risks occurring that change the resource availability. We gave storage as an example, but I think observed concerns with operational limitations even from use limited resources not being available could be another operational uncertainty. Our thinking is the CAISO should help inform setting up the scenarios that are operational concerns to include various scenarios for operational uncertainties. Appreciate any feedback.

[3:16 PM] Colbert, Cathleen

Colbert, CathleenIt's a really good point. For your consideration of the Vistra-Gridwell proposal, our thinking is that scenarios should be included in the LOLE study for operational risks occurring that change the resource availability. We gave storage as an example, but I think observed concerns with operational ...To be fair, I should also add that another option that we alluded to is revisiting dispatch scenarios and use limited dispatch scenarios could also be refined in the generation modeling step in the LOLE. Would be helpful to explore which area of LOLE modeling its best included.

[3:19 PM] Matthew Barmack

Colbert, CathleenIt's a really good point. For your consideration of the Vistra-Gridwell proposal, our thinking is that scenarios should be included in the LOLE study for operational risks occurring that change the resource availability. We gave storage as an example, but I think observed concerns with operational ...Yes, I think that the approach you proposed, including the application of ELCC to DR, could capture use/dispatch/energy-limits associated with DR (or other similar resources). We would need something else for the PG&E or SCE approaches.

like 2

[3:35 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

As I understand it, the SCE approach explicitly incorporates the actual limitations in what you are able to show. If a resource can only perform for a certain number of cycles, or certain number of hours, they it can only be shown in hourly slices in ways that comport with those constraints. I don't know why you'd need more than that. It's quite related to the notion that ELCC is inappropriate as a discount in any slice proposal, since what matters is the actual performance during that particular slice/hour, not the global impact on LOLE across all 8760 hours

[3:38 PM] Griffes, Peter

Carrie Bentley, with regard to leaning: Section 380 of the Public Utility Code (RA requirements) states: (c) Each load-serving entity shall maintain physical generating capacity and electrical demand response adequate to meet its load requirements, including, but not limited to, peak demand and planning and operating reserves. The generating capacity or electrical demand response shall be deliverable to locations and at times as may be necessary to maintain electrical service system reliability, local area reliability, and flexibility.

[3:40 PM] Carrie Bentley

I've heard a couple times that we can't pin a resource down to one reliability MW value... but I think we shouldn't lose sight of the fact that RA is a product that is paid in terms of \$/kW-month. So at some point in this process, we will have to determine what the RA product is in terms of MWs.

[3:43 PM] Ed Smeloff (Guest)

Does the PRM used in IRP even matter now?

[3:46 PM] Ed Smeloff (Guest)

I mean the PRM used in the mid-term procurement order. It set the 11.5 GW goal. But as everyone has suggested it needs to be subjected to a LOLE after the specific resources show up.

[3:47 PM] Nuo Tang

Ed, I think the suggestion by some, is to start the LOLE and PRM determination in IRP space, and then use that for RA, not to use the PRM from the 11.5GW procurement order

[3:48 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

We might need a MW-based accounting for the current system, so that's how the current products are sold. Presumably if we had different requirements, we would have a different set of products.

[3:49 PM] Brent Buffington

All months have risk of loss of load if resource don't show up

[3:51 PM] Griffes, Peter

Ed and Nuo, The PRM in the IRP should be designed to address the uncertainty associated with long term planning (e.g. will planned resources actually materialize) while the PRM in RA space should reflect uncertainty associated with particular counting rules and explicit operational needs (e.g. operating reserve).

[3:52 PM] Nuo Tang

I generally agree, but uncertainty of counting rules is a new one.

[3:53 PM] Scott Murtishaw

Brent Buffington All months have risk of loss of load if resource don't show up An LSE's RA showing for a multi-month compliance period could require contracts that cover the multi-month period.

[3:56 PM] Colbert, Cathleen

Brent Buffington All months have risk of loss of load if resource don't show up It's funny phrasing, but I agree. That's my line of thinking when I say that in those months you still need to know the total generation capacity needed to serve the load and avoid expected unserved energy. Depending on the month, my intuition is it could be less than all generation being modeled is needed, but the LOLE can still be configured to output the total generation capacity needed and under our proposal that'd be the month's requirement.

[3:57 PM] Nuo Tang

are you only sending the surveys to parties or people on the service list?

[3:58 PM] Griffes, Peter

Nuo, 'uncertainty of counting rules' reflects how resources are likely to perform, e.g. forced outage rates--UCAP, weather variation etc.

[3:58 PM] Nick Pappas

Will party positions be public? That would be helpful in addressing Sue's concerns

like 1

[4:03 PM] David (Guest)

Me neither - and I did not get the Edison either

[4:04 PM] David (Guest)

I DO have Edison - sorry.

[4:04 PM] David (Guest)

(Edison from yesterday)

[4:05 PM] Brian D Rothstein

SCE's was served yesterday around 4:40PM.

[4:06 PM] David (Guest)

Thanks Brian. Yes, I have that. But nothing else.

[4:11 PM] Barbara Barkovich (Guest)

We need to wrap this up soon. It has been a very long day.

[4:12 PM] Nuo Tang

concern with putting survey results on the record may make it seem like the Commission can pick and choose various components to come up with a framework that was not proposed as a package. As we've all said, the the package is important and making changes would shift the balance of each proposal for reliability.

[4:12 PM] Nick Pappas

FYI, we don't currently have plans to put forward our own proposal - I expect we be supporting a final SCE proposal

[4:13 PM] Barbara Barkovich (Guest)

Thanks, Jin.

[4:13 PM] Colbert, Cathleen

Nick Pappas (External)FYI, we don't currently have plans to put forward our own proposal - I expect we be supporting a final SCE proposalThat's helpful, Nick. Thanks for clarifying.