**R.21-10-002: RA Reform Workshop Chat**

**8/3/2022**

[9:54 AM]

9:54 AM Meeting started

[10:00 AM] Alexander, Maggie (she/her)

Thanks for joining today's RA Reform workshop. Friendly reminders:

* This meeting is being recorded.
* Please mute yourself. If necessary, your line will get muted if there's excessive background noise.
* Next workshop: Resource Counting: hybrid resources, Wednesday 8/10.
* If you are interested in presenting at the following workshop, please contact the co-facilitators by COB today (8/3) and send presentation materials to the co-facilitators by Monday 8/8.
* 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.

[10:20 AM] Nuo Tang

Is capmax the same as pmax?

[10:20 AM] Brant, Simone

yes

[10:23 AM] Lynch, Mary M:(Constellation)

Is this database different than what the CAISO keeps, and who is responsible for populating the database?

like 1

[10:28 AM] Deb Emerson

Same question as Mary. Who inputs the data? The LSE that doesn't own the physical resource?

[10:46 AM] Ed Smeloff (Guest)

Where can a copy of this presentation be found?

[10:46 AM] Colbert, Cathleen

Gannon, Jaime Rose and Brant, Simone and Brent Buffington - Another couple heads up are that use limitations for multi-stage generators can be at both the configuration and plant levels and you can have simultaneous configuration/plant limitations. Although these are generally longer than daily limits. The scope will need to be clear on whether this process will ignore longer than daily limits or need to account for them in some way.

[10:47 AM] Alexander, Maggie (she/her)

The presentations and recording will be posted here: [Resource Adequacy History (ca.gov)](https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/resource-adequacy-homepage/resource-adequacy-history)

Resource Adequacy History

Principal Resource Adequacy Decision  R.21-10-002 Implementation Track Phase II March 4, 2022 Workshop on Energy Division LOLE Study Workshop Recording Presentation February 4, 2022...

[10:52 AM] Lynch, Mary M:(Constellation)

To the question of a more detailed data base in connection with this RA database that would be useful for IRP - IRP has a MASSIVE data base already in place. Could you please be sure to consolidate and cross check the two efforts and make sure that we are not duplicating what are already very time consuming tasks. Also, the question as to who is responsible for populating this data based needs to be addressed

like 2

[10:53 AM] John Newton

My Q re slide 7: For storage resources, are they going to be limited to operating/discharging for the continuous discharge time (e.g., a 4-hour battery can only be shown discharging in 4-hour blocks), or will there be more flexibility?

Also, will storage resources be able to be shown across the 24-hour period at different periods at different points in the year? (E.g., a storage resource that discharges in the evening ramp/net peak period in the shoulder months, but at different times during the rest of the year, etc.)

(Edit: \*Resource flexibility showing is also applicable for other resource technology types.)

[10:53 AM] Nuo Tang

Do you need Pmax if you have a value on the NQC list. This would reduce the amount of lookups from 3 lists to 2 (if technology profiles are used) or consolidate it to 1 list if resource specific nqcs are developed

[10:53 AM] Colbert, Cathleen

Gannon, Jaime Rose and Brant, Simone - Can you clarify the contract limitations piece on this master database? Our understanding was that the decision only adopting contract based limits for non-resource system resources (non-resource specific imports) and that the rules on what use limitations are constraining resource physical availability are only regulatory restrictions, this category includes local regulations on noise e.g., or physical/design limitations. I read the contract limits language to only be for non-specific imports. Note, storage cycle limits are contract limits so a special exemption to no contract limits for resource specific would need to be reached with the CAISO for this item. Thank you.

[10:54 AM] Brant, Simone

there will be flexibility in how storage is shown

like 2

[10:55 AM] Deb Emerson

What is the supplier refuses to enter the information into the CPUC database?

like 1

[10:56 AM] Brant, Simone

Nuo Tang don't you need pmax for storage at least? it could be shown for 2 hrs for 2x NQC for example

[10:56 AM] Nuo Tang

maybe we should have additional discussion on this topic after SCE's presentation? workshop seems to have additional time, shouldn't limit the time for discussion

like 2

[10:57 AM] Nuo Tang

**Brant, Simone**

Nuo Tang don't you need pmax for storage at least? it could be shown for 2 hrs for 2x NQC for example

that depends on if the inverter can support 2x pmax?

[10:57 AM] Colbert, Cathleen

**Brant, Simone**

Nuo Tang don't you need pmax for storage at least? it could be shown for 2 hrs for 2x NQC for example

Pmax is absolutely needed for storage. The relationship between the max stored energy capability, which already accounts for RTE, and the POI is an important part of deciding how to best develop and operate the storage asset. Thanks for flagging, Nuo.

[10:58 AM] Deb Emerson

Why not just use what CAISO already collects, because they already collect on all CAISO resources. If the CPUC resource database will have MORE information, then why not work with CAISO to get that information added and share between entities.

like 2 heart 1

[10:58 AM] Nick Pappas

Can the CPUC limit eligibility for RA showings to resources whose owners/operators have fulfilled this data request? Seems like a useful hook.

[11:00 AM] Doug Karpa (Peninsula Clean Energy)) (Guest)

Nick, Deb, I would think that it would be a requirement for showing for RA.  I agree that more middlemen creates more risk for errors, also.

like 4

[11:01 AM] Carrie Bentley

**Deb Emerson**

Why not just use what CAISO already collects, because they already collect on all CAISO resources. If the CPUC resource database will have MORE information, then why not work with CAISO to get that information added and share between entities.

Agree with Deb. This can be part of their existing process where they email everyone to check their draft NQC. In the future it can be, check your draft NQC, check the data we've populated for the Master Resource Database.

like 2

[11:02 AM] Deb Emerson

This seems duplicative and allowing for too many errors trying to recreate a system that already exists.

like 1

[11:05 AM] Christian Lambert (Cal Adv) (Guest)

Will the database consider CHP resources' host obligations as use limitations?  Or is the idea that the database reflects resources' basic parameters, including conventionally defined use limitations (e.g. no operations from HE1-7) and then host obligations / contract terms are addressed through validation of the LSEs' compliance showings?

[11:05 AM] Colbert, Cathleen

Brant, Simone

**Carrie Bentley (External)**

Agree with Deb. This can be part of their existing process where they email everyone to check their draft NQC. In the future it can be, check your draft NQC, check the data we've populated for the Master Resource Database.

Agree with Carrie and Deb.

like 1

[11:17 AM] John Newton

I observe that there would be a benefit from having more time than currently available to cover this material, given the questions and party engagement.

like 1 heart 1

[11:17 AM] Colbert, Cathleen

Scott Murtishaw I appreciate trying to move this along, but this is important discussion. We'd like to keep having a discussion - Q&A - on this discussion. If we move on to fast, I'm afraid it'll slow the whole discussion down.

like 4

[11:26 AM] Nuo Tang

I think resource level would be cleaner and simpler

[11:34 AM] Colbert, Cathleen

**Christian Lambert (Cal Adv) (Guest)**

Will the database consider CHP resources' host obligations as use limitations? Or is the idea that the database reflects resources' basic parameters, including conventionally defined use limitations (e.g. no operations from HE1-7) and then host obligations / contract terms are addressed through va…

Great question - these types of limits are considered more "operational" limits than regulatory/physical use limits by the CAISO and by using "use limitation" in this context I'd initially assume CPUC would not include these in the database. If included, the CPUC should consider being careful to differentiate use limited resources and conditionally available resources and their limits separately. It gets more complex, but that's a start. See section 2.1.16 of Market Operations BPM for some more context, but generally "A Scheduling Coordinator may apply to register a resource with the CAISO as a Conditionally Available Resource (CAR) if the resource has one or more operational or regulatory limits that do not qualify it as a Use-Limited Resource, but still impose frequent and recurring periods of unavailability."

[11:40 AM] Pasquito, Joe J - Mktg Affil-E&FP

How would a battery with hourly charging limits be represented in this tool?

like 1

[11:41 AM] Nuo Tang

would imports have to show up on the master list to qualify?

like 1

[11:41 AM] Pasquito, Joe J - Mktg Affil-E&FP

and what if they hourly charging limits changed monthly

[11:42 AM] De La Rosa, Adrian

as with a solar/bess unit?

[11:42 AM] Pasquito, Joe J - Mktg Affil-E&FP

sorry, and what if the batteries' hourly charging limits changed monthly

like 1

[11:50 AM] Colbert, Cathleen

Queue data could be archived and used by the CAISO to populate the tech type for the hybrid fields even after COD. It'd be retaining the data either in the public report or CAISO making it available.

[11:51 AM] CB Hall (CAISO) (Guest)

Hi Brent, one item for your consideration: a resource may be constrained by both the interconnection limit as well as a contractual share of the interconnection  (i.e., when there are multiple off-takers downstream of a given interconnection point).  So both fields are probably important. Thanks a lot

like 2

[11:55 AM] Colbert, Cathleen

**CB Hall (CAISO) (Guest)**

Hi Brent, one item for your consideration: a resource may be constrained by both the interconnection limit as well as a contractual share of the interconnection (i.e., when there are multiple off-takers downstream of a given interconnection point). So both fields are probably important. Thanks a …

Hey CB Hall (CAISO) (Guest) - That's an interesting note. Are you thinking of generating resource's under a single IA? Just narrowing into the specific suggestion if you don't mind expanding. I don't think you mean where there is a POI ie subtation with multiple projects where the MW amount in RIMS is it's Pmax value and POI rights.

[11:57 AM] Catalin Micsa (Guest)

Units under constructions should continue to be on a different tab. They do not have a validated master file data. RIMS contains what the owner whishes to build not what they actually ended up building.

like 2

[12:00 PM] CB Hall (CAISO) (Guest)

Hi Cathleen, the example in my head is when you have multiple solar+storage co-located projects downstream of a specific POI, each with separate off-takers and separate contractual shares of the POI. Would love to talk more if I am missing something.

like 2

[12:03 PM] Colbert, Cathleen

**Catalin Micsa (Guest)**

Units under constructions should continue to be on a different tab. They do not have a validated master file data. RIMS contains what the owner whishes to build not what they actually ended up building.

Understood - how it's shown to the CAISO should still be on a separate tab. My point is that the project data should be consistent between what's in RIMS and gets online through the NRI with this data. The view between this database and CAISO's view should be aligned. Especially, after the transparency improvements the data will be very similar and locked down especially if they're beyond the phase 2 process and IA execution.

[12:05 PM] Colbert, Cathleen

**CB Hall (CAISO) (Guest)**

Hi Cathleen, the example in my head is when you have multiple solar+storage co-located projects downstream of a specific POI, each with separate off-takers and separate contractual shares of the POI. Would love to talk more if I am missing something.

Makes sense. Thanks for clarifying. That brings to mind that the aggregate capability constraint might be most representative of that aggregate Pmax for those resources. Thoughts?

[12:08 PM] CB Hall (CAISO) (Guest)

Exactly, the sub-ACCs should reflect these contractual shares of the POI. Thank you

heart 1

[12:13 PM] Abdul Mohammed-Ali

How will non-resource specific imports be evaluated?

[12:15 PM] Nuo Tang

**Abdul Mohammed-Ali (Guest)**

How will non-resource specific imports be evaluated?

probably still limited by MIC volume, but if shown for 16 hours, it will still have 24 hour MOO

[12:21 PM] Colbert, Cathleen

Brent Buffington On first blush, I think the shown continuous MWh, total shown MWh, adn downtime need to be worked more. The math isn't penning out for me right now. I look forward to another chance to vet how to get there next meeting.

[12:24 PM] Colbert, Cathleen

Separating renewable and storage of co-located makes sense but a hybrid is a single resource with a single resource ID. "Separating" a single resource will be very difficult. For hybrids, can we get to an appropriate shape instead?

like 1

[12:31 PM] Olson, Scott

Shouldn't LSEs retain the flexibility for when to show the battery discharge from a hybrid instead of developing a hybrid shape? If there was a hybrid shape, doesn't it assume a discharge profile that is not assumed for a stand alone battery?

like 1

[12:32 PM] Colbert, Cathleen

I would like to pursue how we get to an appropriate shape for co-located/hybrid - I am open to either Sergio's or Nuo's suggestions and think both should be discussed.

like 2

[12:38 PM] Nuo Tang

should we consider lunch break? this may really go over a bit longer?

[12:38 PM] Scott Murtishaw

Seems like the LSE should have the flexibility to show the charging and discharging in any slice as long as charging in any slice <= expected solar gen and storage discharge + RT losses <= daily solar gen.

like 3

[12:39 PM] Nuo Tang

there's no limitation on charging only from solar gen

like 1

[12:40 PM] Scott Murtishaw

Nuo Tang I should clarify this is for resources that are committed to 100% on-site charging.

like 1

[12:41 PM] Nuo Tang

if charging from onsite is hybrid, then you won't need to have such limitations if we switch to exceedance, co-located may be different

[12:41 PM] Colbert, Cathleen

**Nuo Tang**

there's no limitation on charging only from solar gen

FYI - If CAISO implements the new co-located model, it will allow that co-located pair of resources to only charge up to the variable resource output. So equivalent to 100% on-site charging commitment enforced through the market.

[12:48 PM] Carrie Bentley

Basic Excel Solver can track state-of-charge

laugh 2

[12:48 PM] Carrie Bentley

Cannot be done. Don't avoid it. Embrace Solver!

laugh 1

[12:49 PM] Pasquito, Joe J - Mktg Affil-E&FP

and the yearly fees

laugh 1

[12:50 PM] Scott Murtishaw

Seems like this would have been much easier with ELCC... 😉

laugh 1

[12:51 PM] Meck, Alan L - Mktg Affil-E&FP

that is *not* what a workshop is for when it's 20 minutes past lunch... 🙁

[12:52 PM] Nuo Tang

The commission asked for workshops, not lunches. 😄

like 1 heart 1

[12:52 PM] Scott Murtishaw

Cathleen, Carrie, Sergio and Doug -- can you be brief?

[12:52 PM] Meck, Alan L - Mktg Affil-E&FP

I would've structured our comments differently if I understood that nuance

[12:53 PM] Doug Karpa (Peninsula Clean Energy)) (Guest)

yes, I'm hungry

[12:54 PM] Nuo Tang

i vote for lunch break and come back to continue discussion. is that an option?

like 3

[12:55 PM] Colbert, Cathleen

Wait, who eats lunch at a normal time or not at their desk anymore?

[12:56 PM] Nuo Tang

you know you miss max's

surprised 1

[12:56 PM] Meck, Alan L - Mktg Affil-E&FP

it's not an actual lunch break cathleen. I have to jump onto EDAM, send some emails, make 2 phone calls, and somewhere in there eat lunch, then hop back on here at the end of "lunch"

heart 1

[12:56 PM] Scott Murtishaw

Let's keep it quick, finish by 1, and discuss more during resource counting and next compliance workshops.

[12:57 PM] Sergio Dueñas

Colbert, Cathleen made my point basically so I have lowered my hand.

[12:57 PM] Nick Pappas

I support Scott's recommendation - made other commitments following release of the agenda. Support 1+ hour of additional discussion time for next week's agenda

[12:57 PM] Colbert, Cathleen

**Meck, Alan L - E&FP (External)**

it's not an actual lunch break cathleen. I have to jump onto EDAM, send some emails, make 2 phone calls, and somewhere in there eat lunch, then hop back on here at the end of lunch

I'm just joking around, Alan. Good luck with those tasks!

[12:59 PM] Alexander, Maggie (she/her)

Thank you all for joining! Please remember to send your request to present at the next workshop (Resource Counting: hybrid resources on Wednesday 8/10) by COB today (8/3) and send your presentation materials to the facilitator by Monday 8/8.