

Minutes of RIR Stakeholders Conference Call, December 2, 2008, 11:00 AM**11:00 AM**

Chifong calls the meeting to order at 11:04 AM. Chifong goes over the agenda, callers participating and hands it over to Ron to go over the presentation [RIR Stakeholders Meeting_120208.ppt (3MB)].

Ron goes over the Agenda of the presentation and then explains the status of the RIR Project. The CAT had developed 12 draft renewable resource scenarios based information from the CEC. We have reviewed these draft renewables scenarios with the stakeholders in the last meeting in October 2008 and requested comments. The CAT has since received one scenario suggestion. The CAT incorporated this scenario. To ensure that the conceptual transmission plans would be based on a balanced set of renewable resource scenarios, the CAT further consolidated the scenarios by combining the scenarios that were similar.

The CAT also reviewed renewable resource developed in RETI and those in the CAISO Interconnection Queue. A series of renewable resource maps by technology were developed from the maps used in the CEC Intermittency Analysis Project (IAP) to show the locations of the resources in the RIR. For each of the maps, the resource locations from RETI CREZ and CAISO queue list were added to the map. This information is also shown in a table, which compares areas with renewable resources in the RIR, RETI 1B, and CAISO queue list. Slides 7, 8 and 9, show the regions, which have generation from RIR, RETI, and/or CAISO Queue.

BEW has reviewed the Phase 1B report and noted that RIR updated draft scenarios 1 through 9 are similar to RETI renewable zones for northern California. Scenario 10 was developed from the CAISO Queue list and scenario 11 is a placeholder for RETI scenario pending input from RETI. Slide 12 and 13 show the different scenarios that have been created so far. Slide 12 breaks down the scenario by renewable technology and slide 13 breaks the scenarios down by delivery point.

Tom Flynn: Question, there are a wide spectrum of scenarios. Are there other moving parts, such as changes in conventional resource build out and/or imports and exports in northern CA?

Ron stated that RIR has also added the conventional generation identified by the CEC GAO as needed to support the 33% renewables target. In addition, renewable resources were added and fixed in the base case to achieve a target of 33% for southern California entities. The renewables scenarios in the RIR would add enough renewables to achieve a 33% target for northern California entities.

Ron concludes with the next steps for the RIR project. There is a planned stakeholder meeting late January or early February going over all the work done to date with a planned half-day workshop.

Dariush Shirmohammadi: When it comes to identifying transmission specific to what you are doing versus what RETI is doing, have you tried to make some sort of a bridge between the two?

Chifong said that the understanding is that RETI would identify renewables zones (CREZs) and then developed transmission plan from those zones. The RIR project is not concerned with zones, but looks at mixes of renewable anywhere in CA that are credible and do transmission studies. These scenarios are stacked on top one another, there will be common paths that could be congested for most of the

scenarios. Given the fact that there is so much uncertainty, the goal is to develop the least regrets transmission alternatives. Rather than try to tie anything to a set group of renewables.

Ron added that when we had done our injections in the test runs and looked at the different points where the renewables would be assumed and the penetration levels from the renewables, we come up with ten or twelve 230 kV lines that usually overload regardless the resource scenarios. The same case was with the 500 kV lines. A few common lines would show up for several scenarios, and the purpose was to identify upgrade the commonly overload lines.

Chifong mentioned that Vulcan Power Company had requested that John McCaull who is the Geothermal Representative on RETI Stakeholder Steering Committee be given 10 minutes to address the RIR stakeholders on the status of the RETI process.

John McCaull: The RETI steering committee is responsible in making all the key decisions, but if they should lose their way, the key state agencies involved, PUC, Energy Commission, and CAISO, would help and break up logjams along the way. RETI is trying to be an all stakeholders driven effort. Beyond the steering committee, there are working groups that have formed over key issues such as transmission planning, environmental issues and a public outreach. Part of this remark will be RETI party line of what the effort is trying to do as well as individual observations. John has some concerns he thinks will be of some importance to the RIR project. Over the next few days (December 4, 2008), RETI will officially release the final draft of the Phase 1B report, which has an actual list of the CREZ zones (26 in total) ranked both in an environmental and economic supply curve. RETI adopted a methodology that delivers two separate supply curves that gives each zone a ranking.

What has transpired is that rather than taking the ranking of the zones, because of uncertainties around projections and estimations, RETI would to take all of the zones and put them into the next phase (phase 2) and then from there try to figure out where to prioritize transmission planning efforts. They realized that they worked with uncertain data and an environmental ranking methodology that has not been used before in any planning effort, and developed the metrics around both economic and environmental scores. They need to hone in on these zones and see what resources are on the ground. The zones were not meant to be the actual area of resource development. They discovered that in one of the zones that shown high potential for solar development turned out that 1) there were no projects in the queue and 2) the parcel and land use for that CREZ was problematic. RETI learned that the more they tried to draw the zones on the map, the more they needed to dial in. The phase 2 working group is underway trying to get the scope of work developed for transmission planning.

John pointed out a few more issues with the RETI effort. When RETI was first established a year ago, there was recognition that they should look beyond California's border for renewable energy areas that had high potential for delivery into California to meet RPS goals. At this point, RETI does not have CREZs from out-of-state. Another issue is how to come up with a methodology for areas in California that have high potential but need a clear idea on the environmental effects. John's other concerns are how would RETI prioritize the 26 CREZs and what to do about the out of state resources.

Dariush Shirmohammadi: In RETI, one of the biggest concerns is that they have focused on California solely and not on out-of-state resources. They need to expand the scope to the extent they can to make sure accesses to all legitimate renewable projects are provided. RETI has done a ton of research on very uncertain data and have come up with some good and bad areas for resource development. RETI has

ignored out of state and used approximate methods of environmental and economical calculations that result in hard and fast rules. Using these rules to rank CREZs and develop transmission for them would be a disastrous mistake. However, if we use the data in RETI, and the principle in RIR of no-regrets transmission, we can come up with transmission plans that benefit California greatly with the ability to integrate resources out of state. Dariush believes that the work in RIR is very instrumental in RETI being able to propose such an approach.

Logan Winston: Looking at the CAISO Queue list scenario, he wonders if it would it make sense to update the queue? On slide 11, CAISO queue list scenario, there was 303 MW in W-2, how does that correspond to other scenarios?

In response RIR will check and update the resources to reflect the CAISO Queue as of November 10, 2008.

12:20 pm – Conference concludes.

Next meeting will be a CEC Workshop in late January/early February of 2009.

Action Items:

- Update the CAISO Queue

Members in Attendance:

| First Name | Last Name | Organization |
|-------------------|------------------|---------------------------------|
| Robert | Sims | AES |
| Marisa | Mitchell | Aspen Environmental Group |
| Billy | Quach | BEW |
| Ron | Davis | BEW |
| David | Hawkins | CAISO |
| Gfaraz | Nabavi | CalWEA |
| Nancy | Rader | CalWEA |
| Mike | Kane | CEC |
| Jesse | Ante | CPUC |
| Tom | Flynn | CPUC |
| John | McCaul | Geothermal Energy Association |
| Logan | Winston | Horizon Wind |
| Monte | Meredith | Navigant |
| Matthew | Muldoon | Oregon PublicUtility Commission |
| Chifong | Thomas | PG&E |
| Daniel | Kim | PG&E |
| Kang-Ling | Ching | PG&E |
| Robert | Jenkins | PG&E |
| Tom | Miller | PG&E |
| Juan | Carlos | SandovalIID |
| Manuel | Alvarez | SCE |
| Henry | McIntosh | Sempra |

12/02/2008

Stakeholders Conference Call #6

Minutes
11:00 am – 12:00 pm

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| Lujuanna | Medina | Sempra |
| Dariush | Shirmohammadi | Shir Consultants |
| Foung | Mua | SMUD |
| Kevin | McSpadden | Vulcan |
| Larry | Tobias | WAPA |

DRAFT