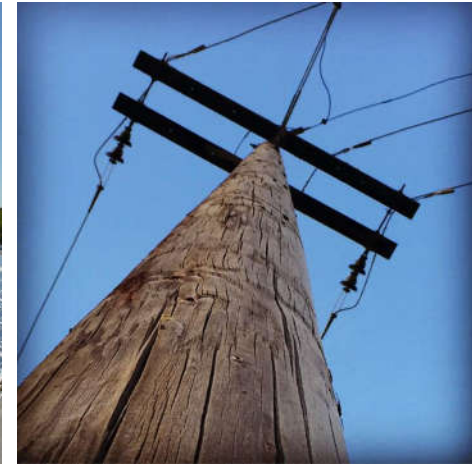


Oregon Department of **ENERGY**

Energy Facility Siting
Council Meeting

ODOE
Meitner Conference Room
Salem, Oregon

June 29, 2018



Opening Items:

- Call to Order
- Roll Call
- Agenda Modifications
- Announcements



Announcements:

- For those attending in person:
 - Comment Registration Cards are available on the table
 - Rulemaking is in green
 - General is yellow
 - Wheatridge and Golden Hills in blue
 - GovDelivery Sign Up Cards to receive project information by email are also on the table
- For those attending via teleconference, opportunity for public comment will occur at the end of today's meeting. We will request that individuals interested in making a public comment identify themselves prior to the comment period

Announcements continued:

- Those participating via the AT&T phone line, please mute your phone and if you receive a phone call, please hang up from this call and dial back in after finishing your other call
- If you would like to address the Council, please do not use the speaker phone feature, because it will create feedback
- For those signed onto the webinar, please do not broadcast your webcam
- Please silence your cell phones
- Energy Facility Council meetings shall be conducted in a respectful and courteous manner where everyone is allowed to state their positions at the appropriate times consistent with Council rules and procedures. Willful accusatory, offensive, insulting, threatening, insolent, or slanderous comments which disrupt the Council meeting are not acceptable. Pursuant to Oregon Administrative Rule 345-011-0080, any person who engages in unacceptable conduct which disrupts the meeting may be expelled.



Agenda Item A

- Consent Calendar
- Council Secretary Report



Agenda Item B (Information Item)

Rulemaking: Phase 2 Updates to Carbon Dioxide (CO₂) Standards

**Rulemaking Hearing
9:00 a.m.**

June 29, 2018

Jason Sierman, Energy Policy Analyst



Today's CO₂ Agenda Items

Agenda Item B

- Brief review of how the EFSC CO₂ standards function
- Review findings of ODOE's search for most efficient CCCT power plant operating in U.S.
- Open Rulemaking Hearing (*final call for comments at 10:30 am*)

Agenda Item J

- Brief review of the 13 principles
- After considering all comments, Council deliberation & final decision



Scope and Purpose of Rulemaking

Phase 2 – Updates to CO₂ Standards

- Evaluate and update the CO₂ emissions standards by amending:
 - OAR 345-024-0570 Modification of the Standards for Base Load Power Plants;
 - OAR 345-024-0550 Standard for Base Load Gas Plants;
 - OAR 345-024-0590 Standard for Non-Base Load Power Plants; and
 - OAR 345-024-0620 Standard for Nongenerating Energy Facilities.

Phase 1 – Updates to CO₂ Standards (Complete and Effective 10/23/17)

- Updated monetary offset rate under OAR 345-024-0580 to \$1.90 per ton of CO₂
- Corrected CO₂ equivalency weights for methane and nitrous oxide under OAR 345-024-0620 to, respectively, 25 and 298 pounds of CO₂.



Review of EFSC CO₂ Standards



EFSC CO₂ Emission Standards

- Threshold standards applicable to large-scale fossil-fueled energy facilities proposed in Oregon.
- Threshold standards written in terms of:
 - pounds of CO₂ / kWh for generating facilities, and
 - pounds of CO₂ / hp-hr for nongenerating facilities.
- CO₂ emissions in excess of threshold standards must be offset.

3 Categories of CO₂ Standards

Standards regulate CO₂ emissions from 3 types of energy facilities:

1) Base Load Gas Plants Standard

- Base Load + Power Augmentation (i.e. Duct Firing)

2) Non-Base Load Power Plants Standard

- Regulates Power Augmentation Component

3) Nongenerating Energy Facilities Standard



Applicability of New Standards

New standards would be applicable to:

- Unbuilt fossil-fueled energy facilities receiving a site certificate after the effective date of the rulemaking.
- Unbuilt fossil-fueled energy facilities receiving an amendment to a site certificate to extend its construction deadlines after the effective date of the rulemaking.
- Built or unbuilt fossil-fueled energy facilities receiving an amendment to a site certificate after the effective date of the rulemaking that adds new CO₂ emitting equipment or alters the operation of existing CO₂ emitting equipment included in the original site certificate.
- Facilities with express terms and conditions in its site certificate that require the application of new CO₂ standards under certain scenarios.



3 Pathways to Compliance

Excess emissions (not total emissions) must be offset using any of the following pathways:

1) Monetary Payment



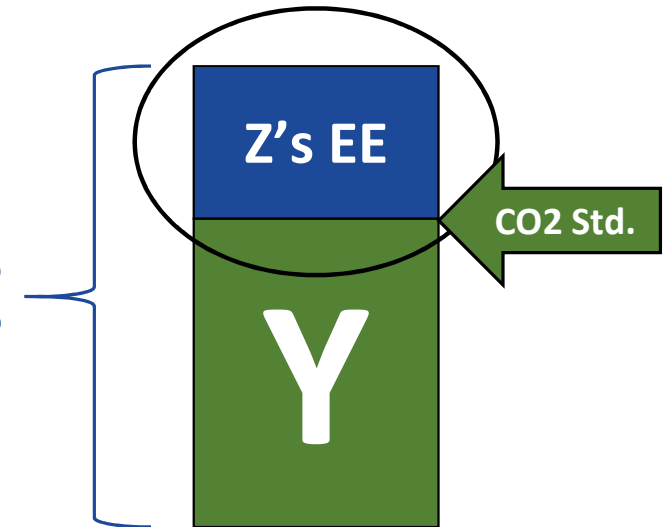
2) Self-Implementation



3) Designed Displacement

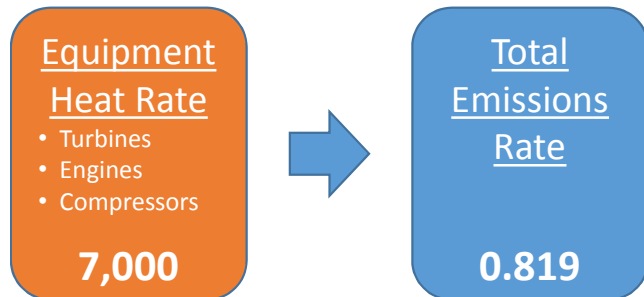


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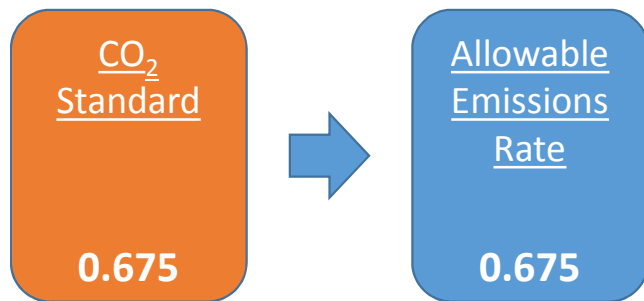


Calculating Offset Funds

Helpful to think of terms as such:

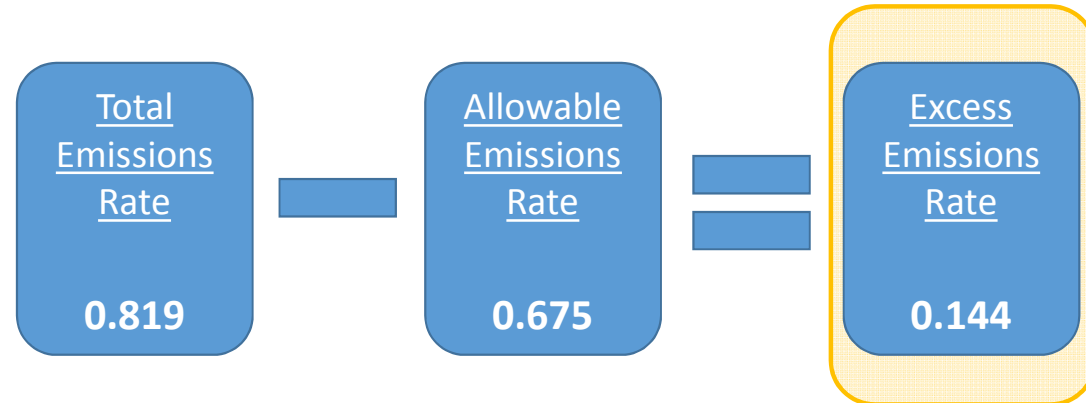


Ex. $(7,000 \text{ Btu/kWh}) \times (0.000117 \text{ lb./Btu}) = 0.819 \text{ lb./kWh}$



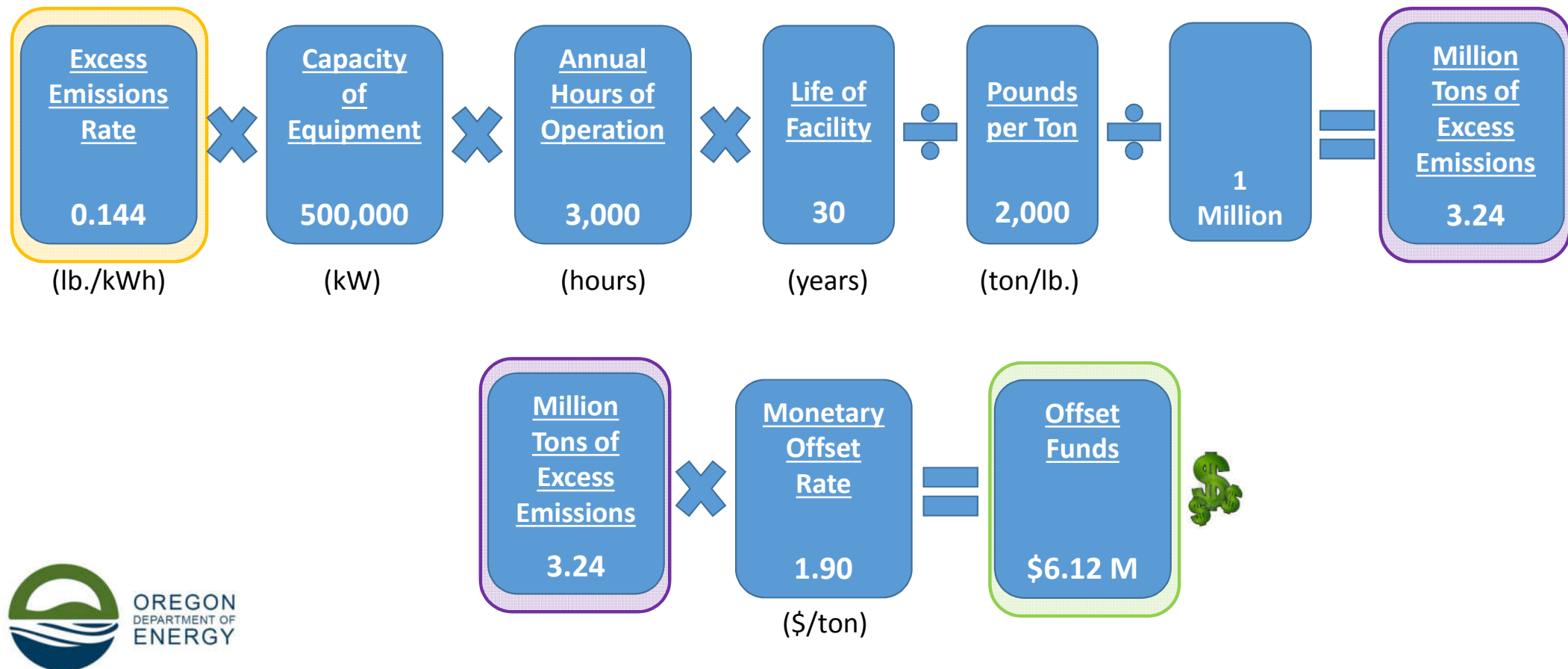
Offset funds are calculated based on:

- Excess emissions rate (below),
- Capacity (next slide), and
- Operating hours (next slide)



Calculating Offset Funds

Example: 500 MW CCCT operating 3,000 hours per year (non-base load)



Review of ODOE's Findings



Evaluation Process

- | | <u>Status</u> |
|---|------------------------|
| 1) <i>Staff shares preliminary findings of search for most efficient natural gas-fired power plant operating in U.S.</i> <ul style="list-style-type: none">• <i>Statutory authority to modify CO₂ standards, see ORS 469.503(2)(a)</i> | <i>Complete</i> |
| 2) <i>Staff conducts preliminary analysis of 13 principles listed under ORS 469.503(2)(b) and OAR 345-024-0510.</i> | <i>Complete</i> |
| 3) <i>Staff asks RAC to vet preliminary findings, analysis of 13 principles and fiscal impact statement.</i> <ul style="list-style-type: none">• <i>After receiving RAC input, staff may identify new or different heat rate than what staff initially identified.</i> | <i>Complete</i> |
| 4) <i>Staff presents Council with a summary of staff's evaluation and a summary of the input received from the RAC.</i> <ul style="list-style-type: none">• <i>Staff's presentation may include a recommendation that the existing CO₂ standards be modified, and recommendations as to what they should be modified to.</i> | <i>Today</i> |



Rules Guiding Research

345-024-0570

Modification of the Standard for Base Load Gas Plants (Paraphrased)

The Council may modify the CO₂ standard for base load gas plants if the Council finds:

- *Most efficient, CCCT, natural gas-fired energy facility;*
- *Commercially demonstrated and operating in the United States;*
- *Net heat rate < 6,955 Btu/kWh;*
- *Higher heating value;*
- *ISO conditions.*

In modifying the CO₂ standard, the Council shall determine the CO₂ emissions rate (lbs./kWh) of that facility and reset the carbon dioxide emissions standard at 17 percent below this rate.



Rules Guiding Research

345-024-0610

Modification of the Standard for Non-Base Load Power Plants (Paraphrased)

The Council may modify the CO₂ standard for non-base load power plants so that it remains equivalent to the CO₂ standard for base load gas plants.

345-024-0640

Modification of the Standard for Nongenerating Energy Facilities (Paraphrased)

The Council may modify the CO₂ standard for nongenerating energy facilities so that it remains equivalent to CO₂ standard for base load power plants.



Heat Rate Research

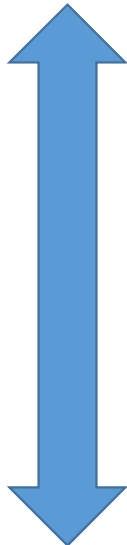
- Staff recognized the difference between various measurements and statements of “heat rate”
- Variables include:
 - 1) Net vs. gross heat rate
 - 2) LHV (Lower Heating Value) vs. HHV (Higher Heating Value)
 - 3) Conditions (temperature, pressure, humidity)
 - 4) Capacity factor
 - 5) Manufacturer’s specified heat rate
 - 6) Field tested heat rate (commissioning, performance guarantee)
 - 7) Annual operating heat rate

Heat Rate Research

- Many variables of the heat rate that must be found are *set in statute*:
 - 1) Gross heat rate vs. Net heat rate
 - 2) LHV vs. HHV
 - 3) Conditions: ISO (Temp = 59°F, Press. = 1 atm/14.7 psia, Humidity = 60% RH)
 - 4) Capacity factor: Base load (100% full power)
- *Ambiguity* about which type of heat rate must be found:
 - 1) Manufacturer's spec heat rate?
 - 2) Field tested heat rate?
 - 3) Annual operating heat rate?

Which Type of Heat Rate?

Heat rates from the same CCCT can be measured in different ways




Type of Heat Rate	Hypothetical Example	Efficiency	EFSC Phase
Manufacturer's Spec (Generic gas turbine/steam turbine configurations)	5800	 Highest	Application (Est. of funds for EFSC approval)
Designed (Project specific configuration)	5900		Construction (Funds paid to TCT)
Field Tested (Upon plant commissioning, part of performance guarantee, or similar. Follows test procedure and adjusted to ISO)	6100		Operating (Year 1 Heat Rate True Up)
Operating (“Real” annual fuel consumption and net generation)	6400		n/a (No Heat Rate True Up after Year 1)

Which Type of Heat Rate?

ORS 469.503(2)(a) specifies most efficient CCCT plant:

- “commercially demonstrated and operating in the U.S.”;
- “measured on a new and clean basis”; and
- “adjusted to ISO conditions.”

Which Type of Heat Rate?

Type of Heat Rate	Determination	Rationale
Manufacturer's Specification (Spec)		<ul style="list-style-type: none"> • Not “commercially demonstrated and operating” • Not “measured on a new and clean basis” • “Adjusted to ISO conditions” • Does not match type of heat rate used to determine EFSC’s CO₂ offset requirement for a newly sited facility
New and Clean Field Test		<ul style="list-style-type: none"> • “Commercially demonstrated and operating” • “Measured on a new and clean basis” • “Adjusted to ISO conditions” • Matches with category of field tested heat rate used to determine EFSC’s CO₂ offset requirement for a newly sited facility • Reasonable since it serves as a midpoint between other heat rates
Annual Operating		<ul style="list-style-type: none"> • Not “measured on a new and clean basis” • Not “adjusted to ISO conditions” • Representative of average annual “real” operating conditions • Does not match type of heat rate used to determine EFSC’s CO₂ offset requirement for a newly sited facility

ODOE's Findings

Plant	Owner	State	Nominal Capacity (MW)	Tested Heat Rate (Btu/kWh)	Date of Test
Port Everglades	Florida Power Light	FL	1,237	6,238	n/a
Cape Canaveral	Florida Power Light	FL	1,210	6,314	n/a
Grand River Energy Center	Grand River Dam Authority	OK	505	6,321*	July 6-7 2017
Riviera Beach	Florida Power Light	FL	1,212	6,393	n/a
Carty – Unit 1	Portland General Electric	OR	397	6,639	11/11/16
Cosumnes	Sacramento Municipal Utility District	CA	519	6,718	11/18/16

*Tested LHV heat rate adjusted to HHV and ISO conditions

ODOE's Findings

Grand River Energy Center

Owner	Grand River Dam Authority
Location	Chouteau, OK
First Year of Commercial Operation	2017
Approx. Cost	\$ 296 MM
Turbine Make & Model	Mitsubishi Hitachi 501J
Nominal Capacity	505 MW
Tested HHV Net Heat Rate (adjusted to ISO conditions)	6,321* Btu/kWh
http://www.grda.com/electric/facilities/grand-river-energy-center/	

*Tested LHV heat rate adjusted to HHV and ISO conditions



Photo courtesy of GRDA webpage (link in table).

ODOE's Findings

GRDA's Grand River Energy Center - Unit 3 Final Performance Test Report (10/25/2017)

Parameter	Units	Guarantee	Measured Test Results	Corrected Test Results	Margin	Pass / Fail
Unfired Net Electrical Output	kW	449,960	444,232	450,521	561	Pass
Unfired Net Heat Rate	Btu/kWh LHV	5,723	5,800.1	5,714.4	8.6	Pass

- Test measured LHV at test conditions: 5,800.1 LHV
- LHV test measurement corrected to plant design conditions: 5,714.4 LHV
- LHV test measurement corrected to ISO conditions: 5,704.6 LHV
- LHV test measurement corrected to HHV: 6,320.7

Efficiency, Heat Rate, and the Standards

	A = 3,412 / B	B	C	D = B x C	E = D x 0.83	
	Efficiency (energy out / energy in)	Heat Rate (BTU/kWh)	Conversion Factor* (lbs. CO ₂ /BTU)	Emissions Rate (lbs. CO ₂ /kWh)	-17% Reduction Emissions Std. (lbs. CO ₂ /kWh)	% Change
Perfect World	100%	3,412	0.000117	0.3992	0.331	n/a
1997 Statute	47%	7,200	0.000117	0.8424	0.70	n/a
2000 Rulemaking	49%	6,955	0.000117	0.8137	0.675	- 3.6%
2018 Rulemaking	54%	6,321	0.000117*	0.7396	0.614	- 9%

*Conversion factor of 117 lbs. CO₂ per MMBtu set in statute and rule:
ORS 469.503(2)(e)(J) and OAR 345-001-0010(38)(c), 345-021-0010(1)(y)(N)(vii),
and 345-024-0620(1).

Rulemaking Hearing

- All commenters must provide:
 - Name
 - Address
 - Affiliation (if applicable)
- Commenters in the room must complete a **GREEN** form.
- Commenters on the phone must state this information orally for the record.
- The presiding officer or any member of the agency or Council may question any witness making a statement at the hearing. The presiding officer may permit other persons to question witnesses.
- There shall be no add'l statement given by any witness unless requested or permitted by the presiding officer.
- The presiding officer may set reasonable time limits for oral presentation and may exclude or limit cumulative, repetitious, or immaterial matter. *See OAR 137-001-0030*
- *Final call for comments will be at 10:30 am*



Agenda Item C (Information Item)

Rulemaking: Compliance

Scoping and Appointment of a Rulemaking Advisory Committee (RAC)

June 29, 2018

Jason Sierman, Energy Policy Analyst



Scope and Purpose

- 1) Evaluate, in terms of effectiveness and efficiency, the Council's rules relating to its compliance activities;
- 2) Potentially draft proposed rule changes to increase the effectiveness and efficiency of the Council's compliance activities.

Proposed Categories

- 1) Reporting Requirements;
- 2) Facility Retirement;
- 3) Inspections;
- 4) Violations;
- 5) Organization of Rules;
- 6) Timing Elements in Rules;
- 7) Other Topics or Issues Identified by the RAC; and
- 8) Other Topics/Issues Identified by Staff.

Staff's Request of Council

- 1) Define the purpose and scope for this rulemaking project;
- 2) Define the purpose and scope for the Rulemaking Advisory Committee (RAC) for this rulemaking project;
- 3) Appoint a RAC for this rulemaking project.

RAC - Entities Interested in Participating

Members of the Public	
1	Irene Gilbert
2	Steve Puntenney
NGO/Non-Profit	
3	Blue Mountain Alliance
4	Columbia Riverkeeper
5	Oregon-California Trails Association (OCTA)
Certificate Holders (Existing and Potential)	
6	Avangrid Renewables
7	Hermiston Generating Company
8	Idaho Power
9	NW Natural
10	Portland General Electric (PGE)

Tribal Government	
11	Confederated Tribes of Warm Springs
Local/State/Regional Government	
12	Gilliam County
13	Morrow County
14	Association of Oregon Counties (AOC)
15	Oregon Department of Fish & Wildlife (ODFW)
16	Oregon Department of State Lands (DSL)

Council may appoint any entity or person they wish, and are not limited to those listed here.

Staff recommends the Council appoint a diverse set of approx. 15 entities to participate on this RAC.

Council members are encouraged to attend RAC meetings, so long as their attendance would not constitute a quorum.

Agenda Item D (Information Item)

Rulemaking: Solar PV Facilities

Scoping and Appointment of a Rulemaking Advisory Committee (RAC)

June 29, 2018

Jason Sierman, Energy Policy Analyst



Scope and Purpose

- 1) Evaluate whether multiple non-EFSC jurisdictional solar PV facilities could aggregate in a way that the aggregate is functionally the size of an EFSC jurisdictional solar PV facility;
- 2) If yes to above, develop new rules that identify objective criteria for determining the circumstances of when multiple non-EFSC jurisdictional solar PV facilities become EFSC jurisdictional; and
- 3) Evaluate whether or not specific standards should be developed for the siting of solar PV facilities, and if so, to develop such standards.

Staff's Request of Council

- 1) Define the purpose and scope for this rulemaking project;
- 2) Define the purpose and scope for the Rulemaking Advisory Committee (RAC) for this rulemaking project;
- 3) Appoint a RAC for this rulemaking project.

RAC - Entities Interested in Participating

Members of the Public	
1	Local Landowner(s) - Placeholder
NGO/Non-Profit	
2	Friends of the Grande Ronde Valley
3	Oregon Solar Energy Industries Association
4	Oregon Farm Bureau
5	Oregon Natural Desert Association (ONDA)
6	Oregon Winegrowers Association
7	Renewable Northwest
8	1,000 Friends of Oregon
Certificate Holders (Existing and Potential)	
9	Avangrid Renewables
10	Cypress Creek Renewables
11	Obsidian Renewables
12	Portland General Electric

Council may appoint any entity or person they wish, and are not limited to those listed here.

Staff recommends the Council appoint a diverse set of approx. 20-25 entities to participate on this RAC.

Council members are encouraged to attend RAC meetings, so long as their attendance would not constitute a quorum.

Tribal Government	
13	Confederated Tribes of the Grand Ronde
14	Confed. Tribes of the Umatilla Indian Reservation
15	Confed. Tribes of the Warm Springs
Local/State/Regional Government	
16	Gilliam County
17	Lake County
18	Marion County
19	Morrow County
20	Association of Oregon Counties
21	Oregon Dept. of Fish & Wildlife
22	Oregon Dept. of Agriculture
23	Oregon Dept. of Land Conservation & Development
24	Oregon Soil & Water Conservation Commission
Consumer Owned Utilities (COUs)	
25	Northern Wasco Public Utility District (PUD)

Agenda Item E: Public Comment

This time is reserved for the public to address the Council regarding any item within the Council's jurisdiction that is not otherwise closed for comment.



MORNING BREAK

Next up:

Agenda F: Wheatridge Wind



Agenda Item F (Action Item)

Wheatridge Wind Energy Facility, Request for Amendment 2:

Certificate Holder Referral to Council of Department's Type A
Amendment Review Process Determination

June 29, 2018

Presented by:

Maxwell Woods, Senior Policy Advisor
Sarah Esterson, Senior Siting Analyst



Wheatridge Wind Energy Facility Type B Review: Issue Summary

- Type B review amendment determination request
- Amendment request: larger turbines and battery storage
- Department determined Type A review be maintained
- Referral of Department's Type A review determination to Council
- Council may concur, modify, or reject Department's determination

Schedule/Format

1. Process overview (current presentation)
2. Certificate holder presentation of its position (20 min)
3. ODOE presentation of its determination (20 min)
4. Public comment opportunity (~3-5 min)
5. Certificate holder rebuttal opportunity (5 min)
6. Council deliberation and decision (concur, modify or reject)

Site Certificate Amendment Process

History: “Old” Amendment Process Rules

- One process for majority of amendments
- Two variations of schedule: standard was 60 days from receipt of amendment request to proposed order; ODOE option to determine extended review, in which case 180 days to release proposed order.
- Amendment process always had contested case opportunity
- The old expedited review process included contested case opportunity

Site Certificate Amendment Process

Amendment Rulemaking 2017

- Initial proposal: One process for all amendments
- At request of developers and Council, inclusion of “Type B” opportunity
- No defined categories of amendments that are Type A or Type B
- Rule includes five factors to consider under Type B request (next slide)
- The “five factors” list is non-exhaustive

Type B Factors OAR 345-027-0057(8)

Rule includes list of five factors to consider for Type B request, “including but not limited to:”

1. The complexity of the proposed change;
2. The anticipated level of public interest in the proposed change;
3. The anticipated level of interest by reviewing agencies;
4. The likelihood of significant adverse impact; and
5. The type and amount of mitigation, if any.

Site Certificate Amendment Process

Current Process Pathways based on 2017 Amendment Rulemaking

- Type A:
 - **Default process** for all amendments (except transfers)
 - Includes public hearing on draft proposed order (DPO) in front of Council
 - Includes opportunity for person to request contested case
 - Allows Department longer maximum timelines at certain process steps compared to Type B review
 - Completeness determination: 60 days/21 days
 - Issue DPO: 120 days from completeness/60 days from completeness
 - Issue Proposed Order: 30 days after Council reviews DPO/21 days after close of comment on DPO

Site Certificate Amendment Process

Current Process Pathways based on 2017 Amendment Rulemaking

- Type B:
 - Must be requested and justified by certificate holder
 - Does not includes public hearing on DPO in front of Council
 - Does not allow opportunity for person to request contested case
 - Shorter maximum timelines at certain process steps compared to Type A
- Type C:
 - Only during construction and not at issue here

Site Certificate Amendment Process: Important Considerations

- Type A is default
- Type B omits opportunities for public participation (hearing in front of Council and contested case request opportunity)
- The standards are the same for all processes
- The review timelines are maximums and ODOE can, and does, issue documents ahead of timelines
- By rule, ODOE can extend the timelines at its discretion to release a DPO



Certificate Holder's Presentation

Wheatridge RFA2 Type A Amendment Review Process Determination





Wheatridge Wind Energy, LLC Request for Amendment 2

Council Review of Amendment Type

June 29, 2018



Council Review of Amendment Type --- Wheatridge RFA 2

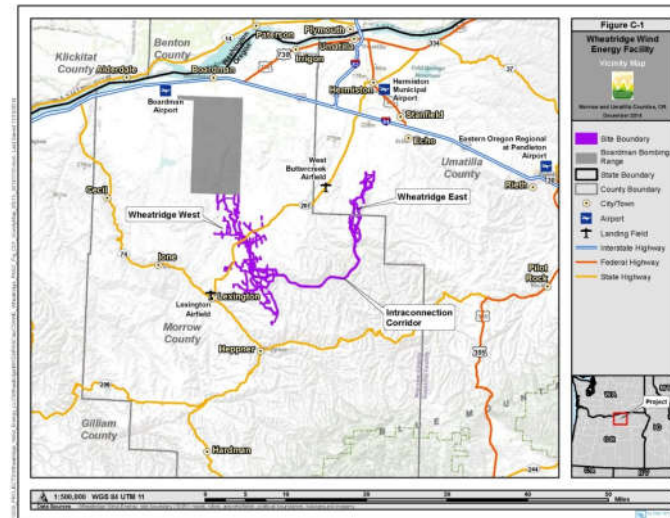
Overview

- Wheatridge Wind Energy, LLC is seeking Council review of the Department's Path A determination for RFA 2.
- Wheatridge is proposing minor changes to an already approved facility to take advantage of technological advances.
- The Path B review process was designed for these types of changes.
- It is inappropriate for the Department to require Path A review in this instance.
- Wheatridge urges the Council to modify the Department's decision and conclude that Path B review is appropriate.

Council Review of Amendment Type --- Wheatridge RFA 2

Wheatridge Wind Energy Facility

- Certificate Holder: Wheatridge Wind Energy, LLC, wholly-owned by NextEra Energy Resources (NEER)
- Type of Facility: 500 MW wind
- Approved by EFSC April 2017
- Amendment 1: July 2017
- Location: Morrow and Umatilla counties
- Not yet constructed



Certificate Holder Background

- NEER is an experienced developer and operator, producing approximately 19,882 MW from 175 facilities in 29 states and Canada.
- NEER has operated within Oregon since 2001:
 - Stateline 1 and 2 wind energy facilities: 186 turbines, with a total peak generating capacity of 123 MW
 - Stateline 3 Wind Energy Facility: 43 turbines with a total peak generating capacity of 99 MW

RFA 2 Purpose & Request

The primary purpose of RFA 2 is to take advantage of technological advances prior to Facility construction. Wheatridge proposes to:

- Modify the range of turbine specifications.
- Add energy storage as a related and supporting facility.

Request for Amendment 2: Components

Larger Wind Turbines

- Increase maximum blade tip height (476 to 499.7 feet)
- Increase turbine hub height (278 to 291.3 feet)
- Increase maximum blade length (197 to 204.1 feet)
- Lower the minimum aboveground clearance (83 to 70.5 feet)
- Increase rotor diameter (393 to 416.7 feet)

Request for Amendment 2: Components

Battery Storage Systems

- Two systems, 20 and 30 MW
- One adjacent to each project substation in Morrow and Umatilla counties
- Lithium-ion (Li-ion) batteries contained in a building
 - Approximately 18 inverters and associated step-up transformers
- Interconnecting facilities (control house, protective device, and power transformer)
- Ground-level cooling equipment, power conditioning systems, distribution and auxiliary transformers

RFA 2 Procedural History

- January 24, 2018 and March 19, 2018 – Certificate holder met with Department staff to discuss the proposed changes.
- April 9, 2018 – Certificate holder submitted an Amendment Determination Request (ADR).
- April 25, 2018 – The Department issued a preliminary response to the ADR, concluding that Type A review was appropriate.
- May 9, 2018 – Certificate holder met with Department staff to discuss the preliminary response and agreed to re-submit the ADR with a preliminary Request for Amendment (RFA).
- May 18, 2018 – Certificate holder resubmitted ADR with RFA.
- June 14, 2018 – The Department issued ADR response, again concluding that Type A review was appropriate.

Review Type Determination by the Department

- The Department considers Type A review appropriate for the proposed larger turbines because it:
 - Anticipates a level of interest from members of the public and reviewing agencies.
- The Department considers Type A review appropriate for the proposed battery storage systems because it:
 - Considers the change complex;
 - Anticipates a level of interest from members of the public and reviewing agencies; and
 - Believes the likelihood of a significant adverse impact is uncertain.

Questions for the Council

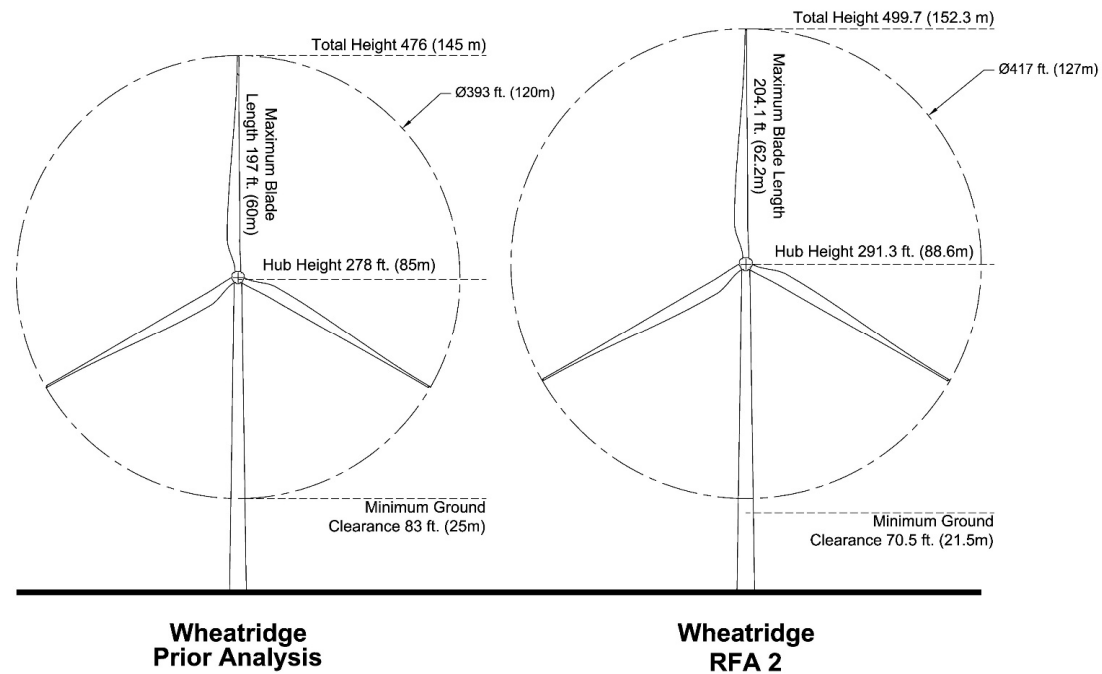
- Is the Type B review path appropriate for the proposed modified range of turbine specifications?
- Is the Type B review path appropriate for the proposed addition of the energy storage systems?

Range of Turbine Specifications

Specification	Prior Analysis	RFA 2
Maximum Blade Length	197 feet (60 m)	204.1 feet (62.2 m)
Maximum Hub Height	278 feet (85 m)	291.3 feet (88.6 m)
Maximum Rotor Diameter	393 feet (120 m)	416.7 feet (127 m)
Total Maximum Blade Tip Height (tower hub height plus blade length)	476 feet (145 m)	499.7 feet (152.3 m)
Minimum Ground Clearance	83 feet (25 m)	70.5 feet (21.5 m)

Council Review of Amendment Type --- Wheatridge RFA 2

Turbine Dimensions Comparison



Turbine Dimensions Considerations

- The modified turbine dimensions only present a 24-foot height increase over the turbine dimensions already approved.
- The modified turbines would be sited within existing micrositing corridors that were analyzed as part of the Application for Site Certificate (ASC).
- The modified turbines are consistent with the purpose of micrositing corridors to allow for turbine dimension flexibility.

Turbine Impact Considerations

- Permanent ground impacts will be similar to or less than the impacts from the turbines analyzed in the ASC.
- In the ASC, visual impacts for the Facility were analyzed using turbines up to 525 feet.
- The Site Certificate Conditions govern Facility compliance for each Council standard and include Conditions such as pre- construction resource surveys.
- The modified turbines will be constructed and operated substantially in the same manner as previously approved by EFSC.

Other Turbine Considerations

- There are operational wind farms in Oregon with turbine heights of 492 feet (Shepherds Flat and Leaning Juniper).
- Wind turbines are getting taller as technology advances.
- The modified turbines for Wheatridge do not present turbine dimensions that EFSC has not already reviewed and approved.

Council Review of Amendment Type --- Wheatridge RFA 2

Approved Facilities Under EFSC

Turbine Dimensions Comparison

Turbine Specification	Wheatridge Approved	Wheatridge Proposed	Vansycle II Approved	Vansycle II Proposed	Golden Hills Approved	Summitt Ridge Approved
Individual Turbine Generating Capacity (MW)	2.5 MW	2.5 MW	2.3 MW	2.3 MW	1.0-2.3 MW	2.7 MW
Maximum Blade Length in feet (meters)	197 feet (60 m)	204.1 feet (62.2 m)	148.0 feet (45 m)	177.0 feet (54 m)	206.5 feet (63 m)	200.0 feet (61 m)
Hub Height in feet (meters)	278 feet (85 m)	291.3 feet (88.8 m)	262.5 feet (80 m)	262.5 feet (80 m)	312.0 feet (95 m)	299.0 feet (91 m)
Rotor Diameter (Rotor Swept Height) in feet (meters)	393 feet (120 m)	416.7 feet (127 m)	305.0 feet (93 m)	354.0 feet (108 m)	413.0 feet (126 m)	400.0 feet (122 m)
Total Height (tower height plus blade length) in feet (meters)	476 feet (145 m)	499.7 ft (152.3 m)	416.0 feet (127 m)	440.0 feet (134 m)	518.0 feet (159 m)	499.0 feet (152 m)
Minimum Ground Clearance in feet (meters)	83 feet (25.3m)	70.5 ft (21.5 m)	111.0 feet (34 m)	85.0 feet (26 m)	65.0 feet (19.8 m)	59.0 feet (18 m)

Turbine Specifications: Type B Review is Appropriate

- Insufficient Public and Agency Interest to Warrant Type A Review:
 - An anticipated level of public and reviewing agency interest is the only reason the Department believes Type A review is appropriate for the modified turbine specifications.
 - The Department cites prior public interest during ASC process and interest from Oregon Department of Aviation.
 - Anticipated public and agency interest alone should not be sufficient to warrant Type A review.

Turbine Specifications: Type B Review is Appropriate

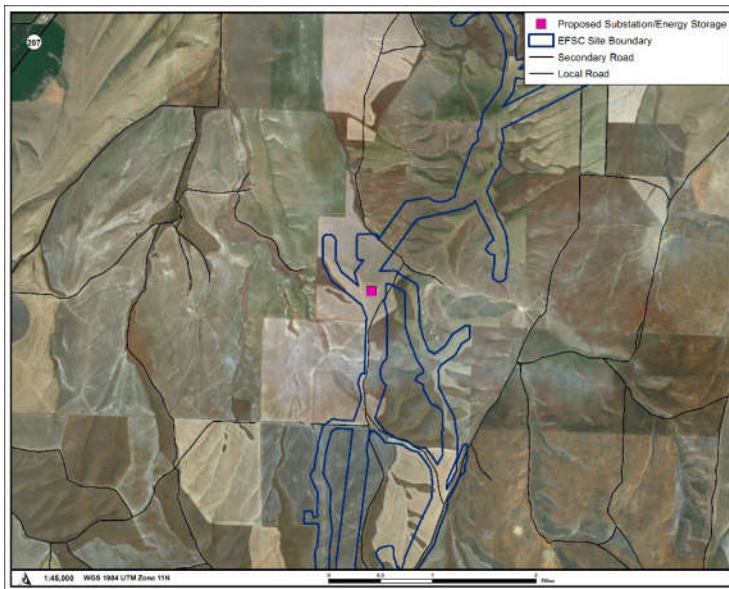
- Public interest: All cited interest relates to comments during ASC.
 - Of 52 comments filed during ASC phase, 33 were in favor, 8 were opposed, 7 were neutral, and 4 unknown.
 - The primary issue raised in the public comments related to the gen-tie, and that issue was conclusively resolved by the Council through a contested case process, and a permit was issued by Morrow County.
- Agency interest: unspecified from the Oregon Department of Aviation.
- Such “interest” is not sufficient to justify Type A review.

Wheatridge & Energy Storage

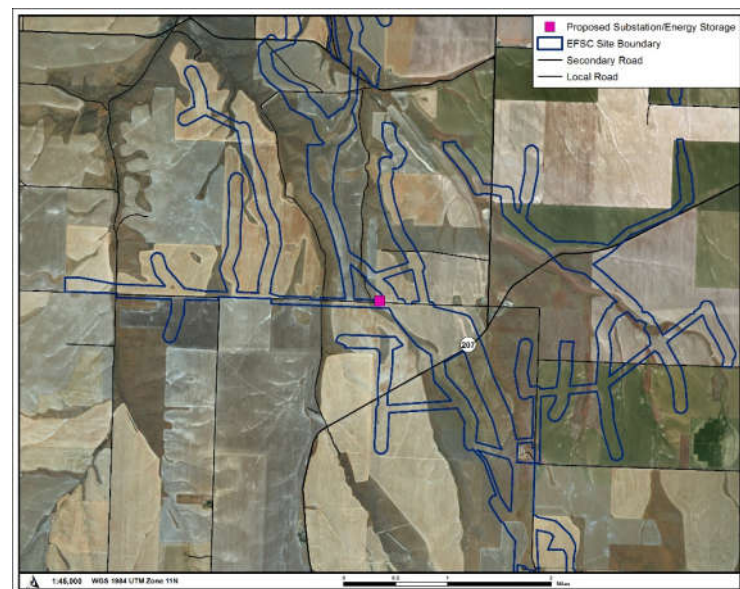
- Energy storage allows for energy generated from a wind facility to be stored as available, and later deployed as needed, providing greater consistency of energy supply and the opportunity to respond to market demands.
- Wheatridge proposes a 20 MW energy storage site in Wheatridge East, and 30 MW energy storage site in Wheatridge West.
- The energy storage facilities will be co-located with substations and located within existing approved micrositings corridors.

Council Review of Amendment Type --- Wheatridge RFA 2

Wheatridge & Energy Storage



East Substation & Energy Storage Site



West Substation & Energy Storage Site

NEER & Energy Storage

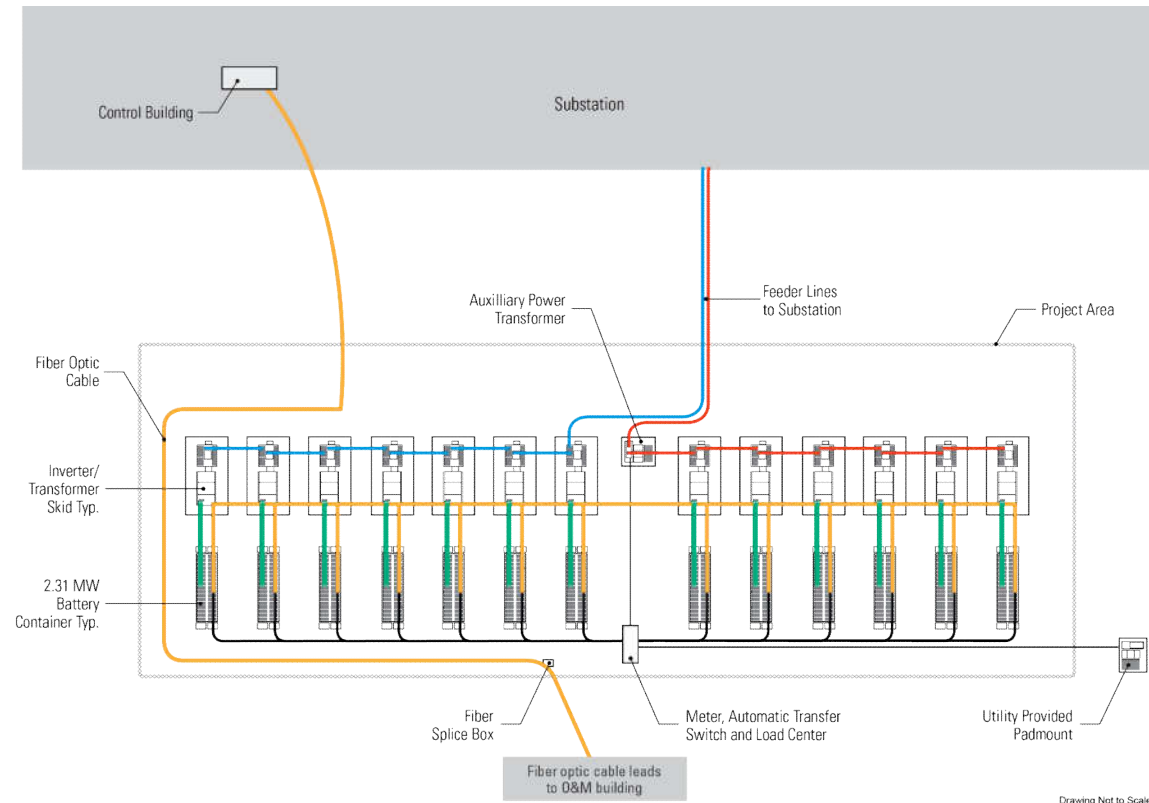
- NEER's energy storage team is leading the growth of the storage market with more than 106 MW of operating assets and over 100 MW contracted for future delivery.
- Further, NEER is integrating another 100 MW of energy storage systems that are under late stage development or construction today.
- Although energy storage is fairly new to Oregon, energy storage is a growing trend in the energy industry to support renewable energy.

Energy Storage Facilities

- Energy storage sites are not complex as they:
 - a) have a relatively small footprint, typically between 1 and 5 acres;
 - b) have insignificant visual impact, particularly in the context of wind turbines, due to the low height of the energy storage site enclosures (usually between 15 and 20 feet); and
 - c) have less noise output than wind turbines.

Council Review of Amendment Type --- Wheatridge RFA 2

Energy Storage Facilities



Wheatridge & Energy Storage

- The energy storage facilities will consist of Li-ion batteries in a building (a series of modular containers may also be used).
- Existing site certificate conditions require development of a site-specific Emergency Management Plan and a site Health and Safety Plan.
- Wastes generated by the energy storage facility will be handled by a licensed firm and disposed of at a facility permitted to handle them in accordance with applicable site certificate conditions, laws, and regulations.

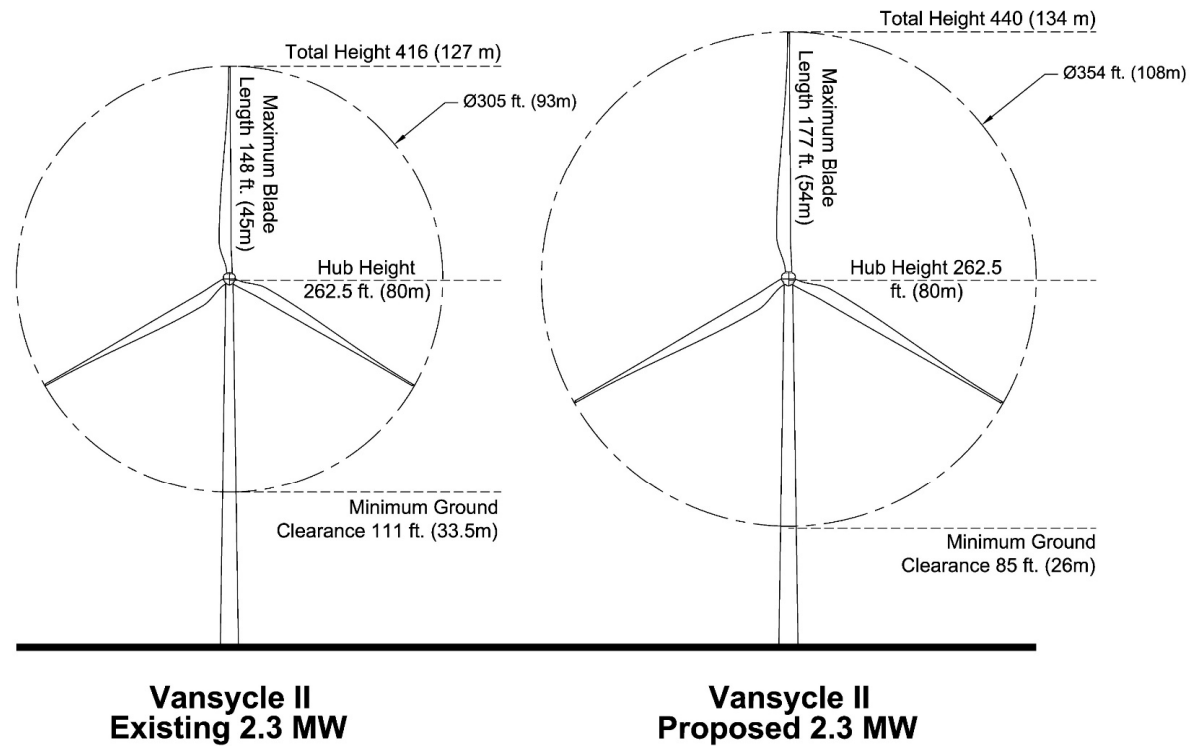
Energy Storage: Type B Review is Appropriate

- Insufficient Public and Agency Interest to Warrant Type A Review – Interest by members of the public and reviewing agencies is speculative; there is no evidence of any public interest and, although the Department notes that it identified “a level of interest” by reviewing agencies, there is no discussion of why such interest warrants Type A review.
- Not Complex – Energy storage is being deployed through the country at renewable energy facilities. The energy storage facilities have a small footprint and minimal visual impact.
- Not Likely to Cause Significant Adverse Impacts – Site Certificate conditions will ensure that battery storage facilities will be constructed, operated, and retired to avoid significant adverse impacts.

Stateline 3/Vansycle II Determination

- NEER is also requesting to amend its existing facility Stateline 3 to be renamed Vansycle II, and to replace nacelles and blades on existing towers.
- Repowering allows operating turbines to be upgraded to current technology.
- Repowering increases the total height of the turbines by 24 feet.
- There will be no new permanent ground impacts or changes to the existing Facility footprint.
- Despite this, the Department has determined that Type A review is appropriate.

Stateline 3/Vansycle II – Turbine Comparison



Conclusion

- The changes proposed in RFA 2 are the types of technological changes that the Type B process was designed to address.
- If these changes cannot be processed as Type B, then it is difficult to imagine what types of changes will qualify.
- We respectfully request that the Council reconsider the determination by the Department that RFA 2 should be subject to the Type A review process and instead conclude that the Type B process is the appropriate review path.

Wheatridge Wind Energy Facility, Request for Amendment 2:

Department's Type A Amendment Review Process Determination



Department's Evaluation of Factors

Complexity of proposed change (OAR 345-027-0057(8)(a))

- Battery storage systems are complex, new for facility and Council
- Larger wind turbines are not complex

Department's Evaluation of Factors

Anticipated level of public interest in proposed change
(OAR 345-027-0057(8)(b))

- Level of interest anticipated for battery storage systems due to new system/technology
 - Hazardous materials/waste, fire/safety risk
- Level of interest anticipated for larger turbines due to visual and obstruction impacts
 - Historic level of interest in facility and similar facilities

Department's Evaluation of Factors

Anticipated level of reviewing agency interest in proposed change
(OAR 345-027-0057(8)(c))

- Level of interest anticipated for battery storage systems due to new system/technology
 - State Fire Marshall, counties
- Level of interest anticipated for larger turbines due obstruction impacts
 - Oregon Department of Aviation



Department's Evaluation of Factors

Likelihood of Significant Adverse Impact (OAR 345-027-0057(8)(d))

- Uncertain likelihood for battery storage systems
 - General Standard of Review, Organizational Expertise, Retirement and Financial Assurance, and Noise Control Regulation
- Low Likelihood for larger turbines

Department's Evaluation of Factors

Type and Amount of Mitigation (OAR 345-027-0057(8)(e))

- Revegetation not impacted by battery storage systems or larger turbines
- Habitat mitigation not impacted by battery storage systems or larger turbines

Department's Type A Determination

Table 1: Type A Review – Factor Assessment

OAR 345-027-0057(8) Factors	Battery Storage Systems	Larger Wind Turbines
(a) The complexity of the proposed change	X	
(b) The anticipated level of public interest in the proposed change	X	X
(c) The anticipated level of interest by reviewing agencies	X	X
(d) The likelihood of significant adverse impact	X	
(e) The type and amount of mitigation, if any		

Council's Scope of Review

- After the following:
 - Public comments
 - Certificate holder rebuttal
- Council shall deliberate and:
 - Concur, modify or reject Department's Type A review determination

Public Comment Opportunity

Wheatridge RFA2 Type A Amendment Review Process Determination



Certificate Holder Rebuttal Opportunity

Wheatridge RFA2 Type A Amendment Review Process Determination



Council Deliberation

Wheatridge RFA2 Type A Amendment Review Process Determination



15 MINUTE BREAK

Next up:
Agenda G: [Working Lunch]
The Climate Trust Board of
Directors Appointment



Agenda Item G (Action Item)

The Climate Trust Appointments

June 29, 2018

EFSC Council



Energy Facility Siting Council Seeks Volunteer Members to Serve on The Climate Trust Board

The Energy Facility Siting Council is recruiting for two volunteers to represent the Council on The Climate Trust Board of Directors. The Climate Trust is an independent, Oregon-based nonprofit organization charged with administering carbon emission offset projects related to energy facilities under EFSC jurisdiction.

The Council appoints three members of The Climate Trust Board; two positions are vacant. The Council's appointees will serve on The Climate Trust Board of Directors and on the Oregon Offset Committee, which oversees The Trust's statutory obligations related to fossil fuel-powered energy facilities that must mitigate for their carbon dioxide emissions under the [state's carbon emission standards](#).

Council-appointed members have the same responsibilities as other TCT board members: they serve for three-year terms and are responsible for ensuring the organization makes sound business decisions, operates in a fiscally responsible manner, and meets its operational goals. Members are expected to participate in quarterly board meetings in Portland and serve on at least one subcommittee.

The Energy Facility Siting Council welcomes applications from Oregonians with experience or interest in energy facility operations, climate change, carbon markets, nonprofit governance and leadership, or budget and risk management.



OREGON REVISED STATUTE 469.503(2)(E)(N)

“Qualified organization” means an entity that:

(i) Is exempt from federal taxation under section 501(c)(3) of the Internal Revenue Code as amended and in effect on December 31, 1996;

(ii) Either is incorporated in the State of Oregon or is a foreign corporation authorized to do business in the State of Oregon;

*(iii) Has in effect articles of incorporation that require that offset funds received pursuant to this section are used for offsets that require that decisions on the use of the offset funds are made by a decision-making body **composed of seven voting members of which three are appointed by the council (emphasis added)**, three are Oregon residents appointed by the Bullitt Foundation or an alternative environmental nonprofit organization named by the body, and one is appointed by the applicants for site certificates that are subject to paragraph (d) of this subsection and the holders of such site certificates, and that require nonvoting membership on the body for holders of site certificates that have provided funds not yet disbursed under paragraph (d)(A) of this subsection;*

(iv) Has made available on an annual basis, beginning after the first year of operation, a signed opinion of an independent certified public accountant stating that the qualified organization’s use of funds pursuant to this statute conforms with generally accepted accounting procedures except that the qualified organization shall have one year to conform with generally accepted accounting principles in the event of a nonconforming audit;

(v) Has to the extent applicable, except for good cause, entered into contracts obligating at least 60 percent of the offset funds to implement offsets within two years after the commencement of construction of the facility; and

(vi) Has to the extent applicable, except for good cause, complied with paragraph (d)(A)(i) of this subsection.

Agenda Item H (Action Item)

Financial Assurance: Pre-approved Institutions (Action Item)

June 29, 2018

Sisily Fleming, Fiscal Analyst



Agenda Item I (Action Item)

Golden Hills Wind Project, Request for Amendment 5:

Certificate Holder Referral to Council of Department's Type A
Amendment Review Process Determination

June 29, 2018

Presented by:

Maxwell Woods, Senior Policy Advisor
Sarah Esterson, Senior Siting Analyst



Golden Hills Wind Project Type B Review: Issue Summary

- Type B review amendment determination request
- Amendment request: larger turbines, larger meteorological towers, change in temporary access road design, condition amendment
- Department determined Type A review be maintained
- Referral of Department's Type A review determination to Council
- Council may concur, modify, or reject Department's determination

Schedule/Format

1. Process overview (current presentation)
2. Certificate holder presentation of its position (20 min)
3. ODOE presentation of its determination (20 min)
4. Public comment opportunity (~3-5 min)
5. Certificate holder rebuttal opportunity (5 min)
6. Council deliberation and decision

Site Certificate Amendment Process: Important Considerations

- Type A is default
- Type B omits opportunities for public participation (hearing in front of Council and contested case request opportunity)
- The standards are the same for all processes
- The review timelines are maximums and ODOE can, and does, issue documents ahead of timelines
- By rule, ODOE can extend the timelines at its discretion to release a DPO

Certificate Holder's Presentation

Golden Hills RFA5 Type A Amendment Review Process Determination





Golden Hills Wind Project

June 29, 2018

Request for Council Review of ODOE's Type B Denial

Facility Overview

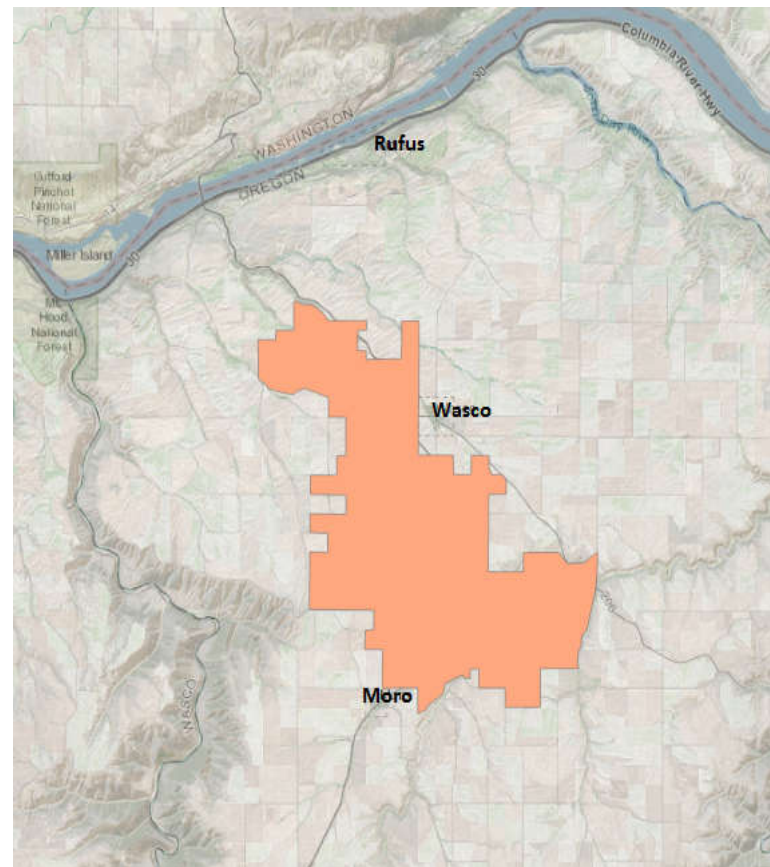
Certificate Holder: Golden Hills Wind Farm LLC, owned by Avangrid Renewables

Type of Facility: 400 MW wind

Location: Sherman County

Construction Status: Facility has not yet been built

EFSC Status: Approved with Request for Amendment (RFA) 5 under review.



Problem: Golden Hills Site Certificate approved old turbine technology. Certificate Holder needed flexibility to use newer turbines for final facility design. Turbine technology continues to get bigger, and newer more efficient turbines are available.

Consideration of Options: Certificate Holder analyzed whether the proposed change would trigger a site certificate amendment under the “3 could’s” test. Certificate Holder believes the proposed change can meet the “3 could’s” test except that the change would trigger a text change to Condition PRE-DC-01, therefore triggering an amendment.

Type B Review: Certificate Holder sought Type B review to modify Condition PRE-DC-01 to allow a modification to the turbine dimensions. This modification allows Certificate Holder to finalize the facility design and go to construction using the selected turbines.

Change in Turbine Dimensions

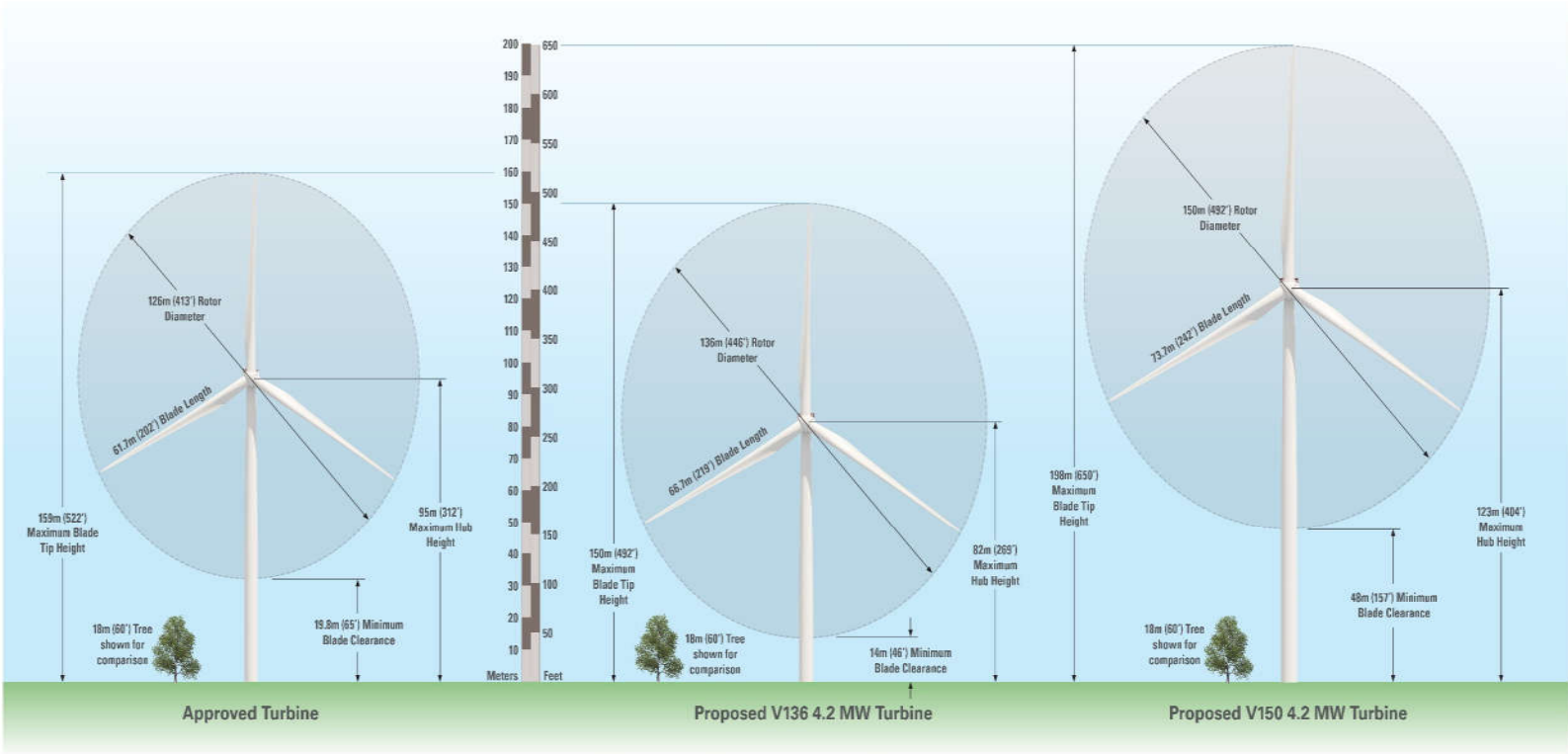
- 129-foot increase in maximum blade tip height (521 to 650 feet)
- 93-foot increase in maximum turbine hub height (311 to 404 feet)
- 19-foot decrease in minimum aboveground clearance (65 to 46 feet)

→ ***Results in fewer overall turbines and smaller facility footprint***

Other Changes included in RFA5 but could be documented via an ADR

- No increase in previously-approved total temporary impacts but potential 60-foot increase in temporary access roads and crane paths width. No increase in permanent impacts.
- No increase in number of previously-approved permanent met towers but potential 93-foot increase in permanent met tower height.

Turbine Comparison Figure



Turbine Comparison Graphic

EFSC must interpret and apply new Division 27 amendment rules

Division 27 Amendment Rules

- Adopted October 2017
- Kept three EFSC review processes for amendment requests
 - New Rules: Type A, Type B, Type C
 - Old Rules: Extended, Standard, Expedited
- Kept mechanisms for determining review process
 - ODOE determination based on factors
 - Ability to refer ODOE determination to EFSC

EFSC must interpret and apply new Division 27 amendment rules

Determining Appropriate Review Process

***Factors under Old Rules**

- Construction in residential or EFU zone or zone that prohibits the use
- Construction in Category 1 or 2 habitat
- Increase CO2 offsets
- Requires application of the balancing test
- Anticipated high volume of public comments

Factors under New Rules

- Complexity of proposed change
- Type and amount of mitigation
- Likelihood of significant adverse impact
- Anticipated level of public interest proposed change
- Anticipated level of interest by reviewing agencies

*Factors are paraphrased from rule language

EFSC Rulemaking History

Division 27 Rule History is Important for EFSC's Review

- February 2012-October 2017
 - Extensive record and debate over procedural amendments.
- July 13, 2017, ODOE memo to Council
 - Major changes include “elimination of the existing expedited review process, replacing it instead with a new proposed expedited review process [Type B].”
- Type B review is a process that Council meant to be used. If the factors were intended to be interpreted as ODOE has done here, the industry would opposed and pushed back in the rulemaking.
 - Type B review factors were developed considering the old rule factors and past amendment proceedings. Extensive discussion re nature of amendments and what would qualify for Type B versus Type A.

Certificate Holder's Reasoning for Type B Review

- No change in permanent footprint and decrease in impacts.
- No new related or supporting facilities.
- Facility is entirely in cultivated wheat, Category 6 habitat.
- RFA submitted concurrent with ADR to demonstrate that the likelihood of significant adverse impacts is low.

***Certificate Holder's Reasoning for Type B Review
(cont'd)...***

- EFSC has considered changes in turbine dimensions, relatively regularly in light of turbines getting bigger (e.g., recent Montague RFA, which was processed under the old rules as an expedited review).
- Follows Golden Hills RFA3 (approved Feb. 2017), which was a larger amendment redesigning several elements of the facility layout and required updated technical information to evaluate the currently-approved turbine layout.
- Anticipated level of public interest is low with exception of one party who submits substantially the same comments and arguments for every EFSC amendment.

Application of OAR 345-027-0057(8) Factors

Council may reject ODOE's Determination Review for RFA5 ***and grant Type B***

- The proposed change in turbine dimensions and related modifications are not complex.
- The level of public interest is anticipated to be low and “any” or “some” level public interest does not preclude a Type B review. ODOE’s application of the public interest factor is overly conservative and inconsistent with the rulemaking history.
- The potential impacts are known and presented in the RFA that was filed concurrently with the ADR.

Application of OAR 345-027-0057(8) Factors

An increase in turbine height is not complex

- Proposed turbine height in applications and amendments is constantly changing and increasing over time to address advances in technology.
- The modified turbines will be located within currently-approved micrositings corridors.
- Only one minor modification to existing site certificate condition.

Application of OAR 345-027-0057(8) Factors

Potential impacts do not rise to the level of significant

- Evidence provided with ADR to demonstrate that proposed changes to turbine dimensions do not change Council's prior conclusions on applicable standards.
 - Visual analysis completed using taller turbines. Similar or same impacts.
 - Noise analysis completed using taller turbines. Similar or same impacts.
- Site boundary and microsite corridors are the same.
 - No new resources (e.g., unknown cultural sites, different habitat types, or different types of farm use) to consider that were not previously evaluated.
- Permanent ground impacts similar or less than previously approved.
 - Impacts to habitat and agricultural areas will also be reduced.
- Turbines constructed and operated substantially in the same manner as previously approved by the Council.

Application of OAR 345-027-0057(8) Factors

Insufficient public and reviewing agency interest to warrant a Type A review

- The public comments on Golden Hills RFA4 were minimal (two comments) and were related to the ODOE's review of federally listed species and locations of cultural sensitive areas.
- Nature of comments received on the Montague RFA3, which involved similar changes in turbine dimensions, was low. There was one public comment about turbine setbacks and no changes to SC conditions or additional analysis.
- There have been numerous opportunities for public comments on this project since 2008. Substantive comments raised questions regarding noise, county setbacks, visual impacts, and safety. Responses to comments to date were adequate for Council to issue the original site certificate and four subsequent amendments.

RFA5 Condition of Approval Modification

Requested change to one site certificate condition

PRE-DC-01:

The certificate holder shall construct a facility substantially as described in the site certificate and may select up to 125 turbines, subject to the following restrictions and compliance with other site certificate conditions. Before beginning construction, the certificate holder shall provide to the Department a description of the turbine types selected for the facility demonstrating compliance with this condition.

- a) *The total number of turbines at the facility must not exceed 125 turbines.*
- b) *The combined peak generating capacity must not exceed 400 megawatts.*
- c) *The turbine hub height must not exceed 123-~~95~~ meters and the maximum blade tip height must not exceed 198 ~~158~~ meters.*
- d) *The minimum blade tip clearance must be 14 ~~19.8~~ meters above ground.*

Request for Council Action

Allowing ODOE's Determination to stand renders the Type B review process meaningless.

- Council intended the Type B review to be a viable pathway for certificate holders seeking straightforward amendments.
- Adopting the Type B review process was a recognition that not all amendments are the same and fit into the “one size fits all” process previously advocated for by ODOE.
- ODOE's interpretation and application of the OAR 345-027-0057(8) factors force all amendments into the Type A “one size fits all” process.
- The rulemaking history and the development of the factors must be considered when applying the rule. The rulemaking history record does not reflect EFSC's intent to interpret the factors such that any level of public comment would preclude Type B review.

Request for Council Action

Request EFSC to Reverse ODOE's Determination and Approve a Type B Review

- This decision is precedent setting.
- If this RFA does not qualify for a Type B review, what type of proposed change would qualify for a Type B review?
- How should ODOE be interpreting the Council's rules, specifically the Type B factors?
- Clear direction and guidance is needed from the Council.

Thank you for your consideration.

Questions?

Rebuttal Testimony

Golden Hills Wind Farm, Request for Amendment 5:

Department's Type A Amendment Review Process Determination



Department's Evaluation of Factors

Complexity of Proposed Change (OAR 345-027-0057(8)(a))

- Larger wind turbines are complex
 - Largest wind turbine to be considered by Council
 - Uncertainty in potentially significant, adverse environmental impacts

Department's Evaluation of Factors

Anticipated level of public interest in proposed change
(OAR 345-027-0057(8)(b))

- Level of interest anticipated
 - Visual and obstruction impacts
 - Significance of height increase
 - Historic level of interest in these type of changes for the facility and similar facilities

Department's Evaluation of Factors

Anticipated level of reviewing agency interest in proposed change
(OAR 345-027-0057(8)(c))

- Level of interest expected for larger turbines due to visual, avian, obstruction impacts
 - Oregon Department of Fish and Wildlife
 - Oregon State Historic Preservation Office
 - Oregon Department of Aviation
 - Sherman County Planning Department



Department's Evaluation of Factors

Likelihood of Significant Adverse Impact (OAR 345-027-0057(8)(d))

- Uncertain likelihood for larger turbines (visual)
 - Recreation, Scenic Resources, Protected Areas, and Historic, Cultural and Archeological Resources standards

Department's Evaluation of Factors

Type and Amount of Mitigation (OAR 345-027-0057(8)(e))

- Revegetation not impacted by proposed changes
- Habitat mitigation not impacted proposed changes

Department's Type A Determination

- The proposed changes are considered complex;
- There is an anticipated level of interest from members of the public and reviewing agencies in the proposed changes;
- The likelihood of potential significant adverse impacts from the proposed changes is uncertain.

Council's Scope of Review

- After the following:
 - Public comments
 - Certificate holder rebuttal
- Council shall deliberate and:
 - Concur, modify or reject Department's Type A review determination

Public Comment Opportunity

Golden Hills RFA5 Type A Amendment Review Process Determination



Certificate Holder Rebuttal Opportunity

Golden Hills RFA5 Type A Amendment Review Process Determination



Council Deliberation

Golden Hills RFA5 Type A Amendment Review Process Determination



Agenda Item J (Action Item)

Rulemaking: Phase 2 Updates to Carbon Dioxide (CO₂) Standards Council Deliberation and Final Decision

June 29, 2018

**Presented by:
Jason Sierman, Energy Policy Analyst**



Council's Required Findings

345-024-0570

Modification of the Standard for Base Load Gas Plants (Paraphrased)

The Council may modify the CO₂ standard for base load gas plants if the Council finds:

- *Most efficient, CCCT, natural gas-fired energy facility;*
- *Commercially demonstrated and operating in the United States;*
- *Net heat rate < 6,955 Btu/kWh;*
- *Higher heating value;*
- *ISO conditions.*

In modifying the CO₂ standard, the Council shall determine the CO₂ emissions rate (lbs./kWh) of that facility and reset the carbon dioxide emissions standard at 17 percent below this rate.

Council's Required Findings

345-024-0510

Principles for the Adoption of New Standards for Fossil-Fueled Power Plants (Paraphrased)

- *The Council shall adopt CO2 standards for fossil-fueled power plants by rule.*
- *In adopting or amending such standards, the Council shall consider and balance at least the following principles.*
 - See next slides for 13 principles
- *In the rulemaking record, the Council shall include findings on these principles.*
 - See next slides for 13 principles



13 Principles Under 345-024-0510

- 1) Promote fuel efficiency;
- 2) Promote efficiency in the resource mix;
- 3) Reduce net carbon dioxide emissions;
- 4) Promote cogeneration that reduces net carbon dioxide emissions;
- 5) Promote innovative technologies and creative approaches to mitigating reducing or avoiding carbon dioxide emissions;
- 6) Minimize transaction costs;
- 7) Include an alternative process that separates decisions on the form and implementation of offsets from the final decision on granting a site certificate;



13 Principles Under 345-024-0510

- 8) Allow either the applicant or third parties to implement offsets;
- 9) Be attainable and economically achievable for various types of power plants;
- 10) Promote public participation in the selection and review of offsets;
- 11) Promote prompt implementation of offset projects;
- 12) Provide for monitoring and evaluation of the performance of offsets;
- 13) Promote reliability of the regional electric system.

Council's Final Decision

To amend the EFSC CO₂ standards as proposed by staff, the Council must:

- 1) Find that the most efficient CCCT natural gas fired energy facility operating in the U.S. is the **Grand River Energy Center** with a net HHV heat rate adjusted to ISO conditions of **6,321**.
- 2) Consider and balance the 13 principles.
- 3) Make and include findings on the 13 principles for the rulemaking record.
- 4) Adopt final rule language as proposed by staff and authorize staff to file w/ SOS.



Council's Final Decision

Alternatively, the Council could:

- 1) Not adopt permanent rule language at this time and extend the comment period on the proposed rule language.
- 2) Not adopt permanent rule language at this time and direct staff to cease all rulemaking activities.

Official Rulemaking Process

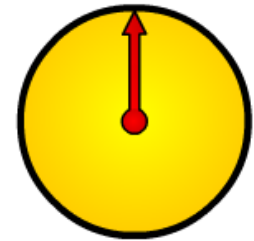
Milestone	Date
EFSC Authorization to Issue Official Public Notice	April 27, 2018
Official Public Notice Issued	May 30, 2018
EFSC Rulemaking Hearing	June 29, 2018
EFSC Considers All Comments and Makes Final Decision	June 29, 2018
Earliest Effective Date for Amended Rules <i>[see ORS 183.335(1)]</i>	July 18, 2018
Staff Files Final Rule Language & Effective Upon Filing*	July 18, 2018

*Unless directed otherwise by the Council



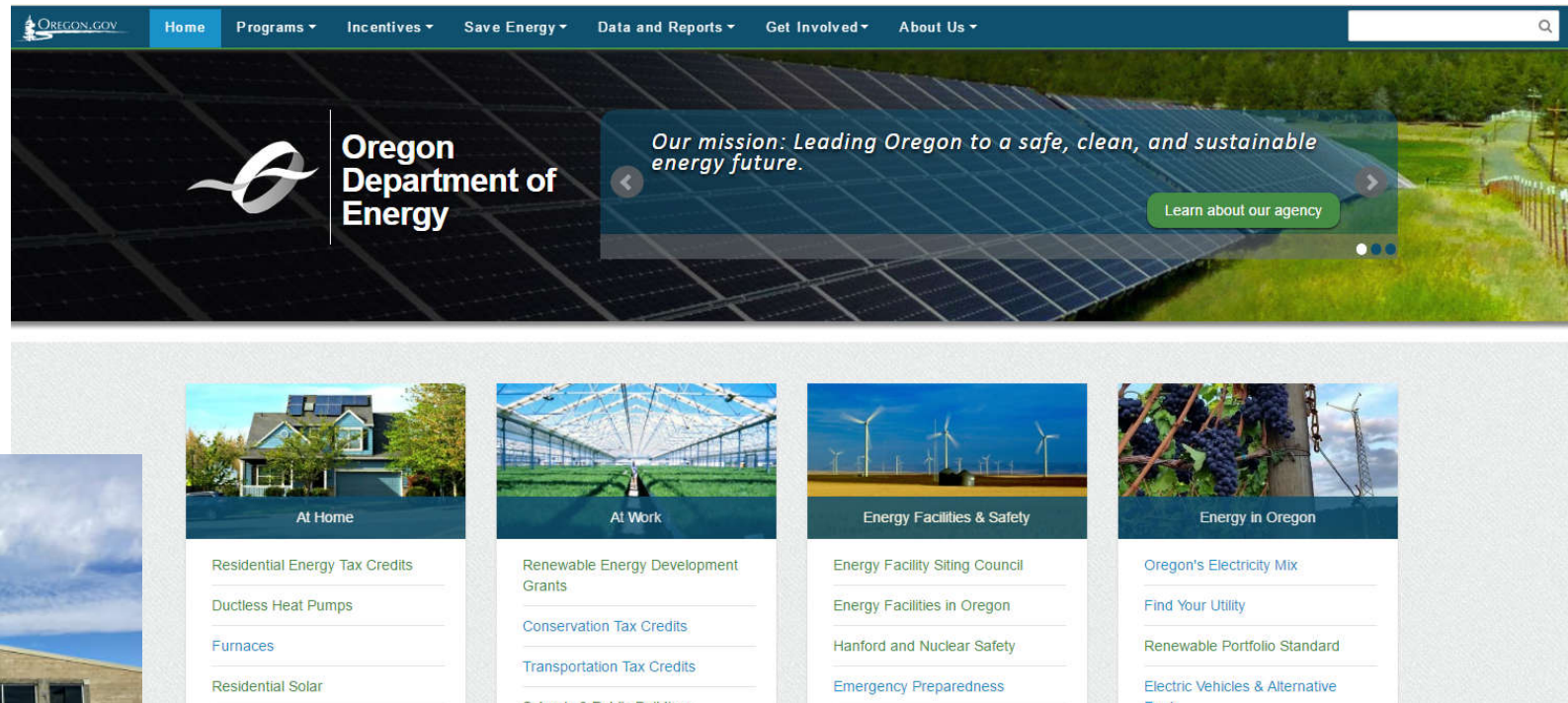
Agenda Item K: Public Comment

This time is reserved for the public to address the Council regarding any item within the Council's jurisdiction that is not otherwise closed for comment.



Adjourn

Next Council
Meeting:
August 23-24, 2018
Boardman City Hall



15 MINUTE BREAK



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