**1/18**

Present: Les Perkins (Hood River County), Alan Hickenbottom, Meagan Hartman (Wisewood), Nick Burnett (SNW), Angela Crowley-Koch (OSSIA), John Seng (Spark NW), Oriana Magnera (Verde), Mike McArthur (CREA)

* SNW is doing some deep dives into work in other states on microgrids and creating a conversation starter to delve into specific details; structures or options for how microgrid services can be compensated
	+ Looked at Oregon and other jurisdictions
		- Current compensation structures for renewable energy generally and microgrid services including reliability and resilience; If we created a compensation structure for microgrid services how we could do so and incorporate community benefits, equity, and strategy (what Is)
			* Negotiation with utility: challenges around negotiation and cost that favor larger projects – focused on pricing
				+ Hood River County: Dynamic between projects and utilities is not just price but also the legal and technical expertise and resources required that are also prohibitive
				+ Alan: Need to make the regulatory environment such that it would be more possible to do projects – picking a few paths on how to smooth the regulatory environment so places like Hood River County can try
			* Net-metering – would need to be modified
			* Microgrid feed-in-tariff - customizable for projects with certain benefits and support certain communities; send a strong market signal
				+ Volumetric incentive rate in OR for qualifying RPS generation; fully reserved capacity (27.5 MW)
				+ San Diego baseline tariff for RPS generation of any size and had adders (below 100kw, below 350kw – tiered, community benefit, built environment, dispatchability, etc.)

Wisewood: Have adder structures been implemented and had success in encouraging different kinds of projects

Clean Coalition helps design these kinds of project/work and can be pulled

Spark: What factors go into an adder

Blending factors and data to create tariff design with administrative value

Spark: Uniform tariff design?

Goal is to have something that is both standardized and flexible and doesn’t just take into account economic factors

Spark: For environmental justice communities there is not a lot of capital, often piecing together grants – need certainty to ensure that projects pencil from the start; even with flexibility make clear how the project pencils out

Both qualitative and also statistical tools to create t

Could use mapping or other tools to help people understand what adders they qualify for

* + - * Wisewood: Are there ownership limitations or scenarios associated with these different structures?

Well-designed tariff would allow for financing to be easier and allow for more diverse ownership by allowing smaller groups to access credit

* + Alan: Are there viable paths for this work – what do they look like?
		- OSSIA: Nothing baked yet
		- Past rate structures (feed-in-tariff) have been too high and not sustainable and led to pilot not being continued; also too competitive/too much demand
			* OSSIA: Since it started, cost of solar has gone down so much that the old rates aren’t reflective of the current needs; have to look different to support different kinds of generation
			* Wisewood: What can we learn from the coalitions that worked to get this work passed?
				+ Alan: Would be normal process through PUC
				+ Legislative directive in 2009 (HB 3039)/PUC work in 2010
				+ Rates developed in PUC process
				+ Rates adjusted slightly through market-responsive system
			* Alan/OSSIA: Concept is good but would need to be rebranded and updated
		- Difference with avoided cost rate related to technology?
			* Alan: Different structures that compensate development but in different way
		- Federal funding opportunities?
			* OMEU: ODOE will do grid hardening program through the state – mostly focused on resilience to wildfire ($50 million over five years)
			* Comm Perkins: Talking to Merkley about microgrid funding opportunities – interest
			* OMEU: Competitive program at the federal level
			* Interaction with tariffs/valuing grid benefits:
				+ PGE: Price needs to be fair, include different forms of subsidies to lighten the cost – shared funding streams to make things go; project proponents should also value themselves (resilience to operations/local budgets)

Comm Perkins: Hard sell for small rural counties; they want to see IOUs invest in the communities they serve; counties want to invest, but budgets are tight

PGE: Rural communities not always served by IOUs

Comm Perkins: Fewer reliability issues in COU territories

* + - * + PGE: Rate increases are continuing and impacting people

CREA: Value of generation

PGE: New projects lead to new costs

Likely to do new microgrid distribution programs; announcement soon (clean energy plan)

* + - Alan: Process around net-metering may be something to emulate; put a box around two positions and get to the middle
			* PGE: Resilience language in 2021
			* Alan; May not need to be legislation – but collaborative process to go back to PUC and legislature and propose a solution
			* Wisewood: Bring back themes and report back the framing and give legislators the opportunity to absorb and set next
			* Alan: Started with formal process but had a more informal space that followed a specific question that resulted in a specific set of asks; what helped is there was clarity around what was working toward (but don’t have a specific ask or question yet)
			* PGE; More work to be done; important to have conversation with the PUC as well about their intentions with various workstreams related in particular to HB 2021 and resilience – would need to preface a side conversation
		- PGE: Understood this to be a broader resilience conversation rather than a specific microgrid framing
	+ CREA: WIll there be engagement between PGE and stakeholders around their resilience work?
		- PGE: There will be process

**1/11**

Present: Meagan Hartman (Wisewood), Mike McArthur (CREA), John Seng (Spark NW), Jennifer Joly (OMEIU), Kathy Moyd (OLWV), Angela Crowley-Koch (OSSIA), Bridget Callahan, Nick Burnett (SNW), Sunny Radcliffe (PGE), Alessandra de la Torre (Rogue Climate), Oriana Magnera (Verde)

* Mikes email to use while his CREA email is not working: mwmcarthur48@icloud.com
* Subcommittee of Marsh workgroup on microgrid resilience and our charge is to figure out how different kind of microgrid projects can work and how they can be financed and developed
	+ Broader definition of resilience; are there other elements of grid resilience we should touch on?
		- Microgrids are the answer to resilience
		- Different definitions of resilience, but reliability is key to this conversation
		- SNW is leading energy resilience planning and local governments conversation that gets at broader definition of resilience
* This workgroup has a prescriptive focus on microgrids
* In CA, microgrid work was tied to a tariff
	+ Didn’t work out as expected in part because communities were not as involved as they could or should have been
	+ Goal of authors was to have a tariff but the language for that process was not clear, there were not a lot of stakeholders involved in drafting, and increased resilience after it had been written and passed due to wildfires and it was carved up differently than the intent – language was not as precise as it needed to be to cover the full process and level of interest
* Under current policy, could someone build a microgrid and receive credits under a net metering system?
	+ Under existing OR law, solar component could be on the system as net-metered
	+ In UM 2000 (OPUC), one of the questions that is being addressed is how do you value storage tied to renewable energy, but existing QFs under PURPA have a requirement to deliver 100% of their power to whatever utility is required to buy it and they can’t supply it locally
	+ Some utilities may be open to alternative contracts to include storage for QFs
		- PGE pilot (in testbeds) on batteries/resilience and demand management; other projects outside of this pilot cannot send energy back to the grid and compensate customers for using their batteries like that and customers can set level of drawdown from their batteries – potentially important value for the system
			* **PGE will ask what may be needed to bring this work to scale**
			* Nothing on this scale in the COU world; Ashland has net-metering projects and solar, but full requirements BPA customers don’t tend to have opportunities to do solar; Ashland did a microgrid project with CREP dollars (funded with general fund dollars and not ratepayer dollars)
* With all of the projects utilities have teed up to harden the grid and prevent outages and more demand on the grid, there aren’t resources/buckets of money for utilities to do this which may mean significant rate impacts and also chasing down federal funding
* When we’re talking about tariffs or ways to fund microgrids and grid resilience we have to think about a holistic approach with contributions from utilities, general fund/state, federal government, and private sources
* Utility’s money can only be used for grid, system and ratepayer benefit and other values in microgrids should be supported by other sources of funding
* Mike’s computer is powered by solar plus storage off-grid!
* Is there a possibility to encourage or require that when a line, substation, etc goes down energy can go back into the grid
	+ Possible with islanding and net-metering
* Could be a discussion with utilities about what a different kind of standard contract for projects could look like; but any value to the system should be reflected in the contract (customers should not bear cost for other values)
* SNW: Not a one-size fits all approach; need a variety of solutions; need finance mechanism to bring storage to scale, energy resilience planning for local governments for them to build their own resilience plans (hazard mitigation planning, etc. ), focus communities and humans in this work and ensure that their needs are met
* Resilience project examples:
	+ Sherman County: Wind power is connected to John Day substation and not the local community; County Judge asked how that power could support community and looked especially to the school as a facility that needs resilience (in PAC territory/City of Morro) – how could they supply enough power to support this facility as a resilience hub, create own generation at school campus and islanded storage
	+ Beaverton fire station – microgrid on-site (may be an easier problem to solve than a microgrid that covers more miles in size), combining generation and storage and controls to island, multi-entity partnership, purpose to give services back to customers through islanding when the grid is down
	+ PGE Salem battery storage center with state buildings
	+ Wisewood: CHP systems that can be scaled by 125 kw to 1 MW, but excited about <1MW net metering projects that rather than serving a single load serve multiple loads - NEM compensation is not as important as the savings of offsetting grid electricity; there are other obstacles to sending this energy to multiple buildings (financing mechanism to offset load, if using distribution lines how do you use them if they’re not a utility project – part of financing stream is compensating utility for use of lines, but if there is true value to the rest of the grid there could be compensation for the owner through both saving and also providing wider grid services); Oregon projects heat only mostly because our electricity is so cheap (more microgrid projects in Alaska or California); if the pathway is more clear in Oregon will net-meter one building and add more over time

Spark NW and Lumi Nation (WA): Microgrid on reservation land that has been useful to the tribe a source of back up power and energy savings via net metering, visible way to bring energy and getting youth excited about energy careers

* **Need different streams of compensation based on the kinds of entities receiving energy, potential grid benefits, etc.**
* Microhydro have conservation value of saving both water and electricity – difficult to fund these projects because of size, scale, and scope
* Is there a situation where a microgrid could provide value to a community but also to a larger region (such as in the event of an earthquake – statewide emergency hubs versus local emergency hubs)
	+ State should make investments in sites of statewide interest and ensuring that Oregon should have nodes to be springboards for recovery
* **Should we ask legislature to add to/continue CREP program?**
	+ To COUs microgrids may not be best use for resilience to ensure reliability and affordability as opposed to undergrounding lines, fireproofing systems, etc. – to them it’s a broader conversation than just microgrids – would want to see CREP funds be more broadly aimed
		- Snohomish built a microgrid: [​​https://www.snopud.com/community-environment/our-energy-future/projects/arlington-microgrid-project/](https://www.snopud.com/community-environment/our-energy-future/projects/arlington-microgrid-project/)
		- Makes sense that microgrids are not seen as valuable for utilities; local value is most important; ownership for communities and other entities is important – there will be times where it should be driven by different entities
	+ CREP gets tricky after first two biennium – we don’t typically have millions of dollars to fund these projects in a typical session – not enough to just seek that because we are a revenue poor state with no sales tax
	+ Grant programs tend to be oversubscribed
	+ Would have to advocate for funds every two-four years
	+ Grants don’t always work for smaller communities
	+ What are long-term financing solutions and to think bigger
* One big chunk of money that will become available is the CCP CCI money (has to go through nonprofits) and have to provide GHG reductions
	+ Dembrow is running a bill — could this be an opportunity to include resilience
* Different tracks: grid system benefit and community benefit – shouldn’t be conflated
* **Oriana wills end around a scheduling poll and notes**