

The Energy Efficiency Foundation of Integrated Demand Side Management

Moderator: Marc Costa--Program Manager, The Energy Coalition

Michael Bacich--Assistant General Manager, City of Riverside Public Utilities:

- Listen to your customers/constituents--Riverside created a Green Task Force filled with community members
- City has new Green Action Plan called Green Riverside
- Whole House rebate program--part of city's answer to the housing crisis
- Talk about accomplishments, exposure and recognition often open up new opportunities
- greenriverside.com--simplified name for a city's sustainability website, has a lot of info that residents can use to learn about and live more sustainably (sustainability radio show archives, map of bus stops, etc.)

Joe Herr--Principal Strategic Planner, Pacific Gas and Electric Company

- PG&E is exploring the possibility for utilities to get more involved with various types of microgrids, including in single-customer facilities, remote communities, and integrated communities
- Gave Angel Island as an example of a remote community microgrid pilot
- On Angel Island energy efficiency reduces energy demand by 25%--operationally and financially critical for a remote community that is powered by DERs
- Integration of timing for energy use can also assist in reducing energy demand, especially during periods of the year when less solar and wind energy can be generated

Audrey Lee--Vice President of Analytics and Design, Advanced Microgrid Solutions

- Place and time of energy generation and use are especially important with renewable energy and can be especially effective to reduce the need for a consistent base load
- Company received a grant after the close of San Onofre's nuclear plant to work on projects that reimagine the grid in Irvine--goal is to use distribution resource planning, energy storage, and efficiency to reduce energy demand in the area
- Make sure that investment you put down is providing multiple services--to all beneficiaries (e.g. customers, utility)

Discussion

- There is no one software out there that can tell you how to size and manage your microgrid
- Price drives customer's desires
- Integrated approaches are key--ex: CHP
- Retrofits need to start looking different to really capitalize on integrated solutions for renewables and efficiency

Questions:

- Will there be enough power produced to eliminate the demand response program through SCE post-San Onofre closure?
 - Demand response will change but won't go away--will be made more firm and dispatchable. AMS's program is only a drop in the bucket for all that needs to happen to make up for the lack of electricity from San Onofre.
 - Resiliency and reliability are very important for energy--but what is the local government's responsibility for this energy?
- How are we going to get on the path to TOU pricing, storage, and solar all together when some of these necessities are coming along slower than others?
 - Storage and inverters can do even more than solar can
 - Brought up example of Denmark--long term planning is necessary because at times Denmark actually produces too much wind power and doesn't use their CHP and waste to energy facilities, which some smaller communities have invested in
- As utilities/people who have presented impressive work on this front in conjunction with utilities, what message would you send to local governments looking to start CCAs and other progressive energy solutions outside of the utilities' scope?
 - Collaboration is important
 - At the end of the day, getting carbon out of the air is the most important thing and what we're all working towards. There may be underlying tension, but we all have the same goal and should be supporting each other as we continue working towards this.
- We've made some progress breaking down silos between EE and renewables. Where do you see the state going in the future? Where are we in California relative to other states and countries?
 - The rest of the country is a number of years behind CA
- How can EVs be integrated with EE, DERs, and demand side management?
 - Discussion for later on in the conference