

Rural Clean Energy Economics and Community Engagement Study and Report

Meeting Summary: Virtual Public Meeting

Meeting Information

Location: via Zoom webinar

Date: June 5, 2024

Time: 6:30pm – 8:30pm

Number of Attendees: 50

Consultant Team in Attendance

Susan Hayman: Ross Strategic

Heather Christopher: Ross Strategic

Andy Chinn: Ross Strategic

Leslie Genova: Industrial Economics Inc. (IEc)

Kieran Bunting: IEc

Jamie Ptacek: Clean Energy Transition Institute

Ruby Moore-Bloom: Clean Energy Transition Institute

Eileen V. Quigley: Clean Energy Transition Institute

Consulting Team Presentation

Presentation slides are [available here](#). (Note: these slides were adapted for the virtual meeting by including information about online Spanish interpretation and how to participate effectively by Zoom; references to slide numbers below correspond to the linked presentation).

Welcome and Introductions

Susan Hayman, Ross Strategic, welcomed participants, provided instructions about accessing Spanish interpretation and participating effectively by Zoom, outlined the meeting purpose and agenda, and introduced the project team.

- Meeting Purpose (Slide 2)
 - To learn about the Rural Clean Energy Economics and Community Engagement Study and Report—who asked for it, how the information is being collected, and how it will be used.
 - To hear from communities about their concerns with and potential opportunities for clean energy development-both large-scale and community-scale.

- Agenda (Slide 3)
- Details for tonight (Slide 4)
- Team introductions (Slide 5)

General Information about the Study and Community Engagement So Far

Presenter: Susan Hayman, Ross Strategic

- Rural Clean Energy Economics and Community Engagement Study Background (Slides 6-14)
 - Origin of the study - [HB 1216](#) (Slide 7)
 - Clean Energy Project Siting Law in 2023: Directive for the WA Dept of Commerce to create and submit a study and legislative report addressing direct and related issues and concerns across rural Washington regarding renewable energy development.
 - The study is titled: Rural Clean Energy Economics and Community Engagement Study and Report (Rural Clean Energy Study).
 - Purpose of the study (Slide 8)
 - To increase mutual understanding between rural communities, representative interests, and government agencies and policymakers regarding potential opportunities and impacts of renewable energy development in rural communities throughout Washington.
 - What the study will include (Slide 9)
 - Direct and indirect economic and financial impacts of clean energy projects in rural Washington.
 - Descriptive summary of potential non-economic impacts to and opportunities for rural communities from clean energy development.
 - Clarifying what is meant by ‘clean energy’ for the study’s purposes (Slide 10)
 - Utility scale solar and wind, community-scale clean energy, biodigesters, small nuclear reactors, closed-loop pumped storage hydropower.
 - How information is being collected (Slide 11)
 - Individual and small-group conversations.
 - Case studies and other financial and economic data collection and analysis.
 - Three rural community-based public meetings.
 - One state-wide virtual public meeting.
 - How information is being used (Slide 12)
 - May be used to inform policies and programs.

- NOT affiliated with or in support of any particular clean energy development project.
- What we have heard so far
 - Challenges (Slide 13)
 - Technical and staff capacity concerns.
 - Lack of direct benefits to communities.
 - Concern around siting optimization (better potential elsewhere).
 - Impact on viewsheds and recreation.
 - Experiences with unsustainable government programs.
 - Transmission and distribution system capacity.
 - Skepticism around the need to decarbonize Washington's energy system.
 - Local involvement in decision-making.
 - Opportunities & Benefits (Slide 14)
 - Community and individual independence and resilience.
 - Energy reliability and affordability.
 - Improve public health outcomes.
 - Offshore wind opportunities.
 - Role of hydrogen and nuclear power.
 - Local energy generation / energy sovereignty.
 - EV charging as an economic/tourism opportunity.
 - Energy capture complementary to existing activities.
 - Need to act on an existential climate crisis.

Economic and Financial Aspects of the Study – Findings to Date (Slides 15-22)

Presenter: Kieran Bunting, IEC

- Overview of Economic and Financial Analysis Approach and Findings
 - A case study approach (Slide 15)
 - Map showing ten projects selected as case studies and other projects being considered in the analysis.
 - What the interviews/data are telling us so far (Slide 16-22)
 - Challenges and Concerns (Slide 16)
 - Tension between state and local land use decision-making
 - Jobs and tax benefits are front-loaded (i.e., depreciation)
 - Employment benefits not accruing locally

- Sales tax rebates at times have been poorly communicated with county officials
- Agricultural land use and land value concerns
- Clean energy subsidies may incentivize lower value projects
- Benefits and Opportunities (Slide 17)
 - Lease terms vary but landowners benefit financially from lease payments.
 - Increase in sales and property tax revenues for counties.
 - Projects create substantial construction jobs in the short term as well as local jobs during operations.
 - Wind projects typically allow agriculture to continue, using 1-3% of leased acres.
 - Interest in agrivoltaics.
 - Community contributions from project owners.
 - Potential for additional community benefit agreements with project developers.
- Financial Returns to Landowners (Slide 18)
 - Lease terms may vary but lease agreements can be a notable financial benefit to landowners.
 - Tiered system: pre-development, construction, operation.
- Tax Implications of Projects (Slide 19-20)
 - Tax payments provide a boost to local tax revenues.
 - Personal property tax, real property tax, sales tax considerations.
 - Project equipment and machinery depreciates over time reducing personal property tax collections.
- Land Use for Wind Turbines vs Solar (Slide 21)
 - Wind projects occupy 1-3% of leased area, usually compatible with continued agricultural activity.
 - Solar projects can occupy 100% of fence lined area, continued agricultural development difficult.
- Construction and Operation Employment (Slide 22)
 - Table with modeled estimations for construction costs and full-time job equivalents.

Question and Answer Session

Facilitator: Susan Hayman, Ross Strategic

Questions were submitted via the Zoom Q&A function and/or by participants asking verbally. Questions were directed to relevant members of the consulting team to answer.

- **Question:** Regarding this process, what preconceived ideas, thoughts, or policies were provided to the consulting team from the Department of Commerce? Since Commerce is paying for this, how objective can the consulting team be in submitting results? Commerce has blatantly been pushing wind and solar and disregarding nuclear and gas. The fact that only three in-person meetings have been held in rural communities (Mt. Vernon, Zillah, and Dayton) indicates that Commerce really doesn't want to know what rural residents think. Why only 3 meetings?
 - **Answer:** Ross Strategic is playing the role of a neutral and objective facilitator in this process, as are the partner contractors on this project. The facilitation team does not advocate for a certain position. We are contracted to the state, and we do a lot of work with state agencies; we are confident in our ability to retain objectivity and neutrality. The state legislation that called for this study required two stakeholder meetings—at least one in eastern Washington and one in western Washington. We have held two meetings in eastern Washington and one meeting in western Washington—one more in-person meeting than required by legislation (as well as this virtual meeting) to reach additional communities and stakeholders.
- **Question:** What is the definition of “rural” for this study? Is it based on community size, geographic characteristics?
 - **Answer:**
 - The definition used for the economic analysis is based on the USDA Rural and Urban Commuting Area codes. These codes use a combination of population density, proximity to metropolitan areas, and commuting data. (Note: see: <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/>)
- **Question:** I see that landowners benefit from clean energy projects, but what about the loss in property values for people who have direct line-of-sight of turbines, or who live close enough to be subjected to sound and shadow flicker continually?
 - **Answer:** We are conducting a literature review and looking at data on this topic. It is not highlighted in the slides because it is part of the analysis we are still working on. It will be in the final report.

- **Question:** I am a county assessor who testified on HB 1756, which would exempt these projects from personal property tax and replace it with an excise tax set by the Department of Revenue. I'm concerned that you stressed the challenge of depreciation but didn't discuss HB 1756. In three counties in particular– Kittitas, Klickitat, and Benton – proposed projects combined with existing projects represent over half of the tax base. If these projects remain taxed as personal property, taxpayers will see their bills decline by more than half. If you pull clean energy out of property tax, then all the taxpayers will see no benefit from more than doubling the tax base in their taxing districts. I wish you would study and educate the public on that. The proposal to shift away from personal property taxes is damaging to taxpayers in those counties and taxing districts.
 - **Answer:** The project team spoke directly to the Department of Revenue about HB 1756. At this time, it is too new for us to be gathering data on its implementation. Our study focuses retrospectively at projects that have been built, and we are collecting data on tax revenues in those counties. HB 1756 was adopted recently, and we are not aware of any projects that have opted into it. We plan to circle back with the Department of Revenue, and the topic will be discussed in the report.
 - **Comment:** The bill takes effect in 2025. By contract, it will lock counties into a 10-year future, and then they'll learn about it. My disappointment is the study is not analyzing the implications of that. The county, schools, and Tribes get a share, but the taxpayers have no say about how the funds get spent as they would if there were a bond or levy. The windfall is outside the system, without accountability.
- **Question:** Has WA State made an estimate of the total land required for solar, wind, and storage to meet the requirements of CETA?
 - **Answer:** We do not know of such an estimate but have been asked and have been looking into it.
 - **Comment:** Why not estimate the area required? The number 700,000 acres has been brought up in multiple venues.
- **Question:** Rural counties like Lewis County have an abundance of woody biomass. This is an opportunity for energy generation. Woody biomass can be used to make energy cleanly. Is that considered in the bucket of clean energy sources for this study?
 - **Answer:** This came up in the Mt. Vernon discussions as well. Yes, woody biomass would be considered a clean energy source and will be discussed in the report. However, the report's economic analysis is focused on case studies of large utility-scale development that covering large areas and

produce large amounts of energy. We didn't intentionally exclude biomass, but the case studies ended up being large wind and solar developments. Biomass is by no means excluded.

- **Question:** In the economic analysis, how did you distinguish between local jobs and jobs going to out-of-state workers and companies?
 - **Answer:** In the meetings for this study, we've heard concerns about project-related jobs being filled by specialized people from out of the state. We've also heard that rural local areas don't have the trained personnel needed to do the specialized construction work (for example to raise a wind turbine). For purposes of the study, we defined local jobs as those within the county—for example for operational jobs like on-site maintenance. Workers for the construction phase, which may be non-local specialized crews, are bringing in economic activity by staying in local hotels, etc. We've had some luck talking to companies that operate in this field, and we are continuing to build our data on it.

Open Discussion

After the Q&A time, participants discussed three topics in order: large-scale clean energy development, community-scale clean energy development, and financial and economic impacts. Prompting questions for each topic were:

- What are the primary community concerns and potential benefits?
- How could these projects be done in a way that provides benefits to rural communities?

The following sections outline key discussion points from each of these conversations.

Large-scale clean energy development

Participants described many concerns, grouped by topic where appropriate:

- We should use more of the types of energy we already have:
 - Yakima County has large scale energy facilities with huge footprints. We have existing clean energy resources, like hydropower. There are new technologies like small modular nuclear reactors. I worry about preconceived outcomes of this study if we're not thinking about using our resources in the best ways. We already have economies based around these other energy sources. I also worry about environmental impact.
 - Small modular nuclear reactors and hydropower are the way to go. They are the most reliable and have a clean carbon footprint.

- Shift in tax burden
- Environmental impacts from clean energy:
 - It feels like we are ruining the environment to protect the environment. Solar and wind are no more clean than other technologies in their manufacturing or disposal than concrete or steel. We need to acknowledge these impacts and not dismiss them.
 - A town where we have a second home in California is slated for a lot of solar development; it has essentially become a “sacrificial community” for utility scale solar projects on private and BLM land. They want to use a lot of water for dust abatement and cleaning, and we have big water availability challenges. Cultural sites and habitat are being damaged. I’d like to know what protections Washington is going to give to rural communities to make sure projects are done in an environmentally protective manner.
- Water scarcity and impacts on agriculture. This is the primary concern from agricultural producers in Washington, along with environmental regulations, and increased energy costs. Once we lose water rights, they are lost forever. Farmers are waiting for water rights for property that needs to be irrigated. But, Scout Energy needs water for construction dust abatement during the course of project operations and for fire mitigation. You are changing the rules and putting energy companies at an advantage when farmers and municipalities have been sitting on the sidelines. People need water to survive.
- Energy is being exported. Developers and Governor Inslee say clean energy will help Washington meet its zero-carbon goals, but there is nothing in writing from anyone that has committed to retaining the power produced within Washington state boundaries. If it doesn’t benefit WA, we can’t take credit for it.
- We need better listening at the state level. The Horse Heaven project went to EFSEC, and there was a lot of opposition. EFSEC decided to limit the project, and then it went to the Governor, and he disregarded Tribal and environmental concerns. It was dictatorial. We feel totally ignored by Olympia. They have an agenda. There’s a religion about clean energy.
- Wind companies come in here and grab the federal dollars, build the project, then sell the project.
- Restoration is inadequate. They only take the top four feet off when ‘restoring’ the land. Concrete pedestals remain embedded in the land, and you can’t grow crops there. The Palouse area doesn’t need irrigation. Concrete ruins the land.
- Wind and solar are the least reliable forms of energy. Why are we pushing them on communities?

- Wind and solar do not provide energy reliability or affordability. Anything that is weather dependent is not reliable.
- Lack of information about local jobs. We are talking about community benefits, but money is going to internationally capitalized developers. They say projects will create local jobs, but IEc says we can't get the data. Why not use actual jobs data from the Department of Labor & Industries for energy maintenance jobs instead of estimating based on a model that may or not fit the ten projects? It shouldn't be a mystery. Every company should report to Labor and Industries.
 - **Response:** The consulting team will look into Labor & Industries data. It is easier to get data on the local jobs for operations and maintenance once projects are constructed. The 5-10 local jobs number referenced in our presentation is based on actual conversations and data. It is harder to get numbers about construction jobs.

Benefits:

- With more people, we will need more electricity and therefore more power plants. Wind and solar are the cheapest forms of power; there is no fuel cost. Wind, water and solar produced more power than California needed last spring, so they sold it to neighbors. Clean energy is starting to become an economic reality. It is hypocritical for people in Washington to criticize wind when we've benefited from renewable hydropower. There are more practical solutions than small modular nuclear reactors, like energy efficiency, demand response, and time of use rates.

Community-scale clean energy development

Community concerns:

- The challenge of community-scale solar is getting the benefit to communities. A 7% discount on utility bills is not meaningful.

Opportunities to benefit communities and address concerns:

- We should do more with smaller projects. The legislature should say, "if you have a building with x square feet you must put solar panels on your flat roof."
- We need more storage coupled with solar to get more benefit. Batteries help solar be more integrated into the energy system. Solar and storage at schools, parking lots, and other locations will improve resiliency for communities. If not required or incentivized, developers will default to the cheapest option.
- Microgrids. Commerce or other state agencies should analyze communities and see how networks of microgrids could minimize environmental and other impacts.

- Woody biomass. It is not impractical to develop 5-10 MW high-efficiency pyrolysis and use that energy directly for hydrogen production. We are working on that in Lewis County. Woody biomass is available for lots of things in western Washington.

Financial and economic impacts

Community concerns:

- Impacts to natural areas. For the proposed project at Kamiak Butte, the community feels that a 700-foot-tall wind tower would defile a pristine area. There is a plan for 45-70 wind towers around the butte.
- Impacts to tourism. People come out to rural areas for photography. This is estimated at \$14.5 million in this region—for hotels, car rentals, restaurants, etc.—from people around the world. People at the state level say “You’ll get used to it.” But, it is a travesty to have an industrial wind factory here. If you’re going to build, do it in a different part of the state.
- Aerial firefighting is prohibited by wind turbines creating no-fly zones. Who will pay for the costs of emergency services that this large project is going to present to the county? Developers who are making millions of dollars should share in the cost of additional services.
- Land use impacts of biomass. I’m concerned about land use in general and especially with agricultural land and forest. Grays Harbor proposed a pellet plant as green manufacturing. I don’t know how much biomass is available for various uses, but our energy strategy did not consider that we’re sending biomass overseas. Discussions of biomass are not considering all the land use implications. They are not considering emissions from forestry; there is misinformation about that. The University of Oregon and University of Washington have different data and research.
 - The wood pellet plant is from an out-of-state company funded by global investments.
 - They are using methane to power the plant. There are already health issues in the area. We want Commerce to come up with a better checklist for evaluating proposals that get state funding. This company’s funding depends on state and federal investments. What is the cost to my community for only 50 jobs?

Questions Answered in Q&A box

During the virtual meeting, some questions were answered with typed responses using the Q&A function:

- **Question:** For all the consultant groups, where are your home bases?

- **Answer:** Ross and CETI are based in Seattle. IEC has staff based across the US.
- **Question:** I do not see an image of hydroelectric power from our river and dam systems. These are clean energy. Why are they not included?
 - **Answer:** The study's focus is on projects more recently sited (i.e., from 2019 onward)
- **Question:** When do you expect your report will be published?
 - **Answer:** Oct 1 delivered to Commerce, December to the legislature, and published after that.

Questions and Comments Not Addressed

Additional questions were submitted using the Zoom Q&A function that were not answered during the meeting. These questions, as well as additional comments, will inform the study. Some of questions listed below may be addressed as part of the project's frequently asked questions (FAQs), accessible soon on the project website:

<https://ruralcleanenergywashington.org/>.

- **Question:** Glad to see small modular nuclear reactors (SMNRs) on the list but Commerce has not actively produced this resource that operates 24/7 unlike wind and solar, which is weather-dependent. Why is Commerce not putting their focus on SMNR?
- **Question:** What about woody biomass energy production that could include carbon capture?
- **Question:** Have you seen the non-disclosure agreements for the Community Contributions?
- **Question:** I've heard that communities have had to return sales tax revenue back to the developer. Is that true?
- **Question:** What time frame does the \$4K/MW cover? Is that monthly, annually, what?
- **Comment:** The lease rates [for land used for solar and wind projects] seem very low.
- **Question:** Where is the money for the lease payments coming from? Is this taxpayer money?
- **Question:** What is the rate of depreciation? Logically, the highest revenue would be in the first year and go down from there. I've heard that communities can get in trouble when they use revenues early on to build schools, etc. and then are left with unanticipated costs when those renewable energy revenues go away.

- **Question:** Tax Implications of Projects: There is a huge depreciation rate over time. Most developers will repower at 10 years or so, so that the taxpayer subsidies start all over. Does the personal property depreciation start all over again, too?
- **Question:** Can you have solar and wind on the same land?
- **Question:** What is the percent devaluation of real estate/homes around wind turbines, solar panels, & battery facilities?
- **Comment:** Jobs. It should be stated that these FTEs are not individual jobs because most projects are done in a phased manner and so the same people may be doing the same job on each phase. The numbers you've shown make it appear better than it is. Also, I can't imagine there is anyone locally who has the expertise to raise a wind turbine.
- **Question:** I am not seeing any data regarding disposal of turbine blades at the time they need to be replaced. How will this be planned for and what costs are allowed for such disposal?
- **Question:** The proposed NW Renewables wood pellet plant in Hoquiam has received State funding for creating a biofuel, but this industry uses methane to power their processes and their legacy in other parts of the US has been one of forest devastation and emitting pollutants. Why doesn't the Department of Commerce evaluate fuel source and direct and indirect community and environmental impacts when selecting projects to fund?
- **Question:** Have you found additional costs to counties for emergency services needed for the Projects? For additional road costs?
- **Question:** What are the job implications of building a large utility wind project? What about a large utility solar project? What about long term? Are these long-term jobs in our communities and do they pay well?
- **Question:** Is the Tri-Cities classified as rural?
- **Question:** How many of you have been out to visit and look at the Horse Heaven Hills proposed wind/solar project area?
- **Question:** How many years of data were examined?
- **Question:** What is the estimated loss in electric power to customers (see TX & CA rolling blackouts) & the estimated increase electrical power bills to customers?
- **Comment:** Kieran is spot on, we own and operate a 6.5MW Windfarm and our partner GE brings in their own crew to service our 4-wind turbines.
- **Comment:** Please restate why hydro is not included
- **Comment:** No question, but dang the Commissioner dropped the mic!
- **Comment:** One concern is migrating flocks, geese and swans

- **Question:** Three short answer questions: 1. Hydrogen fuel cell generators were not shown in the examples of sustainable power options - are they considered to be acceptable in this study? 2. What is the smallest viable size for a wind turbine installation as an addition to the electric grid of a rural community? 3. Has the Legislature set aside grant funding for rural clean energy improvements that will be made available thru Commerce to rural communities?
- **Comment:** Large scale energy project developers MUST engage the community early on in its design process. This was not done in the case of the Horse Heaven Hills project and the result is not pretty.
- **Question:** My question on whether the depreciation rates restart when a wind turbine is repowered, kicking in the incentives over again, wasn't answered. I'd like to know.
- **Comment:** We either care about the environment in Washington State or we do not.
- **Comment:** I hear lots of people say "Small Modular Nuclear" but the only one that is slated to be built might turn on in 2029. I don't want to gamble on this unproven technology especially since the most recent Vogtle plant was 7 years late and \$17B over budget.
- **Comment:** I can't really envision what a community scale project looks like.
- **Question:** What is being done to develop energy projects near large urban areas that need lots of electricity?
- **Comment:** In response to David's comments, in the Tri-Cities wind and solar doesn't perform when the power is needed. And it's far from cheap, both in manufacture and production. See <https://rickdunn/substack.com>.
- **Comment:** Placing lithium batteries in remote areas that are considered No Man's Land for Wildland Fire response and our rural Fire Districts are not sourced up to provide the type of fire response from a massive battery fire, nor are they responsible. All sites in Central and Eastern WA are sited in areas of high fire occurrence as provided by heat maps from the USFS and DNR.
- **Question:** Perhaps the private corporations who tout the jobs being created could voluntarily provide their data? Open books?
- **Question:** What cost/benefit analysis has been done or will be done for the wind & solar projects for the communities? That would help the customers decide what form(s) of energy to use.
- **Comment:** I also want to reiterate that phased construction doesn't create x number of individual jobs because the same people will be performing the same task during each phase. For the Horse Heaven Energy Center, there are 16-20 operating jobs.

- **Question:** Renewable Energy Credits are sold by the developing company to those who need carbon credits as well as receiving tax credits. Without these, they do not pencil out. The REC market is collapsing worldwide. How will the state address the collapse of these markets?
- **Question:** How will your report assess and account for the environmental impacts of the highly erodible soils in the Palouse (Harvest Hills Project)? Construction during times with frozen soils or saturated soils can/will result in sediment runoff into our surface waters. Dept. of Ecology has this as the number one concern for this region. One has to balance the perceived good versus the environmental impacts.
- **Comment:** Additionally, all homeowners near the sites in areas of high fire propensity will see their homeowners' insurance policies increase because of the fire danger. It will be similar to California where entire communities are having carriers decline to provide coverage at all.
- **Comment:** Concerning financial and economics...most of what we've read has been provided by the developer who has a vested interest in making everything sound better than it is. I would like to see an independent agency analyze and provide objective information.
- **Comment:** Tri-Cities CARES would love to have a 1-on-1 meeting with you via Zoom where we can get into more detail on our concerns about the Horse Heaven Energy Center. Please contact me at [redacted for public summary].
- **Comment:** I think the state really needs to focus on energy efficiency. Every utility has great programs and I believe the state can add substantial dollars to get more efficient systems implemented.