The questions are:

OPALCO

1. **What is your vision for the future of energy for San Juan County as a whole**

The energy world is changing dramatically due to climate impacts, carbon legislation and the transition toward renewable power. Utilities in Washington are mandated to be 100% carbon free by 2030. OPALCO is moving toward a vision of a sustainable energy future for San Juan County (SJC) that will keep islanders energized and connected while protecting our sensitive marine environment and rural communities. There are major challenges ahead as we find suitable land to site utility-scale renewable generators, transition our transportation from fossil fuels to electric and inspire people to change their energy habits. We need reliable power when the sun isn't shining and wind doesn't blow; with coal and natural gas plants closing, hydro is our best bet for clean and affordable firm power. As utilities throughout the region compete to secure carbon-free resources, demand for our valuable hydro system is going up and pushing the grid to capacity. As a result, energy costs are on the rise and we are facing potential energy shortages in the region during periods of peak demand.

2. **What is your understanding of OPALCO's plan for its future of energy supply?**

In our "Integrated Resource Plan" (IRP) and our Long Range Plan (LRP), the broader IRP further includes member-generation and efficiency actions. These plans respond when conditions change. Each part of the LRP recognizes major uncertainties and contingencies. OPALCO's IRP explains how "grid parity" provides a path when a technology might be ready for adoption. Grid parity defines when it would be cheaper to invest in some local energy savings or generation than to continue to purchase such energy at wholesale power rates. When a new technology is practical and effective, we will consider applying it here in the San Juan's. Our local grid has, I believe, the capacity to serve our members energy needs for many years. Our future depends on planned investments that will lengthen the life of submarine, transmission, and distribution cables.OPALCO is currently exploring new technologies which will shift the timing of use, with savings shared by members and our co-op. We are also exploring Tidal power technology which may become an important local resource, especially in winter when local power needs double and solar output declines. As a current OPALCO Board member I am constantly educating myself on what other Island communities are doing. Some that come to mind are the Orkney Islands, just north of the top of Scotland. They have quite advanced goals and experiments with many types of renewable energy, including wind, solar, and tidal. Another island I am watching is Kauai, where their local electric cooperative is moving toward a 100% renewable grid.

How important is hydropower in your vision for a future energy supply in the islands?

Hydropower is our mainstay for assuring reliable, affordable, greenhouse-gas free power for our members, especially as we add local renewable sources to our grid. We need to reduce our carbon footprint. The way to do this is through increased electrification of our businesses, our residences, and our transportation. The energy we get from BPA and what OPALCO and its members generate locally is very clean. We could cut San Juan County's Carbon Footprint in half through increased electrification of heating and transportation. We can supplement BPA energy with more clean, locally generated renewable energy.

3. **Given the intermittency of renewable resources, how important is hydropower in your vision for a future energy supply in the islands?**

Hydropower is reliable, affordable and is a 97% greenhouse-gas-free resource. With coal and natural gas plants closing; hydro is our best bet for clean and affordable firm power. As utilities throughout the region compete to secure carbon-free resources, demand for our valuable hydro system is going up and pushing the grid to capacity. As a result, energy costs are on the rise and we are facing potential energy shortages in the region during periods of peak demand. Hydropower has been, and continues to be an incredibly valuable renewable energy source for the Pacific Northwest. Legislation like WA State's CETA (Clean Energy Transformation Act), and the proliferation of RPS (Renewable Portfolio Standards) legislation in the West, coupled with the rapid closure of coal-fired generation plants will only make PNW Hydro more valuable as a firm source of power. It is a crucial resource to balance an increasing amount of wind and solar, as California's and Texas's recent power difficulties so plainly demonstrate.

4. **What role should OPALCO play in the regional power community?**

OPALCO is highly involved in the PNW's power community. In 2019, I personally attended and represented OPALCO in 12 regional events. We currently represent leadership roles on many of the regional power organizations. Our goal is to be a shining example, of how a relatively small co-op can truly make a difference in educating other regional power members about our uniqueness and environmental and marine responsibilities. Some Utilities in the Northwest have long depended on greenhouse-gas emitting coal and gas powered generators. Under recent laws responding to Climate Change, many of these generators will be shutting down. We at OPALCO are continuing to participate in developing a better understanding of the responsibilities and consequences among lawmakers, regulators, utilities and planners in the Northwest, Our co-op is already taking steps to reduce our peak needs and increase our local resilience. Through grants and member investment, we've just completed our first utility-scale solar-plus-storage on Decatur Island. Now we've just won another major grant to build a similar micro-grid on San Juan Island to help power core community services during mainland outages. As Texas has recently

discovered, going it alone is not the answer, the Pacific Northwest power community must operate together to provide solutions that are dependable and affordable.

5. **Where will you draw the line between local energy resilience and island aesthetics?**

   As we build a local renewable power supply on our beautiful islands, we face the cost of these projects against the aesthetic trade-offs and limited land for siting them. We need to always remember that the San Juan Islands are truly the jewels of the Salish Sea. We as members have chosen to live here and must never forget our responsibility of being good stewards of our environment. I also think the members must help us draw that line. It is important that those who understand what the future energy roadmap looks like be able to educate all of us on what the tradeoffs and options are. Most of us just flip the switch, and yet, as energy consumers, we're all going to have to be better educated on where it comes from, how we can most efficiently use it, and what we're going to need to do to keep it flowing

6. **The County Comprehensive Plan cites "energy independence" as a goal. What is your understanding of this goal?**

   We need the county government and all of our 12,000 co-op member owners to work closely with OPALCO to realize a healthy, sustainable energy future in the islands. The Comprehensive Plan Update (Section B, Element 2, Land Use) speaks to land use for alternative energy resources and identifies essential public facilities. First, energy storage and generation should be classified as Essential Public Facilities. The energy grid in the Pacific Northwest is undergoing tremendous change, and it is clear that local generation and storage are going to be a major part of that architecture. That said, we must do all that we can to make sure that these facilities are environmentally sound, sited appropriately, and above all, safe!

7. **How would you propose to keep member's power bills affordable?**

   One of my missions is to keep our members power bills affordable by continually exploring new technologies and strategies to moderate rising future wholesale power costs. An all-electric home can reduce its average energy use by 30%, i.e. (switching to heat pumps for water heating, energy-star washing machines and dryers, better home insulation). Low cost, on-bill financing is currently available to members for many heat pumps and EV chargers. Locally, we have completed building our first utility-scale solar-plus-battery array which will help shave wholesale power purchases when they are most costly and to provide resilience during power outages. In time, this array and others planned will help serve our local needs and earn added revenue by recharging electrified ferries. The revenue would, in turn, help keep rates affordable to the growing and changing needs of our members.

8. **What role should OPALCO play in the overall sustainability of our island communities?**

Our Co-op will continue to educate our members on how a reduction in energy use is the first step for a truly sustainable plan for our planet not just our island communities. As an OPALCO board member I am committed to the Salish Sea and our beautiful island environment. OPALCO is supporting ocean health and our environment by purchasing mostly clean, green hydro-electric power from Bonneville Power Administration (BPA). There are more than 300 OPALCO members who generate renewable energy interconnected to our co-op grid. OPALCO was one of the first utilities in our region to offer a Community Solar program to our members. OPALCO supports the whales! Supports the ongoing environmental studies to provide the necessary data to understand the full web of interdependent issues at play including salmon population, water temperature, vessel noise, ocean acidification, pollution, forage fish habitat and climate change. We must focus on the health of the entire ocean! As a Board Director, I support renewable power, electric vehicles, carbon reduction and protection of our Salish Sea.

9. **How aggressive should OPALCO be in pursuing new technologies and energy solutions?**

OPALCO has in its Long-Range Plan options that anticipate future needs, threats, and opportunities. These options reflect a balance between the risks of action and inaction. We are bold and balanced when adopting new technologies such as community and utility-scale solar arrays and storage and perhaps as we explore the options, local tidal generation. Conservation and storage technologies help to reduce peak needs by shifting the time when major appliances use power to periods when wholesale prices are lower. Our co-op has had a long and successful history of bold action. Over 70 years ago, our co-op joined forces with BPA to forego local diesel generators in favor of a network of submarine cables connecting all major islands with low cost, clean hydropower from the mainland. It enabled our local communities to prosper and grow. In the last 10 years, our co-op installed fiber-optic cable county wide, which has become a powerful tool to safely and efficiently manage our 20-island grid. Recently, our co-op extended the benefits of the fiber “backbone” to give islanders affordable options to access broadband. An extraordinary partnership with T-obile enabled our subsidiary, Rock Island Communications (RIC), to offer a range of broadband options. Today, RIC has over 6,000 subscribers. RIC’s infrastructure also enabled the first practical solution to our county’s long-unsatisfied need for reliable first responder communications.

ROCK ISLAND

1. **How important is broadband connectivity to economic development and quality of life in SJC?**

Reliable and affordable high-speed internet is fundamental for the economic development throughout our county. Broadband acts as a catalyst for innovation by enabling efficient, modern communications between households, schools, and healthcare centers as well as markets and customers throughout San Juan County because it is a modern-day necessity – not simply an amenity – in today’s information-driven global economy. Broadband connectivity has become the modern day utility, no less so in the San Juan Islands than elsewhere. OPALCO has understood this need from the outset.

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

My vision for high speed communications is quality of life improvements which are enabled by ubiquitous, low cost, end-to-end broadband communications. Our lives are improved by having access to affordable broadband connections. Similar to electricity a century ago, broadband is the driver for this generation's modern revolution. The broadband ecosystem already touches every aspect of our personal lives and work environment. Whether it's entertainment, communication, social networking, emergency response, healthcare, energy management, business transactions, homeland security, or making family plans. Yet the broadband revolution still remains in its early stages; I would like to help our county reach the next level of its evolution by empowering workers with High-Performance Broadband advanced skills training to boost individual opportunity, helping to overcome income inequality and economic frustration. In addition, High-Performance Broadband spurs economic growth and jobs. It can enable civic participation. It can improve the health, education and learning of all of our community members.

3. **What value do you add to assist Rock Island in realizing that vision?**

As a past Chief Information Officer for a global organization and current technology consultant, currently working with 3 startup corporations, I bring experience through oversight in understanding Rock Island. As an incumbent Director, I have learned over the last 3 years, RIC's business potential, including its contribution to the mission and long-term plans of its parent-owner, our co-op.