Community Questions

1. **Energy efficiency best practices for EIRP do not seem to be considered or modeled throughout this plan. This is a topic that has been a high-priority for our community, especially advocates for low-income households.**

   Siemens PTI used 0.5% incremental Energy Efficiency (EE) reduction as a percent of retail sales per year to determine the mean load and demand projections. Demand and load projections were forecast over the time horizon (2020 – 2050) based on a wide range of potential energy efficiency, demand response, distributed generation and electric vehicle adoption. Load or demand forecasts below the mean inherently assume a higher level of EE penetration. These stochastics were used across all the portfolios tested and therefore considered a range greater – and less – than 0.5% which was used for the mean.

   It is important to note that OUC offers a wide variety of energy efficiency programs, including programs for low income customers, and as a result performs above state and national averages that measure energy efficiency as a percent of retail sales.

2. **Why is energy efficiency not showing in the projected load profile and the supply profile? Is DSM (demand-side management) and DR (demand response) not considered a resource? If not, why?**

   Energy Efficiency, Demand Side Management, and Demand Response are included in the EIRP as an impact to the load forecast. Using 0.5% of retail sales incremental reduction per year to determine the mean load distribution, Siemens PTI was able to evaluate a broad range of energy demand levels in the stochastic analyses both above and below the mean projection. This range of stochastic inputs was used across all the tested portfolios. EE was not considered as a supply side resource.

3. **The $30M by 2030 for energy efficiency investment is a reduction in OUC's current spending, from about $6M per year to the projected $3M per year. Why a reduction?**

   Generally, customer conservation incentives range between $3.2M to $3.8M per year. We committed to continue spending at this level until 2030 and to refining, tailoring and evolving our programs too. In 2021, OUC will conduct an in-depth market potential study for future energy efficiency programs and investments.

   Supply side conservation programs are more cost-effective and benefit all customers. The reduction in spending is a result of OUC recently completing several large capital intensive programs, which means they can no longer be counted, such as turbine efficiency upgrades and LED streetlight conversions. It is important to note, OUC is the only utility in Florida that has completed non-decorative LED streetlight conversions on

all roadways. We invested approximately $3.5 million in this endeavor. New cost effective projects will be budgeted when they are determined and implemented.

4. **The energy-efficiency model uses a 0.5% load reduction per year out to 2050. Why is the model not using the 1% goal that the OUC commission and OUC staff has agreed to?**

   The EIRP project began in January 2019. The 1% EE as a percent of retail sales goal was established after Siemens PTI completed their modeling and includes more than customer facing programs. While we committed to a 1% goal per year for energy efficiency for 2020 and 2021, that level will be more difficult to achieve going forward. That is because we are concluding capital intensive supply side programs that can no longer be counted once completed.

   Operationally, we have to plan to generate enough energy to meet demand at all times. This is why we chose a more conservative forecast – we can incentivize, but we cannot mandate actual customer investment in energy efficiency.

   We are committed to our current level of customer facing conservation and in 2021 will conduct an in-depth market potential study to determine future energy efficiency potential and associated costs.

5. **When we talk about "affordability," are you all referring to affordable utility <u>rates</u> ($/kWh) or affordable utility <u>bills</u> ($ people pay per month for OUC services)?**

   We are referring to the residential monthly bill for 1,000 kWh. The majority of OUC's costs to serve the residential class are fixed (~65%), so a decrease in consumption does not translate to a one-for-one decrease in monthly bills. Even the best energy efficiency programs will never positively impact as many customers as lower rates.

6. **It seems we do not fully value distributed energy resources, like rooftop solar and distributed storage. The concept of "virtual power plants" are becom[ing] a reality in 2020 and can support the ability for OUC to reliably utilize DER and DSM as a resource to meet our energy needs is viable within the next 10 years.**

   OUC offers an array of solar solutions and is leader in the solar space. Today, rooftop solar adoption in our service territory is 31.5 MW, which is a 52% increase from last year. Additionally, the recommended EIRP path forward increases OUC's current utility-scale solar from less than 10% of OUC's portfolio mix today to 42% by 2030. It also increases battery storage from 0% today to 9% by 2030.

   OUC has offered net metering since 2008, when it was established to encourage customer-sited solar and offset barrier costs to entry. We've helped nurture Central

Florida's solar industry and we remain committed to making solar affordable and accessible for all customers through a wide range of solar solutions, including our OUCollective rooftop solar, OUCommunity Solar farm, utility scale solar, and floating solar.

The way customers use energy is changing and OUC is always evolving to support that. Alternative pricing designs and programs to shift usage off peaks while still reducing overall usage are critical to meeting customer expectations and OUC's net zero goals. That's why we already offer a residential home battery rebate that provides solar customers with a $2,000 rebate and we are planning to pilot a platform for controlling smart thermostats. We're also launching a Time of Use pilot this spring.

On a larger scale, we are researching ways to optimally control distributed energy resources like solar, energy storage and EV charging at our Nanogrid project. In 2019, OUC was part of a team that received a $9 million grant from the U.S. Department of Energy (DOE) to study the production, storage and transport of hydrogen for the dispatching of electricity or as transportation fuel. OUC is one of only a few utilities in the United States exploring hydrogen's potential to solve the challenges of decarbonizing the grid.

OUC's investments in a variety of solar programs, rate design pilots and innovative R&D projects like the nanogrid clearly show that OUC's values the power of distributed generation and is committed to its growth well into the future.

7. **Is the paragraph in section 3.1.2 the only section of the EIRP that distributed generation/rooftop solar is mentioned and it's potential to assist with meeting our energy needs?**

   Yes.

8. **Why is the NREL dGen study and the study results not further described in the EIRP? Why not include the theoretical potential, economic feasibility, and the anticipated adoption probability that was outlined in that study?**

   OUC engaged NREL independently from the EIRP to help OUC understand the uncertainty and potential of rooftop solar and energy storage. The NREL study analyzed distributed PV adoption using sophisticated modeling techniques to assess the potential for customers to adopt solar over the next 30 years based on different assumptions and scenarios for technology costs and rates. The study's purpose was to provide us with a forecast and a range of outcomes and help inform how changing market conditions could impact solar adoption as well as how adoption could drive different programs and business models.

   EIRP's are standard, responsible, due-diligence practices for utilities that typically look

across a 20-year horizon as driving forces in the energy industry change. While the NREL study provided valuable insights, for the EIRP we specifically relied upon it as a key input to the load forecast. We chose a more conservative forecast because we can incentivize adoption, but can't control actual customer investment in solar PV. To ensure operational reliability to meet the power needs of all customers, we have to plan to generate enough energy to meet demand at all times.

9. **What is the difference between "net-metering" and "net-billing"? In the dGen study, that switch to net-billing reduces rooftop solar potential significantly. (370 MW versus 66 MW)**

   In the NREL study, "Current Tariff" refers to our net-metering policy available to OUC solar PV customers whereby excess solar generation is compensated at the full retail rate. "Net Billing" refers to excess solar generation compensated at bookended avoided fuel cost. According to the NREL study, future distributed solar adoption in OUC's service area exhibits a wide range of variability and shows acute sensitivity to both changes in solar photovoltaic (PV) costs as well as rate tariffs and PV compensation schemes.

10. **Is OUC's intent to move away from the PSC ruling of offering retail rate net-metering policy to our customers?**

    FPSC's net metering rule applies to investor-owned utilities, including the mechanics of how the billing for net metering works. Municipal utilities are only subject to paragraph 10, Reporting Requirements. OUC's current policy is similar to what is required of the IOUs, but is actually more generous.

    Here is a link to the FPSC net metering rule:
    https://www.flrules.org/gateway/RuleNo.asp?ID=25-6.065.

11. **Is the assumption that electric vehicles (EVs) will essentially offset the load, and therefore revenue loses, from DER (distributed energy resources) and energy efficiency (EE)?**

    EV charging will increase OUC's load. DER and EE will decrease the load. We did not assume these directly offset each other.

12. **Considering Stanton coal plants are already "dual-fuel" and using natural gas in combination with coal, why is $50M needed to officially switch to exclusively gas-fired generation?**

    Currently the natural gas burners are startup and supplemental fuel supply only. New burners are required for 100% capacity on natural gas only. A conversion is less than 1/10 the capital cost of building a new combined-cycle natural gas plant, provides

generation flexibility, and saves ratepayers even more by avoiding stranded assets and leveraging the current transmission infrastructure.

13. **In section Section 8.4 (West Hurricane) regarding the Resiliency attribute metrics: Why was the impact of a west coast hurricane more drastic than an east coast hurricane for the 100% RE scenario? I would think it would be the opposite considering the proximity to the east versus west coast of Florida...**

    In the West Coast hurricane scenario, 100% of solar was assumed to be offline in the first week and 50% of solar in the second week. The East Coast hurricane had a 75% reduction in solar generation in the first week and 50% in the second. Because it is hard to predict hurricane impacts this allows some variation in the analysis and allowed us to study various levels of solar on resiliency. We could have tested it either way.

14. **What "operational costs" are saved by moving coal closures early, suggested in Section 9.2?**

    That reference is regarding the cost associated with the next coal combustion residuals landfill cell expansion. By moving up the conversion, the avoided cost is estimated at approximately $40M.