

## OPALCO:

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?

Safe, reliable, cost-effective, and sustainable would be how I prioritize these elements of OPALCO's mission. Our obligation to our community is to provide essential utility services. The manner in which we do that is up for debate. I find it interesting that 'cost-effective' is listed last in the question. With so much discussion and debate around affordability across many areas of life in the county (affordable housing comes to mind), it seems as though cost-effective should not be a 'nice to have' or the last consideration in our mission.

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?

I don't profess to have the answer to this ... but a 32X difference in seasonal demand to capacity ratio is stark and suggests that current solar technology cannot be the *only* way to address this issue. I would start by employing techniques I've used in my business career for product design, mainly a design thinking framework that opens up possible solutions rather than trying to fit any particular energy agenda into a solution.

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?

As I indicated in my answer to question #2, I think seeking land use changes for solar is only a worthy endeavor once we (and by 'we' I mean OPALCO Cooperative members, not just the Board) decide what role solar plays in resolving the capacity/demand disparity (be it seasonal as indicated in question #2 or some other factor.)

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?

The simple truth is no so-called 'sustainable' power source is a silver bullet. As the saying goes, there is no such thing as a free lunch. You've likely seen the 'No Snake River Dams' signs around the islands and read about how damming rivers adversely impacts the salmon population which impacts the orca population.

As a community, we need to determine which tradeoffs we want to make to supply essential utility services. Do we want to put pollution into the air by burning fossil fuels? Do we want to figure out how to dispose of depleted uranium from nuclear reactors? Do we want to cut down swaths of forest to make room for solar arrays? Do we want to erect unsightly wind power generators? Do we want to endanger our aquatic life by damming rivers?

My perspective on hydropower is that it is cleaner than burning fossil fuels, has a long track record of efficient and clean power generation, and is already built (as compared to solar arrays, wind generation and new nuclear plants that require significant amounts of capital to construct).

Finally, I would say this is not an easy issue with an easy answer and I would be fearful of anyone who claims they know the right answer.

5. It's estimated that OPALCO's load growth will double between now and 2050 due to the electrification of heating and transportation. Questions:

First, a preamble to my answers. These questions address the supply side of the capacity/demand dynamic. I know there are programs underway to address the demand/usage side and we ought not forget that piece of the equation. Using an analogy from this winter's cold spell with frozen pipes and limited water supply, I found that I don't NEED all the water I typically use and put down the drain into my septic system. I can brush my teeth with as little as a quarter cup of water. I reuse bath water to fill my toilet tank and get double use of the water. Of course, this is not convenient, but **we choose to live on an island** and must understand that life here is different than in metropolitan or suburban areas. We must adapt to where we choose to live and respect what we have in abundance and what is scarce. I use the water story as an illustration that we can certainly do more to limit the load we demand from our electricity supply.

- a. Where should this new energy come from?

It seems reasonable to me that we consider all available forms of generation in the context of the four elements of OPALCO's mission – safe, reliable, sustainable, and cost-effective – how each helps us achieve this mission and at what cost (financial and environmental), and then plot a reasonable path forward over the next 30 years to make a transition.

- b. Where should new renewable projects be located?

The answer to this question would be an output of the plan we'd develop in answer to the previous question.

- c. Will local resistance limit siting and permitting?

Again, these questions are inter-dependent and would be an output of what we deem are the solutions to the anticipated supply/demand gap.

- d. Who pays for it?

There is no free lunch. We must decide as a community what is most important to us, how we'll plan to achieve what we deem important, and how we will find the resources to execute on the plan. Taking advantage of grants from governments and NGOs can be

part of how we offset the cost, though I would argue those resources ought not be considered perpetual. We need to guard against building something that requires external resources to sustain. That would be the opposite of independence.

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?

The move to more renewable energy will be costly. Existing infrastructure in our country and most of the world – electrical and transportation – is built on fossil fuels and has over a century of inertia. Wars over the last century have been waged for control of these deposits. Millions have died, and are dying today, because of the desire to control these resources. For us to think that we will easily overturn this dynamic quickly and without cost is folly. Change is hard and often costly. I intend to spend my time on the board helping decide how much we are willing to pay and what gains will be made by such a change. Once we answer that question, we can determine how we pay for it. The 'what' needs to be agreed upon (not imposed if we can help it) and then we can focus on the 'how.'

7. The County Comprehensive Plan cites "energy independence" as a goal. What is your understanding of this goal? How would you achieve it?

At the risk of being controversial, I don't believe in energy independence at scale. It is a myth and a slogan that makes people feel good. I hope the authors mean 'moving in the direction of becoming more self-sufficient with respect to our energy needs.'

Individuals and neighborhoods can achieve true energy independence. My personal plan is do just that using solar, catchment, my garden and bartering with neighbors who produce foods that I do not.

Independence – if we take the word as it is defined – would mean we eventually cut the cable to the mainland. I don't believe that to be the right thing to do – today or in the future – unless we collectively want to turn back time a century or more and live that way. I'd be curious to see a show of hands from the authors of that Plan favoring such a move.

8. OPALCO is a non-profit cooperative. How would you propose to keep member's power bills affordable?

As I said in an earlier question, there is no free lunch. Affordability is not an absolute – as in \$.1133/kWh is affordable – and can only be defined in the context of value.

That said, I know a large portion of the cooperative membership is very sensitive to the cost of essential services. I also know that our cooperative is a heterogeneous group spanning a wide range of circumstances including those working several jobs to afford to live here, those with ample means and abundant free time, those who have transitioned beyond their working

career, and those who have strongly held beliefs about energy, the environment, etc. We each come to the cooperative viewing the world through our own lens.

I also know that most of our cooperative members don't actively participate in OPALCO business. Most limit their engagement to viewing their monthly bill and simply expecting the light to turn on when they flip the switch.

Why do I bring these matters up to answer this question? As I answered above, 'we' means our cooperative members. When a tiny percentage of that membership is engaged, the voice of the large number of those not engaged can be muted and their needs unknown or discarded. I think the solutions to both the energy and connectivity challenges we have will be richer when we have deeper engagement by members. When that happens, we can collectively determine what we value, what it will cost, and how we make it affordable in the eyes of a member.

#### **ROCK ISLAND:**

1. What is your vision for providing communication technology throughout SJ County?

I am an admitted tech geek, having majored in Electrical Engineering and worked in Silicon Valley over two decades ... so I come to this answer with that bias.

I am grateful that T-Mobile decided to commit to the county with so many towers that enable mobile service and also permit decent internet service via LTE. I am also grateful that Rock Island had the foresight to install a fiber backbone for those who want that capability. Honestly, having fiber allowed us to move full time to the island, well ahead of schedule.

I'm not sure how the next generation of satellite internet will fare (Starlink, Amazon Kuiper, Telesat, OneWeb, etc.) though I am on the wait list for Starlink technology in case I move to a part of the island that has limited connectivity. I would look to a partnership similar to the T-Mobile partnership to help complete the availability of broadband access to those who have limited capability today.

All that said, I still value the simplicity and rural aspects of our islands. I choose to live here because it is not Seattle or San Francisco ... and I like it that way. That does not mean that I will discard my high-speed internet connection (and that is really what is meant, or ought to be meant, by communication technology ... because even old school landlines convert to digital signals for transport before they are decoded) and leave the modern world behind. That is a choice we each have to make for ourselves and one I believe all islanders should have.

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?

See answer to the question above. It is imperative that we have the option to choose what kind of access we want and need ... and today there are plenty of dead zones. We can do better and we will.

3. Who should pay for the cost of internet connections?

On the consumer side, I believe users should pay for their connection. Of course, as with any utility, there are subsidies and programs to support those in need and we should offer that.

On the public side, it is good practice to enable key services of the community at a rate that is reasonable. Think fire departments, EMTs, schools, etc. Again, Rock Island already does this by providing free wifi access in the downtown Friday Harbor area and should continue to support our local community in this way.

4. How would you assist Rock Island in realizing that vision?

I was a fiberhood organizer back in 2017-2018 for my neighborhood and had the good fortune to work with several Rock Island employees. For those who are unfamiliar, neighborhoods had to organize themselves, get a variety of residents to agree to share infrastructure costs, and manage the impact of installation to the neighborhood. This sounds small and easy ... but I assure it was not! People have strong opinions when you dig up their road 'so others can watch Netflix!'

I am passionate about our ability to stay connected to one another and the world – if that is what you choose to do. I will continue to monitor technology advances, understand gaps in coverage or services, prioritize the most pressing, and use tried and true problem-solving frameworks that have served me well in my business career to continue to close the gap of connectivity across our island communities.