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March 2022 – Answers to OPALCO board election questions

- 1. OPALCO’s mission is to provide safe, reliable, sustainable and cost-effective essential utility services with a commitment to the utilization of renewable resources and carbon reduction. Which of these is most important to you and why?
 - Clearly, we must provide safe and reliable power. That's always our first job. We need to do that as affordably as we can, given the rising cost of power, and control our costs. Within this framework, we must work to improve resilience, sustainability, and create local renewable generation, while encouraging efficiency and moving away from fossil fuels by helping members switch to EVs and adopt heat pumps. All elements of our mission are important, but they build on each other, starting from a foundation of safety and reliability.
- 2. OPALCO load doubles in winter, but solar production output drops to 1/16 (of summer production) in winter. What new energy resources would you like OPALCO to consider for meeting winter load?
 - As our overall demand for power grows, winters will be especially difficult, because solar and wind become highly variable, and Eastern Washington wind is often least available at the coldest times. We should be (and are) exploring tidal power for exactly this reason -- it is renewable, good for our carbon footprint, and is available when other sources of power are not. Local tidal generation will also help us lessen our mainland demand at times when that power is at its most expensive (like we just experienced in December). But efficiency is critical to meeting demand -- by lowering those peaks when things are coldest or hottest. Replacement of old-style electric heat by modern, efficient heat pumps can reduce our total demand because heat pumps can deliver the same heat with 2-3x less electricity consumed. In sum, to meet our growing demand, we need BOTH new sources of power, and increased efficiency, so that we can keep our demand within our possible supply.
- 3. Solar power requires a lot of sunny land for solar arrays. County land use codes favor preserving local rural character over solar on open land. How do you think about these potentially conflicting approaches to land use?
 - Preserving the character of our islands doesn't mean we can't have infrastructure. There are great examples of solar installations that co-exist with animal grazing and other agricultural activities, and member generation on AG land would also contribute to the economic sustainability of farming and ranching, which keeps rural land rural. Clearly, solar arrays need to be built in ways that blend in well with the landscape, but we need to change our thinking about how solar power interacts with "rural character" -- well placed solar power will help us keep density low, agricultural activities sustainable, preserve open space, and give us the local renewable power we need. This is not a zero-sum game -- everyone wins with carefully permitted and designed solar.

- 4. OPALCO depends on hydropower from the mainland for more than 84% of its total power supply. How important is hydropower in your vision for a future energy supply in the islands?
 - Hydropower is crucial to our lives here in the islands, and to the Pacific Northwest as a whole — no other source of firm predictable power will keep the electrical grid stable and reliable and provide the bulk of the capacity we need. It is simply not possible to meet our entire demand locally. Hydropower is a limited resource, though, so it must be augmented with other renewable resources, both at large scale where appropriate (e.g., solar and wind in Eastern Washington), locally in the form of individual member-owned solar, cooperatively owned community solar arrays, and carefully selected sites for tidal power production.
- 5. It's estimated that OPALCO's load growth will double between now and 2050 due to the electrification of heating and transportation. Questions:
 - a. Where should this new energy come from?
 - Some should come from local renewable generation -- this includes both member-owned resources such as rooftop solar panels, but also community projects led by OPALCO, including our solar arrays and future tidal power generation (as the technology matures). But growing our total demand will require drawing power from mainland sources. This will include our BPA allocation as well as regional generation capacity that does not yet exist. OPALCO, through its partnership in PNGC, must continue to be at the table for the generation and transmission needed in the Pacific Northwest to satisfy our needs.
 - b. Where should new renewable projects be located?
 - My answer is restricted to our local resources (see the previous answer for the regional view). Community solar arrays should be located at sites with good exposure and proximity to substations, but we need to work with the county, neighbors, and landowners to make sure that projects are built in a way that is sensitive to the needs of each site. Tidal power will require a site on land, adjacent to the underwater tidal locations, to bring cable ashore and tie into transmission. As we demonstrate with existing undersea cables, this can be done in a sensitive manner, if the sites can be found. But doing this will require us to come together as a community and make land use for renewable energy a priority.
 - c. Will local resistance limit siting and permitting?
 - There is always some resistance because we're talking about people's property and views. But I think OPALCO has a strong track record of working well with owners, neighbors, and the county to preserve the character of our islands, while creating the infrastructure needed for us to live here. I expect that to continue. A critical change needed is in our land use regulations -- there is a fluke in the zoning language that prohibits power generation on certain parcel types, dating from the days when this would have meant diesel generators, not quiet clean solar panels. We need to work together as a community and make careful changes to the land use designations to allow more solar generation while preserving the agricultural and rural quality of our home.

- d. Who pays for it?
 - The short answer is, we all pay for it, but we do so in many ways -- not just in the electrical rates. We do as much as possible using grants -- especially in the initial stages of a renewable project. OPALCO has a very strong track record obtaining grants to drive our renewable generation projects: community solar and our tidal power planning have all been supported by grants. But ultimately we must build infrastructure. To build, we rely on ultra-low interest federal loans, which allow us to pay for the infrastructure we need over the decades, rather than all at once. Members themselves also invest in solar, batteries, and energy efficiency, and every bit of that investment is also part of "how we pay for it all." We are all in this together -- not just now but for generations to come.
- 6. OPALCO's current rate structure collects revenue to cover fixed costs through the kWh (energy use) charge. As we become more energy efficient and embrace more renewable energy, OPALCO won't collect enough kWh revenue to cover fixed costs. How would you address this rate structure dilemma?
 - Fundamentally, we need to continue to separate the basic cost of providing service -- which all members would pay, from the variable amount each person pays based on what they use (or produce!). Doing so all at once is tough for everyone, so the best approach is to move towards a better division of fixed versus variable costs over several cycles of rate adjustments, along with plenty of discussion in the community about the long-term benefits of moving to a better way to structure how we pay for energy.
- 7. The County Comprehensive Plan cites "energy independence" as a goal. What is your understanding of this goal? How would you achieve it?
 - Energy independence is a fine goal, but it comes in degrees, it's not a yes-or-no question. Given how much electricity we need to support this community, particularly in winter, I see "energy independence" as something we work towards, but perhaps never fully achieve. By 2040 we will need 260,000 MWh of power annually, and that is beyond our capacity to produce locally. We must energetically pursue ways to produce as much of that as is feasible. OPALCO's Integrated Resource Plan for 2020-2040 shows that we can — with tidal and as much solar as we can build — reduce our mainland purchases of electricity by perhaps as much as half, but we will still need that critical connection to mainland power.
- 8. OPALCO is a non-profit cooperative. How would you propose to keep member's power bills affordable?
 - It's undeniable that power is getting more expensive (both in general, and specifically during weather events), so our job is to keep member power bills as affordable as possible. We do this by controlling expenses and the cost of service, building local generation and battery storage so that we are not always paying large peak charges for mainland power, and helping members move towards more efficient power consumption with the Switch It Up and on-bill financing programs. Adding a heat pump can lower member's bill while providing the same heating at home, for example. Finally, we have very strong programs for assisting low-income members with power and internet bills.

- ROCK ISLAND:
- 1. What is your vision for providing communication technology throughout SJ County?
 - The first time I ran for election to the OPALCO board, in 2011, it was to urge our utility to build a broadband solution -- as a few utilities elsewhere were beginning to do. Local control over our communication infrastructure -- like the local control we have over our electrical system -- is the best way to ensure that our community has choices as we face a time of great change and uncertainty. Since I joined the board, I have supported continued investment and expansion of Rock Island services, with a goal of reaching all parts of the islands. I continue to believe that this is the best way to give our members and the community reliable and fast communication services. I am particularly proud of the work that Rock Island has done during the pandemic to connect kids to remote learning for free, and the expansion of financial assistance to ensure that everyone can stay connected regardless of income.
- 2. Rock Island provides internet connections to nearly 50% of the OPALCO membership. How important is it to provide internet to the balance of our membership?
 - Rock Island is owned by our cooperative, and thus ultimately by the members. I think it is very important to provide internet to as much of our community as possible, because that puts communications and internet connectivity under our local control, instead of being subject to the investment and upgrade policies of large companies for whom we are a small concern. There will always be options for internet connectivity, but to the extent that our member-owned solution can always be there for the community, we will be in better control over our own destiny.
- 3. Who should pay for the cost of internet connections?
 - Rock Island should (and does) search for grant funds that could help build the infrastructure to connect everyone, but such grants are limited. The recent Emergency Broadband Benefit funds are a great example. And of course, our unique relationship with T-Mobile has allowed Rock Island to build the LTE wireless service -- reaching many places where fiber is expensive and difficult, without direct investment by Rock Island itself. But the reality is that we will need to continue both the membership's investment in middle and last mile connections, and Rock Island prudently investing in connecting those member investments to the wider network.
- 4. How would you assist Rock Island in realizing that vision?
 - I joined the OPALCO board originally because of my belief that utility broadband was critical to our future, and I have professional experience in the internet service provider business. I bring that experience and engineering knowledge to bear in assessing Rock Island's business plans, engineering plans, and financial performance at every board meeting, and hope to continue to do so in the years to come.