

Tom Osterman – candidate forum answers.

- 1. What is your vision for the future of energy for San Juan County as a whole? I envision continuing the trajectory that OPALCO has selected to ensure reliable, resilient and cost effective provision of electrical power. The emphasis on Microgrid deployment should continue given the success of the Decatur Island project as a great test project. I believe that Microgrid implementation with energy storage is one step that will assist with improving resiliency and local grid back-up and load allocation during emergencies. This approach however is not sufficient for a significant amount of load support in the interim. We are still dependent upon BPA provision of the majority of customer electrical load supply. I am concerned about regional impact of electrification (EV charging for example), de-carbonization mandates and related regulatory actions that will impact grid stability and reliability. We must keep OPALCO's primary obligation to provide reliable electrical power to customers as a focus and pursue options that continue this priority.**
- 2. What is your understanding of OPALCO's plan for its future of energy supply? The OPALCO plan includes an aggressive goal for dramatically increasing the percentage of locally generated power coupled with energy storage. In addition, new load growth driven by de-carbonization and shift to electrification will put additional pressure on load reduction efforts in existing homes/businesses with older technology via energy efficiency improvements. IE, reduce load by improving efficiency, support new load growth with new local renewable sources and maintain-improve resiliency and reliability with local energy storage distributed across the local grid. Smart power (load management) and dynamic pricing based grid allocation are also important tools. There are many challenges but also exciting opportunities to embrace the future and improve the power system and improve environmental stewardship at the same time. OPALCO's plan is assertive, forward-thinking and prudent.**
- 3. Given the intermittency of renewable resources, how important is hydropower in your vision for a future energy supply in the islands? I think Hydropower is a significant issue in terms of providing the majority of BPA grid source energy and with consistency and stability as opposed to the solar and wind source variability. There are many examples of grid stability problems caused by the characteristics of high percentage variable availability energy sources. With the pressure to reduce hydropower capacity (Dam removals) and pressure to increase percentage of renewables such as wind and solar along with increasing electrification, I am concerned about all of these competing forces that will potentially negatively impact capacity and reliability.**
- 4. What role should OPALCO play in the regional power community? OPALCO is a small entity in terms of customer base and KWH distributed but also has a unique role to play in the region due to the isolated nature of the county/islands distribution system, dependency on BPA and limited options for additional grid source or alternate local energy sources. The recent Decatur Microgrid project is a great example of a high profile (regionally and nationally) effort for local-source independence and storage. OPALCO should maintain and increase its visibility and innovation within the regional power community.**

5. Where will you draw the line between local energy resilience and island aesthetics? **This is a very difficult issue. The fact is that P.V. arrays and wind generators feature a negative aesthetic impact. San Juan county and many affiliated groups within the county have invested significant efforts for habitat preservation, aesthetic preservation of open space and natural wild buffers and de-prioritization of development. Further implementation of local renewables are in conflict with many of these goals. Tidal energy has promise in this region and perhaps with limited aesthetic impact but the technology is not fully developed nor reliable enough to scale up to significant source of local energy supply. Attempting to increase the percentage of energy locally produced by renewables will require significant efforts and creativity to mitigate the aesthetic impact on the community.**
6. The County Comprehensive Plan cites “energy independence” as a goal. What is your understanding of this goal? **The Comprehensive plan describes this goal in the context of the holistic approach to maintain and improve the quality of life and maintaining the unique and valuable lifestyle, aesthetics and natural beauty in the face of multiple headwinds. Energy independence in this context is a worthy goal but also at a very basic technical level is quite difficult given the amount of electricity required by the local grid and the renewable energy that would be required to provide a majority of local needs and to diminish the off-island grid source provision and achieve “Energy Independence”. Even with significant solar arrays and grid-tied energy storage, it would be difficult to achieve. With increasing load from EV charging and other electrification efforts, this is a significant conflict to increase independence while increasing load and reducing aesthetic impact of the renewable sources.**
7. How would you propose to keep member’s power bills affordable? **The maintenance of the reliability of the grid distribution equipment and related components needs to be properly funded and not negatively impacted by investment in renewables. However, we also must increase the progress in renewable energy source deployment. Creative and assertive pursuit of state and Federal grants are one option to offset capital cost burden on member power bills for capital projects. Rate increases to fund capital project costs are a very difficult issue and particularly for those with fixed incomes. OPALCO needs to be very sensitive to this issue.**
8. What role should OPALCO play in the overall sustainability of our island communities? **I feel that OPALCO is a leader in terms of setting an example for local sustainability – the very definition of sustainability in this context is exemplified in many of OPALCO’s programs and projects and will continue to be a key part of this community goal.**
9. How aggressive should OPALCO be in pursuing new technologies and energy solutions? **OPALCO has a somewhat unique advantage in this area to be innovative, creative and perhaps take limited risks where a larger utility and customer base would not be able to accomplish this. Due to the unique challenges of a multiple island electrical transmission system and desire for reliability, resiliency and energy independence, OPALCO and the greater community should be motivated to pursue and deploy new solutions.**

Tom Osterman – candidate forum answers continued.

ROCK ISLAND

- 1. How important is broadband connectivity to economic development and quality of life in SJC? Extremely important, the demand for broadband is significant and increasing monthly as we observe a dramatic transition to more remote work options and the desire for families to live in a more rural environment. Separate from this recent transition, the basic life safety and health of the community is underpinned by reliable communications. I spent most of my career in the broadband industry and observed the dramatic technology shifts, implementation of fiber optic transmission and related capital cost and debt burdens. It will remain a challenge to fund the backbone and distribution growth required in such a unique multi-island configuration. We must continue to ramp up growth of broadband capacity to support economic development, viability of work from home options and local health-safety of the community.**
- 2. What is your vision for providing communication technology throughout SJ County? This is such a significant goal to increase bandwidth and more consistent distribution and should be driven with a multitude of technology options. The deployment of fiber, augmentation of cellular wireless and perhaps consideration of more ubiquitous Wi-Fi mesh networks with lower aesthetic impact are all options. I think most would agree that there is significant work to be done to accomplish and catch up to expectations as well as to manage a bandwidth growth path that will sustain future customer load.**
- 3. What value do you add to assist Rock Island in realizing that vision? I spent 30 years of my career in the broadband network design, implementation and construction aspects of advanced networks and feel I provide a unique insight and skill set for this role with OPALCO-Rock Island.**