EXHIBIT C
PROPOSED LOCATION AND MAPS

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Introduction

OAR 345-021-0010(1)(c) *Information about the location of the proposed facility*.

The Applicant proposes to construct the Facility in Gilliam County, Oregon, with generating capacity of up to 500 MW.

C.1 Maps

OAR 345-021-0010(1)(c)(A) *A map or maps showing the proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features, using a scale of 1 inch = 2,000 feet or smaller when necessary to show detail; and*

RESPONSE

Due to the range of equipment available and market conditions, the Applicant is requesting to retain flexibility in selecting a turbine vendor, turbine size, resulting turbine number, and final turbine layout. Before construction, the Applicant will determine the exact number of turbines in each string, the spacing between turbines, and their precise locations within the string. Final turbine locations will be determined through the micrositing process in accordance with proposed Conditions 24 and 26, which are listed in Section B.7. Additionally, final supporting facility locations will be determined through the micrositing process in accordance with proposed Condition 26, which is listed in Section B.7.

To ensure that the ASC meets all EFSC standards, two indicative turbine models that could potentially be used at the Facility are presented and assessed in this ASC (see Section B.1.4 for a description of indicative turbine models). The two turbine models represent the expected range of turbine technologies from which a final model will be chosen.

The Facility will include approximately 166 to 219 wind turbines, depending on the final turbine size and vendor. To maximize the generation efficiency, the Applicant may use a combination of vendor and turbine sizes, as described in Exhibit B. The total energy generated will not exceed 500 MW.

The location of the proposed Facility and supporting facilities is described in the following sections. Maps showing the locations of the Facility site, and supporting facility sites, and areas of temporary disturbance are as follows:

- Figure C1 shows operating and permitted facilities within 10 miles of the Facility site boundary.
- Figure C2 and C2a-C2c illustrate the Facility maximum turbine layout with 219 1.6-MW turbines and supporting facilities. These figures provide the Facility layout at a scale of 1 inch = 2,000 ft.
- Figure C3 and C3a through C3c illustrate the Facility minimum turbine layout with 166 3.0-MW turbines and supporting facilities. These figures provide the Facility layout at a scale of 1 inch = 2,000 ft.
- Figure C4 and C4a through C4c show the micrositing corridor.

- Figure C5 shows areas that have been field surveyed for stream channels, wetlands, or other waters; biological resources; and historical, cultural, and archaeological resources.
- Figure C6 shows areas that may be temporarily disturbed during construction of the Facility under the worst-case scenario.

C.2 Worst-case Scenario

For each resource subject to an EFSC standard, this ASC presents the "worst-case" scenario describing potential impacts for turbines sizes and models under consideration. To determine the worst-case scenario, the maximum turbine layout and maximum disturbance areas were used to calculate the greatest potential temporary and permanent impact areas (i.e., the worst-case scenario). The worst-case scenario, in each applicable exhibit, assesses the layout that would represent the maximum potential impacts to a particular resource. Table C1 shows the temporary and permanent impacts for the Facility and supporting facilities based on the worst-case scenario layout described in this section.

The Facility will be microsited during final project design to avoid and minimize temporary and permanent impacts to high-quality native habitat where practicable and to retain overall habitat in the area. Final turbine and supporting facility locations will be determined through the micrositing process in accordance with proposed Conditions 24 and 26, which are listed in Section B.7. Figure C6 shows the temporary disturbance footprint areas for the worst-case scenario.

C.3 Location and Land Area of Facility Components

OAR 345-021-0010(1)(c)(B) *A description of the location of the proposed energy facility site, the proposed site of each related or supporting facility and areas of temporary disturbance, including the approximate land area of each. If a proposed pipeline or transmission line is to follow an existing road, pipeline or transmission line, the applicant shall state to which side of the existing road, pipeline or transmission line the proposed facility will run, to the extent this is known.*

RESPONSE

C.3.1 Location

The Facility site boundary and surrounding areas are shown in Figure C1. At its northernmost point, the Facility site boundary is approximately 7 miles south of the City of Arlington in Gilliam County, Oregon. The Facility site boundary encompasses approximately 36,351 acres.

Project and Facility components will be located on private land. The Applicant has negotiated, or is in the final stages of negotiating, long-term wind energy leases or easements with the landowners. Where the farming activities do not affect the operation and maintenance of the wind generation equipment, the landowner leases allow continued wheat cultivation and other farming operations around the wind turbine generators and other Facility components. Easements will also be negotiated with adjacent landowners and nearby wind energy developers for location of generator lead lines, roads, and collector line access.

As discussed in Exhibit B and shown in Figures B1 and B1a, a small portion of the proposed Facility site boundary overlaps with the Montague Wind Power Facility site boundary. Resource information was obtained from Montague Wind Power Facility, LLC for these areas and is referenced throughout this ASC.

The Facility site boundary encompasses all or portions of the following townships, ranges, and sections:

- Township 1N, Range 20E, Sections: 1, 2, 3, 4, 9, 11,12, 13, 14
- Township 1N, Range 21E, Sections: 1, 3, 4, 5, 6, 7, 8, 9, , 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36
- Township 1N, Range 22E, Sections: 5, 6, 7, 8, 18, 19, 29, 30, 31, 32
- Township 1S, Range 21E, Sections: 1, 2, 3, 4, 11, 12, 13
- Township 1S, Range 22E, Sections: 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 26, 27, 28, 29, 33, 34, 35
- Township 2N, Range 20E, Sections: 33, 34, 35, 36
- Township 2N, Range 21E, Sections: 31, 32, 33, 34
- Township 2S, Range 22E, Sections: 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15

C.3.2 Micrositing Corridor of Energy Facility Site and Supporting Facilities

A micrositing corridor is defined by OAR 345-01-0010(30) as "a continuous area of land within which construction of Facility components may occur, subject to site certificate conditions." The micrositing corridor is a specific area that surrounds turbines and other facilities. Corridor areas range in size around facilities depending on areas that have been surveyed, the potential for sensitive species, and the need for micrositing flexibility. During final design, the turbines and other Facility components will be sited within the micrositing corridor identified.

As noted in ODOE's letter dated July 2, 2010 (item 18), micrositing corridors can be polygons of any size or shape and the entire area within the site boundary may be proposed as a micrositing corridor. However ground surveys must be over the entire micrositing corridor.

For the Baseline Wind Energy Facility project, the Applicant has identified a micrositing corridor within which turbines and supporting facilities will be located. The purpose of the micrositing corridor is to allow the Applicant flexibility during project design, final location of the turbine strings, and selection of turbine vendors and sizes; to maximize the wind resource; and minimize and avoid impacts to other resources. The Applicant is requesting authorization to site turbines and supporting facilities anywhere within the micrositing corridor identified in Figure C4, as long as these areas have been surveyed prior to construction and to the greatest extent possible impacts are avoided, minimized, or mitigated per EFSC standards and site certificate conditions that are proposed in this ASC. Additional surveys will be conducted prior to construction as needed. Table C2 provides a description of the micrositing corridor using latitude and longitude coordinates from a Global Positioning System (GPS). Figure C5 shows areas that have been surveyed.

The following sections describe the temporary impacts from construction and the permanent footprint occupied by the Facility and supporting facilities.

C.3.2.1 Turbine Location and Land Area

The final layout will have approximately 166 to 219 turbines, with any combination of 1.6-MW turbines to 3.0-MW turbines. The final turbine locations are yet to be determined as the final number of turbines in each string and the spacing between turbines will vary depending on the turbine models selected. Therefore, as described in Section C.3.2 a micrositing corridor has been identified. The micrositing corridor for the 1.6-MW layout is depicted in Figure C4. The micrositing area is the same for the 3.0-MW layout.

For the maximum turbine layout (1.6 MW), the typical temporary disturbance area at each turbine location is approximately 125,452 sq ft (2.9 acres) around the turbines. However, during turbine assembly, a larger area will be used to laydown the turbine rotors and operate cranes. In some cases, construction contractors prefer a larger area of approximately 160,000 sq ft (3.7 acres) to reduce construction costs. Therefore, to calculate the worst-case temporary impacts, the maximum turbine layout was used along with a maximum temporary disturbance area of 160,000 sq ft (3.7 acres) per turbine.

For each turbine, the area permanently disturbed during operations will be up to 5,000 sq ft (25.1 acres) including a turbine tower with a radius of up to 6.8 ft (13.5 ft in diameter). A surrounding gravel area with an additional radius of up to 35.0 ft will also be constructed.

Additional temporary impacts include construction-related impacts associated with the underground electrical collector system, crane paths, and laydown and staging areas. Following construction, these areas will be restored to preconstruction conditions. The following sections describe the worst-case scenario for these facilities.

C.3.2.2 Supporting Facilities Location and Land Area

Per OAR 345-001-0010(49), supporting facilities will not be built but for construction or operation of the energy Facility. Supporting facilities will not include any structure existing prior to construction of the energy Facility; unless such structure must be significantly modified solely to serve the energy Facility (also see ORS 469.300(24).

Supporting facilities are shown in Figure C2 and Figure C3. The following sections describe the location and required land area of the Facility's supporting facilities based on the 1.6-MW layout (maximum turbine layout). The worst case scenario is described in Section C.2.

Electrical Collection System

The electrical collection system will collect and transfer turbine generated energy to the electrical collector substations. Approximately 151.8 miles of collector cable will be buried underground. Up to approximately 30 percent (45.54 miles) of 34.5-kV collector line could potentially be strung overhead on pole structures. Construction of the electrical collection system will result in approximately 460.0 acres of temporary disturbance. Up to approximately 9.2 acres of land could be permanently retained for an overhead line disturbance corridor.

Electrical Collector Substations

Construction of up to 3 electrical collector substations will result in approximately 8.0 acres of temporary disturbance each (24 acres total). A 6.0-acre area will be permanently retained for each collector substation (18 acres total).

230-kV Generator Lead Line

A new overhead 230-kV generator lead line will connect the Facility to BPA's proposed Diamond Butte substation along the Ash-Marion 500-kV line or PGE's proposed Cedar Spring substation. Approximately 22.5 miles of generator lead line will be constructed for interconnection of the Facility with the proposed Diamond Butte substation or Cedar Spring substation. Construction of the generator lead line will result in approximately 136.3 acres of temporary disturbance. Approximately 5.5 acres of land will be permanently retained for the line disturbance corridor.

Meteorological Towers

Depending on final turbine design and turbine manufacturer requirements, up to 7 permanent, freestanding (un-guyed) lattice-type steel met towers will be erected within the Facility site boundary to monitor and document wind conditions during Facility operations. Construction of each met tower will result in approximately 2.0 acres of temporary disturbance (14 acres total). Approximately 1,000.0 sq ft will be permanently retained for each met tower (0.2 acre total).

O&M Building

The Facility will include one O&M building. Construction of the O&M building will result in approximately 5.0 acres of temporary disturbance, including area for temporary construction staging. Approximately 3.0 acres will be permanently retained for the O&M building.

Access Roads

Approximately 56.9 miles of new Facility access roads and 6.4 miles of crane paths will be constructed, and approximately 16.7 miles of existing, public roads will require widening and surface improvements (see Figure C2 and Figure C3and Table C1). Total access road construction will result in approximately 590.4 acres of temporary disturbance. Approximately 142.8 acres of land will be permanently retained.

Additional Laydown and Staging Areas

During construction, staging areas will be located at each turbine site and a 2.0-acre temporary staging area will be located within the 5.0-acre construction area at the O&M building. Additionally, three 10.0-acre staging areas will be located within the Facility site boundary. Construction of the additional staging areas will result in approximately 30 acres of temporary disturbance.

Additional Disturbance Areas

There may be additional disturbance areas required for moving turbines or access road locations, as necessary to avoid unknown constraints, or due to rough or steep terrain that

is not evident during preliminary design. These additional areas may result in up to 220 acres of temporary disturbance and up to 30.0 acres permanently retained.

C.3.2.3 Pipeline or Transmission Line

The project does not propose the construction of a pipeline.

Based on the current layout, the proposed 230-kV generator lead line corridor follows sections of existing roads, including Berthold Road (east side), Bottemiller Road (north side), OR 19 (east side), Baseline Road (east side), and Ridge Road (west side).

Table C1: Worst-case Scenario Temporary and Permanent Disturbance Calculations

Facility	Number of Units	Unit of Measurement	Typical Temporary Disturbance		Temporary Total (acres)	Typical Permanent Disturbance		Permanent Total (acres)	Miles	Assumptions
Turbines	219	each	3.7	acres	803.7	5,000.0	sq ft	25.1	-	225-foot temporary radius and 40-foot permanent radius of disturbance around each turbine; same disturbance assumed for 1.6 and 3.0 MW turbines.
Underground Electrical Collection System	801,556	linear ft	25.0	ft-wide	460.0	500.0	sq ft	9.2	151.8	Up to 30% (45.5 miles) could potentially be overhead 34.5-kV line; permanent impact one pole every ±300 ft (801 poles), approximately 20 ft x 20 ft per pole; used greater 3.0 MW turbine layout disturbance area.
Electrical Collector Substations	3	each	8.0	acres	24.0	6.0	acres	18.0	-	Same disturbance assumed for 1.6 and 3.0 MW turbine layout.
Overhead 230-kV Generator Lead Line Structures	118,775	linear ft	50.0	ft-wide	136.3	1,000.0	sq ft	5.5	22.5	Permanent impact one tower every ±500 ft (238 poles), approximately 30 ft x 30 ft per tower; used greater 1.6 MW turbine layout disturbance area.
Met Towers	7	each	2.0	acre	14.0	1,000.0	sq ft	0.2	-	Permanent impact approximately 30 ft x 30 ft per met tower; same disturbance assumed for 1.6 and 3.0 MW turbine layout.
O&M Building	1	each	5.0	acres	5.0	3.0	acres	3.0	-	Same disturbance assumed for 1.6 and 3.0 MW turbine layout.
New Access Roads	300,549	linear ft	75.0	ft-wide	517.5	17.0	ft-wide	110.4	56.9	75 ft width includes grading and spoils beyond the typical 36 ft compacted shoulder width; used greater 1.6 MW turbine layout disturbance area.
Existing Public Road Improvements	88,176	linear ft	36.0	ft-wide	72.9	17.0	ft-wide	32.4	16.7	Typical 36 ft compacted shoulder width; same disturbance assumed for 1.6 and 3.0 MW turbine layout.
Crane Paths	33,700	linear ft	50.0	ft-wide	38.7	none	-	-	6.4	50 ft width includes grading beyond the typical 36 ft crane width; used greater 3.0 MW turbine layout temporary disturbance area. No permanent impacts.
Additional Laydown and Staging Areas	3	each	10.0	acres	30.0	none	-	-	-	Same temporary disturbance assumed for 1.6 and 3.0 MW turbine layout. No permanent impacts.
Additional Disturbance Areas	-	-	-	-	220.0	-	-	30.0	-	Up to 10% of additional disturbance; accounts for moving turbines or access road locations, as necessary to avoid unknown constraints, or due to rough or steep terrain that is not evident during preliminary design; used greater 1.6 MW turbine layout disturbance area.
Total	-	-	-	-	2,322.1	-	-	233.7		

Notes: Actual numbers may vary slightly because of rounding. The total areas in this table are estimates of the Facility's total impact to land and do not reduce acreage to account for the location of overlapping facilities and impact areas.

Table C2: Micrositing Corridor Correlated to Figure C4

ID	Longitude (decimal degrees)	Latitude (decimal degrees)	Distance to next Point in Feet
1	-120.0410782	45.39062383	18,358
2	-120.041057	45.39418662	5,159
3	-120.025658	45.39417906	5,307
4	-120.051292	45.39791766	2,640
5	-120.0512965	45.4015265	2,672
6	-120.0461895	45.40145602	2,532
7	-120.0256185	45.40155793	10,416
8	-120.0153729	45.40161048	2,632
9	-120.0512612	45.40511516	2,691
10	-120.0461551	45.40507116	3,956
11	-120.056351	45.408347	1,299
12	-120.0616303	45.41402831	3,736
13	-120.0558082	45.41421321	1,316
14	-120.0661024	45.41599598	1,312
15	-120.0674048	45.41935893	1,318
16	-120.0712817	45.42255706	1,312
17	-120.0760139	45.43015377	1,760
18	-120.0701324	45.43012059	2,144
19	-120.0250949	45.43012146	1,497
20	-120.057119	45.43119452	1,354
21	-120.015234	45.43017564	1,271
22	-120.0554485	45.43134599	1,533
23	-120.05768	45.4345229	2,774
24	-120.0760506	45.43556365	1,510
25	-120.0636859	45.43528564	1,973
26	-120.0598113	45.43644137	3,176
27	-120.0354465	45.43734755	1,080
28	-120.0251642	45.43744842	888
29	-120.0555709	45.43835096	1,222
30	-120.06263	45.44419425	432
31	-120.0670657	45.44589194	2,554
32	-120.075087	45.4461282	2,797
33	-120.0862601	45.4519811	1,296
34	-120.0850588	45.45209906	2,061
35	-120.0555937	45.4517841	3,360
36	-120.0354935	45.451901	311
37	-120.0859203	45.45550752	1,289

Table C2: Micrositing Corridor Correlated to Figure C4

ID	Longitude (decimal degrees)	Latitude (decimal degrees)	Distance to next Point in Feet
38	-120.0974707	45.45604886	2,971
39	-120.0998551	45.45922543	1,310
40	-120.107779	45.46398577	2,673
41	-120.1092116	45.46771302	1,408
42	-120.1129497	45.4692863	1,118
43	-120.1188894	45.46974043	1,533
44	-120.1233907	45.47383672	1,888
45	-120.1417349	45.4835912	5,898
46	-120.1437482	45.48656987	1,203
47	-120.1463123	45.4884386	947
48	-120.1195926	45.4881518	2,178
49	-120.0981688	45.48813745	1,081
50	-120.1245212	45.49067789	3,994
51	-120.1531577	45.49197341	3,805
52	-120.1573676	45.49209864	1,454
53	-120.097164	45.49614138	1,853
54	-120.094447	45.49934285	2,003
55	-120.0897587	45.4992886	1,895
56	-120.1344074	45.50114181	1,295
57	-120.1722179	45.50321836	5,966
58	-120.1573778	45.50305335	2,022
59	-120.0651112	45.50200302	1,327
60	-120.0550445	45.5021281	1,721
61	-120.0550445	45.5021281	3,012
62	-120.0926261	45.50357922	3,845
63	-120.0897493	45.50361378	1,834
64	-120.1320541	45.50491343	1,701
65	-120.1723181	45.50720554	1,228
66	-120.1677152	45.51112437	1,154
67	-120.0650777	45.50913656	425
68	-120.0905386	45.51002652	2,667
69	-120.0550079	45.50935838	2,275
70	-120.1312406	45.51476246	1,320
71	-120.1642681	45.5160538	1,688
72	-120.0825796	45.51427215	3,926
73	-120.1899529	45.51772473	1,710
74	-120.1666774	45.51769385	1,313

Table C2: Micrositing Corridor Correlated to Figure C4

ID	Longitude (decimal degrees)	Latitude (decimal degrees)	Distance to next Point in Feet
75	-120.128313	45.51763029	7,005
76	-120.124045	45.51762352	1,317
77	-120.0824694	45.51755516	5,221
78	-120.0549781	45.51750169	6,609
79	-120.1656108	45.52116577	10,380
80	-120.193254	45.52276095	10,395
81	-120.2044437	45.52415356	8,541
82	-120.1977535	45.52456327	1,322
83	-120.2216435	45.532297	5,201
84	-120.206641	45.53226787	820
85	-120.1654769	45.53215097	3,584
86	-120.1439505	45.53207299	7,848
87	-120.1240857	45.53204787	2,499
88	-120.1374234	45.5331538	2,279
89	-120.0913664	45.53201703	815
90	-120.2272144	45.53545483	6,609
91	-120.1404505	45.533822	2,692
92	-120.1309107	45.53496434	2,601
93	-120.1291115	45.53591888	3,205
94	-120.1266708	45.53622204	780
95	-120.1240261	45.53713218	3,665
96	-120.2321105	45.54009092	1,603
97	-120.2273167	45.54011891	604
98	-120.1015837	45.53916835	3,196
99	-120.0913057	45.53919434	1,158
100	-120.2336446	45.54314374	5,280
101	-120.231995	45.54325576	2,751
102	-120.1119252	45.54637486	5,309
103	-120.1015557	45.54630486	2,723
104	-120.242494	45.55044746	2,627
105	-120.2336141	45.55045891	2,704
106	-120.249068	45.55407234	2,750
107	-120.2424773	45.55406768	6,549
108	-120.1653345	45.55371081	1,689
109	-120.1238475	45.55367792	1,327
110	-120.1118927	45.55349892	2,612
111	-120.1171375	45.55363893	2,710

Table C2: Micrositing Corridor Correlated to Figure C4

ID	Longitude (decimal degrees)	Latitude (decimal degrees)	Distance to next Point in Feet
112	-120.1068117	45.55353257	1,337
113	-120.1237842	45.56077331	2,641
114	-120.1170553	45.56078485	3,986
115	-120.249131	45.56484079	3,970
116	-120.2424523	45.56481568	1,380
117	-120.2698148	45.56825426	2,612
118	-120.1118034	45.56438653	1,296
119	-120.1067444	45.56433232	3,938
120	-120.2424614	45.56841735	1,302
121	-120.1856517	45.56807421	2,598
122	-120.165035	45.56787996	2,657
123	-120.1444697	45.5679033	2,602
124	-120.1342113	45.56787821	2,634
125	-120.2901286	45.57204571	2,617
126	-120.2697432	45.5718655	8,385
127	-120.1981519	45.57128187	5,260
128	-120.1856731	45.57125032	1,094
129	-120.1998254	45.57244782	1,287
130	-120.2060737	45.57269672	3,597
131	-120.117027	45.57156301	1,502
132	-120.1116391	45.57154821	4,581
133	-120.1651074	45.57542453	1,564
134	-120.1443743	45.57536973	5,495
135	-120.134308	45.57529437	2,930
136	-120.1235714	45.57521301	1,359
137	-120.2060426	45.58274789	1,202
138	-120.2029946	45.58271677	1,577
139	-120.1170481	45.58245031	738
140	-120.1014825	45.58237947	2,411
141	-120.3303342	45.59027336	2,561
142	-120.2897869	45.59017183	1,197
143	-120.1958343	45.58992745	7,047
144	-120.1066854	45.5896113	2,969
145	-120.1014628	45.58962201	2,583
146	-120.1236036	45.59317466	2,601
147	-120.1170062	45.59323895	2,582
148	-120.1958501	45.59706128	n/a

C.4 References

Oregon Department of Energy. 2010. Letter from John G. White regarding Notice of Intent review dated July 2, 2010.

Figures