**Tidal Town Halls Recap with Q&A**

During the week of January 21st, OPALCO held a series of Tidal Town Hall Meetings on Orcas, San Juan, and Lopez Islands. Throughout the week, we had close to 150 members attend the events. On Orcas and San Juan, the meeting was held in a round-robin format, designed to create an open, two-way dialogue and provide opportunities for one-on-one interactions. The approach ensured that as many members as possible could interface directly with OPALCO team members or project experts to share their concerns and get their questions answered. On Lopez, the format was shifted to an open Q&A session since the group was smaller and the space was less accommodating to the open format. This adjustment allowed questions to be addressed directly, allowing an interactive and informative dialogue. OPALCO has done several virtual presentation style meetings with Q&A on this project, so the team was looking for a different format to engage the membership.

Informational posters covered key topics such as FAQs, the technology, project location, tribal engagement, and the importance of local renewable energy generation. Attendees were encouraged to leave comments, ask further questions, and indicate their level of support for the project.

The meetings provided a valuable platform for feedback, and several members expressed appreciation for the updated format, which allowed them to engage more meaningfully. OPALCO is committed to offering a variety of ways to engage on this project as we continue to look at this project.

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| --- | --- | --- |
| Tidal Town Hall Comments | SupportYes/Not | OPALCO Responses |
| Leslie Veirs: I need to know more about this project. It seems that the speakers here on the floor are more managers and less scientists. I will check your website and hope to understand more about this project. Right now, I am more on the “No” side. | No? | [Quick Fact: OPALCO Tidal Energy Pilot Project - OPALCO](https://www.opalco.com/quick-fact-opalco-tidal-energy-pilot-project/2022/11/) OPALCO continually add all relevant information to this page and will ensure all the most current and factual information is provided as it become available.  |
| Beth Helstien: We need power. Public doesn’t believe that there isn’t enough. Doesn’t understand demand vs availability. We also need a local power conservation effort. Tiered pricing (sic) to discourage peak demand turn off lights, etc | Yes | One of the challenges we face is raising awareness about the impending supply and demand issues, which will likely result in more frequent blackouts. OPALCO has strong conservation programs through rebates and on-bill financing for energy savings projects. In 2025, we will be conducting a rate analysis to explore ways to promote efficiency while ensuring a balance with renewable energy sources. We have to balance local generation with efficiency and conservation. Also note that we have a mandate that requires OPALCO to provide as much power as is being used by members. |
| David Robison: We need add’l energy sources, local. Not fair to put all the burden on others. Appreciate the due diligence on enviro & tribal. | Yes | Comment noted. Thanks for attending the event. |
| Donald Kane: Need to explore all options for renewable energy, especially locally produced. | Yes | What we’ve discovered is that there’s no single solution—rather, we need to integrate as many renewable energy options as possible into our community. Each renewable source performs optimally under different conditions, so by diversifying the types of renewables we use, we can reduce reliance on battery storage.While some may believe that installing solar panels on every rooftop will solve the problem, the reality is that even if we fully maximized rooftop solar in SJC, it would only cover about 5% of our energy needs. To make a meaningful impact, we must also focus on adding utility-scale renewable projects to our community. |
| Alison Longley: Expensive project (somebody’s paying even if its not us) – need to think about long term. Potential for injury to sea life (orca whales- J pod especially do use Rosario Strait- you should maybe check with (UNREADABLE) There are less risky alternatives, energy conservation via much improved insulation, etc, in honest businesses. Much anticipated power use is (UNREADABLE) to data centers – they should be required to produce their own power.Potential for alternative energy sources in waste wood from inland forests that is a current fire hazard – could power a (UNREADABLE) while reducing fire risk – should be (UNREADABLE) in a sustainable way. | No | We’re currently in the process of conducting the analysis for the pilot, and we haven’t reached any conclusions yet. Leveraging grant funds can help us afford these local options. The O2 unit in Scotland has been operational since 2021, with cameras monitoring the area, and there have been no reported collisions.Risks to marine mammals and the habitat will continue to be evaluated as we proceed further with this project. The Pacific Northwest Laboratory (PNNL), under the direction of the U.S. Department of Energy, has developed an environmental risk register to provide a third-party objective analysis of environmental risks. The analysis looked at various receptors, specifically southern resident killer whales, as well as other receptors such as marine mammals, fish, birds, benthic habitat, and more. Each of these is analyzed in the context of various stressors such as entanglement, habitat change, and more. We are also working with the National Marine Fishery Service to address potential impacts to the SRKW under the Endangered Species Act (ESA), which will inform future studies. The protection of the SRKW and other marine mammals in the area are mandated by the Marine Mammal Protection Act and ESA.  We have been exploring different alternatives, but there are pros and cons with every energy source. Conservation alone is not enough to address demand challenges entirely; it is one part of the solution. It is essential for us to keep all alternatives on the table. We realize there are pros and cons for each and we need to take that into consideration. We do a really good job with energy conservation through our SIU program and rebates. There are government requirements for energy efficiency, but OPALCO cannot require that homes be more energy efficient than the existing standards established by state and local code. Data centers are coming to our region because our energy prices through BPA are relatively inexpensive, and businesses are taking advantage of that. We are required to provide power to these organizations. While we don’t have data centers in our service territory, they still impact the price of power from off-island sources. Bio-char is one of the many alternative energy sources we should be considering, with the goal of being a sustainable community that balances all of the needs of our community, i.e. agriculture, energy production, worker housing, forest health, fire mitigation, water availability. We need to figure out how to balance all of these competing priorities.  |
| Josiah: I must strongly oppose impractical – it is dangerous unsustainable and a direct threat to the ecological & cultural integrity of our unceded and unsurrendered waters.  | No | Our grant is to study the viability of tidal generation which is still underway, so we have not come to any conclusions yet. Please stay tuned, thank you for your input. |
| Stephen Shubert: Please explain a comprehensive need and plan for San Juan County and how tidal power is an important element to solving long power price increases and availability. No power – no growth; No power – lack of comfort & Safety | Yes | Thanks for understanding what we are challenged with as a utility. In SJC we are challenged with how to handle our load growth and adding renewable projects that have member support that we can all embrace. OPALCO has several long-term planning documents on our website – additionally the San Juan County Comprehensive Plan calls for energy independence.  |
| Gretchen Gubelman: I am VERY concerned about the negative impact on sea creatures, both flora and fauna. I have also learned from experts on tidal power generation that it is not reliable or cost effective. | No | Thank you for your concerns. OPALCO is also very concerned with our marine environment. It is top priority as we move through this project to ensure it will not negatively impact the environment. We have many studies to accomplish before moving forward on this project. Please provide your list of experts on tidal generation. Some people make the comparison to the cost of power on the market when in reality we should be comparing it to cost of batteries, or the cost of additional supply. |
| Sharon Grace: Not appropriate for such a small co-op. Too costly1. Not appropriate for Salish Sea as 73 critically endangered orcas – the only critically endangered orcas on the west coast.
2. Please make a comment box that is easy to find on the OPALCO website and share all comments as members. Please publicly the availability of the comment box
3. Please contact Jason Wood. He studied marine turbines for SnoPUD. I believe he can be contacted thru the Whale Museum. As a result of the study Sno PUD did not construct marine turbines.
 | No | 1. Our cooperative is the recipient of a grant from Department of Energy (DOE) to study this, and the feasibility stage will determine the overall financial viability. Grant funding can make a project go from not viable to viable with financial support from the government.
2. There are pros and cons with all sources, please see this report: [OES-ENVIRONMENTAL 2024 State of the Science Report](https://tethys.pnnl.gov/sites/default/files/publications/OES-Environmental-2024-State-of-the-Science-Report_1_0.pdf).
3. Once our three town halls have concluded on Thursday, we will summarize our events and make all comments we have collected available to the public. For our already existing list of members questions and comments, please view our Tidal Generation Quick Fact here.
4. Thank you for your feedback! We have reached out to SnoPUD in the past and our current team includes someone from SnoPUD’s tidal generation project, but we appreciate any additional contacts. We would love to gather insight and information from Jason Wood.
 |
| Nathan Donnelly: Would appreciate a town hall style community meeting about this soon. Everyone facing the wall talking to a PR person is not productive. Thanks. |  | Sorry this event did not meet your expectations. We will continue engagement on this project as we move forward and will bring a variety of ways to engage. We got some great feedback from members who attended that they had the chance to ask a lot of questions and have productive dialogue with OPALCO team members including our science consultants and engineers on the team. |
| George Hunt: There is too little energy and too many environmental challenges. OPALCO should put almost all its renewable power emphasis on solar. A hit on the island and much more investment in Eastern WA where the sun shines so much more. Build solar farms in Eastern WA and add another power cable from Anacortes. | No | Thank you for acknowledging that there are supply and demand issues and power needs to be thoughtfully embedded in our sensitive environmental community. Unfortunately, solar is not the silver bullet, as it doesn’t work at night or when the sun isn’t shining. We need as much renewable energy diversity as possible so we can maintain reliability. The more diverse the generation mix, the less expensive battery storage we will require to meet load at night when the sun doesn’t shine. We are looking at building alternative sources at other parts of the mainland, but that may come with other challenges as that generation would be in other communities. Mainland power users may have adverse reactions to that as well, especially if they don’t also have access to the power that comes from that generation source. It’s hard to ask other counties to make compromises for the benefit of San Juan County. |
| Betty Corbett - We need energy independence! Thanks for hosting | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Camerons - We need to explore all available alternatives to electrical power. Kudos to OPALCO for exploring this! | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Anne Garfield - To try and get some (?) source of power. | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Tessa Ormenyi - Please have an actual renewable energy town hall. | Yes | We are committed to continuous engagement throughout this project and will be hosting a variety of event styles to accommodate as many members as possible. Thank you for the feedback. |
| Anonymous Lots of questions. Imperative to get feedback from tribes and to address issues of endangered species and legal restrictions. FYI lots of us older folks have not great hearing. This is a really difficult format to hear speakers – lots of background noise. | ? | Thank you for this feedback. We will be hosting a variety of events to accommodate different needs throughout the tidal power project. We will continue meeting with the tribal nations and incorporating their feedback as we move forwards. We will be following the federal requirements for working in a habitat that has endangered species and will continue to be transparent as we move forward on this project.  |
| Miriam Ziegler - We have to come up with alternative energy sources to meet the demand! Hopefully tidal will prove to be feasible. | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Tom Baldwin - Basically its free CO2-less power. Only concern is for the whales. | Yes | Comment noted. OPALCO is also concerned for the critical marine habitat and the whales who live here. We will be doing lots of studying to see what the potential impacts will be.  |
| Mark Padbury - If we can capture “free” energy, (ya right) then why don’t we do it. This is virgin territory but ya gotta start somewhere. Good job OPALCO. | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Ryan Uken -I’m in support of any green energy project. With the climate crisis worsening we need to do whatever we can to meet our energy needs in a sustainable way. Tidal, solar, wind, hydro, geothermal, and even nuclear are preferable to fossil fuels. | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Howard Barbour – 1. Seems to make perfect sense.
2. The service is right here.
3. The program is grant assisted.
4. Demand is bound to increase.
 | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Rusty - Initial feedback is positive. | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Bill Wulff - We must transition to renewable sources of energy. It’s a long haul that needs exceptional growth. Keep up the good work! | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Steve Diepenbrock - I believe we need to study all energy production options in detail. This project seems on obvious category to research. There will be trade offs for any project. To secure funding to weigh and consider all pros & cons is essential. To engage all members of the community and government and tribes is essential. I hope OPALCO is able to secure funding for this feasibility study! | Yes | Comment noted. Thanks for coming to our event to learn more! We do have the funding for this first phase of feasibility but will need to secure more funds to keep the project moving forward. |
| Issa Parker  | Yes | Thanks for coming to our event to learn more! |
| Betsy Wilson – Very cool! Low impact sustainable energy generation looking towards the future of our islands electric needs | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Jim Rorabaugh: I support clean energy any way we can accomplish this. | Yes | Comment noted. Thanks for coming to our event to learn more! |
| Jaime Beechum: Making sure that tribal nations are up to date on information energy is being put in to do so.Including holistic view of overall energy need and long view plan.Having a comprehensive and accurate baseline of environment, how to mitigate impacts. | Still waiting to hear more | Keeping the tribal nations up to date on this project has been priority since before we received this particular grant and was an initial step we took when we began this project. We will definitely be looking at environmental impacts and how mitigate them.  |
| Lyn SorensonThanks for the presentation today on Lopez. Events like this are really good for understanding Opalcos concerns and priorities and how that, ultimately, affects us. |  | Comment noted. Thanks for coming to our event to learn more! |
| Lopez Comments/Questions |  |  |
| You should look at how the tidal fluctuation fits in with where the demand on our grid is. Because we may not get enough tidal energy grom this device on those days/times as well. |  | One of the exciting parts of tidal power is that tidal flow happens at night when solar power is not generating electricity so this could be a nice supplement for our region that uses a lot of energy when the sun isn’t shining. It’s not a completely firm power source so will need to be kept firm with batteries or our mainland power supplier. |
| If BPA doubles their rates today, would this device become more feasible? |  | With predicted power rate increases and the grant funds this device becomes more cost effective but it is still very costly so OPALCO will be doing extensive analysis to make sure this power source pans out financially in addition to all the other factors.  |
| If you don’t do 2, 3, or 4, what is the point of doing 1? Are the studies being done to look at the area of impact for multiple devices? |  | We are focused on getting this one device sited under a FERC pilot project license.  |
| Is there anything out there aside from solar, hydro, and tidal? Aside from nuclear? Maybe biochar as well? |  | Our energy future is going to need to leverage all available energy sources – geothermal, green hydrogen, battery storage.  |
| Do the turbines on the machine pose a risk of oil leak (oil is lubricant for the turbines)? |  | No. if any fluids are needed, they are biodegradable and not hydrocarbon-based. |
| What is the fire suppression system for the device? And what is the potential for pollution? |  | There is a fire suppression system. There will be safety protocols and emergency procedures in place. Safety first! OPALCO is in the middle of a third-party environmental risk register with Pacific Northwest National Labs which will be analyzing the risks for various environmental concerns. |
| How much does this cost? |  | Full costs are part of this feasibility study. We will make this information available when complete.  |
| Depends on many variables. Costs to community still seem high for limited benefit.Impacts to endangered species seem primarily unknown – need much more data!Overall project seems too experimental to implement at this time. Too many unknowns. Especially to the many endangered species that use the San Juans. Seems too premature to implement. We don’t need and should be on the bleeding edge of this technology. I strongly support trying to implement as much sustainable energy as possible – much needed! But we can not add additional risk and stressors to the SRKW who are barely hanging on! Our community can not afford to be the vanguard of technology that is much too risky. |  | Thank you for your feedback. With the increase in electrical demand throughout the region and lack of new sources for supply – the OPALCO team feels it is important to explore these opportunities to understand what trade-offs there are and when we have a more complete picture decide if this is a good project for our region. |
| General Questions from audience |  |  |
| Are there other countries besides Scotland who have tidal energy? |  | Yes, numerous countries around the globe are investigating tidal energy. The 2024 State of the Science Report published by PNNL summarizes each country and the status/number of devices. |
| Do other countries share their results of marine mammal interactions and other relevant environmental observations? |  | Yes, PNNL hosts a clearing house of all marine energy scientific studies and gathers this information from around the world. It’s called Tethys.[https://tethys.pnnl.gov/](https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.proofpoint.com%2Fv2%2Furl%3Fu%3Dhttps-3A__tethys.pnnl.gov_%26d%3DDwMGaQ%26c%3DeuGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM%26r%3D6ZfiOnyuRUx9ruMNah6LQclywGU271GblRnRaBnM4no%26m%3D7F-R6BKUYq6xk_-ypLaAGdMF2GjM8C4y8_gMOKi_SMLJlJQ2Wgd2RhWF9PBoPyJ8%26s%3Dk94NV2dpld9Y6_yP96CG76gCYik4qyrhrUp5Y3OvjH8%26e%3D&data=05%7C02%7Cbstanford%40opalco.com%7C2d542bb81e664e5c627c08dd3b253c6c%7Ccf5284d054584445820576545a597c5a%7C0%7C0%7C638731753327042245%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=5A5n2LGh%2BedVVpfnWlGdzmGebyym%2FewLuWMLgNWXrbo%3D&reserved=0) |
| What has been the feedback received so far from the Tribal Nations? |  | We are still in the early phase where not all Tribal Nations have formally commented. We are still gathering and sharing information and helping define what should be studied or how best to effectively engage with Tribal Nations. To date, the Tribal Nations have been responsive and engaged and have been great to work with. |
| How was it determined which Tribal Nations to engage with? |  | OPALCO started early outreach in 2022 and started with the Tribal Nations that OPALCO regularly consults with as part of their standard operations and projects. OPALCO followed the federal guidelines for tribal consultation and officially contacted each of the Tribal Chairpersons. Additional communications occurred at the direction by the Tribal Chairpersons and/or the directors of the technical departments (i.e., Natural Resources, Environmental Policy, Culture, Special Projects, etc.). OPALCO also expanded engagement efforts based on direction from FERC and recommendations from the Northwest Indian Fisheries Commission. |
| Why are some Tribal Nations not being included? |  | All of the Tribal Nations who signed the Treaty of Point Elliott with the U.S. Government have been engaged. At this point, Tribal Nations based in British Columbia/Canada who have not signed treaties with the U.S. government have not been engaged. OPALCO has reached out to FERC to determine the process for engaging with International Tribal Nations. |
| How is this going to work for the best interest of OPALCO financially, both for building and operating it?  |  | OPALCO is committed to ensuring that this project would be financially viable to our co-op and not to add to the energy burden of co-op members.  |
| I didn’t know the power on the mainland was so precarious. Members did not understand the supply and demand problems that we’re facing. Recommend that we spend the time communicating that to our membership so that problem is understood.  |  | Comment notes. Thank you for the feedback. We are trying to get the membership to understand what our energy future is looking like and to engage with these important projects.  |
| Have you spoken to Orca Experts/Scientists?  |  | We are also working with the National Marine Fishery Service to address potential impacts to the SRKW under the ESA, which will inform future study needs. The protection of the SRKW and other marine mammals in the area are mandated by the Marine Mammal Protection Act and ESA. Other orca interest groups are welcome to share their feedback with us at the Town Hall meetings, email OPALCO with questions or concerns, and engage in the official FERC 30-day public comment period once the Draft License Application (DLA) is submitted. If there are orca or other groups in the area that you would like us to be aware of feel free to send us their information. |
| What type of information did OPALCO have to share with Tribes in 2022 ahead of this Phase 1 grant? |  | OPALCO had a grant from Department of Commerce in 2022 for the early exploration of this project. The project would be in the Usual and Accustomed (U&A) fishing area for the region's Tribal Nations who were signatory to the Treaty of Point Elliott. The early outreach informed those Tribal Nations of our intention to explore the feasibility of this project.  |
| Will Tribes ultimately have to sign off on the project for it to move forward? |  | The role of the Tribal Nations is not to approve or deny the project. The federal lead agency is FERC and it is their responsibility to approve or deny the application. FERC incorporates extensive tribal consultation and public engagement into their process and will review and analyze the feedback and data they receive from the application, Tribal Nations, and public to inform their decision. |

Elizabeth Robson Comments

Questions and Concerns about Rosario Strait Tidal Power Plant

Our letter of opposition: <https://www.orcaconservancy.org/blog/growing-concerns-regarding->tidal-turbines-in-srkw-critical-habitat

**OPALCO Response to** **Machine and infrastructure details:**

[**The Quick Fact: OPALCO Tidal Energy Pilot Project**](https://www.opalco.com/quick-fact-opalco-tidal-energy-pilot-project/2022/11/) **site includes the technical specifications for the Orbital Marine Power floating tidal turbine. We encourage you to refer to the website for the latest information. By referencing the OPALCO site we will work to ensure all information is correct and up to date.**

**Concern bullet points**

* Fish species most at risk: salmon, bocaccio, and yellowed rockfish.
* Dolphin species most at risk: endangered southern resident orcas.
* Average adult male orca size: 7 meters; blade rotor diameter 20 meters each.
* Possible impacts to diving birds.
* Likely impacts to benthic species, including sea anemones, sponges, corals, sea stars, and more, especially from cables and anchors.
* Noise impacts.
* Experimental: this is completely new technology and has barely been tested.

**OPALCO Response to Concern Bullet Points**

* **Environmental studies for feasibility in this phase include fish tag receivers and analyzing noise impacts. Also, the Pacific Northwest Laboratory (PNNL), under the direction of the U.S. Department of Energy, has developed an environmental risk register to provide a third-party objective analysis of environmental risks. In addition, the analysis studies various receptors, including fish and birds. Each of these is studied in the context of various stressors such as entanglement, habitat change, and more.**
* **We are working with the National Marine Fishery Service. The protection of marine mammals in the area are mandated by the Marine Mammal Protection Act and ESA.**
* **Orbital Marine out of Scotland has had the floating stream O2 device in the water in the Orkney Islands. You can find pictures of the location with the technology at** [**https://www.orbitalmarine.com/**](https://www.orbitalmarine.com/)**. They have been successfully harvesting power since 2021. Numerous countries around the globe are investigating tidal energy. The 2024 State of the Science Report published by PNNL summarizes each country and the status/number of devices.** [**https://tethys.pnnl.gov/sites/default/files/publications/OES-Environmental-2024-State-of-the-Science-Report\_1\_0.pdf**](https://tethys.pnnl.gov/sites/default/files/publications/OES-Environmental-2024-State-of-the-Science-Report_1_0.pdf)**. PNNL hosts a clearing house of all marine energy scientific studies and gathers this information from around the world. It’s called Tethys.**

More in-depth concerns and questions:

The withdrawal of wind energy areas by the Trump administration on January 21, 2025, with an executive order that emphasizes both cost and impacts to marine environments indicates this project may be even more risky now in terms of federal support.

**OPALCO Response**:

**Based on the outcomes of the yearlong grant, our project could be selected to receive more grant funds and advance to the next phases. We would not proceed without these federal funds.**

The two nacelles in the O2 tidal machine are similar to wind turbine nacelles. We know that wind turbine nacelles often leak oil. They sometimes catch on fire. The nacelles in the O2 will, like a wind turbine nacelle, house a gearbox, shaft, and generator, and so will require lubrication. Leaked oil, even a small amount, will damage the marine environment, and fire suppression systems often use foam which contains toxic chemicals that could leak into the marine environment.

The hydraulic system to lift and lower the arms of the machine also require lubrication,

posing yet more risk of oil spill into the marine environment.

OPALCO **Response:**

**If any fluids are needed, they are biodegradable and not hydrocarbon-based.**

Cooling systems in the nacelles: these cooling systems will bring in sea water that is piped through the gearbox to cool the components. The water is then dumped back into the sea.

If these cooling systems are anything like those in offshore substations, the water dumped back in the sea will be hot, probably over 90 degrees F, and potentially contain biocides they add to the cooling system to protect it from algae growth. This will have an impact on the immediate surrounding marine environment.

**OPALCO Response: OPALCO is working with PNNL to create an environmental risk register that collates all the latest information from projects like this around the world. We will be identifying what environmental issues will need to be addressed before moving forward.**

The rotor blades are made out of carbon fiber and resin — this is plastic. It is likely these will shed large amounts of microplastic into the marine environment.

**OPALCO Response: OPALCO is working with PNNL to create an environmental risk register that collates all the latest information from projects like this around the world. We will be identifying what environmental issues will need to be addressed before moving forward.**

The mooring lines are estimated to be about 740 feet long. Rosario Strait ranges from about 100 feet (once offshore) to about 450 feet at the deepest parts. So the cables are between 2x and 7x the depth of the Strait. As the machine moves and the current shifts the cables, the cables could potentially scrape along the seabed damaging the benthic communities and potentially raising significant amounts of sediment that can harm marine life.

**OPALCO Response: The next phase of the project will determine how much disturbance may be created. We will make this information public as it becomes available.**

For the O2 installation in Orkney, the company placed “nylon aggregate bags” around the anchors to prevent “scour”. Nylon breaks down in the environment, and thus will serve as yet another source of microplastics in the marine environment.

**OPALCO Response: OPALCO is working with PNNL to create an environmental risk register that collates all the latest information from projects like this around the world. We will be identifying what environmental issues will need to be addressed before moving forward.**

The Salish Sea is already impacted by pollution, shipping, shoreline development and noise. We are severely damaging the sea, cut by cut. In death by 1000 cuts, how do you know which cut will be the last?

**OPALCO Response: OPALCO shares your concern for the marine habitat surrounding our islands. We are deeply concerned that without energy alternatives, our diet of fossil fuel based energy sources will continue to impact our environment. Creating local, carbon free energy sources is key to mitigating the impacts of climate change.**

Questions

A video describing the O2 produced by Orbital Marine and available on YouTube, describes the immense pressure placed on the hull of the machine and the cables and anchors holdingit in place. What is the plan for a worst case scenario in which the hull breaks, a cable breaks, or a blade falls apart as happened recently at Vineyard Wind (on the East Coast)?

**OPALCO Response: As with all of OPALCO’s day to day business we will have a hazard mitigation plan and emergency response protocols.**

What kind of anchors will be used for the O2: gravity anchors or rock bolt anchors? If gravity anchors, how will OPALCO mitigate for the benthic habitat disruption from these large (approximately 30 feet by 30 feet wide, and 10 feet high, 35 metric tons) anchors? Similarly for the 30 foot long rock bolt anchors, installing these anchors may do significant damage to the seabed—how will OPALCO mitigate this damage?

**OPALCO Response: This issue is part of the current feasibility being studied. We will have more information about the kind of anchors and what, if any, mitigation needs to be done.**

Did you notify the local community via local newspapers four weeks in a row as required by the Federal Power Act when you applied for the FERC permit?

**OPALCO Response: OPALCO has not applied for a FERC license yet, which will trigger the reference notification requirement. OPALCO applied for and received a FERC Preliminary Permit. This is not actually a permit to conduct any activities, and it lets us have first priority in applying for a license for the project that is being studied. It does not allow for any specific work to be done – it is a step to ensure the study of the project’s feasibility. If the project is found feasible then we can use the data and info gathered to prepare an application for a license and then would need permits to get specific work done.**

**Here is the link to our Preliminary Permit Docket Number P-15368-000:**[**https://elibrary.ferc.gov/eLibrary/search**](https://elibrary.ferc.gov/eLibrary/search)**.**

Cost: The less subsidy OPALCO gets, the more it will cost ratepayers. If we continue down this path, and the federal gov pulls subsidies, we'd be on the hook for millions of dollars. What will happen to the project if we get half way there and the federal funding is no longer available? Or something catastrophic happens?

**OPALCO Response: OPALCO has financial feasibility top of mind for this project. The co-op will only move forward if it makes financial sense and does not add to energy burden of co-op members. Investing now in renewable generation projects will help with the long term financial viability of power costs in San Juan County as mainland costs go up and renewable generation costs go down or we can get these projects funded by grants.**

When will you know the exact costs per kWh for rate payers?

**OPALCO Response: We will have the estimated costs for this project by the end of this grant. Exact costs are not known until the project is actually being built**.

You've said that you'll respond to the environmental concerns raised by the community and by the Swinomish in the FERC permit application at licensing time. But isn’t that too late in the process? I think we'd all like to know \*now\* what these environmental impacts will be.

 **OPALCO Response: Once we submit the Draft License Application on April 1st then further environmental studies will be evaluated. There will be extensive studies required in order to get the permits to install such a device in the water. The process is years out from an actual device being installed.**

Will the machine have an “early warning” orca detection? What about other species? What will this cost? What will it look like? Was it developed with orca experts, because none of the orca experts we've talked to have been contacted.

**OPALCO Response: It is too early in the process to have this level of detail about what is installed and/or mitigated. If you have Orca Experts for OPALCO to talk to, please send their contact information and we will add them to the list of experts we have been working with.**

O2 has said, “Each rotor is imparting about the same thrust as jumbo jet engines taking off” How will the noise from these turbines impact the marine environment?

**OPALCO Response: The state of the science on Marine Renewable energy projects states noise levels are generally below harmful thresholds for marine mammals. We will continue studies on these specific devices to ensure that the noise levels are appropriate.**

We know from wind turbines that blades made with carbon fiber and resin shed large amounts of microplastics into the environment. How will you mitigate and/or compensate for the damage microplastics do to the environment, including microplastics in the food chain, and the toxics that leak from microplastics into the water and the marine life who eat the plastic?

**OPALCO Response: Every energy source has tradeoffs in our environment. OPALCO will be analyzing the various risks and mitigate as required via the FERC process.**

In a blackout, how will you determine who will get the power generated by the machine? Who gets priority?

**OPALCO Response: This devices location was determined because we have infrastructure on Blakely Island that we can tie into to get the power through our transmission system that feeds Orcas Island. Logistics and how the electrons flow is how we determine who will get power during outages.**

What will happen in 20 years when the machine(s) need to be replaced? Who will be responsible for disposing of the machine and paying for that?

**OPALCO Response: There will be a decommissioning plan for this.**

What will happen if we don’t have the money to replace the machine? The machine’s lifespan is only 20 years—this is a large financial burden for a short lifespan.

**OPALCO Response: The lifespan is 25 years. This will need to be determined based on the success of this project.**

Claims

OPALCO claims adding local electricity will make us more resilient, but because of San Juan County population projections, it seems like that the 400 homes-worth of electricity will quickly be eaten up by new development.

**OPALCO Response: OPALCO’s intent is to find innovative solutions for the projected growth for electricity. This is our opportunity to be part of the solution for our future energy supply.**

OPALCO claims that so-called renewable energy will help meet WA state and US climate change goals, but if there is more growth in the county, this is not true. In addition, any electricity we free up on the Pacific Northwest Grid because of this machine and other local electricity generation will be used by other power users elsewhere on the PNW grid, such as the proliferating data centers around WA state.

**OPALCO Response: Check out our Quick Fact on what trends we are seeing with the mainland power supply:** [**https://www.opalco.com/20989-2/2024/03/**](https://www.opalco.com/20989-2/2024/03/)

OPALCO claims that local energy will supply power in a blackout. But this is only true for our entire local grid if supply matches demand. It is unlikely that one solar install (or even two, if Bailer Hill is built) and a tidal machine that can power only 400 homes will come anywhere close to meeting demand, especially during a cold snap. This means that OPALCO or someone will have to choose who gets the power from local power plants. In addition, if enough growth happens in the county while this machine is being studied and installed over the next few years, then the additional power will be very unlikely to make any difference to us whatsoever in a blackout.

**OPALCO Response: Renewable energy projects need to be part of the solution for our future energy load growth. It takes years and years to get these projects sited, designed, permitted and installed. We need to start finding solutions now.**

Demand

OPALCO is mandated to match supply with our demand. Therefore it is upon us to reduce our demand so we are not putting the marine environment of the Salish Sea at risk.

**OPALCO Response: OPALCO wholeheartedly agrees and encourages energy savings and efficiency through our rebate programs and switch it up.**

Notes on FERC Permit

A FERC preliminary permit was issued Jan 13, 2025. Only Swinomish Tribe consulted with (not OPALCO ratepayers, and not Lummi, or other tribes).

**OPALCO Response: OPALCO has been consulting with a variety of tribes and the OPALCO members about this project since 2022. A full list of our consultations is on the website in the Additional Resources section of this page:** [**https://www.opalco.com/quick-fact-opalco-tidal-energy-pilot-project/2022/11/**](https://www.opalco.com/quick-fact-opalco-tidal-energy-pilot-project/2022/11/)

Swinomish concerns:

+ Impact to Treaty resources and the environment.

+ Tribal fishing rights in the Salish Sea.

+ Asked for cost/benefit analysis.

+ Impact to the marine environment, specifically benthic habitats.

+ Impact to aquatic species including salmon, rockfish, orcas, humpbacks, and other

endangered or tribally important species.

+ Impact to culturally significant sites.

OPALCO: because this is a preliminary permit, OPALCO has not responded to these

concerns, and says it will do so at licensing time.

**OPALCO Response: Here is the link to our Preliminary Permit Docket where we responded to the Swinomish’s concerns Number P-15368-000: https://elibrary.ferc.gov/eLibrary/search.**

Swinomish have asserted that OPALCO must conduct environmental studies to:

Assess potential impacts of anchor and mooring systems on benthic habitats and species;

Analyze how the subsea cable will affect benthic habitats and species;

Determine how the anchored turbine will impact tidal flows and sediment transportation;

Evaluate the cumulative impacts of adding more turbines to the project;

Conduct a formal cultural resource assessment to ensure that no culturally significant sites will be affected by the project construction or operation.

Include other tribes so far not included in preliminary permit consultation be included:

Tribal nations including the Confederated Tribes of the Umatilla Reservation, Jamestown S’Klallam, and the Port Gamble S’Klallam, along with the Swinomish, Lummi Nation, Suquamish Indian Tribe, Tulalip Tribes, and Samish Nation.

OPALCO states that it will describe its Tribal engagement in its license application and has not addressed any of the Swinomish concerns so far.

**OPALCO Response: Here is the link to our Preliminary Permit Docket where we responded to the Swinomish’s concerns Number P-15368-000: https://elibrary.ferc.gov/eLibrary/search.**

**We also have our full tribal engagement schedule on our website here: https://www.opalco.com/quick-fact-opalco-tidal-energy-pilot-project/2022/11/**

The FERC permit allows FERC in conjunction with OPALCO to “make investigations and to collect and record data concerning the utilization of the water resources of any region to be developed, the water-power industry and its relation to other industries and to interstate or foreign commerce, and concerning the location, capacity, development cost, and relation to markets of power sites” under the Federal Power Act (FPA).

The FPA includes allowing FERC to issue a license to a corporation (such as a utility) “for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from or in any of the streams or other bodies of water over which Congress has jurisdiction.”

The FPA also authorizes FERC to “issue preliminary permits for the purpose of enabling applicants for a license hereunder to secure the data and to perform the acts required by section 9 hereof: Provided, however, That upon the filing of any application for a

preliminary permit by any person, association or corporation the Commission, before granting such application, shall at once give notice of such application in writing to any State or municipality likely to be interested in or affected by such application; and

shall also publish notice of such application once each week for four weeks in a daily or weekly newspaper published in the county or counties in which the project or any part thereof or the lands affected thereby are situated? (Emphasis added.)

I personally do not recall seeing weekly notices of OPALCO’s FERC preliminary permit application anywhere in the county, but perhaps I missed them.

**OPALCO Response: We have received the preliminary permit and have therefore met those requirements for that part of the process. The above requirements are related to the Draft License Application of which OPALCO will be following all requirements.**

**Attendees - SJI**

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| Shari Tarantino |
| George Hunt |
| Val Veirs |
| Leslie Veirs |
| Brian Johnson |
| Greg Hertel |
| Jerry Krikava |
| Leigh Krikava |
| Alison Longley |
| Mark Madsen |
| Jerry Whitfield |
| Vince Dauciunas |
| Jerry McElyea |
| Steve Fund |
| Pat McAuliffe |
| Peter Risser |
| Susan Risser |
| Keith Wentworth |
| June Wentworth |
| Sharon Grace |
| Steve Bowman |
| Donald Kane |
| Gretchen Gubelman |
| Adam Rogowski |
| Lara Brarthwaite |
| David Robison |
| Manuel Fahndrich |
| Heather Nicholson |
| Kristen Arnim |
| Stephen Shubert |
| Elliot Burch |
| Eva Schulte |
| David Neiwert |

**Attendees – Eastsound**

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| Barbara Rosenkotter |
| Bill Wulff |
| Tom Baldwin |
| Miriam Ziegler |
| Bob Gamble |
| Mark Padbury |
| Steve Diepenbrock |
| Robert Dashiell |
| Brian Wiese |
| Tessa Ormenyi |
| Loren Dickey |
| Rusty Diggs |
| Betty Corbett |
| Wendy Thomas |
| Oliver Groenwold |
| Jaime Beechum |
| Laurie Davidson |
| John Davidson |
| Tom Owens |
| Ann Ganfield |
| Issa Parker |
| JohnPierre Van Dongen |
| Annette Van Dongen |
| Howard Bobloud |
| Mary Gropp |
| Carla Thomas |
| Bob Thomas |
| Carol Dickey |
| Kirsten Grstafson |
| Ayn Gailey |
| Tina Whitman |
| Ken Gaillozet |
| Toby Cooper |
| Jim Rorabaugh |
| Susan Stoltz |
| Betsy Wilson |

**Attendees – Lopez Island**

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| Randy Wilburn |
| Barbara Jennings |
| Sally Stine |
| Jeff Henshaw |
| Ken Kortge |
| Patrick Pallousek |
| Lance Douglas |
| Elisabeth Robson |
| Pixie Eslinger |
| John Eslinger |
| Carol Meaghn |
| Cyndi Smith |
| Ike Sorensen |
| Dan Post |
| Cliff Cameron |
| Mary Ann Cameron |
| Tim Kent |
| Steve Tilles |
| Charles Bookman |
| Ron Norman |
| Sue Roundy |
| Dale Roundy |
| Kate Scott |