

MEETING MINUTES

Project: Solar Facilities Citizen Advisory Committee: Meeting 1	Meeting Date: September 7, 2017
Facilitator: Dan Carlson	Place/Room: Hal Holmes Community Center

Committee Members in Attendance: Dick Carkner, Ivan Manley, Scott Downes, Andrea Sledge, Howard Lyman, Marlene Pfeifer, Steven England, Dave Nerpel, Jeff Dunning, Theo Leonard, Mary Christensen

Committee Members Absent: Susie Weis

Industry Representatives Present: Brian Lenz (PSE), Jason Evans (Tuusso Energy), Nathan Rogers (Ecoplexus), Shawn Childs (Environmental Planning Group), John Crosson (Origis Energy), Steven England (Invenergy)

Public Present: Karen Poulsen, Darcy Poulsen, Chet Morrison

Staff Present: Dan Carlson (CDS), Chelsea Benner (CDS), Dusty Pilkington (CDS), Jeremy Johnston (CDS), Paul Jewel (Commissioner)

Introductions:

Everyone in attendance introduced themselves and spoke a bit about their background and interest in this committee.

Puget Sound Energy Presentation:

Background:

- Only utility currently offering rates that enable solar projects
- PSE serves the majority of the county except for city and some PUD. It is approximately 17k customers in the county.
- Many of the transmission lines come from the multiple dams on the mid portion of the Columbia; most power generated in the Pacific North West is used in the Pacific North West.
- Energy flows from generator, to substation, to customer,
- Power from solar is somewhat flowing backwards, from production to distribution, larger projects may require new substations. Size of station is determined by size of project.
- Customer base wants renewable energy; PSE has a request out asking for renewable energy companies to propose projects due to the high demand.
- PSE has a set rate in which they have to take and provide the renewable power.
- Projects do take time to interconnect to the grid
- 280 customers in county have personal solar. These homes (in Kittitas County) produce about 30 percent more solar power than other areas

Questions:

Q; How do you balance load and/or generation of renewable energy? A; trade center does forecast of load and every few minutes resources are balanced on a real time basis, much like a live market. There is a certain amount of power that is always available, about 10 percent of the entire energy portfolio is renewable.

Q; What is the anticipate effect of increased renewables? A; If contracts end which they do, the watts need to be replaced. RFP process is a bid process. Energy is revolving

Q; Is the Main transmission line working at capacity currently? A; line along the John Wayne trail has been permitted to rebuilt the entire line, it is serving the load that is serving the county right now and it will be rebuilt to handle more as needed

TUSCCO Energy Presentation:

PURPA (1978) Forces Utilities to utilize some percentage of renewables

Site and particular development consideration:

- Projects are primarily 3-20 watt range
- Land that is sufficiently sized, about 20 acres for 3 acre to 100 acres for 30 acre project
- Single owner for all land
- Previously disturbed land, not virgin shrub step to avoid DHAP concerns and biologist's concerns, less nature impacts
- 2-3 miles for existing grid infrastructure
- 12.5kv lines up to 115kv lines, 34kv lines are best, need to be 3 phase lines
- Flat land- projects follow the sun, tracking technology needs 5% or less slope, 30% greater power by following the sun vs fixed panels
- Service territory that is going to offer power rates that support solar projects
- Proximity to existing roads
- Affordable land to make project pencil

Mitigation strategies:

Visual buffers, aesthetics, component where county makes sure projects are removed after project life span, lighting, motion activated lights, raised fencing for habitat, fire training, cleaning material requirements, revegetation with weed control board guidance

Questions:

Q; Are weather changes taken into account when profitability is determined?

Q; Can you make up for efficiency loss associated with flat panels by using more panels?

Ecoplexus Presentation:

Background:

- Based out of San Francisco
- Mainly do 20-80mw ranged projects.
- Community solar farms; sold to individuals to power individual properties; not yet available in Washington
- Solar industry is so interested with WA due to – public utility regulatory policy act, requires utility providers to purchase renewable energy from qualifying facilities.
- Federal investment tax credit of 30% until 2021
- Limitation on substations, each substation can only support input from a certain number of solar farms
- Install cost is at about 1 dollar per watt

Questions:

Q; Sterilization of soil? A; Vegetation is stripped but soil is never sterilized

Q; Can panels be raised higher? A; Yes it just costs more money

Q; Is erosion a concern? A; Some erosion exists but once vegetation is established (which it's closely monitored for first year) it is no longer an issue

Q; Can you build in the flood plain? A; Yes, panels can be raised 2 feet above base flood elevation, however we try to avoid if possible during citing

Q; Are structures earthquake proof? A; Foundations are designed per local criteria i.e. flood, earthquake

Public Concerns and Comments/Group Discussion:

Public Comment; 200 yards from proposed project, how does that impact resale value?

Realtor's opinion: yes these facilities will directly affect resale value.

Q; How do you control glare? A; panels are designed to not glare, the more absorption they have, the more energy they create.

Q; Effect of these panels on animal vision? A; Representative: Community in other places requested horse trail through/ around facility, No problems associated with it that they know of
main concerns; fire concern? Green scape? How will these be maintained?

Public Comment; Concern over native species of grass that are native but carry fire. She would like to see greenscape that will not burn as easily. Electronic monitoring, people want to steal copper wiring. Thieves will want to get to neighbors places if they cannot get into solar facility.

Land use is changed. Suggests it be part of a rezone process. This is not an farm, it is an industrial site, should not be taxed as such

Fish and wildlife; replanting does not have to be native vegetation, fish and wildlife is more concerned with function. Making sure what is planted will not be choked out by weeds.

Noise? Only things are the converters that make noise, transformers are about 50 decibels.

80-90 watt project needed to justify substation

Potential alternative analysis as a mitigation option?

Tax differences, decrease residential taxes? Does the solar farm taxes make up for that loss?

One 5mw project over 30 years will generate approximately 1 million of tax rev.

Need to clarify limiting factors. On worst case scenario basis, how many of these things are we talking

Substation location maps needed for research

Meeting adjourned at 4:55pm

DRAFT