[Wednesday 10:01 AM] Wan, Lisa

This meeting is being recorded.Please mute yourself. If necessary, I will mute your line if there's excessive background noise. If you need to find the call-in information, schedule, or contact information for these workshops, they are included in emails sent to the distribution list. If you are interested in presenting at the next workshop on 11/17 on Need Determination and Allocation, please remember to contact the co-facilitators by this Friday 11/5.

[Wednesday 10:04 AM] Meck, Alan L - E&FP

ameck@sdge.com

[Wednesday 10:04 AM] Meck, Alan L - E&FP

Alan Meck, SDG&E

[10:34 AM] Doug Karpa (Peninsula Clean Energy) (Guest)

The slides don't seem to be advancing, or maybe it is just me?

[10:34 AM] Scott Murtishaw

It's working for me.

like 1

[10:35 AM] Sergio Dueñas

Could you elaborate on the definition/methodology to create the "worst day"?

like 1

[10:39 AM] Nuo Tang

how is pumped hydro's pumping load incorporated into the load forecast? Is that similar to charging?

[10:46 AM] Paul Nelson-CLECA (Guest)

I agree with Sergio. What is the definition of the Worst Day in the Solar/Wind slides?

[10:52 AM] Ric O'Connell (GridLab) (Guest)

Hi Dariush - we still need to decide what exceedance to use even if we net. Just like we choose what exceedance to use for load.

[10:56 AM] Nickerman, Luke

Worst day = highest load day in each month

like 1

[10:57 AM] Paul Nelson-CLECA (Guest)

Luke, thanks for the clarification.

[11:09 AM] Tom Beach (Guest)

I also lowered my hand after the question.

[11:09 AM] Doug Karpa (Peninsula Clean Energy) (Guest)

Perfect

[11:10 AM] Brian Biering

Question on Exceedance analysis for wind - Slide 10 - given the differences in capacity values for wind across regions, would it make sense to determine an exceedance value by region, rather than analyzing the wind fleet as a whole?

[11:12 AM] Chris Devon

regarding this debate about having to set an exceedance level, you could also just use 100% production profiles and have sufficient reserve margin to deal with variability in planning horizon and utilize the CIASO's imbalance reserves products to meet variability/flexibility needs in operations

[11:12 AM] Scott Murtishaw

Tom BeachI also lowered my hand after the question.I remembered that Lisa Wan mentioned at the last workshop that you sometimes need to close and reopen the participant list for the hands to show correctly.

[11:13 AM] Nickerman, Luke

Hi Brian, yes, the analysis was intended to show how it could be done. If the Commission moved to a methodology that was region-specific for wind, the same approach could be applied for each wind region.

like 1

[11:13 AM] Colbert, Cathleen

On PG&E presentation, there are some logical flaws that need to be addressed before this can be seriously considered including:

[11:17 AM] Colbert, Cathleen

Colbert, CathleenOn PG&E presentation, there are some logical flaws that need to be addressed before this can be seriously considered including:1 - the worst load day is not necessarily a reasonable metric for system tightness. Take for example July 9th bootleg fire that resulted in difficulty maintaining system reliability but the load level itself was not nearing peak or worst day it was the loss of transmission capability that was a fundamental driver. 2- storage approach is not consistent with storage operations. This needs to take into consideration the reality that the Non-Generator Resource model does not do commitments and assumes that batteries that are NGR are online and can be cycled without limit throughout the day but the the amount of charge/discharge is limited by the max storage capability in MWh and the RT telemetered State of Charge. Further the CAISO intends to start bid insertion for storage that is RA so the idea that the number of cycles is assumed to be one is not consistent with that framework. 3 - Can PG&E bring this proposal back with a metric comparing exceedance to the ability to ensure a reliability metric? And can PG&E work with CAISO to better understand how storage operates and factor that into their thinking? This will be the most help to productively move forward.

[11:18 AM] Matthew Barmack

3 observations/comments echoing some previous observations comments: (1) Starting with synchronized data that reflects the same underlying weather, I think there is potentially a difference between calculating the exceedance of net load compared to calculating the exceedance of each element separately and then netting the results. Not sure exactly what you are proposing. Probably depends on whether your requirement is tied to load or net load. (2) I agree that the peak load day may not be the "worst" day and may not capture correlations between load and renewables, e.g., the day with the greatest reliability risk might be a less than peak load day with low solar due to cloud cover. (3) I would appreciate clarification of how you are proposing to de-rate thermal for ambient outages. Based on output? What if a resource wasn't dispatched under the relevant conditions? Would the CAISO calculate based on outage data? Maybe this aligns with the CAISO's UCAP proposal? (Also, note

that some thermal NQCs already reflect ambient de-rates, so I urge caution about adjustments to NQC that potentially double-count ambient de-rates.)

like 1

[11:24 AM] Bridget Sparks (CAISO) (Guest)

UCAP could pick up some portion of the monthly or annual use limitations reached if they fall on UCAP assessment hours

like 1

[11:36 AM] Carrie Bentley

Doug Karpa (Peninsula Clean Energy) (Guest) - UCAP and Exceedance suffer from the same issue - they are not a statistically robust forecast of contribution to reliability during peak and net load peak hours. The hourly slice proposal presumably accommodates this flaw by increasing the requirement during these slices. In my mind, this increase costs to ratepayers for no reliability benefit.

[11:38 AM] Bridget Sparks (CAISO) (Guest)

Strongly Disagree. UCAP and is more robust forecast than Pmax is, which is the current framework. You will minimize the error

[11:39 AM] Bridget Sparks (CAISO) (Guest)

by subtracting performance from UCAP than you would comparing Pmax to performance

[11:39 AM] Carrie Bentley

Bridget Sparks (CAISO) (Guest) Our empirical assessment out outages does not support that conclusion. Would be happy to review any CAISO analysis.

[11:40 AM] Bridget Sparks (CAISO) (Guest)

Yes I would be happy to review your analysis. I think we will see a difference with hourly data than the daily data it looks like you may have gotten from OASIS

[11:40 AM] Carrie Bentley

It could be so great if the CAISO could make that public.

[11:40 AM] Nuo Tang

#freethedata

like 2

[11:40 AM] Bridget Sparks (CAISO) (Guest)

We are working on it

like 1

[11:42 AM] Carrie Bentley

Even if you just posted the hourly data that would be helpful. As you noted, we are working solely from public snapshot data, which definitely is not as good.

[11:55 AM] Ric O'Connell (GridLab) (Guest)

Echo that CEERT/GridLab supports the Hybrid approach SCE is outlining here.

[11:55 AM] Colbert, Cathleen

Bridget Sparks (CAISO) (Guest)Strongly Disagree. UCAP and is more robust forecast than Pmax is, which is the current framework. You will minimize the errorBridget - Generally we support an Unforced Capacity approach if it is the well understood and respected eFORd approach. I still question the unconventional proposal for seasonal availability as being equally as robust as eFORd. But happy to talk further.

[11:57 AM] Eric Little

Isn't the hourly look of the SCE method similar to the CAISO portfolio assessment where the CAISO looks at the ability of the shown resources to meet the peak and net load peak hours as well as any other hour they are concerned with?

like 1

[11:59 AM] Chris Devon

Eric LittleIsn't the hourly look of the SCE method similar to the CAISO portfolio assessment where the CAISO looks at the ability of the shown resources to meet the peak and net load peak hours as well as any other hour they are concerned with?appears very similar concepts

[11:59 AM] Matthew Barmack

Eric, that makes sense, but I am not sure that the portfolio assessment is a good tool for identifying which specific LSEs are deficient.

like 1

[12:00 PM] Chris Devon

Matthew BarmackEric, that makes sense, but I am not sure that the portfolio assessment is a good tool for identifying which specific LSEs are deficient.good point on individual LSE versus collective deficiency check

like 1

[12:01 PM] Bridget Sparks (CAISO) (Guest)

CAISO will discuss this further, but what we would likely do is select an hour to validate for the month- say 8pm, and then a portfolio assessment could be used to validate all other hours.

like 1

[12:02 PM] Eric Little

Thanks Matt. I was thinking that if the methods are similar, they can be consolidated such that a cumulative deficiency will be unlikely since individual LSEs have an hourly requirement so it is an individual(s) deficiency.

like 2

[12:16 PM] Jeff Nelson

Colbert, CathleenFor resource adequacy purposes - the single ELCC is the most rigorous and robust approach for determining the reliability value for contracting and showing purposes. Please clarify that under SCE proposal that the RA contracting would stay the same with single ELCC also for the showings, and that …I think we walked through an example where the (solar) resource was rated as 25MW. So you would contract for 25MW (if you wanted the entire solar), but then that solar would have a "shape"/"output profile" that would be assigned to it (by the CPUC process), and that shape would be used for the CPUC showings. I hope that helps.

[12:46 PM] Wan, Lisa

let me know and i'll hit record!

[12:47 PM] Griffes, Peter

Is Gridwell a party to the CPUC's RA proceeding?

[12:50 PM] Griffes, Peter

So no party to the RA proceeding is sponsoring the approach in this presentation?

[12:54 PM] Colbert, Cathleen

Griffes, PeterSo no party to the RA proceeding is sponsoring the approach in this presentation?Hi Peter, Vistra is a party and if necessary I'm comfortable sponsoring this approach as a valid idea for consideration.

[12:54 PM] Griffes, Peter

Thanks, Cathleen for the clarification.

[12:54 PM] Matthew Barmack

Colbert, CathleenHi Peter, Vistra is a party and if necessary I'm comfortable sponsoring this approach as a valid idea for consideration.Ditto for me.

[12:58 PM] Colbert, Cathleen

Peak slice and net load peak slice is a great idea that captures our reliability needs on the system.

[1:01 PM] Jose Torre-Bueno (Guest)

If ELCC measures over all hours would that not prevent LSEs from building up RA over slices from different resources that are available at different times.

[1:15 PM] Brent Buffington

Carrie Bentley Under your proposal, how will the RA program ensure excess capacity is available to CAISO to charge batteries

like 1

[1:16 PM] Brent Buffington

?

[1:17 PM] Nick Pappas

Hi Carrie, thanks for your presentation. The current CPUC RA framework utilizes MCC buckets to "shape" the RA fleet for reliability and prevent leaning between LSEs. Would your proposal retain the current MCC framework?

[12:54 PM] Matthew Barmack

Colbert, CathleenHi Peter, Vistra is a party and if necessary I'm comfortable sponsoring this approach as a valid idea for consideration.Ditto for me.

[12:58 PM] Colbert, Cathleen

Peak slice and net load peak slice is a great idea that captures our reliability needs on the system.

[1:01 PM] Jose Torre-Bueno (Guest)

If ELCC measures over all hours would that not prevent LSEs from building up RA over slices from different resources that are available at different times.

[1:15 PM] Brent Buffington

Carrie Bentley Under your proposal, how will the RA program ensure excess capacity is available to CAISO to charge batteries

like 1

[1:16 PM] Brent Buffington

?

[1:17 PM] Nick Pappas

Hi Carrie, thanks for your presentation. The current CPUC RA framework utilizes MCC buckets to "shape" the RA fleet for reliability and prevent leaning between LSEs. Would your proposal retain the current MCC framework?

[1:27 PM] Colbert, Cathleen

I'm concerned that we're conflating a concern that resources that have energy capability from resources, which I heard in Doug and Eric's comments, with RA. I think the CAISO market is where we should be looking into why there isn't enough energy value being provided by CAISO energy prices for those energy providing resources. Scarcity pricing improvements in the market could better value resources that are providing energy. That's different than whether it is a reliability resource that should be eligible for RA contract to support carrying load through loss of load periods. I agree that energy sufficiency should be there in the energy markets so encourage us to pursue those issues at CAISO.

[1:27 PM] Barbara Barkovich (Guest)

Nick Pappas did mention the diversity benefit in exceeddance.

like 1

[1:27 PM] Barbara Barkovich (Guest)

Nick Pappas did mention the diversity benefit in exceeddance.

like 1

[1:28 PM] Paul Nelson-CLECA (Guest)

What happens if the incremental ELCC of wind and solar becomes zero. Then how is the thousand of MW credited to meet a net or peak load?

like 1

[1:29 PM] Colbert, Cathleen

Paul Nelson-CLECA (Guest)What happens if the incremental ELCC of wind and solar becomes zero. Then how is the thousand of MW credited to meet a net or peak load?Hi Nick, for incremental resources where the incremental ELCC is 0 MW for capacity, I think the value proposition comes from energy revenues. See my comment above - we need to look at energy value to ensure prices are being afforded these assets providing energy value appropriately.

[1:30 PM] Colbert, Cathleen

Chris Devon - Thank you for bringing up a potential benefit of seasonal requirement being able to address the issues with being able to schedule and perform maintenance outages. Appreciate it and will consider that in more detail.

like 1

[1:31 PM] Nancy Rader

RA value is no longer incidental for wind.

[1:33 PM] Doug Karpa (Peninsula Clean Energy) (Guest)

The problem is that this wouldn't work with a fully decarbonized grid. It also does NOT align with IRP at all, since IRP uses an hourly accounting in the CSP tool and the production cost modeling to identify needs for a reliable system.

[1:35 PM] Brent Buffington

Carrie Bentley I don't think your presentation actually captured how wind and solar are treated in IRP space. Primarily, they are modeled on an hourly basis in SERVM. ELCC is only used for simple stacking and procurement orders

[1:35 PM] Sergio Dueñas

Q1. Does Gridwell envision using ELCC based on the MTR analysis for RA? CESA has significant concerns with that methdology and the fact that parties have not been able to provide substantial feedback on it. Q2. Moreover, it is not clear that ELCC is adequate for dispatchable resources. If the goal is to discount for forced/planned outages, why not use UCAP and instead rely on ELCC which is a method for non-dispatchable assets?

like 1

[1:36 PM] Doug Karpa (Peninsula Clean Energy) (Guest)

@brent, and yes, using stack analyses in IRP is hugely problematic, as we are currently seeing.

like 1

[1:36 PM] Sergio Dueñas

ELCC is a measure of coincidence between two processes that are assumed to be uncorrelated: generation and loss of load probability. For assets that can be dispatched when needed, even if energy-limited, it is unclear that ELCC is adequate.

[1:40 PM] Chris Devon

Doug Karpa (Peninsula Clean Energy) (Guest)The problem is that this wouldn't work with a fully decarbonized grid. It also does NOT align with IRP at all, since IRP uses an hourly accounting in the CSP tool and the production cost modeling to identify needs for a reliable system.Doug Karpa (Peninsula Clean Energy) (Guest) can you explain why you think it wouldn't work in a fully decarbonized grid? The Gridwell proposal seems to align with IRP by advocating for ELCC based counting, and aligns with IRP better than any of the other proposals suggesting an exceedance approach is appropriate so your stated concern about IRP alignment is even worse with those other proposals.

[1:41 PM] Carrie Bentley

Sergio DueñasQ1. Does Gridwell envision using ELCC based on the MTR analysis for RA? CESA has significant concerns with that methdology and the fact that parties have not been able to provide substantial feedback on it. Q2. Moreover, it is not clear that ELCC is adequate for dispatchable resources. If the g…Proposal for dispatchable thermal was at a minimum to discount by ambient derates due to temperature or do UCAP if that is proved to be a better measure of reliability than just the ambient derates

[1:41 PM] Carrie Bentley

I agree with CESAs concerns with the MTR and think the methodology should be improved

[1:43 PM] Scott Murtishaw

Carrie Bentley To clarify, were you suggesting that marginal ELCC should be used for counting contributions of incremental capacity, but average ELCC would be used for RA accounting?

[1:44 PM] Colbert, Cathleen

Carrie Bentley (External)Proposal for dispatchable thermal was at a minimum to discount by ambient derates due to temperature or do UCAP if that is proved to be a better measure of reliability than just the ambient deratesI agree that there's improvements needed to the methodology. My current thinking is that a phased approach is needed, first to align the approaches so there's rational investment and retirement signals as soon as possible. I'm concerned that in this proceeding there's not a clear venue to improve the IRP ELCC methodology since it is not in scope. I suggest an approach to consider this

process align the capacity value and then a new capacity value docket that would apply to any RA contract whether out of IRP or RA directives should be used to make the ELCC method even better.

[1:44 PM] Sergio Dueñas

but you do envision storage using ELCC, correct Carrie Bentley?

[1:44 PM] Carrie Bentley

Brent Buffington - In a 30 minute presentation I didn't have time to get fully into the details and agree it wasn't a perfect description. My point is that it should align as much as possible and that is unnecessary to do hourly requirements to meet hourly needs.

[1:46 PM] Carrie Bentley

Sergio Dueñasbut you do envision storage using ELCC, correct Carrie Bentley?Yes. but a methodology that better reflects the impact of duration on reliability and RTE. Ideally the RA and IRP would incrementally improve the ELCC each proceeding and match each other to all extents possible.

[1:47 PM] Carrie Bentley

*impact of duration and RTE on reliability

[1:53 PM] Nick Pappas

Carrie Bentley (External)Brent Buffington - In a 30 minute presentation I didn't have time to get fully into the details and agree it wasn't a perfect description. My point is that it should align as much as possible and that is unnecessary to do hourly requirements to meet hourly needs.In terms of IRP / RA alignment – I agree with the sentiment, but caution that the general perspective within the IRP proceeding around the current LSE IRP reliability testing framework (a single dashboard in the RDT) was deeply insufficient for reliability planning. All of the meaningful reliability testing was conducted for aggregate portfolios through SERVM as Brent Buffington indicates above, not using ELCC.Rather than viewing the IRP tools and framework as a guide, as I recall, parties in the IRP proceeding were clamoring for a revised framework to be developed within the RA reform to be brought back to replace the current IRP tools.

[1:54 PM] Barbara Barkovich (Guest)

Tom, why do you use 5-9 pm rather than 4-9 pm?

[1:55 PM] Doug Karpa (Peninsula Clean Energy) (Guest)

Given that the IRP uses an hourly LOLE study approach to assessing reliability and not an ELCC stacking methodology, I don't see what possible basis there is to claim this aligns with IRP, unless you're referring to the stack analyses used in procurement orders. I think even the Commission recognizes that is not a methodologically sound approach.

[1:56 PM] Carrie Bentley

Nick PappasIn terms of IRP / RA alignment – I agree with the sentiment, but caution that the general perspective within the IRP proceeding around the current LSE IRP reliability testing framework (a single dashboard in the RDT) was deeply insufficient for reliability planning. All of the meaningful reliabilit…Yes, agree, my point is that they should be aligned. I think an iterative approach where the ELCC methodology is improved here and then the IRP uses the more robust approach is ideal. I am indifferent to whether average or incremental ELCC is used, but believe ELCC to be the more statistically and meaningful way to measure resource reliability.

[1:57 PM] Paul Nelson-CLECA (Guest)

For Carrie's Proposal: Please update the proposal with additional details on how the capacity for charging batteries that would be used to serve the peak and net peak. This is to address the concern that during a heatwave there is sufficient resources to meet both load and battery charging requirements.

[1:57 PM] Colbert, Cathleen

Nick Pappas (External)In terms of IRP / RA alignment – I agree with the sentiment, but caution that the general perspective within the IRP proceeding around the current LSE IRP reliability testing framework (a single dashboard in the RDT) was deeply insufficient for reliability planning. All of the meaningful reliabilit…This seems like something that CPUC needs to clarify the preferred approach. I do not see sufficient time to refine methodologies in these workshops since this is the last one of resource counting. There is a need for determining what the route forward will be such as these workshops providing the details on a proposal at a 30,000 foot instead of the 100,000 adopted in CPUC decision directing these workshops and then pending further approval will need the implementation details on the more technical pieces in further workshops. It's impractical at this point to think we've had enough discussion on this important topic to make a fully baked decision. I'm expecting further need for development once a direction has been picked.

[1:57 PM] Scott Murtishaw

Carrie, I thought you suggested in your presentation that average ELCC would be used for RA accounting and marginal ELCC to drive incremental procurement in IRP.

[1:57 PM] Carrie Bentley

That said, Tom's presentation that focuses on 5-9 is interesting and worthwhile to consider.

[1:58 PM] Carrie Bentley

Scott Murtishaw, I was saying current RA rules use average ELCC and MTR used incremental

[1:59 PM] Scott Murtishaw

Carrie Bentley (External)Scott Murtishaw, I was saying current RA rules use average ELCC and MTR used incrementalWhich makes sense to me...

[2:01 PM] Nuo Tang

MTR uses incremental for new, it really doesn't "count" existing using ELCC

like 2

[2:02 PM] Doug Karpa (Peninsula Clean Energy) (Guest)

Chris Devon The issue is that if we decide that solar and storage ELCCs will evenually go to zero, then the endpoint is conceivably that we run an entire system with wind, solar, and storage, and yet the total ELCC value of the system would be zero, which is a little nonsensical. Presumably, we'd have to improve the ELCC methodology to decide how to address a systems without gas. At the LSE level, the huge problem with ELCC is that any LSE that meets their load in all hours with renewables will be meeting their energy needs entirely, but would have to contract with gas in completely duplicative procurement, solely because ELCC does not capture the contributions of the portfolio accurately.

[2:04 PM] Scott Murtishaw

Doug Karpa (Peninsula Clean Energy) (Guest)Chris Devon The issue is that if we decide that solar and storage ELCCs will evenually go to zero, then the endpoint is conceivably that we run an entire system with wind, solar, and storage, and yet the total ELCC value of the system would be zero, which is a little nonsensical. Presumably, we'd …Doug, my understanding from conversations with Arne Olson is that as solar becomes necessary to charge storage, its ELCC will begin to increase.

like 1

[2:08 PM] Doug Karpa (Peninsula Clean Energy) (Guest)

Scott Murtishaw Yes, eventually, that should happen. That doesn't solve the penalty problem for LSEs.

[2:10 PM] Scott Murtishaw

Doug Karpa (Peninsula Clean Energy) (Guest)Scott Murtishaw Yes, eventually, that should happen. That doesn't solve the penalty problem for LSEs.For an LSE to serve customers on 100% RE, it would need vast amounts of short and long-duration storage, which would presumably have non-zero ELCC.

like 1

[2:11 PM] Brent Buffington

Colbert, Cathleen similar to my question to Carrie above. Without requiring LSEs to bring excess reliable capacity to charge batteries, how would CAISO be sure batteries shown for RA can be charged?

[2:12 PM] Chris Devon

Doug Karpa (Peninsula Clean Energy) (Guest)Chris Devon The issue is that if we decide that solar and storage ELCCs will evenually go to zero, then the endpoint is conceivably that we run an entire system with wind, solar, and storage, and yet the total ELCC value of the system would be zero, which is a little nonsensical. Presumably, we'd …We don't just decide that ELCC goes to zero - ELCC will approach zero for solar mathematically and then go back up as Scott Murtishaw explained. The storage ELCC value will never go to zero it will get larger with more solar. I also dont think that ELCC needs to be modified to address a system without gas it can still express the capacity reliability contributions in a zero carbon emission generation mix. Use of ELCC counting also doesnt mean LSEs would be forced to double procure or over procure, it would just show that those LSEs that choose to procure only solar will requires more dispatchable resources to maintain reliability, could be storage, or other non-emitting dispatchable resources like hydro.

[2:12 PM] Chris Devon

Scott MurtishawFor an LSE to serve customers on 100% RE, it would need vast amounts of short and long-duration storage, which would presumably have non-zero ELCC.agreed Scott.

[2:13 PM] Carrie Bentley

Brent BuffingtonBrent, can you clarify what time period you are concerned about? Until gas retires, there is significant excess energy on the system. Are you worried long-term?

[2:14 PM] Carrie Bentley

Long-term, it should be addressed within IRP and the a must-offer obligation for solar/wind to offer up to forecast (just like today)

[2:14 PM] Brent Buffington

@carrCarrie BentleyBrent BuffingtonBrent, can you clarify what time period you are concerned about? Until gas retires, there is significant excess energy on the system. Are you worried long-term?There is only excess capacity if it is provided to CAISO. The RA program is the mechanism to do that

[2:15 PM] Colbert, Cathleen

Brent BuffingtonColbert, Cathleen similar to my question to Carrie above. Without requiring LSEs to bring excess reliable capacity to charge batteries, how would CAISO be sure batteries shown for RA can be charged?The CAISO performs studies in its local RA process on battery storage assets including considering charging limitations and its expectation of the resources ability to support the storage operations. I believe IRP proposes a portfolio that includes energy to support the battery build and that Catalin's local RA studies look at any feasibility issues in the local RA space. I am skeptical that it is a system RA issue at all. I would encourage the CAISO to provide additional studies on whether there is a risk of insufficient energy available to charge the storage on its fleet and provide clarity on how local RA studies explore the battery characteristics.

like 1

[2:15 PM] Carrie Bentley

the must-offer is a 24/7 obligation to offer all RA capacity if available

[2:16 PM] Colbert, Cathleen

Brent Buffington@carr There is only excess capacity if it is provided to CAISO. The RA program is the mechanism to do thatJust a caution that there is system RA, local RA, and flex RA - it's important to be conscious about which issue this falls into. In a non-constrained system level, there is at this time no data supporting this is an operational challenge. In a local pocket, I believe the conversation is more appropriate and the analytics are being done by CAISO to assess this need.

like 1

[2:16 PM] Doug Karpa (Peninsula Clean Energy) (Guest)

Scott Murtishaw Only if ELCC isn't systematically unvaluing the reliability benefits of storage and renewable generation, which it appears it is doing. Otherwise, swapping a set among of ELCC for the

same value of NQC should not change your loss of load expectations, but we now see that that isn't true.

[2:17 PM] Nuo Tang

Brent Buffington@carr There is only excess capacity if it is provided to CAISO. The RA program is the mechanism to do thatI interpret Carrie's proposal to effectively say that IRP will ensure charging is sufficient and that can be embedded in the PRM need which would mean that capacity is procured to meet it.

like 2

[2:20 PM] Carrie Bentley

Yes, exactly. And under my proposal if there is statistical possibility of being short, in addition to the net load peak validation, a charging energy validation can be added. But its only worth the effort if there is a possibility of being short charging energy.

like 1

[2:24 PM] Leslie, John W.

Thank you for all these helpful comments. Would it be possible to preserve this string of comments and circulate to the participants? This discussion will be helpful as parties are drafting comments.

like 3

[2:27 PM] Navis, Kyle

Leslie, John W. Agree that the chat has been very illuminating! The chats on for the last two workshops are posted next to the event recording on the CPUC's RA history website; I assume this will be posted there as well. https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/resource-adequacy-homepage/resource-adequacy-history

like 2

Resource Adequacy History

Principal Resource Adequacy Decision

R.19-11-009

Schedule of Track 3B2 Workshops

October 20, 2021 Track 3B2 "RA Reform" Workshop 3 - Resource Coiunting

Workshop Recording (AM | PM) an...

[2:33 PM] Rachel McMahon" (Guest)

Sunrun fully supports the re-examination of the RA deliverability construct, for distribution interconnected resources in particular.

[2:38 PM] Colbert, Cathleen

Dariush Shirmohammadi Vistra believes this should not be resulting in multiple market products as that quickly will snow ball and make transactability difficult, burdensome, and overly costly. I'd ask you think about how what your proposing would work with the Gridwell proposal and provide that feedback. Thanks!

like 1

[3:05 PM] Colbert, Cathleen

Bridget Sparks (CAISO) (Guest) Thanks for bringing that nuance up about the MOO is above NQC, that is an important element of your proposal that means there would some excess capacity . I assume that this MOO would be the same even if an ELCC or Exceedance were used to set the NQC that the MOO would still be at VER forecast or others Maximum Operating Limit (Pmax-outage)?

[3:08 PM] Carrie Bentley

Colbert, Cathleen (External)Bridget Sparks (CAISO) (Guest) Thanks for bringing that nuance up about the MOO is above NQC, that is an important element of your proposal that means there would some excess capacity 🙂. I assume that this MOO would be the same even if an ELCC or Exceedance were used to set the NQC that the MOO wo…Yes, I think all proposals have MOO being up to Pmax/portion of RA contracted*Pmax or up to forecast if VER