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Subject: Comments on DSP investigation
Sent: Tue 8/25/2020 4:35 PM GMT-07:00
Importance: Normal

Dear Colleagues,

Please find my comments as a private individual on the DSP investigation below. These comments have not been endorsed by Portland State University.

Thanks for your hard work on this complicated topic!

Forecasting/Hosting Capacity

1. 1. I agree with Oriana and NWEC that the OPUC should prioritize GIS layers of Socio-economic vulnerability in its requirement for IOU hosting capacity analysis (or whatever you want to call it).

2. 2. Its my understanding that the CA circuit level forecasts (even after being validated—aka the [IREC analysis](#)) were outdated.

    a. a. These models need to be updated regularly to be useful for decision makers, both DER developers as well as load aggregators.

        i. They should be maps with data table export capabilities (this is baked into most map display software so not a problem)

3. 3. Similarly, on the demand side, in the era of cloud servers we should expect that **load data reporting should be nearly real-time**

4. 4. This DSP investigation shows the limitation of the Oregon model that silos energy efficiency from demand response. Its my understanding that ETO is not terribly collaborative with IOUs. This needs to change and if it requires a rethink of ETO's (super outdated) charter/authorization to include some DR programs then so be it.

5. 5. The issue about top down vs bottom up is a bit of a straw man. Of course, there should be both.

    a. a. Note that bottom up is probably going to be at the zip+4 or block group level, since this is the lowest level of data reporting on solar, storage, and smart grid device penetration. So its already aggregated. These aerial units don't align with utility circuits, so a fair bit of data mashup will be required.

6. 6. The DSP shouldn't pick "winners" as far as technologies go. Solar + Storage is an obvious candidate for this, but the solar resource in Willamette valley load centers is limited. The DSP rules should allow new IoT technologies that we cant imagine (along with heat pump technologies) to be reported and modeled.

7. 7. Building and Vehicle Electrification is a thing-or will be (although needs to be done with eyes wide open. See my Public Utilities Fortnightly (PUF) [paper](#) on this). Its not clear that we can forecast this, so simulations that think outside the econometric forecasting box are required.

    a. a. Similarly, utility forecasts assume that the future looks like the past, which for electrification is white, single family, middle+ income. This is problematic on both the equity and effectiveness criteria.

Community Engagement

1. 1. I agree that CBOs are important partners but their participation needs to be incentivized. These organizations operate on a shoestring budget, with staff that have too broad portfolios, and have limited technical capacity. If equity is important, then funding needs to follow.
2. 2. Second, I also strongly encourage the PUC to think about latent stakeholders who haven't been involved yet. I think of neighborhood associations as potential partners, but there are likely others that could be engaged to bring benefits to their neighborhoods. Again, these neighborhood associations have proven NIMBY and racist in the past, so this should be considered as well.
3. 3. My research shows that community engagement and modeling should be integrated. I suggest that stakeholder modeling (mapping at a minimum) should be practiced systematically. I talk a bit about that in my PUF paper.

Utility Business Models

1. 1. The PUC should explore the opportunities for utilities to rate base software and cloud computing for analytics and software-based non-wires alternative program delivery. Incentives should be appropriate to the change in behavior that is required from stakeholders. Incentives should be disbursed based on IOUs meeting key performance indicators.

Respectfully,
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