

RAC Members In Attendance

<https://soundcloud.com/odoe/2018-11-08-solar-rac-2-meeting-audio>

Name	Organization	Disposal-Waste Input
Todd Cornett	Oregon Department of Energy	Welcomed members and provided an overview of the meeting. Overview of seeking input, not consensus or majority consensus, but rather an opportunity to seek input from all individual representations in the room. There is not a set time limit on input, but reminder to be mindful of a four hour meeting. Introductions, in room and on phone. Thanked Brian Walsh and Avangrid for the tour of the Gala Solar Facility. Beryl Weinshenker, DNV-GL, introduced himself and shared his background. In the scope of the rulemaking, the third question is should there be any solar pv specific standards for the EFSC review? There are 14 general standards applicable to every energy facility. Looking at potential issues or concerns, are those enough to generate enough additional specific standards to PV Solar Facilities in addition to the 14 general standards?
Rikki Seguin	Renewable Northwest	Asked if for the scope of this discussion, are we permitted to talk about standards that don't apply; if there's room for discussion what of the general might not apply to solar.
Todd Cornett	Oregon Department of Energy	No, not within our scope. As a reminder, this is identifying several of the potential issues and walking through research that we've done and seeking input from the RAC members.
Paul Titus	Northern Wasco PUD	Asked for evaluation into the general standards; is there a certain size limit? Is it outside of net metering? What is the current consideration?
Todd Cornett	Oregon Department of Energy	The threshold for state jurisdiction is listed in statute, not up for conversation, because the state statute already determines what the threshold is: 100 acres on High Value land, 100 acres on aerable land, 320 on any other type of land. Anything above those thresholds is EFSC jurisdictional. Anything below is county or city, if applicable jurisdictional.
Luke May	Oregon Department of Energy	Point of clarification, we have moved up Sarah Reif/ODFW's presentation up to the second agenda point. Topics selected for discussion include Safe Disposal and Toxicity; Glare and Glint, Heat Island Effect and Impacts to Wildlife. Topics were raised through comments at public meetings or through the Department's own knowledge. Information was procured through review of other state, local, federal, international statutes or regulations, along with model ordinances, peer review articles and news articles. Hope to engage in conversation where we can elicit technical expertise.
Brian Walsh	Avangrid Renewables	Clarification that waste that is generated, panels that are manufactured - not waste until they are disposed of.
Luke May	Oregon Department of Energy	They are not considered waste until disposed of in a landfill.
Darwin Johnson	Lake County	No comment.
David Brown	Obsidian Renewables	Two suggestions for this part of the process: 1) Staff looks at this on a model by model basis, have you looked to see if it is understood it's a chemistry by chemistry basis. DEQ regulates Solar World; have they ever determined Solar World panels to be hazardous waste? I believe Solar World Panels use a chemistry that is not hazardous waste. There is a chemistry, that I don't believe is very common in Oregon, one of the thin-film chemistries, Cadmium Telluride, which is different. The most common types of panels are not hazardous waste. Think of it from a chemistry standpoint vs model standpoint.
Brian Walsh	Avangrid Renewables	Different type of technology in solar panels; thin film technology has a different chemical makeup. Thin film is a small percentage of panels deployed opposed to the poly (majority), or the mono, which is the next. Knowing the chemicals that can be present in the panel, would be helpful to hear about the chemicals.
Luke May	Oregon Department of Energy	Discussed silicone based and thin film, and listed chemicals. The concentration of certain toxic constituent, in leachate tests is indicative of whether the panel would be considered hazardous.

Jake Stevens	Newsun Energy (Not RAC member)	Discussed chemicals
Luke May	Oregon Department of Energy	This is mostly limited to disposal and not soil or other local environmental issue, no evidence in literature that solar panel would be damaging to local environment. Discussion is limited to should this go to the landfill, should it be recycled, can it be fulfilled under an existing standard?
Rikki Sequin	Renewable Northwest	Whether new additional standards should be developed; how disposal of waste fits into the existing standards. Mentioned Soil Protection and Retirement and Financial Assurance, restoring site to non hazardous condition, Exhibit W requires site contamination, proposed monitoring plan. Waste minimization standard, Public Services requires adequate public accommodations. Is Arlington the only place to take hazardous materials - there should be some discussion of that in the existing Public Services Standard; is this touched on in existing standards, and evaluate it that way.
Todd Cornett	Oregon Department of Energy	Are these issues of concern? Are they already dealt with adequately within the existing standards? Justification for a new specific standard. Determining that there is, or for the record, a determination that there are not issues or concerns. Under the direction of the Council, do an evaluation to determine if there is a need for new standards.
Rikki Seguin	Renewable Northwest	Were issues raised in an application? If these have come up before, how is EFSC evaluating the concerns in relation to the standards. If you know of places in the standards already, or if they sufficiently or insufficiently address, to hear from the team.
Amy Berg Pickett	Cypress Creek Renewables	Not going to speak to the standards, but on our understanding of recycling programs. As a company, following closely, current understanding is that the industry does not have enough waste stream to quantify what we will be doing in the future, when projects are retired. As an industry and different agencies, it's being looked at closely.
Betty Roppe	Energy Facility Siting Council	No comment. (Observer)
Jon Jinings	Department of Land Conservation and Development	No comment.
Doris Penwell	Association of Oregon Counties	No Comment.
Brian Walsh	Avangrid Renewables	Clarified degradation rates, even after 25-30 years, the equipment is lasting longer than their useful life. Point is that panels may be out there a longer time. So when a solar plant may be decommissioned is to be determined. Thin film technology - with the first solar thin film panel, the manufacturer provides disposal. First solar provides that at the point of sale. The rest of the poly panel, looking at a 3x6 panel, the amount of lead is in a remote control car - on each panel of the raw material, the lead is a small portion of it in a poly. Think about decommissioning cost, everything is steel, aluminium, glass and has a recycling value. Based on the actual salvage material decommissioning costs can be lowered.
Sarah Reif	Oregon Department of Fish and Wildlife	Pass.
Paul Titus	Northern Wasco PUD	Pass.
Meriel Darzen	1000 Friends of Oregon	The standard that jumps out is the retirement standard, which does not have a binding parallel on the county side. The EFSC standard doesn't get to the meat which is returning the site to a non hazardous state. Need to make sure there is adequate finances to decommission. In this context, have a conversation about this, whether language is strong enough on the hazardous waste side.

Dan Morse	Oregon Natural Desert Association	Pass.
Ann Beier	Crook County	This issue didn't come up with any of Crook County reviews. Agree with Meriel, the only place that it would come up is in the decommissioning and the amount of bond to cover site reclamation. Hesitant to get into an additional standard, because there are not good models. WA and CA is struggling with this. if it's a case by case analysis, makes her nervous, not most efficient way to do things- continuing to do with other states, finding out how their standards are working. Also hearing about the types of panels, this may not as big of an issue as we are moving away from the thin panels. Maybe the issue is options for recycling.
Rikki Seguin	Renewable Northwest	Asked about the concerns identified through research that have to do with aggregation of potentially hazardous waste - how does ODOE or EFSC have jurisdiction?
Luke May	ODOE	We wouldn't have jurisdiction to impose, as does the Washington Department of Ecology. Question posed to figure out whether there's anything within our jurisdiction relating to the issuance of site certificates and through review of regulations, including the waste minimization, whether there is, depending on responses, anything that would educate us better.
Todd Cornett	ODOE	We could conclude this is a DEQ issue in the long run. We have provided the examples of other specific rules associated with other types of energy facilities, we are figuring out is this an issue? Is it an issue we should deal with or not?
Rikki Seguin	Renewable Northwest	Will we talk about the Waste Minimization Standard? Is the Standard sufficient to cover the issue we're milling over?
Todd Cornett	ODOE	We are still fact finding and not proposing anything yet.
Rikki Seguin	Renewable Northwest	Is it the responsibility of ODOE and EFSC managing a site certificate to answer the question of what happens to the waste later? Is it within the Scope once it's gone from the site or is it a new thing for EFSC and ODOE?
Luke May	ODOE	Within the Waste Minimization section, it expands beyond the site.
Todd Cornett	ODOE	Still have other members of the RAC, moving on to the phones. We can wrap on final thoughts on the matter later.
Name	Organization	
Michael Karnosh	Confederation Tribes of the Grande Ronde	Don't have enough information specific to solar panels and hazardous waste to be able to weigh in. Pass.
Irene Gilbert	Friends of the Grande Ronde Valley	Commented that the Public Services Standard is very weak, there is no cumulative impacts analysis. She personally believes there needs to be a standard, what exactly is in these solar panels, lead is an environmental hazard and wants to know what's in the panel, what is the current plan for disposal, are there cumulative resources available to deal with the numbers of panels that will be moving into landfills, predicting as they will be deposited. Look at cumulative affects of solar facilities being built.
Mary Ann Cooper/Samantha	Oregon Farm Bureau	No comment.
Beryl Weinschenker	DNV-GL	Discussed decommissioning and the research and cost of decommissioning would be covered, tagged on to the moderator about Japan and European standard, has solar experts around the world.
Rebecca Carey Smith	PGE	Questioned if there could there be a separate rulemaking, a question to examine.
Barbara Boyer	Oregon Soil and Water Conservation Commission	Unavailable.
Carla McLane	Morrow County	Unavailable.
Patrick Mills	Confederated Tribes of the Umatilla Indian Reservation	Unavailable.

Joe Fennimore	Marion County	Unavailable.
Hanley Jenkins	Energy Facility Siting Council	Nothing to add.
Luke May	ODOE	Based off the literature, lead is one potentially hazardous constituent. Question directed to developers, if lead is limited to the connectors; is it easy to remove that small part of lead from each panel?
Brian Walsh	Avangrid Renewables	Can't answer that, can only reiterate 72 cells and little squares that they are all daisy chained together. It's a drop of lead that is making that connection, doesn't know how it's removed.
David Brown	Obsidian Renewables	Identify any hazardous waste prior to the installation. At the conclusion at the life of the project, recycle all that is feasible, dispose of what is left under applicable law at that time. Can't see forward to what DEQ will be, whatever they are, we will follow them. There will be appropriate regulations.
Todd Cornett	ODOE	Getting back to Meriel's question about bonding; the purpose of the bonding is that if the developer goes away - the state has to take jurisdiction to insure in all circumstances, the state can retire these facilities if the developer is unable.
Brian Walsh	Avangrid Renewables	Commented about a revegetation plan and decommissioning and returning the land to it's previous use under lease agreements. Also wanted to drive home the point, we found in decommissioning estimates, consistently that there is more value in the scrap value to take care of the cost of decommissioning. The state doesn't recognize the salvage value and bringing that up towards the cost of decommissioning - long standing argument, recognize the salvage value for these facilities.
Todd Cornett	ODOE	The Council did recognize at some point in the past recognize some scrap value, but made a conscious decision based on a speculative nature that it is difficult to determine, if there are markets to take it. China was taking scrap, they are not taking as much now which is why the Council made the determination not to be part of that value, because it is so speculative.
Brian Walsh	Avangrid Renewables	Is there a period in which we have to update our decommissioning update over time to make sure the costs are approximate?
Todd Cornett	ODOE	We put in place an evaluation, for example, a 5 year true-up evaluation. The practice has been making that determination in that point of time and updating for inflation. The rule doesn't disallow that, just not in practice.
Amy Berg Pickett	Cypress Creek Renewables	To respond to Brian's thought about salvage value - agree with brian's comment - decommission by a third party, salvage is very high and has not been considered when required to take a decommissioning bond.
Rikki Seguin	Renewable Northwest	The bonding conversation feels like a valuable concern worth addressing, but does not necessarily lay specifically in the context of toxicity. Luke said this has to do with the aggregation of waste, the bonding has to do with the return of the site to non-hazardous condition. Request to talk about bonding, the concerns are not specific to toxicity piece, perhaps a topic to explore. Would like time to research bonding number of value, to prepare for that conversation.
Todd Cornett	ODOE	That's fine.
Meriel Darzen	1000 Friends of Oregon	Responding to Brian's thought about salvage value - worth having that conversation. Big issue with backstop stuff, what's important about the reclamation process is that there is an entity through the process.
Todd Cornett	ODOE	Any last thoughts from Members of the RAC on the phone? Hearing none, 12:05 pm, take a break and grab lunch.

Name	Organization	ODFW Solar Development Impacts to Wildlife & Habitat Presentation
Sarah Reif	Oregon Department of Fish and Wildlife	Solar Development Impacts to Wildlife & Habitat: Considerations for the Solar PV RAC Presentation. Do the existing standards related to wildlife provide adequate protections or mitigation related to individual projects? What is the best way to address cumulative impacts of multiple projects in the same area on the sustainability of wildlife habitat?

David Brown	Obsidian Renewables	He thanked Sarah and ODFW for recognizing Global Warming - everything has tradeoffs. Commented Ms. Reif's presentation was useful and illustrative -but has comments for context, the twin towers is where the 400mw is to be built (referencing diagram utilized by S. Reif). There is a portion of a large ranch, Poplars Ranch, the combination of cultural artifacts and natural resource concerns that they came across when the property was researched, dropped that section from plans. 600MW is now 400MW project (due to these considerations). He did not know of all of this deer migration and found the migration information interesting. Discussed leaving an open corridor (for the Twin Towers project), through the middle of it to create a natural corridor. Looking for science based or logical, not hypothesis or what-ifs. This is important and he is trying to do it right.
Sarah Reif	Oregon Department of Fish and Wildlife	With regard to putting a corridor within your project boundary, we do have some data and science related to how wide a corridor needs to be to permit safe travel of deer and elk. It comes from the highway world, where they are trying to create underpasses for wildlife movement and avoid human collisions. Funnel fencing is used to bring [the wildlife] to an underpass, but scientists have found is that a corridor of any length needs to be about a kilometer wide. Recommend not creating "hallways", they (deer) don't use it or predators figure it out quickly on the other end of the hallway.
Brian Walsh	Avangrid Renewables	Does ODFW see a specific Standard you'd like to see applied? Does ODFW see a problem with the way EFSC applies the standard? Can you give an example of where a standard could have helped that situation?
Sarah Reif	Oregon Department of Fish and Wildlife	Yes, there are recommendations and improvements above existing standards. By and large, the EFSC standards do a great job of addressing wildlife impacts especially because they reference the Fish and Wildlife Habitat Mitigation policy. Able to address net loss and benefit. The process only currently addresses the project at hand, so there is not currently a requirement or a step in the process that asks the applicant to look across, not just the project at hand, but across reasonable and foreseeable existing or reasonably foreseeable projects going forward and presenting that information to ODOE and ODFW to then consider when deciding whether the habitat categorization being identified for the site is appropriate.
Paul Titus	Northern Wasco PUD	You are referring to cumulative effects due to other entities that were approved by the County, but not under EFSC or agricultural (put up game fences) in addition to what might be proposed?
Sarah Reif	Oregon Department of Fish and Wildlife	Limited to Solar. Making the same recommendation in the LCDC rulemaking process that whether it's County level or EFSC level project, to look across the landscape for your geographic area and assess the cumulative effect of your projects alongside other projects.
Ann Beier	Crook County	Crook County has done a number of solar facilities at the county level and in the same region visited today (Gala Solar Facility). Developers chose that area because of access to infrastructure, but the County has approved those because of the pretty minimal impacts on natural resources. We don't have water resources, don't have T&E species, there are some big game habitat and developers have worked effectively to mitigate impacts. Even though not required to, due to Goal 5, have met with ODFW requirements. Listening to Sarah's presentation on cumulative impacts, the main focus seems to be on migratory pathways, where animals travel. We know when we put a solar facility up, it's a direct impact on that habitat. On a local level, EFSC as well, the more information we get about those migratory pathways we can consider those in our decisions. Concern when getting into cumulative impacts, what does that look like on the landscape and the timescale. There needs to be guidance to make a good decision. Some species of concern, Goal 5, were done before conservation strategies.
Sarah Reif	Oregon Department of Fish and Wildlife	Lake County is one of the few places with collared data. Some facilities might be permitted, but not be built, but they all must be reviewed as if they will be built.

Dan Morse	Oregon Natural Desert Association	To start from the interests of our membership, the impacts of climate change on Oregon's high desert is foremost for their members. They want to see renewable energy development in the best possible way, there are reasonable ways to approach regulations to maximize benefits, minimize costs, deal with those trade-offs in the best possible ways. Specific to the presentation, he sees two things: the data on the big game species (Mule Deer), that's a migration corridor for a big game species, that is one version of wildlife habitat, one species to be considered. A migration corridor is not the same as habitat connectivity. Coming at this from a Sage Grouse lens; thinking about sage grouse habitat connectivity, one of the big pushes was developing a common understanding of sage grouse habitat, and sharing and improving information about where that sage grouse habitat is, and then developing a platform to share that information with all stakeholders. He feels there is a lacking mechanism for this type of development, some platform to say here are the habitat concerns in this geography. There's great science and robust mapping tools available for sage grouse habitat needs. The missing piece is the cumulative effects, particularly for landscape scale species like sage grouse, for solar, pros/cons, we need to weigh them and not seeing them weighed. He doesn't think the standards get there, there isn't a cumulative effects standard. There needs to be a shared, understood basis to conduct that evaluation.
David Brown	Obsidian Renewables	Added his insights to cumulative insights and how they pick the sites they pick. No developer wants to pick the wrong site and force it through the process. What's going on here is the transmission lines - it is not included in the map. He avoids center pivots, mentions avoiding BLM lands, using all the information available, building a transmission line has a big impact with the trade off is mitigation. The terms of cumulative impacts, there are ways it is commonly addressed; one is system impact charge. If you are expanding residential development in a community, there is a hook up charge that represents your share of the last grid expansion. For transmission it's the last guy in, first guy out sort of policy. With transmission, you pay for whatever the impact was for your transmission hookup. The next person pays for their transmission hookup. The first person might pay \$1m, the next person might pay \$100,00. Both models are part of established law, they're different ways of looking at fairness. But no one makes the first guy pay for the next guy...so I don't know how Jake could figure out the cumulative effects of all my projects as part of the process for getting his project approved.
Meriel Darzen	1000 Friends of Oregon	Doesn't have a lot to add, Dan covered wildlife concerns. Asked as part of the ODFW habitat mitigation standard is avoidance the first part?
Sarah Reif	Oregon Department of Fish and Wildlife	Sarah says avoid first, minimize and then mitigate. Sarah Reif said include wildlife in that strategic planning.
Meriel Darzen	1000 Friends of Oregon	Added how that gets built into an alternatives analysis whether looking at multiple potential sites and how wildlife considerations are built into the alternatives.
Todd Cornett	ODOE	Our obligation is to evaluate what is submitted to us, does not research alternative analyses. Our statutes relate to the goal exception, alternative analysis is not required.
Paul Titus	Northern Wasco PUD	Already made his comment.
Brian Walsh	Avangrid Renewables	Echoes David's comments. It's a process of elimination(relating to potential siting areas); wildlife considerations are based on the data and surveys. There is a data gap, we don't know the migration corridors until they are out there. They are not opposed. The development process includes avoid and minimize, but to move forward with the cumulative analysis, what does that bring into the picture? Impose mitigation on a project that might happen in the future or graduated mitigation system? Overall, we think the standards are appropriate and address wildlife concern, sufficient at this point.

Doris Penwell	Association of Oregon Counties	Wants to follow along with comments by Brian and Ann. Cumulative impacts worries her a little. ODOE is only worried about developing energy projects; the County has to develop all kinds of projects. To really get to this cumulative impacts issue, there needs to be better coordination, you can only deal with what you're charged to deal with.
Ann Beier	Crook County	To that point, we have permitted 3-4 solar projects in the Millikan road corridor and just south of [that] area is a mapped destination resort with 2000+ units over 30 years. So, in visiting with their local ODFW contacts, their definition of mitigation requirements for that resort, knowing about the proposed solar developments, is changing because the habitat that was available 10 to 15 years ago when this project started, isn't the same anymore. So we're looking for opportunities for off site mitigation, but with a view to cumulative impacts. We are determining what really makes sense, what we can't avoid, and what we can minimize with how we develop. We're talking mitigation at the local level, weighing those development pressures and not just look at solar in a vacuum. It really is we're asked to look at more of the impacts, not just energy facility impacts.
Jon Jinings	Department of Land Conservation and Development	Shared personal observation of Mule Deer herd population decline. The Mule Deer herds in Oregon are really important. Asking Sarah how many deer are there in the Fort Rock Deer Management area? How are they doing? How is the deer herd doing in that area?
Sarah Reif	Oregon Department of Fish and Wildlife	North of here they have high winter counts of mule deer here in the state. Mule deer are not anywhere near the status of where we are not considering hunting, which is a good thing. Slow, but steady decline for the last 40 years, to the point of interstate agency meetings to address the issue. It is primarily due to habitat loss and fragmentation.
Betty Roppe	Energy Facility Siting Council	No comment
Amy Berg Pickett	Cypress Creek Renewables	Disclaimer, has not been through the EFSC process. Feels standards are adequate, and worries that we might burden projects with cumulative effects standard, we develop our projects that are screened to the level of limited-NEPA; work with third party biologists and gather as much information as we can about wildlife and other environmental concerns. Feels like Oregon has a really great process for solar, and there's many constraints on solar already. On-site collaborative site practices to develop the best projects, taking it site specific - that's how to develop the best projects.
Rikki Sequin	Renewable Northwest	This conversation is critical. Struck by is if there were a decision to do a cumulative effects task, that needs to be done right but seems very complicated. Trying to be cautious, we could take a bite out of this apple, but it doesn't fully gets at it. Suggested a collaborative stakeholder process with various agencies around the stake and appropriate stakeholders. This feels bigger than the solar side. Struggling to see how we can forecast where things go.
Meriel Darzen	1000 Friends of Oregon	NEPA has the cumulative impacts tasks built in. Read aloud the CFR: Its the impact on the environment which results from the incremental of the action when added to other past, present and reasonably foreseeable future actions, regardless of which agency or person undertakes such actions. So at least there is existing language that has been applied in the federal context for 40 years and we could talk about tweaking it for this purpose.
Rikki Sequin	Renewable Northwest	Is the incremental action in addition to every other built part of the landscape within a defined landscape, not just the type of development.

Meriel Darzen	1000 Friends of Oregon	That is correct, usually when you see a cumulative impacts analysis for NEPA on a timber sale or something like that, you'll have the regional area that they look at for their scope of what the cumulative impacts analysis will be, whether it's the piece of that forest, or the whole forest, and then they usually list everything that's happened in the last 25-30 years, everything that is currently in the NEPA process, everything that's queued up to maybe go in the NEPA process, and then there's a table that provides how the proposed project will impact each. It's fairly standardized and something that developers who are used to doing big projects on federal lands know how to do.
Rikki Sequin	Renewable Northwest	That brings me back to the scope of this RAC, and the question I have is is there capacity to add a cumulative impacts test like what's in NEPA to the EFSC standards? Is that easy? Do we just flip a switch or do we need to build expertise? Is ODOE qualified to make the determination that things are good?
Todd Cornett	ODOE	It's a big question. We are working in the confines of potential specific standards for Solar PV. The first question is should/could there be cumulative impacts standards. There could be, but what would we look at? That's looking at the details, within the scope of the direction from council, would it go beyond any other state jurisdictional projects, other solar pv projects? I do not have an answer.
Rikki Sequin	Renewable Northwest	Would this just be looking at other EFSC projects, cumulatively impacting the environment. If this is a route that staff decides to go down, this is worthy of deeper detail diving.
Sarah Reif	Oregon Department of Fish and Wildlife	Don't know what a cumulative effects analysis would look like. It will take all of us to seek out a solution to that. This type of development has a piece of the solution. Is there capacity within ODOE or ODFW? From ODFW's standpoint, yes. That would be additional information the applicant would provide to ODFW, to decide if the habitat categorization for that area still stands, or if it's becoming increasingly more limited to the extent that it needs to be considered a different habitat category? Habitat categories are based on how limited and replaceable a certain habitat type is. The mitigation goals associated with those habitat categorizations follow suit. So it would be absorbed into the purview of ODFW's normal review.
Rikki Sequin	Renewable Northwest	What I've heard from the developers is that they want to do this right too, and I hope that's been demonstrated. I generally feel like the people at this table think there is something we can do here and can do it in a good way but are unclear on how to make it happen. So I think this is a good example of where there is a lot of agreement and a responsibility to do something right when we do it and work together on it.
Ann Beier	Crook County	Knowing what is going on in Crook County, there is so much balancing that goes into siting right up front and wildlife is one component of that. But if there was a pilot to figure out what kind of information that you need upfront. Have had good cooperation from ODFW, if we can do this on a trial basis before we jump into rulemaking that would help with staff resources, the data needs that may be considerable. Comments on vague definitions in the federal regulations.
Meriel Darzen	1000 Friends of Oregon	Suggested forming a subcommittee to deal with Wildlife.
Todd Cornett	ODOE	We are not on the same timeframe as the LCDC rulemaking. We are not on a definitive date.
David Brown	Obsidian Renewables	None.

Darwin Johnson	Lake County	Relieved to see the presentation about Lake County Solar projects. As a RAC member, stuck on needing to see examples of areas where we are talking about aggregate projects. Developers say there is a limited amount of transmission available and getting close to that cap, otherwise stuck with what's already been permitted. Appreciates the discussion today. Important to look at the cumulative effects on projects. In Lake County, projects are taking over existing areas where there is limited ability for other developy. Non-productive, non-resource lands. Hopeful this discussion can continue to look at why we're here, what's the scope and intent of this group. Where are these real problem areas we are seeing? We are partners in this whole process, and we need to provide a streamlined approach that continues to address the problems and issues that may arise and come to an agreement on reaching a solution while continuing to move development forward in the right places.
Rebecca Carey Smith	PGE	Unavailable.
Michael Karnosh	Confederation Tribes of the Grande Ronde	Yes, thank you. The Grande Ronde, because it's a Western Oregon tribe that was terminated in the 1950s and then restored in 1983, has a close relationship with ODFW. Looking forward, rather than trying to impose an additional layer of wildlife analysis on the project the tribe would work collaboratively with ODFW. I do believe that its a concern of the tribe that should be addressed, but at the same time I think its something we would work through.
Carla McLane	Morrow County	Map is great, appreciated the presentation. There is a conversation that needs to be had. Not concerned with the EFSC project, but the pieces addressing cumulative impacts. Agree with Anne - counties are also looking at wind projects, not just solar.
Beryl Weinschenker	DNV-GL	Nothing to add.
Irene Gilbert	Friends of the Grande Ronde Valley	The deer population is in trouble, there's no need requirement in Oregon. We are approving developments, hundreds of thousands of acres that are impacted. B2H required a NEPA review and it is important to address wind and solar because those developments will not occur until B2H occur, both impacts needed to be considered. In Oregon, mitigation is only being required for direct habitat impacts. That comes in conflict with what the rules say, which require mitigation for both direct and indirect impacts. It seems that we really need to think about how that is looked at, and ODFW needs to take a stronger role in recommended mitigation for indirect impacts. Another concern about mitigation is that ODFW makes recommendations, but ODOE is not required to implement them. Concerns that federal requirements to protect T & E species are not being incorporated. Concerned about lack of setbacks for raptors. Construction may be prohibited at a raptor site during nesting, but then allowed right up to site once birds are fledged. Observing Golden Hills weeds impacting the habitat and the cumulative effects, when it comes to solar development something is required.
Mary Ann Cooper/Samantha	Oregon Farm Bureau	None.
Barbara Boyer	Oregon Soil and Water Conservation Commission	Unavailable.
Patrick Mills	Confederated Tribes of the Umatilla Indian Reservation	Unavailable.
Joe Fennimore	Marion County	Unavailable.
Hanley Jenkins	Energy Facility Siting Council	Unavailable.
Todd Cornett	ODOE	Any parting final thoughts for the day?
Sarah Reif	ODFW	If there is interest and opportunity for a subcommittee to dive into this more deeply, welcomes participation.
Todd Cornett	ODOE	Let's have a conversation offline about what that could include, if come to an agreement, do outreach and see who might be interested and see what the scope of that might be.

Rikki Seguin	Renewables Northwest	In that or separately, talk about the existing wildlife standards how cumulatively can or cannot be viewed within that.
Sarah Reif	ODFW	In response to Meriel's question about working with the ODOE site application process, there is a fair amount of work for biological surveys to develop their application for site certificate. Early contact between applicant and ODFW for biological surveys. ODFW engages early with the applicant. ODFW reviews Exhibits P and Q and make recommendations to ODOE as to whether and how the application meets the standards and the mitigation policy. There is usually a site visit or two in the mix and then it's ODOE's determination to accept ODFW's recommendations. From there, we may provide additional feedback, depending on how many questions or issues are raised.
Public Comment		
Jake Stephens	New Sun Energy	Have had great experiences working with ODFW. Question to what extent the current process already facilitates, assumes ODFW is going to bring cumulative impact concerns as part of their analysis when they make comments on any process going through EFSC; how does that get weighted in terms of the EFSC decision. Comment on the general nature of the cumulative impacts is that what is unique of solar - is the developmental constraints, an analysis needs to balance the reality of what is happening and what cannot happen, a natural constraint.
Mayor Betty Roppe	City of Prineville	Thanked everyone for coming to Prineville and welcomed them back.
Matt Hutchinson	Avangrid Renewables	Regarding cumulative impacts: views solar and energy development as an indicator of economic growth. Supports implementing the current rules.
Meriel Darzen	1000 Friends of Oregon	The RAC hasn't been presented with transmission capacity, if there's any data, that would be informative.
Paul Titus	Northern Wasco PUD	It depends on who you go into with, if it's BPA, they study that on a first on-first served type issue. They will look at capacity constraints and have other FERC related requirements to study. It's hard to say in one area what are the transmission constraints or availability, also go to other private investors if packed.
Todd Cornett	ODOE	Thanked everyone for participating. There will be a doodle poll sent for a January meeting in Boardman, Oregon.