Santee Cooper IRP | General Notice Meeting #1

2024-07-18, 1:00 pm EDT

This Q&A Summary documents the questions and comments that were asked, and the responses that were provided in the Q&A window during the IRP meeting. The questions and written answers are generated by the Zoom platform. The live answers are transcribed from the recording and are an attempt to capture each as closely as possible, as it was provided. All live answers have been edited for readability and may have been reordered to connect conversations. [Square brackets] are used to identify post-meeting ammendments or restated questions and material references.

#	Question, Follow-on Questions, Comments or In	Asked By	Response by Whom	Responses
1	Is the heat map of customer numbers, or of customer load? Wouldn’t load matter most for IRP planning purposes? Thanks!	Eddy Moore	written Carl Ciullo	Good afternoon Eddy, that map represents number of customers. That heat map is just one view of our service territory.
2	Is Rainey within Santee Cooper’s balancing area?	Eddy Moore	written Clay Settle	Hey Eddy, good to see you today. Yes, Rainey is within Santee Cooper's balancing area and is connected to our transmission system.
3	Model EPA 111(d) as reference case?	Findlay Salter	live Bob Davis	Findlay we're kind of trying to follow the order that we've got from the Commission, where we're treating the EPA's greenhouse gas rule as a sensitivity for our evaluation. At this point in time, we're going to take a fairly robust evaluation of that and do what amounts to a business as usual, no EPA greenhouse gas rule, and then a portfolio evaluation with the greenhouse gas rule in place, so that we can compare and contrast those two configurations, and fully understand the impacts of the rule. But at this point in time, we recognize that it is the current active rule in place for the US. We're trying to evaluate both of those for purposes of our IRP pilots. I'll go one step further, I think based upon the preliminary evaluation that you'll see our preliminary investigation of this subject, what we're seeing is it is meeting the greenhouse gas rule actually results in additional combined cycle facilities in the 2032 timeframe in order to manage for the retirement of the coal resource, the Cross coal facilities. And as such, it doesn't necessarily change Santee Cooper's recommendations or intends for a preferred portfolio that focuses then on combined cycle, solar, wind and battery resources to be installed as we get to the 2030s. So it doesn't change any we aren't we don't believe at this time that it will change any fundamental positions or moving forward recommendations for resources except to add to those resources.
			written Findlay Salter	Ok - so thats a sensitivity case

4	could you recap how you will consider sensitivity anlaysis for high and low cases for CO2 prices	Findlay Salter	live Stewart Ramsay	And he asked further, could you recap how you'll you'll consider the sensitivity, sensitivity analysis for high and low cases for CO2 prices.
			live Bob Davis	So our intent at this time, Findlay, because the CO2 emission cases were intended to work as a proxy for evaluating greenhouse gas regulations; our recommendation is to not model the CO2 pricing sensitivities, but instead to use the EPA's greenhouse gas rules as representative of the current greenhouse gas regulations for South Carolina or for Santee Cooper.
			live Stewart Ramsay	Yeah, and I know that Clay will probably touch on the topic again later. So Findlay, or others, if there's more that you want to talk about in terms of that we can leave a little bit time later and discussion.
5	I've got to jump off for another meeting, good to see everyone	Findlay Salter	written Clay Settle	Thank you for joining today! If you have additional questions after dropping off, please feel free to reach out. Thank you!
6	Does the IRP Update go into greater detail regarding the resources that fulfill the 2024+ PPA?	David Nordenmalm	written Clay Settle	Thank you for the question David. The IRP Update will go into greater detail regarding how Santee Cooper plans to meet near-term load requirements and reserve margin targets. PPA's may be a resource needed in the resource porfilio to meet demand.
			written David Nordenmalm	Thank you
7	Have y'all considered any ways to consider corporate carbon commitments related to potential new loads that might not come ultimately choose to come to locations that don't plan to develop enough renewable energy?	Taylor Allred	written Chad Hutson	Thank you Taylor. Santee Cooper has a Green Power program available to all its retail including direct served industrial customers to assist in achieving their carbon related goals.
			written Clay Settle	Good afternoon Taylor, our potential new large loads analysis incorporates a great deal of uncertainty with whether customers will site on the system. If a customer indicated to us that their carbon commitments were impacting the likelihood of connecting, we would incorporate that into our assumptions.
			written Taylor Allred	Thanks, y'all!

RH /8	I have a question about the solar cost modeling when there is an opportunity for Q&A. Thank you.	Hamilton Davis	written Stewart Ramsay	You can type your question here, and the SC folks will provide the answer, or you can raise your hand if you would prefer to ask it live.
			live Hamilton Davis	Thanks. Hey, Bob. Question about how the model is handling the solar cost assumptions? I'm assuming the per megawatt hour is an output based on a fixed capital cost on the front end this
			live Bob Davis	We do an off-sheet calculation. I apologize for jumping over you there. Do you have more to that question?
			live Hamilton Davis	Well, I guess just a little more context. So is this dollar per megawatt hour value assuming curtailments within the model for solar and system?
			live Bob Davis	Sure. Two do things, just to kind of rough it out. This levelized cost projection we do pre-evaluation and in Encompass. What it represents is a PPA price for a new contract that will be executed in a given year. In other words, it's a fixed price that we would assume to be executed in that year. When we model the dispatch of the solar resources, as well as wind, we allow the model to curtail the output of both solar and wind resources. We treat them as as firm output resources based on their profiles that we're simulating. But we do show that effectively, Santee Cooper is meeting a take-or- pay penalty associated with that curtailment. So when the curtailment does occur in the model, that's when you're going to see additional battery being installed in order to make up for that curtailment. At the end of the day, when we have looked at the results, we aren't seeing necessarily except under some extreme cases, a large amount of true curtailment that occurs. Generally the batteries will be installed to address the issue of curtailed energy. I would also say that if you think about this from the standpoint of, even if Santee Cooper were developing these assets on their own and they were incurring their own capital cost and annual fixed O&M associated with the facilities, they would have those dollar amounts identical to what we're modeling here on a $1 per megawatt hour basis. And they would be expected to incur those every year, or given installation, regardless of whether the unit was being curtailed or fully dispatched. Since those capital and fixed don't want them, cost wouldn't disappear. So we feel that whether we're modeling this as a PPA purchase or whether we model it as Santee Cooper self-building and owning these assets, we'd get the same answer at the end

			live Hamilton Davis	Okay, that all makes sense. I guess, maybe just a comment to flag. Through the RFP process, there's a 7% uncompensated curtailment component, the consequence of which is going to be, you know, something like a 7% premium on the bids, you see, because of the assumption that that curtailment will in fact happen. And so I think aligning the procurement process with the assumptions of the IRP is going to be pretty important for Santee to be able to appreciate the actual economics of, you know, what was modeled, versus what they're getting.
			live Bob Davis	Fair, fair enough. I will say that the IRP, at the end of the day, is not intended to evaluate specific resources or bids. So keep that in mind. It's generally intended to be representative of the quantity of resources that Santee Cooper may seek from the marketplace. Or an indication of how many megawatts Santee Cooper may need for a cost-effective portfolio. But, point well taken.
			live Hamilton Davis	Okay, thank you.
9	Did you model or plan to model in later IRPs the use of Long Duration Energy Storage (Ex: Pumped Storage, Compressed Air Storage)	David Nordenmalm	live Bob Davis	The two examples you mentioned, pumped hydro and compressed air. We are not aware of a reservoir that could be used for compressed air energy storage, like an underground salt dome, etc. that could generally be used by Santee Cooper in its geographic footprint. With regard to pumped hydro, we certainly would be interested in any pumped hydro that was available. But I will say that for the pumped hydro facilities, and the elevation required that we see in South Carolina, most of those are within the Duke service territory footprint. If those became available, or if there was a new pumped storage hydro facility with which Santee Cooper could participate, I think Santee Cooper would take it under consideration. But I think we also have to recognize that in that there would end up paying point-to-point wheeling on that, which can make that a rather costly endeavor. On top of that, we are not aware of any new sites that could generally be developed, or expanded to accommodate a new pumped hydro facility in Santee Cooper's nearby geographic area. We are just not aware of anything in that regard. I will say for those of you who have transited the mountains of South and North Carolina, you will quickly figure out that they are fully populated. There are very few areas where there's not a home, especially once you get up into the mountain areas. So it's not necessarily an endeavor that we believe could be undertaken today. And it would have to be likely a site that was identified by multiple utilities, with governmental participation to develop a new pumped hydro facility somewhere in the southeast.

			live Stewart Ramsay	Right but you are I know from our conversations as I was looking through the materials, you and Santee Cooper are looking at long duration storage with batteries, iron air, and other technologies not just not just lithium ion or the current technology. You're looking at long duration storage period.
			live Bob Davis	We are certainly looking at that, Stewart. I will say that when you start talking about some of the more, some of the newer technologies, you mentioned iron air there. While the technology does look promising, we don't have a whole lot of assumptions on the life of those units, the operating costs, performance, etc. So we certainly are keeping aware of it and on track, and to the extent that it proves to be a cheaper alternative than lithium-ion, we'd certainly be interested in that type of technology.
10	What revenue model is assumed to support building BESS? Is it a self-build or capacity payment? With no ancillary services revenues, it is hard to make a BESS work financially.	Kenneth Bean	written Jonathan Nunes	The modeling at this point is looking at a PPA/tolling type resource with some capability to provide ancillary services. However, we are not modeling within the IRP itself sub-hourly operation. Such more detailed modeling may be taken up at a later point.
11	Are there any updates to the status, cost, or design/location of any pipeline upgrades necessary for the preferred portfolio?	Eddy Moore	written Bob Davis	Similar to how we modeled firm NG supply for the 2023 IRP, we intend to model a fixed NG pipeline reservation fee for any simulated new CC resources. The assumptions used for the 2023 IRP was $2.19/MMBtu based on 100% operation of the CC during a peak winter day at 100% operation, with this fee supplied over each year. We will be updating this assumptions once we file the 2024 IRP update.
			written Bob Davis	"applied" not "supplied"
12	Will the Reference Case include the costs to comply with the 2024 ELG rule at Cross?	Dori Jaffe	live Clay Settle	The ELG rule, that's kind of a tough one. If the if the GHG rule is upheld, it's not stayed, then you'd have to retire cross and so you wouldn't have to spend ELG money. If the gap if the EPA 111 is stayed, and we want to continue our cross and we would we would have to spend spend that money. So it's for modeling analysis. We're not We're not playing a model that costs because it's really, we're based on what happens the GHG rules, we're going to spend that money and not spend that money because we have, you know, we're going to keep cross running based on the GHG rule.

RH	Yes, and apologies if y'all address this earlier because I had to drop off briefly for another call, but I think at a last board meeting, there was mention of a new joint transmission line with I believe up to neighboring IOUs. And I'm just wondering, is there anything that y'all can say about that? Are we talking about a 500? kV line? Is it likely to be, you know, a regional project or inter regional? Quiet, quite quiet. Can you tell us?	Eddy Moore	live Clay Settle	Yes, sorry. It actually didn't get to watch that for me. I'm not sure what, what project you're referring to apologize
			live Jane Campbell	Hey, I, I watched the board meeting. I saw that, but we really any I'm sorry, we really don't have the right folks in the room to answer that question. I'm not up to speed on what? What's behind that? So I'm sorry. Unless there's somebody in the background that that knows the answer, I don't know if we've got the right folks to answer that.
			live Eddy Moore	All right. You know, the thing that made me think about it was this kind of thinking through what happens if you have to retire cross earlier or not? Because I think in the 2023 IRP in the retirement across triggers, really significant transmission upgrades. Those I think, are premised on replacing all of the Cross capacity with the ability to import from neighboring systems. So it when I saw talk of working with neighboring utilities on a partly Ira funded joint transmission project, it made me wonder if that's it.
			live Clay Settle	I don't know. We can we can ask our experts and get back with you on that.
			live Eddy Moore	Thank you