STOEL RIVES LLP
ATTORNEYS AT LAW

600 University Street, Suite 3600
Seattle, Washington 98101
main 206.624.0900
fax 206.386.7500
www.stoel.com

CHERISE M. ORAM
Direct (206) 386-7622
cmoram@stoel.com

May 30, 2014

ELECTRONIC FILING

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street N.E.
Washington, D.C. 20426

Re: Reedsport OPT Wave Park, LLC
Reedsport OPT Wave Park Project
Project No. 12713
Application for Surrender of License

Dear Secretary Bose:

I attach for filing an electronic copy of the Application for Surrender of License on behalf of Reedsport OPT Wave Park, LLC, for the Reedsport OPT Wave Park Project (P-12713).

Very truly yours,

Cherise M. Oram

Attachment

Alaska California Idaho
Minnesota Oregon Utah Washington
and Washington, D.C.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Reedsport OPT Wave Park, LLC Reedsport OPT Wave Park Project	Project No. 12713

APPLICATION FOR SURRENDER OF LICENSE

Pursuant to the provisions of Section 6 of the Federal Power Act, 16 U.S.C. § 799, and 18 C.F.R. §§ 6.1 and 6.2, Reedsport OPT Wave Park, LLC ("Reedsport"), licensee of the Reedsport OPT Wave Park Project, Project No. 12713 (the "Reedsport Project" or "Project"),[1] hereby applies to the Federal Energy Regulatory Commission ("FERC" or the "Commission") for authorization to surrender its license for the Reedsport Project. As discussed below, financial and regulatory challenges have unfortunately forced Reedsport to conclude that it cannot proceed with development of the Project. Reedsport began construction of the Project in September 2012, by installing a single Floating Gravity Based Anchor ("FGBA"), Auxiliary Subsurface Buoy, and associated tendon and outer mooring lines within the Project area.[2] Pursuant to the terms of its authorization from the Oregon Department of State Lands ("DSL") and subsequent communications between Reedsport and DSL,[3] Reedsport removed the Auxiliary Subsurface

[1] *Order Issuing Original License*, 140 FERC ¶ 62,120 (Aug. 13, 2012), as amended by *Order Amending License*, 140 FERC ¶ 62,236 (Sept. 27, 2012) (as amended, the "License"), attached hereto as Exhibit A pursuant to 18 C.F.R. § 6.1.

[2] *See* Reedsport OPT Wave Park (P-12713) 2012 Annual Report to the U.S. Federal Energy Regulatory Commission at 2-3 (Apr. 1, 2013) (Accession No. 20130401-5360).

[3] *See, e.g.*, Letter from Oregon Department of State Lands to Reedsport OPT Wave Park LLC (Aug. 30, 2013) (Accession No. 20130905-5154); Letter from Oregon Department of State Lands to Reedsport OPT Wave Park LLC (Oct. 1, 2013) (Accession No. 20131002-5082).

Buoy and associated tendon and outer mooring lines from the Project area on October 17, 2013, and submitted a work plan for removal of the FGBA to DSL. DSL accepted the work plan ("FGBA Removal Plan") and, on October 24, 2013, confirmed that DSL is in possession of two letters of credit that provide the State of Oregon financial security for the estimated cost of removing the FGBA.[4]

Pursuant to 18 C.F.R. § 6.2, the Commission may condition Reedsport's surrender of the License on the disposition of the FGBA.[5] By October 15, 2014, Reedsport plans to remove the FGBA from the Project site in accordance with the FGBA Removal Plan. The project site is located in Oregon State territorial waters, which are not federal lands. To assist the Commission in fulfilling its responsibility to act in the public interest, Reedsport intends to prepare a decommissioning plan ("Decommissioning Plan") consistent with the process set forth in Appendix D, Paragraph 15 of the License ("Appendix D"). Once the relevant state and federal agencies have reviewed and approved the Decommissioning Plan, Reedsport will submit it to the Commission for approval. Given the ongoing financial and regulatory challenges faced by Reedsport in developing the Project, surrender of the license is appropriate and in the public interest and, subject to the fulfillment of Reedsport's obligations under the Decommissioning Plan, should be accepted by the Commission.

---

[4] *See* Letter from Oregon Department of State Lands to OPT dated Oct. 24, 2013 (Accession No. 20131024-5117).

[5] Any such conditions must be agreeable to OPT. 16 U.S.C. § 799.

I. COMMUNICATIONS

All communications with respect to this Application for Surrender of License should be directed to and served on the following:

Mark A. Featherstone
Reedsport OPT Wave Park, LLC
1590 Reed Road
Pennington, New Jersey 08534
Telephone: (609) 730-0400
Facsimile: (609) 730-0404
Email: mfeatherstone@oceanpowertech.com

Cherise M. Oram
Stoel Rives LLP
600 University Street, Suite 3600
Seattle, Washington 98101
Telephone: (206) 386-7622
Facsimile: (206) 386-7500
Email: cmoram@stoel.com

II. BACKGROUND

On August 13, 2012, the Commission issued a 35-year license to Reedsport for the construction, operation, and maintenance of the Reedsport Project - the first such license to be awarded to a wave energy project. The License was the culmination of negotiation and collaboration between Reedsport and stakeholders which resulted in the execution of a comprehensive Settlement Agreement among the company and fourteen federal and state agencies and non-governmental organizations on July 28, 2010. In negotiating the Settlement Agreement and applying for the License, Reedsport anticipated it would first deploy a single, non-grid-connected buoy in 2011 (i.e., prior to obtaining the License), subject to separate approvals from the U.S. Army Corps of Engineers, National Marine Fisheries Service, DSL, and other agencies which would ensure the safe and environmentally-sound deployment and operation of the buoy. The deployment and operation of this first buoy has been referred to as "Phase I" of the Project. The deployment of nine more buoys and a subsea transmission cable, and the operation of all ten buoys as a grid-connected array, is the subject of the License and has been referred to as "Phase II" of the Project.

Unfortunately, various challenges delayed Reedsport's attempts to begin construction on Phase I until September 14, 2012, at which time Reedsport experienced complications with installation of the first FGBA and in November 2012 discovered that the Auxiliary Subsurface Buoy had settled on the sea floor.[6] The Auxiliary Subsurface Buoy and associated tendon and outer mooring lines were successfully recovered on October 17, 2013. The FGBA remains on the sea floor within the Project boundary, in Oregon State territorial waters.

Reedsport has continued to experience regulatory and financial challenges in developing the Project since the Commission issued the License.[7] The primary challenge has been raising additional project-specific financing for Phase I. These challenges, together with Project-timing issues that arose with the application of various License requirements to both the non-grid connected buoy in Phase I and the ten-buoy array in Phase II,[8] initially led Reedpsort to conclude that it might not install all of the Project components for several years.[9] Despite continued efforts to overcome these challenges, Reedsport has found them to be insurmountable within the

---

[6] *See* Reedsport OPT Wave Park (P-12713) 2012 Annual Report to the U.S. Federal Energy Regulatory Commission at 2-3, filed Apr. 1, 2013 (Accession No. 20130401-5360).

[7] *See id.* at 4-5 (quoting March 17, 2013 press release).

[8] Commission staff holds this view even though the buoy has been authorized under separate federal and state approvals (and not under the License) and the Commission did not consider the buoy to be subject to its jurisdiction. The Commission's Environmental Assessment ("EA") for the Project confirms that the license was not intended to apply to the first buoy, stating: "Phase I involves the installation of a single PowerBuoy, which will not be connected to the grid, and does not require a FERC license." *Environmental Assessment for Hydropower License, Reedsport OPT Wave Park Project – FERC Project No. 12713-002, Oregon* at 3 (Dec. 2010) ("Environmental Assessment"); *see also id.* at viii (making same statement). Commission staff explained that OPT "proposes an initial installation of a single PowerBuoy, which would not require a FERC license because it is a 'test project' that would not be connected to the grid." *Id.* at 3 n.2 (citing *Verdant Power LLC*, 111 FERC ¶ 61,024 (2005)).

[9] *Motion for Extensions of Time to Comply with License Requirements* at 3 (May 9, 2013) (Accession No. 20130509-5078).

timeframes for construction and operation set forth in the License and is hereby proposing to decommission the Reedsport Project by removing the installed FGBA and surrender the License.

III. DISCUSSION

A. Decommissioning

Reedsport proposes to decommission the Reedsport Project by removing the FGBA, confirming site clearance, and disposition of Project facilities according to a process that will be set forth in the Decommissioning Plan. The Decommissioning Plan will be prepared in accordance with Appendix D, Paragraph 15, of the License of the Project, which states that:

> In the event the Project is decommissioned for any reason, the Licensee shall develop a Decommissioning Plan, in consultation with and subject to approval by the Fish Agencies. The Licensee will provide a plan to restore the natural characteristics of the site to the extent practicable by describing the facilities to be removed. The plan will include:
>
> - a proposed decommissioning schedule
> - a description of removal and containment methods;
> - description of site clearance activities;
> - Plans for transporting and recycling, or disposing of the removed facilities; [*sic*] a description of those resources, conditions;
> - activities that could be affected by or could affect the proposed decommissioning activities;
> - results of any recent biological surveys conducted in the vicinity of the structure and recent observations of marine mammals at the structure site;
> - mitigation measures to protect archaeological and sensitive biological features during removal activities;
> - a statement as to the methods that will be used to survey the area after removal to determine any effects on marine life; and
> - Identification of how the Licensee will restore the site to the natural condition that existed prior to the development of the site, to the extent practicable.
>
> The Licensee shall provide a draft decommissioning plan to the Fish Agencies for a minimum of 30 days for review and comment and approval, prior to filing the results report with the

> Commission. The Licensee shall include with the report documentation of consultation with all agencies and approval by the Fish Agencies, copies of comments and recommendations on the draft decommissioning plan after it has been prepared and provided to the Fish Agencies, and specific descriptions of how the Fish Agencies' comments and recommendations are accommodated in the Decommissioning Plan. Upon approval by the Commission, the Licensee shall implement the Plan."

Reedsport has prepared a draft of the Decommissioning Plan and intends to circulate the draft to the relevant state and federal resource agencies within five (5) business days after the filing of this application. Reedsport anticipates submitting the final Decommissioning Plan to the Commission for its review and approval no later than sixty (60) days after the filing of this application.

Reedsport appreciates the Commission's patience and assistance in accommodating the company's efforts to develop the Project. However, as noted above, after consistent efforts to overcome the financial and regulatory challenges associated with developing this commercial-scale wave energy project, Reedsport has concluded that it is not financially feasible to continue with development. DSL has confirmed that it is in possession of two letters of credit that provide the State of Oregon financial security for the estimated cost of removing the FGBA. For these reasons, Reedsport believes that decommissioning of the Reedsport Project and surrender of the License is in the public interest and should be approved by the Commission.

B. Construction Lien Release

On February 21, 2013, Pacific Pile & Marine LP ("Pacific") provided notice to the Commission in this docket that Pacific had recorded a claim of construction lien in Douglas County, Oregon on February 12, 2013 (the "Construction Lien"), for alleged unpaid amounts related to the FGBA installation by Northwest Underwater Construction, LLC. On April 21, 2014, Pacific recorded a release of the Construction Lien in Douglas County, Oregon.

IV. CONCLUSION

OPT respectfully requests that the Commission issue an order accepting Reedsport's surrender of the License for Project No. 12713, conditioned only upon the fulfillment of Reedsport's duties under the Decommissioning Plan, which Reedsport plans to file with the Commission for its review and approval no later than sixty (60) days after the filing of this application.

DATED: May 30, 2014

Respectfully submitted,

Cherise M. Oram
STOEL RIVES LLP
600 University Street, Suite 3600
Seattle, WA 98101
Telephone: (206) 386-7622
Facsimile: (206) 386-7500
Attorney for Reedsport OPT Wave Park, LLC

EXHIBIT A

ORIGINAL LICENSE AND LICENSE AMENDMENT

[Follows this page.]

20120813-3045 FERC PDF (Unofficial) 08/13/2012

140 FERC ¶ 62,120
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Reedsport OPT Wave Park, LLC Project No. 12713-002

ORDER ISSUING ORIGINAL LICENSE

(August 13, 2012)

INTRODUCTION

1. On February 1, 2010, Reedsport OPT Wave Park, LLC (OPT or licensee) filed, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),[1] an application for an original license to construct, operate, and maintain the proposed Reedsport OPT Wave Park Project, Project No. 12713 (Reedsport Project or project). The wave energy converters (PowerBuoys) of this ocean energy project will have an installed capacity of 1.5 megawatts (MW) and will be located in Oregon State territorial waters, about 2.5 nautical miles off the coast of Reedsport, in Douglas County, Oregon.[2] The onshore portion of the project, also located in Douglas County, will occupy 4.97 acres of the Oregon Dunes National Recreation Area in the Siuslaw National Forest, administered by the U.S. Department of Agriculture's Forest Service (Forest Service).[3]

2. As discussed below, this order issues an original license for the Reedsport Project.

---

[1] 16 U.S.C. §§ 797(e) and 808 (2006).

[2] Oregon State territorial waters are a navigable waterway of the United Sates as defined by section 3(8) of the FPA, 16 U.S.C. § 796(8) (2006). "Navigable waters" means those parts of streams or other bodies of water that are used or suitable for use for the transportation of persons or property in interstate or foreign commerce.

[3] The project is required to be licensed under section 23(b)(1) of the FPA, 16 U.S.C. § 817 (2006) because it is located in a navigable waterway and because it occupies federal lands.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

BACKGROUND

3. On June 1, 2010, the Commission issued a public notice that was published in the *Federal Register* accepting the application for filing, indicating the application was ready for environmental analysis, and soliciting motions to intervene and protests, comments, terms and conditions, recommendations, and prescriptions.[4] The Forest Service, Oregon Department of Fish and Wildlife (Oregon DFW), and U.S. Department of the Interior (Interior) filed timely notices of intervention.[5] The Oregon Department of Land Conservation and Development (Oregon DLCD) and the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians (Confederated Tribes) filed timely motions to intervene.[6] The National Marine Fisheries Service (NMFS) filed a late motion to intervene on September 15, 2010.[7] None of the intervenors oppose the project.

4. Commission staff prepared and issued an environmental assessment (EA), analyzing the impacts of the proposed project and alternatives to it, on December 3, 2010. OPT, NMFS, the state of Oregon, and the West Coast Seafood Processors Association filed comments on the EA.

5. The interventions, comments, recommendations, and terms and conditions have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

A. Project Area

6. The Reedsport Project consists of marine- and land-based portions. The marine-based portion of the project will be located in the Pacific Ocean, about 2.5 nautical miles off the coast of Douglas County, Oregon. The water depth in the area

---

[4] 75 *Fed. Reg.* 32,451 (June 8, 2010).

[5] Timely notices of intervention filed by the U.S. Departments of Agriculture and Interior and any state fish and wildlife agency are granted by operation of Rule 214(a)(2) 18 C.F.R. § 385.214(a)(2) (2012).

[6] Timely, unopposed motions to intervene are granted by operation of Rule 214(c)(1) of the Commission's Rules of Practice and Procedure. 18 C.F.R. §385.214 (c) (2012).

[7] On November 10, 2010, the Commission issued a notice granting NMFS' late motion to intervene.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

where the wave energy converters will be deployed ranges from about 204 to 225 feet. The land-based portion of the project will be located on public and private lands and will consist of an underground transmission line, located entirely in the unincorporated town of Gardiner, and a substation. A portion of the underground transmission cable will be located within an existing easement that traverses the Oregon Dunes National Recreation Area about 5 miles north of the mouth of the Umpqua River.

B. Project Facilities

7. The project will use wave energy in the project area to generate electricity using ten PowerBuoy wave energy converters anchored to the seafloor. The project will be constructed in two phases. In Phase I, a single PowerBuoy[8] will be installed to test the mooring system and PowerBuoy operation and to collect measurements of electromagnetic fields (EMF) and acoustic emissions. After at least one season of monitoring the single PowerBuoy, OPT will implement Phase II, when the additional nine PowerBuoys will be installed and connected to the grid.

8. The ten PowerBuoy units will be deployed in an array of three rows about 330 feet apart, with a footprint of about 30 acres. Each PowerBuoy has a maximum diameter of 36 feet, extends 29.5 feet above water, and has a draft of 115 feet. The mooring system for each PowerBuoy (see Figure 1) will consist of: (1) three steel-reinforced concrete anchors, 32.8 feet in diameter by 24.6 feet in height, arranged symmetrically around each PowerBuoy; (2) three subsurface floats, with one held over each anchor via a tendon line, at a depth of 30 to 50 feet below the water surface; and (3) three horizontal catenary[9] lines, with one leading from each of the subsurface floats to the PowerBuoy, which will allow vertical movement of the PowerBuoy within a prescribed range of motion. Each PowerBuoy includes a surface float and a haul plate, connected by a shaft that houses the system that converts the vertical motion of the PowerBuoy into electricity.

9. A power/fiber optic cable will exit the bottom of each PowerBuoy, descending to the seabed in a lazy "S" shape with subsurface floats attached to the cable and an anchor at the seabed (see Figure 1). The cables from all ten PowerBuoy units will be connected to a single subsea pod. The underwater subsea pod will be about 6 feet in diameter and 15 feet long, rest on the seabed below the PowerBuoys, and be held in place with concrete ballast blocks. An armored subsea transmission cable, buried in the seabed

---

[8] During Phase I, the single PowerBuoy would not be connected to the grid.

[9] The curve assumed by a cord of uniform density and cross section that is perfectly flexible but not capable of being stretched and that hangs freely from two fixed points.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

to a depth of 3 to 6 feet, will extend from the underwater substation pod to the outlet of an existing wastewater discharge pipeline. The subsea cable will enter the discharge pipeline about 0.5 mile offshore and extend through the pipeline passing under the nearshore area, beach, and dunes. The subsea cable will transition to an underground transmission line in an underground vault, constructed at the end of Sparrow Hawk Road, inland of the sand dunes. The underground transmission line will re-enter the discharge pipeline and continue eastward in the pipeline for about 2.9 miles, where it will connect to the existing Douglas Electric Cooperative transmission line at a new 100- to 200-square-foot shore substation.

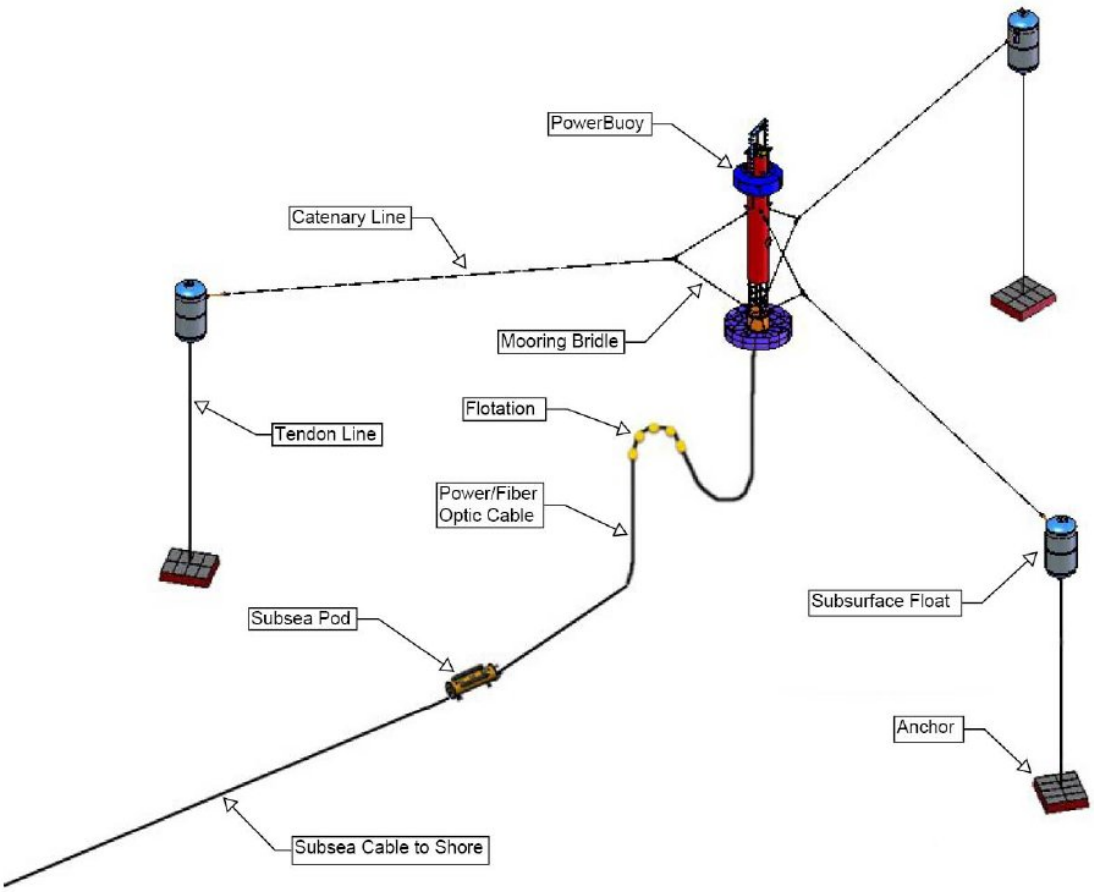

Figure 1. PowerBuoy mooring schematic.

C. Project Boundary

10. The project boundary will enclose an area of 191.5 acres including the PowerBuoy array deployment area (158.1 acres), which contains the PowerBuoys and a 0.3-mile-long segment of the subsea transmission cable leading from the array in a S-shaped path to the shoreward boundary of the buoy array deployment area, and a 50-foot-wide transmission corridor along the 2.61-mile-long subsea transmission cable to the underground vault (15.8 acres), and along the 2.9-mile-long underground transmission

20120813-3045 FERC PDF (Unofficial) 08/13/2012

line (17.6 acres) to the shore substation.

SETTLEMENT AGREEMENT

11. On August 2, 2010, OPT filed a comprehensive Settlement Agreement, resolving all issues among the signatories related to the licensing of the project and proposing to license the project in accordance with the terms of the Settlement Agreement. Signatories to the Settlement Agreement are: OPT; the United States Department of the Interior's Fish and Wildlife Service (FWS); NMFS; Forest Service; Oregon Department of State Lands; Oregon Department of Environmental Quality (Oregon DEQ); Oregon DLCD; Oregon Water Resources Department; Oregon DFW; Oregon Parks and Recreation Department; Oregon Department of Energy; Oregon State Marine Board; Oregon Shores Conservation Coalition; Surfrider Foundation; and Southern Oregon Ocean Resource Coalition (Ocean Resource Coalition). In the cover letter transmitting the Settlement Agreement to the Commission, OPT requested that the settlement terms, including specific protection, mitigation, and enhancement measures and study and adaptive management requirements, be included in any license order issued for the Reedsport Project.

12. On August 10, 2010, the Commission published notice of the Settlement Agreement, establishing August 30, 2010, as the deadline for filing comments on the Settlement Agreement. The Forest Service, Interior, Oregon DFW, and NMFS filed comments supporting the Settlement Agreement. No agency or entity filed comments opposing the Settlement Agreement.

13. The Settlement Agreement was evaluated in the EA on December 2, 2010.

14. OPT proposes to operate the project consistent with the Settlement Agreement terms, which include the following operational requirements and protection, mitigation, and enhancement measures:

15. An Adaptive Management Process (included in Exhibit B of the Settlement Agreement), which will guide the implementation of monitoring studies and identification of measures that may be required to address unanticipated effects.

16. An Operations and Maintenance Plan (included in Appendix B of the applicant-prepared environmental assessment [applicant-prepared EA], included with the license application and incorporated by reference on page 9 of the Settlement Agreement), which calls for periodic inspection of underwater project components every two to three months for the first two years of operation, and annually thereafter, to identify and remove derelict fishing gear.

17. An Emergency Response and Recovery Plan (included in Appendix I of the applicant-prepared EA, incorporated by reference on page 9 of the Settlement

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Agreement), which establishes notification procedures and preparedness actions for any unforeseen event that could compromise the mooring system of one or more PowerBuoys or create a hazardous situation.

18. A Spill Prevention Plan (included in Appendix F of the applicant-prepared EA, incorporated by reference on page 9 of the Settlement Agreement), which requires response measures and procedures to be in place if a release of hydraulic fluid were to occur.

19. An Aquatic Resources and Water Quality Plan (included in Appendix A of the Settlement Agreement), which requires monitoring of project effects on EMF, nearshore environments, fish and invertebrates, cetaceans, pinnipeds, and offshore birds.

20. A Crabbing and Fishing Plan (included in Appendix C of the Settlement Agreement), which requires developing methods to minimize the potential for loss of fishing gear, imposing a transport moratorium and defining transit lanes to minimize impacts of project vessels on the crab fishery, and implementing a marine use/public information plan to inform commercial and recreational users of the location and design of the project.

21. A Recreation and Public Safety Plan (included in Appendix B of the Settlement Agreement), which requires implementation of an interpretive and education plan and a visual assessment review.

22. A Terrestrial and Cultural Resource Plan (included in Appendix D of the Settlement Agreement), which outlines the measures to protect any cultural materials that are discovered. No measures to protect terrestrial resources are included because OPT does not expect any effects on terrestrial resources.

23. In the EA, staff recommended the proposed license requirements of the Settlement Agreement, with some modifications and additions as described below.

SUMMARY OF LICENSE REQUIREMENTS

24. As summarized below, this license, which authorizes 1.5 MW of renewable energy, requires a number of measures to protect and enhance fish, wildlife, cultural, socioeconomic, and aesthetic resources at the project.

25. To guide implementation of monitoring required under the license and to develop measures that may be needed to address any unanticipated adverse effects, the license includes an adaptive management process that will be guided and implemented by

20120813-3045 FERC PDF (Unofficial) 08/13/2012

a Coordinating Committee[10] and four Implementation Committees (Aquatic Resources and Water Quality,[11] Recreation and Public Safety,[12] Crabbing and Fishing,[13] and Terrestrial and Cultural Resources[14]). Key functions of the Implementation Committees will be to: (1) review quarterly status reports on monitoring results and monitoring plans for the coming quarter; (2) review monitoring results to determine whether results are properly characterized and whether any relevant screening criteria (which would trigger a review of potential management actions) have been met; (3) determine resource management objectives and formulate or revise screening criteria; (4) evaluate response plans prepared by OPT when an Implementation Committee determines that a change in the project is required; (5) determine any actions needed to address critical adverse effects that require an immediate response; (6) provide input on annual reports to be filed on April 1 with the Commission; and (7) participate in dispute resolution procedures when unable to reach consensus. If, as a result of the adaptive management process, OPT were to develop any new measures outside of the scope of the measures identified in this license, OPT would be required to file a license amendment with the Commission for approval prior to implementation of these measures.

26. To protect water quality, the license requires OPT to implement its Spill Prevention, Control, and Countermeasure Plan (Spill Prevention Plan) with additional provisions to: identify any hazardous liquids in the underwater substation pod, develop methods to detect leaks of hazardous materials, and consult with the Aquatic Resources and Water Quality Implementation Committee, the Recreation and Public Safety Implementation Committee, and the Crabbing and Fishing Implementation Committee if any potentially hazardous materials, not identified in the license application or in the

---

[10] Consisting of all signatories to the Settlement Agreement discussed on page 7.

[11] Consisting of OPT, NMFS, U.S. Department of Interior's Fish and Wildlife Service (FWS), Forest Service, Oregon DFW, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Environmental Quality, Oregon DLCD, Oregon Shores Conservation Coalition, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition.

[12] Consisting of OPT, Forest Service, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon DLCD, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition.

[13] Consisting of OPT, Oregon DFW, and Southern Oregon Ocean Resource Coalition.

[14] Consisting of OPT, FWS, Forest Service, Oregon DFW, Oregon Parks and Recreation Department, and Oregon Shores Conservation Coalition.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Settlement Agreement filed on August 2, 2010, are proposed for use at the project.

27. To protect aquatic resources, the license requires OPT to implement its proposed plans to monitor: (1) wave, current, and sediment transport; (2) fish and invertebrates; (3) acoustic emissions; and (4) EMF. In addition, the license includes a requirement that OPT file a report on the results of EMF and acoustic emission monitoring (conducted after the installation of the first PowerBuoy) with the Commission after addressing any comments from the Aquatic Resources and Water Quality Implementation Committee and the Crabbing and Fishing Implementation Committee and obtain Commission approval before OPT installs the additional PowerBuoys.

28. To protect marine mammals and turtles, the license requires OPT to: (1) schedule project construction activities outside of the gray whale migration period; (2) conduct underwater inspections to identify and remove any fishing gear that becomes entangled on project infrastructure; (3) equip PowerBuoys with devices or materials to prevent pinniped haul-out; (4) implement its proposed plans to monitor potential project effects on cetaceans and pinnipeds; and (5) implement its reporting protocol for injured or stranded marine mammals and turtles.

29. To protect offshore birds, the license requires OPT to: (1) develop a final navigation lighting design to limit the potential for attracting migrating birds and prevent bird collisions with project infrastructure; and (2) implement its proposed plan to monitor for potential project effects on offshore birds.

30. To protect recreation opportunities at the project, the license requires OPT to: (1) develop and implement an interpretive and education plan, including design and installation of interpretive displays onshore; and (2) conduct a visual assessment review to verify the level of project effects on visual resources after installation of the first PowerBuoy, and file a report with any recommendations needed to minimize adverse effects of the project on the scenic character of the project area.

31. To protect commercial crabbing, commercial fishing, and navigation, the license requires OPT to: (1) light PowerBuoys in accordance with U.S. Coast Guard regulations to provide for navigation safety; (2) locate subsurface mooring floats at a minimum depth of 30 feet to avoid potential vessel strike; (3) bury the subsea transmission cable to a depth of at least three feet below the seabed to minimize EMF and the potential for fishing gear loss; (4) implement the Emergency Response and Recovery Plan, which includes notification procedures and preparedness actions for any unforeseen event that could compromise the mooring system of one or more PowerBuoys or create a hazardous situation; and (5) develop and implement a plan to address potential effects on crabbing, fishing, and navigation, including collaboratively developing methods to

20120813-3045 FERC PDF (Unofficial) 08/13/2012

minimize the potential for loss of fishing gear; imposing a project transport moratorium[15] and defining transit lanes to minimize impacts of project vessels on the crab fishery; and implementing a marine use/public information plan to inform commercial and recreational users of the location and design of the project.

32. To protect and enhance cultural resources, the license requires OPT to: (1) implement the Terrestrial and Cultural Resources Plan; (2) immediately cease work if any cultural materials or human remains are identified during construction activities; and (3) consult with the Confederated Tribes and the Oregon State Historic Preservation Officer (SHPO) if any cultural materials or human remains are identified within the area of potential effects (APE) during project activities, or if additional ground-disturbing activities are proposed in the future.

WATER QUALITY CERTIFICATION

33. Under section 401(a)(1) of the Clean Water Act (CWA),[16] the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued a water quality certification (WQC or certification) for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA provides that the certification must become a condition of any federal license that authorizes construction or operation of the project.[17]

34. On February 4, 2011, OPT applied to the Oregon DEQ for WQC for the Reedsport Project, and Oregon DEQ received the application on the same day. On December 2, 2011,[18] Oregon DEQ timely issued certification for the Reedsport Project that includes nine conditions, which are set forth in Appendix A of this order and incorporated into the license (see ordering paragraph E). The certification includes requirements for monitoring water quality, accumulation of biofouling debris on the seabed, sediment transport, EMF, and acoustic emissions. The certification also requires implementing a Spill Prevention Plan; hiring only licensed, insured vessel operators that have their own spill response plans for installation and maintenance of project facilities; consulting with Oregon DEQ before any changes are made to the type of antifouling

---

[15] No PowerBuoys would be moved outside of the deployment area.

[16] 33 U.S.C. § 1341(a)(1) (2006).

[17] 33 U.S.C. § 1341(d) (2006).

[18] In a letter to OPT dated December 19, 2011, Oregon DEQ notified OPT of a typographical error in the certification, which has been corrected in Appendix A.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

paint that is used; and ensuring that cement or grout is cured for a minimum of 24 hours prior to water contact. Article 401 of this license requires the licensee to file, for Commission approval, plans required by the certification conditions.

COASTAL ZONE MANAGEMENT ACT

35. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),[19] the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within six months of its receipt of the applicant's certification.

36. By letter dated July 17, 2012, Oregon DLCD issued OPT a conditional determination of consistency with Oregon's Coastal Management Program. The determination is conditioned on OPT's fulfillment of six procedural requirements, including OPT's receipt of, and compliance with, various local, state, and federal permits. There is no conflict between the license and Oregon DLCD's consistency determination.

SECTION 4(e) FINDINGS AND CONDITIONS

37. Section 4(e) of the FPA[20] provides that the Commission can issue a license for a project located within any reservation only if it finds that the license will not interfere or be inconsistent with the purposes for which the reservation was created or acquired.

38. Staff has reviewed the Organic Administration Act of 1897,[21] which established the purposes for forest reservations, and the executive order that created the Siuslaw National Forest.[22] There is no evidence or allegation in this proceeding to indicate that licensing of the Reedsport Project would interfere with the purposes of the Siuslaw National Forest within which part of the project's proposed transmission cable will be located. Therefore, I find that this license, as conditioned, will not interfere or be

---

[19] 16 U.S.C. § 1456(3)(A) (2006).

[20] 16 U.S.C. § 797(e) (2006).

[21] 16 U.S.C. § 473 et seq. (2006).

[22] The Siuslaw National Forest was created by executive order issued July 1, 1908 (Executive Order No. 860). At that time, the Organic Administration Act of 1897, 16 U.S.C. § 475 (2006), stipulated that all National Forest System lands were established and administered only for watershed protection and timber production.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

inconsistent with the purposes for which the Siuslaw National Forest was created.

39. FPA section 4(e) further requires that Commission licenses for projects located within federal reservations include all conditions that the Secretary of the department under whose supervision the reservation falls shall deem necessary for the adequate protection and utilization of such reservation. A portion of the Reedsport Project is located in the Siuslaw National Forest, which is under the Forest Service's supervision. The onshore component of the transmission line for the Reedsport Project will occupy 4.97 acres of land within the Oregon Dunes National Recreation Area of the Siuslaw National Forest, which is under the Forest Service's supervision.

40. The Forest Service filed its final section 4(e) conditions on November 22, 2011. The terms and conditions are set forth in Appendix B of this order and incorporated into this license by ordering paragraph F and summarized below.

41. Conditions 1, 3, and 4 are standard conditions that specify Forest Service's approval of the final project design and project changes, application of indemnification and "hold harmless" provisions, and reservation of the Forest Service's right to modify conditions. Condition 2 specifies the preparation of a restoration plan, approved by the Forest Service, for National Forest System lands if the project license is surrendered. Condition 5 specifies implementation of the Spill Prevention Plan and Response and Recovery Plan as it relates to National Forest System lands, including that revision of the components of the plans relating to actions on National Forest System lands shall be subject to consultation with and approval by the Forest Service. Article 401 requires the licensee to file, for Commission approval, plans required by the 4(e) conditions.

SECTION 18 FISHWAY PRESCRIPTIONS

42. Section 18 of the FPA[23] provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of Commerce or the Secretary of Interior, as appropriate.

43. On August 30, 2010, and August 31, 2010, Interior and NMFS, respectively, requested that the Commission reserve authority to prescribe fishways. Consistent with Commission policy, Article 406 of this license reserves the Commission's authority to require fishways that may be prescribed by Interior or NMFS for the Reedsport Project.

[23] 16 U.S.C. § 811 (2006).

20120813-3045 FERC PDF (Unofficial) 08/13/2012

ESSENTIAL FISH HABITAT

44. Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act)[24] requires federal agencies to consult with the Secretary of Commerce regarding any action or proposed action authorized, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH) identified under the Magnuson-Stevens Act. Under section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH Conservation Recommendations for actions that would adversely affect EFH.[25] Under section 305(b)(4)(B) of the Magnuson-Stevens Act,[26] an agency must, within 30 days after receiving recommended conservation measures from NMFS or a Regional Fishery Management Council, describe the measures proposed by the agency for avoiding, mitigating, or offsetting the effects of the agency's activity on EFH.[27]

45. The Reedsport Project area includes habitats that have been designated EFH for various life-history stages of groundfish, salmon, highly migratory, and coastal pelagic species. On December 8, 2010, Commission staff informed NMFS of staff's conclusion that licensing the project, with staff's recommended measures, may adversely affect EFH. With the same letter, Commission staff initiated EFH consultation with NMFS.

46. By letter dated June 7, 2012, NMFS concluded that the proposed action would have no effect on EFH. NMFS has no EFH conservation recommendations.

THREATENED AND ENDANGERED SPECIES

47. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)[28] requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species or result in the destruction or adverse modification of their designated critical habitat.

---

[24] 16 U.S.C. § 1855(b)(2) (2006).

[25] 16 U.S.C. § 1855(b)(4)(A) (2006).

[26] 16 U.S.C. § 1855(b)(4)(B) (2006).

[27] The measures recommended by the Secretary of Commerce are advisory, not prescriptive. However, if the federal agency does not agree with the recommendations of the Secretary of Commerce, the agency must explain its reasons for not following the recommendations.

[28] 16 U.S.C § 1536(a) (2006).

20120813-3045 FERC PDF (Unofficial) 08/13/2012

48. Forty federally listed threatened and endangered species may occur in the project vicinity: Chinook salmon (representing eight evolutionarily significant units [ESUs]); coho salmon (representing four ESUs); steelhead (representing nine distinct population segments [DPSs]); sockeye salmon; chum salmon; eulachon (southern DPS); green sturgeon (southern DPS); blue, fin, humpback, sei, sperm, and killer (southern resident stock) whales; Steller sea lion; green, leatherback, loggerhead, and olive ridley sea turtles; marbled murrelet; northern spotted owl; short-tailed albatross; and western snowy plover. Critical habitat has been designated or proposed within the project area for the green sturgeon, loggerhead turtle, marbled murrelet, northern spotted owl, and western snowy plover.

A. FWS

49. In the EA,[29] Commission staff concluded that the proposed action is likely to adversely affect the marbled murrelet; it is not likely to adversely affect the short-tailed albatross and the western snowy plover; and it would have no effect on the northern spotted owl or critical habitat for marbled murrelet, western snowy plover, and northern spotted owl. By letter dated December 8, 2010, staff requested that FWS initiate formal consultation based on the analysis contained in the EA. In a January 12, 2011 letter, FWS notified the Commission it had initiated formal consultation as of December 22, 2010.

50. On May 5, 2011, FWS filed a biological opinion that concurred with staff's findings that the proposed action is not likely to adversely affect the short-tailed albatross or the western snowy plover and its designated critical habitat. FWS concurred that the project is likely to adversely affect the marbled murrelet[30] but concluded that the project is not likely to jeopardize the continued existence of the species. FWS' biological opinion includes an incidental take statement with one reasonable and prudent measure (RPM) to minimize take of marbled murrelet along with one term and condition to implement the measure. FWS also included two discretionary conservation recommendations to reduce the impact of the proposed action on marbled murrelets in the action area.

1. Incidental Take Terms and Conditions

51. To minimize the likelihood of take of marbled murrelet, the one RPM stipulates that OPT provide a copy of any reports associated with the Offshore Avian Use Study to

---

[29] *See* EA at 7–10.

[30] FWS did not address staff's finding that the project would not affect marbled murrelet critical habitat.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

FWS, and the one incidental take term and condition stipulates that OPT immediately report any field data and analysis associated with the Offshore Avian Use study to FWS.

52. The RPM and the incidental take term and condition are included in Appendix C and are made part of this license by ordering paragraph G.

2. Conservation Recommendations

53. FWS also included the following discretionary conservation recommendations to further the conservation and protection of marbled murrelets: (1) delay on-water construction and maintenance-related activities as late as possible in or after the marbled murrelet breeding season; and (2) during the marbled murrelet breeding season (late March to late September), do not start activities until two hours after sunrise and cease activities two hours before sunset.

a. Conservation Recommendation 1

54. We are not including Conservation Recommendation 1 because even with construction activities occurring during the marbled murrelet breeding season, staff concludes that adverse effects would be minimal. In its biological opinion, FWS concluded that the vessel activity associated with the project as proposed is not expected to disrupt normal behaviors of the marbled murrelet because vessel traffic would likely be within the range of normal vessel traffic, and potential interactions with vessels will be insignificant because vessels will almost exclusively operate during the daytime when fewer marbled murrelet feeding attempts occur. FWS also notes in its biological opinion that marbled murrelet deliver fish to their chicks between one and eight times per day and states that in the unlikely event that a vessel interaction resulted in a delayed feeding, the effect on juvenile marbled murrelets would be relatively low. Moreover, delaying on-water construction activities could prevent completion of construction activities while weather conditions are favorable, thus compromising public safety and increasing construction costs.

b. Conservation Recommendation 2

55. In addition, we are not including Conservation Recommendation 2. As stated above, the effects of the proposed construction activities on the marbled murrelet are expected to be minimal and, further, not restricting the time of day when construction activities are allowed would allow construction to be completed more quickly, reducing the duration of any potential adverse effects.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

B. NMFS

56. In the EA,[31] Commission staff concluded that the proposed action is likely to adversely affect the Steller sea lion, humpback whale, and southern resident killer whale, but would have no effect on designated critical habitat for the Steller sea lion or southern resident killer whale. Staff also concluded that the proposed action is not likely to adversely affect the coho salmon, Chinook salmon ESUs, green sturgeon, eulachon, blue whale, fin whale, sei whale, sperm whale, leatherback sea turtle, loggerhead sea turtle, green sea turtle, or olive ridley sea turtle. Further, Commission staff concluded that licensing the project would have no effect on designated critical habitat for Chinook salmon, coho salmon, or green sea turtle and would be not likely to adversely affect designated critical habitat for the green sturgeon or leatherback sea turtle. By letter dated December 8, 2010, staff requested NMFS' concurrence with Commission staff's determinations of not likely to adversely affect and also requested to initiate formal consultation on the determinations of likely to adversely affect.

57. On June 7, 2012, NMFS filed a biological opinion that provided its determinations for 23 ESUs or DPSs of anadromous salmon and steelhead, two other fish species (green sturgeon and eulachon), seven marine mammal species,[32] and four marine turtle species. NMFS determined that the proposed action is likely to adversely affect but is not likely to jeopardize the continued existence of all 12 Chinook salmon and coho salmon ESUs, the southern resident killer whale, Steller sea lion, and humpback whale, and is not likely to adversely modify or destroy critical habitat for any of these species. NMFS' biological opinion includes an incidental take statement with 15 RPMs to minimize take of listed species along with 18 terms and conditions to implement the measures.

58. The 15 RPMs included in NMFS' biological opinion are intended to include all of the measures from the Settlement Agreement filed on August 2, 2010, and NMFS specifies that in the event that any language differs, the Settlement Agreement must prevail. The RPMs stipulate that OPT: (1) convene and administer the Coordinating Committee, the Aquatic Resources and Water Quality Implementation Committee, the Terrestrial and Cultural Resources Implementation Committee, the Recreation and Public Safety Implementation Committee, and the Crabbing and Fishing Implementation Committee to assist with implementing the provisions of the license; (2) implement the

---

[31] *See* EA at 7–10.

[32] Humpback whale, Southern Resident killer whale, blue whale, fin whale, sei whale, and sperm whale are listed as endangered. The Stellar sea lion is listed as threatened.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

adaptive management plan described in Exhibit B of the Settlement Agreement following specific consultation procedures during review of reports and modification of study plans; (3–8) implement the six study plans included in Appendix A of the Settlement Agreement to monitor project effects on cetaceans, EMF, pinnipeds, fish and invertebrates, nearshore environments, and offshore birds; (9) distribute to the Settlement Parties quarterly study updates and annual reports summarizing any monitoring and study results from the past calendar year, describing plans and schedules for the coming calendar year, and describing the decisions of the Implementation Committees from the past calendar year; (10) follow specific procedures to report any unanticipated losses of fish and wildlife from project construction or operation and implement appropriate measures to minimize such losses; (11) implement the Operations and Maintenance Plan and consult with the Aquatic Resources and Water Quality Implementation Committee concerning any materials not listed in the License Application or Settlement Agreement that could cause harmful effects to the marine environment; (12) implement the Spill Prevention Plan; (13) implement the Emergency Response and Recovery Plan; (14) permit the Fish Agencies access to project facilities and records, and host one site visit to the PowerBuoy array; and (15) develop a Decommissioning Plan, in consultation with and subject to approval by the Fish Agencies, if the project is to be decommissioned for any reason.

59. To carry out RPMs 3–8, NMFS stipulates that OPT must comply with the following terms and conditions: (1) OPT must not intentionally kill or cause to be killed any listed species unless the incidental take statement specifically allows intentional lethal take; (2) OPT must include in all sampling efforts that capture salmonids, the collection, processing and reporting of genetic stock indicator data to identify the species affected by the sampling efforts; (3) OPT must submit for NMFS approval a detailed annual sampling plan, with sampling locations and detailed sampling protocols, including collection, processing and reporting of genetic stock indicator samples; (4) OPT must handle listed fish with extreme care and keep them in cold water to the maximum extent possible during sampling and processing procedures; (5) OPT must stop handling listed juvenile fish if the water temperature exceeds 68 degrees Fahrenheit at the capture site; (6) any listed fish that are anesthetized must be allowed to recover before being released, and fish that are only counted must remain in water and not be anesthetized; (7) OPT must obtain approval from NMFS before changing sampling locations or sampling protocols; (8) OPT must cease sampling and monitoring efforts if it is anticipated that the authorized level of take is likely to be exceeded, and submit a report detailing why the authorized take level is likely to be exceeded; (9) OPT must notify NMFS as soon as possible but no later than two days after any authorized level of take is exceeded, and submit a written report detailing why the authorized take level was exceeded; (10) OPT may not transfer biological samples to anyone not listed in the approved study plan without prior written approval from NMFS; (11) the person actually doing the sampling must carry a copy of the incidental take authorization while conducting the authorized activities; (12) OPT must allow any NMFS employee or representative to accompany

20120813-3045 FERC PDF (Unofficial) 08/13/2012

field personnel while they conduct sampling and monitoring activities; (13) OPT must allow any NMFS employee or representative to inspect any records or facilities related to the sampling and monitoring activities; (14) OPT may not transfer or assign the authorization to any other person without NMFS' authorization; (15) NMFS may amend the provisions of the authorization after giving OPT reasonable notice of the amendment; (16) OPT must obtain all other federal, state, and local permits/authorizations needed for the sampling and monitoring activities; (17) OPT must submit to NMFS a post-season report describing the sampling and monitoring activities, the number of listed fish taken and the location, the type of take, the number of fish intentionally killed and unintentionally killed, the take dates, and a brief summary of the sampling and monitoring results; and (18) if OPT violates any condition of the authorization, it will be subject to any and all penalties provided by the ESA, and NMFS may revoke the authorization. The RPMs and terms and conditions are included in Appendix D and are made part of this license by ordering paragraph H.

MARINE MAMMAL PROTECTION ACT

60. The Marine Mammal Protection Act (MMPA)[33] prohibits, with certain exceptions, the "take" (defined under the statute as actions that are or may be lethal, injurious, or harassing[34]) of marine mammals in U.S. waters and the high seas. Take means to harass, hunt, capture, or kill any marine mammal.[35] The MMPA includes a mechanism for allowing, upon request, the incidental taking of small numbers of marine mammals by U.S. citizens engaged in a specified activity within a specified geographical region.[36] Take authorization is granted through either a letter of authorization or conditions contained in an incidental harassment authorization.[37]

---

[33] 16 U.S.C. § 1361 *et seq.* (2006).

[34] "Harassment" is defined as "any act of pursuit, torment, or annoyance that has the potential to: (1) injure a marine mammal or marine mammal stock in the wild; or (2) disturb a marine mammal or marine mammal stock in the wild by causing a disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering, but which does not have the potential to injure a marine mammal or mammal stock in the wild." *See* 50 C.F.R. § 216.3 (2012).

[35] 50 C.F.R. § 216.3 (2012).

[36] 16 U.S.C. § 1371(a)(5) (2006).

[37] An incidental harassment authorization is valid for one year and authorizes harassment, which includes actions that have the potential to disturb a marine mammal by causing disruption of behavioral patterns, including migration, breathing, nursing,

(continued)

20120813-3045 FERC PDF (Unofficial) 08/13/2012

61. Based on the analysis in the EA, staff concluded that a few individuals of several marine mammal species may be subject to harassment as defined under the MMPA. Marine mammals most common in the project area, such as gray and humpback whales, have the potential for collision with the PowerBuoys or entanglement in derelict fishing gear that could accumulate on the PowerBuoy array, which may result in injury (Level A harassment). Those marine mammals, plus others less common in the project area, may be subjected to Level B harassment[38] associated with ship noise and ship movements during construction, potentially affecting normal behavior. In addition, harbor seals and California sea lions could also be subject to Level B harassment if found to use the PowerBuoys as haul-outs (resting sites) resulting in subsequent removal so that project operators can safely conduct maintenance activities.

62. Unlike the ESA, the MMPA does not require consultation by the federal action agency but prohibits the actions cited above (harass, hunt, capture, or kill) for marine mammals.[39] Consequently, OPT must work with NMFS to satisfy the requirements of the MMPA.[40] With regard to the Commission's responsibilities to protect marine mammals, Section 7(a)(2) of the ESA requires federal agencies to consult with FWS or

---

breeding, feeding, or sheltering, but which does not have the potential to seriously injure the mammal 50 C.F.R. § 216.3 (2012). A letter of authorization is valid for five years and authorizes harassment that has the potential to injure a marine mammal.

[38] Under the 1994 Amendments to the MMPA (50 C.F.R. § 216.3), Level B Harassment is to disturb a marine mammal or marine mammal stock in the wild by causing a disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering, but which does not have the potential to injure a marine mammal or mammal stock in the wild.

[39] Any take of marine mammals listed as threatened or endangered under the ESA must be authorized under both the ESA and MMPA; an ESA incidental take statement cannot be issued until the MMPA authorization is completed. *See* 16 U.S.C. § 1536(b)(4)(C) (2006).

[40] In the ESA biological opinion, NMFS states that the Commission can issue the license for the Reedsport Project because in this specific case, they will not require OPT to have MMPA authorization prior to licensing, as no harassment or take of marine mammals will be associated with construction and installation of the project, including monitoring of the single PowerBuoy. Subsequent to the installation of the single PowerBuoy and monitoring of its acoustic emissions, NMFS will require OPT to apply for MMPA authorization. NMFS will review the acoustic emissions data from the single PowerBuoy before making a decision to authorize operation of the ten PowerBuoy array.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

NMFS to ensure that any actions these agencies authorize are not likely to jeopardize the continued existence of a listed species. As noted above, seven marine mammal species are listed under the ESA. The RPMs and terms and conditions included in the NMFS biological opinion are made part of this license by ordering paragraph H to ensure protection of these marine mammals under the ESA. Protection for marine mammals not listed under ESA is ensured under the MMPA by take authorization granted by NMFS to the licensee through either a letter of authorization or conditions contained in an incidental harassment authorization.

NATIONAL HISTORIC PRESERVATION ACT

63. Under section 106 of the National Historic Preservation Act (NHPA)[41] and its implementing regulations,[42] federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires that the Commission consult with the SHPO to determine whether and how a proposed action may affect historic properties and to seek ways to avoid or minimize any adverse effects.

64. The Commission designated OPT as its non-federal representative for the purposes of conducting consultation under section 106 of the NHPA on August 30, 2007. OPT consulted with the Oregon SHPO, Forest Service, and the Confederated Tribes to locate and assess potential adverse effects on historic properties associated with the project. On October 5, 2010, OPT filed a cultural resources survey report with the Oregon SHPO that concluded no historic properties would be adversely affected by the proposed project. On November 1, 2010, OPT filed a letter from the Oregon SHPO that agreed with the findings of the cultural resources report and concluded the proposed project would have no effect on any known historic property. Commission staff concurs with the Oregon SHPO's determination that the proposed project would have no effect on known historic properties.

65. In order to ensure the protection of undiscovered historic properties at the project, Article 412 requires that OPT immediately cease work in the vicinity of any cultural materials or human remains if they are identified during construction activities. The article also requires consultation with the Confederated Tribes and the Oregon SHPO over the license term if any cultural materials or human remains are identified within the APE during project activities, or if additional ground-disturbing activities are proposed in

---

[41] 16 U.S.C. § 470 et seq. (2006).

[42] 36 C.F.R. Part 800 (2012).

20120813-3045 FERC PDF (Unofficial) 08/13/2012

the future.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES PURSUANT TO SECTION 10(j) OF THE FPA

66. Section 10(j)(1) of the FPA[43] requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act[44] to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

67. In response to the June 1, 2010, public notice that the project was ready for environmental analysis, Interior, Oregon DFW, and NMFS filed a total of 14 recommendations under section 10(j).[45] Four recommendations were determined to be outside the scope of section 10(j) and are discussed in the next section. This license includes the following conditions consistent with the remaining ten recommendations that are within the scope of section 10(j): (1) implement cetacean monitoring (NMFS RPM 3, and WQC condition 4(d),); (2) implement EMF monitoring (NMFS RPM 4, and WQC condition 4(c),); (3) implement pinniped monitoring (NMFS RPM 5); (4) implement fish and invertebrate monitoring (NMFS RPM 6); (5) implement an offshore avian use monitoring (NMFS RPM 8); (6) implement wave, current, and sediment transport monitoring (NMFS RPM 7 and WQC condition 4(a)); (7) implement an Operations and Maintenance Plan[46] (NMFS RPM 11 and Article 402); (8) implement a Spill Prevention Plan[47] (NMFS RPM 12 and Article 404); (9) implement OPT's Emergency Response and Recovery Plan[48] (NMFS RPM 13); and (10) implement a Crabbing and Fishing Plan (Article 408).

---

[43] 16 U.S.C. § 803(j)(1) (2006).

[44] 16 U.S.C. §§ 661 *et seq*. (2006).

[45] The recommendations were timely filed by Interior and Oregon DFW on August 30, 2010, and NMFS on August 31, 2010.

[46] Included as Appendix B of the applicant-prepared EA.

[47] Included as Appendix F of the applicant-prepared EA.

[48] Included as Appendix I of the applicant-prepared EA.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

SECTION 10(a)(1) OF THE FPA

68. Section 10(a)(1) of the FPA[49] requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

A. NMFS, Interior, and Oregon DFW Recommendations

69. NMFS, Interior, and Oregon DFW made four recommendations under section 10(j) that are not specific measures to protect, mitigate damages to, or enhance fish and wildlife. Consequently, I did not consider these recommendations under section 10(j) of the FPA. Instead, I consider these recommendations under the broad public interest standard of section 10(a)(1) of the FPA.

70. All four of these recommendations were recommended by staff in the EA[50] and are included in the license, as follows: (1) implement the Adaptive Management Process, including consultation and approval requirements to address any unanticipated adverse effects on fish and wildlife habitat (NMFS RPMs 1, 2, and 9); (2) develop a decommissioning plan in the event the project is decommissioned for any reason (NMFS RPM 15); (3) notify agencies in the event of fish or wildlife emergency circumstances (NMFS RPMs 10 and 13); and (4) implement the Terrestrial and Cultural Resources Plan and consult with Interior and Oregon DFW if new information indicates any potential effects on terrestrial wildlife, plants, or their habitats from the project features, including cable routes or transmission lines (Article 412).

B. Sparrow Park Road Closures

71. During construction of the project, OPT anticipates the need to close Sparrow Park Road and other roads accessing the wastewater pipeline for approximately two weeks, while the transmission line is pulled through the pipeline. In the EA, staff recommended that closures of Sparrow Park Road during construction be limited to weekday work hours outside of the summer recreation season to minimize adverse effects on beach access.[51] In its comments on the EA, OPT states that the restriction could

---

[49] 16 U.S.C. § 803(a)(1) (2006).

[50] *See* EA at 236–39.

[51] *See* EA at 168–69.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

impede its ability to complete work during a good weather window and will result in increased costs due to work stoppages that will be required to comply with staff's recommendation. OPT also states that it is required to obtain an Ocean Shore Permit from the state and that this permit would include any conditions governing the work period and road closure that are needed to minimize construction impacts.

72. Oregon Parks and Recreation Department issued its Ocean Shores Permit on February 5, 2012, which did not include any conditions restricting road closures other than requiring that construction be completed by February 5, 2013, unless the project cannot be installed by that date due to unforeseen circumstances, in which case it may request a permit extension. Completion of project construction by this date would ensure that project construction does not affect project access during the summer recreation season beyond the 2012 season, and the terms of the Ocean Shores Permit are sufficient to prevent any undue restrictions to public access. As a result, I am not including any restrictions on road closures during construction in this license.

C. EMF Measurements

73. In the EA, staff recommended that results of EMF and acoustic emissions monitoring from the single PowerBuoy be reviewed by the Aquatic Resources and Water Quality and the Crabbing and Fishing Implementation Committees to assess the need for project modifications to address any unanticipated adverse effects before additional PowerBuoys are installed. Staff also recommended that OPT be required to file the monitoring results and any proposed project modifications for Commission approval before additional PowerBuoys are installed.[52] In its comments on the EA, OPT agrees with this approach and views it as a clarification of the Adaptive Management Process. Therefore, this requirement is included in Article 405.

D. Underwater Inspections for Derelict Fishing Gear

74. OPT proposes to implement an Operations and Maintenance Plan and cetacean monitoring, which include inspection of the PowerBuoy mooring system for the accumulation of fishing gear and cetacean entanglement. Subsurface inspections would be completed once annually, except in years one, two, and five, when inspections would be conducted every two or three months. In the EA, staff recommended that OPT conduct monthly underwater inspections of all underwater project structures, weather and ocean conditions permitting, during the first year of operation to minimize the potential for cetacean entanglement. Staff estimated that the cost of each additional inspection would be $17,000. In its comments on the EA, OPT provided additional detail on the effort required for each inspection and estimated that the cost of each inspection would be

[52] *See* EA at 226.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

$68,500. OPT notes that the parties to the Settlement Agreement, filed on August 2, 2010, including NMFS, agreed that the proposed frequency of underwater inspections was appropriate and sufficient to ensure safety of marine mammals that may be in proximity to the project and requests that the inspection frequency proposed in the Settlement Agreement be adopted in the license.

75. Staff's analysis in the EA indicates that the greatest potential for crabbing gear to become entangled on the PowerBuoy array is during winter storms[53] and that the greatest potential for cetacean entanglement is in April and May, during the northward gray male migration.[54] Ensuring that gear entangled during winter storms is removed prior to the peak northward gray whale migration would serve to minimize the potential for cetacean entanglement. Based on the higher costs estimated by OPT and these considerations, I am not requiring monthly inspections for the entire first year of operation as staff recommended in the EA, but I am requiring monthly inspections during the spring prior to and during the peak of the northward gray whale migration. Article 402 includes a requirement that monthly underwater inspections of all underwater project structures occur during February, March, April, and May in the first year of operation after deployment of the single PowerBuoy, weather and ocean conditions permitting.

E. Hazardous Materials

76. In the EA, staff noted that OPT's proposed Spill Prevention Plan does not describe any fluids in the underwater substation pod that could cause environmental damage if released, or any method to monitor for leaks of these fluids from the underwater substation pod.[55] In the EA, staff recommended that OPT file an addendum to the Spill Prevention Plan, for Commission approval, to list any such fluids that would be in the underwater substation pod and methods that would be used to monitor for leakage if such fluids are used. This requirement is included in Article 404.

F. Marine Turtle Injury Reporting

77. In the EA, staff noted that any derelict fishing gear that accumulates on the array could pose a threat of entanglement or injury to sea turtles, but OPT does not propose any mechanism for reporting sea turtle entanglement or injury to NMFS.[56] Staff

---

[53] *See* EA at 96.

[54] *See* EA at 95.

[55] *See* EA at 225.

[56] *See* EA at 152.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

recommended in the EA that OPT should apply the protocols proposed by OPT for reporting marine mammal entanglement or injury for marine turtles.[57] This requirement, along with reporting entanglement or injury of marine mammals and marine turtles to the Commission, is included in Article 407.

G. Recreation

78. OPT proposes to develop, in consultation with Oregon Parks and Recreation Department, an interpretive and education plan that would include the design and installation of an interpretive display on shore near the Sparrow Park Road terminus and to conduct a visual assessment review after it installs the single PowerBuoy to verify the level of project effects on visual resources. In the EA, staff recommended adopting these measures. These requirements are included in Articles 409 and 410.

H. Crabbing and Fishing Plan

79. OPT proposes that several elements of the proposed Crabbing and Fishing Plan be further developed and refined after consultation with Oregon DFW, the Ocean Resource Coalition, and the Crabbing and Fishing Implementation Committee. These elements include: (1) identifying ways to minimize the potential for loss of fishing gear and developing a protocol to recover or provide mitigation for fishing gear that becomes entangled in the PowerBuoy array; (2) developing procedures for initiating a transport moratorium during the first eight weeks of the Dungeness crab season; (3) establishing a pre-determined transit lane from the port to the PowerBuoy array for project-related vessels during construction and normal maintenance and a plan for providing a two-week notice of PowerBuoy transport associated with scheduled maintenance; (4) obtaining designation of the project area as a Restricted Navigation Area by the U.S. Coast Guard and as a No Fishing Area by Oregon Fish and Wildlife Commission; and (5) implementing a marine use/public information plan to inform commercial and recreational users of the changes in designation and provide information about location, hazards and how to manage a vessel that inadvertently enters the PowerBuoy array area. In the EA, staff recommended that OPT develop these elements in consultation with the Oregon DFW, the Ocean Resource Coalition, and the Crabbing and Fishing Implementation Committee and file the completed plans with the Commission for approval.[58] This requirement is included in Article 408.

---

[57] NMFS stated in its comments on the EA that it supports this staff recommendation.

[58] *See* EA at 234.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

EXEMPTION OF THE FERC FORM 80 RECREATION REPORT

80. The FERC Form 80 Recreation Report (Form 80) collects recreation usage data on recreation facilities at projects through the term of their licenses. Because the Reedsport Project has little or no potential for recreation facilities, the licensee is exempt from filing the Form 80 during the term of its license (Article 411).

ADMINISTRATIVE PROVISIONS

A. Annual Charges

81. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA and use and occupancy of U.S. lands. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kilowatts, like this project, will not be assessed an annual charge.

B. L-form Modification

82. Pursuant to ordering paragraph I, this license is subject to the standard license articles set forth in Form L-19 (October 1975), entitled, "Terms and Conditions of License for Unconstructed Minor Project Affecting Navigable Waters and Lands of the United States,"[59] with a modification to Article 11 to include the Secretary of Commerce as a recommending entity.

C. Exhibit F and G Drawings

83. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 requires the filing of the approved Exhibit F and G drawings.

D. Project Land Rights Progress Report

84. The project will occupy 191.5 acres of land. The Exhibit G-5 filed as part of the application for license identifies land that the applicant owns or intends to purchase. Standard Article 5 set forth in L-Form 19 requires the licensee to acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project, within five years. In order to monitor compliance with Article 5, Article 308 requires the licensee to file no later than four years after license issuance, a report detailing its

[59] L-19 is reprinted at 54 FPC 1799 *et seq.* (1975).

20120813-3045 FERC PDF (Unofficial) 08/13/2012

progress on acquiring title in fee or the necessary rights to all lands within the project boundary. The report shall include specific documentation on the status of the rights that have been acquired as of the filing date of the progress report, and a plan and schedule to acquire all remaining land prior to the five-year deadline.

E. Project Financing

85. To ensure that sufficient funds are available for project construction, operation, and maintenance, Article 203 requires the licensee to file for Commission approval documentation of project financing for the construction, operation, and maintenance of the project at least 90 days before starting any construction associated with the project.

F. Use and Occupancy of Project Lands and Waters

86. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project lands would be unduly burdensome. Therefore, Article 413 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for minor activities, such as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

G. Start of Construction

87. Article 301 requires the licensee to commence construction of the project works within two years from the issuance date of the license and complete construction of the project within five years from the issuance date of the license.

H. Review of Final Plans and Specifications

88. Article 302 requires the licensee to provide the Commission's Division of Dam Safety and Inspections with licensee-approved deep excavation drawings and an approval letter.

89. Article 303 requires the licensee to provide the Commission's Division of Dam Safety and Inspections with final contract plans and specifications and other pre-construction documents including a letter from the Oregon DLCD stating that the licensee has satisfied the Oregon DLCD and the Oregon Parks and Recreation Department design specifications and installation requirements.

90. Where new construction or modifications to the project are involved, the Commission requires licensees to file revised drawings of project features as-built. Article 304 provides for the filing of these drawings with the Commission's Division of Dam Safety and Inspections; and the Division of Hydropower Administration and Compliance.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

91. Prior to commencing project operation, the Commission requires the licensee to prepare, file for Commission approval, and implement a Project and Public Safety Plan, which incorporates final project design modifications and corresponding safety devices. Article 305 requires the licensee to file a Project and Public Safety Plan with the Commission's Division of Dam Safety and Inspections.

92. Articles 306 and 307 require the submittal of annual reports to the Division of Dam Safety and Inspections describing the performance of project monitoring, operations, structures, and aids to navigation.

I. Commission Approval of Resource Plans, Reports, and Filing of Amendments

93. In appendices A, B, and D, certain certification conditions, 4(e) conditions, and RPMs of NMFS' biological opinion, respectively, either do not require the licensee to file plans with the Commission, or notify the Commission of temporary modification of project operations, or receive Commission approval for long-term changes to project operations after the filing of an application to amend the license. Therefore, Article 401 requires the licensee to file the plans with the Commission for approval, notify the Commission of planned and unplanned deviations from license requirements, and file amendment applications, as appropriate.

STATE AND FEDERAL COMPREHENSIVE PLANS

94. Section 10(a)(2)(A) of the FPA[60] requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.[61] Under section 10(a)(2)(A), federal and state agencies filed 121 comprehensive plans that address various resources in Oregon. Of these, staff identified and reviewed seven plans that are relevant to this project.[62] No conflicts were found.

SAFE MANAGEMENT, OPERATION, AND MAINTENANCE OF THE PROJECT

95. Staff reviewed OPT's preliminary plans to build the project as described in the license application. The project will be safe when constructed, operated, and maintained

---

[60] 16 U.S.C. § 803(a)(2)(A) (2006).

[61] Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2012).

[62] The list of applicable plans can be found in section 5.5 of the EA.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

in accordance with the Commission's standards and provisions of this license.

NEED FOR POWER

96. To assess the need for power, staff looked at the needs in the operating region in which the project is located. The project is located in the Northwest subregion of the Western Electric Coordinating Council Region (WECC Region)[63] of the North American Electric Reliability Corporation (NERC).[64] NERC annually forecasts electrical supply and demand in the nation and the region for a 10-year period. NERC's most recent report on annual supply and demand projections indicates that for the period 2011–2021, on-peak winter demand for the Northwest subregion is projected to grow at an annual rate of 0.89 percent over the 10-year planning period. The anticipated resources reserve margin ranges from 21.5 and 36.4 percent and does not fall below the target margins during the summer (17.2 percent) or winter (20.3 percent) during the 10-year period. The project, as licensed, will help meet a portion of this demand.

97. The Reedsport Project will demonstrate the potential of an emergent renewable energy industry segment with the goal of bringing clean, competitively priced electricity to commercial and residential consumers in Oregon and other states. The future use of the project's power and its contribution to a diversified generation mix demonstrate that the project will help meet a need for power in the region.

---

[63] The WECC Region comprises the states of Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Wyoming, portions of Montana, Colorado, South Dakota, New Mexico, and Texas, as well as the Canadian provinces of Alberta and British Columbia, and a portion of Baja California in Mexico. The WECC Region is divided into the following nine subregions: Alberta (Canada), British Columbia (Canada), Northwest, Basin, Rockies, Desert Southwest, California-North, California-South, and WECC-Mexico.

[64] NERC is an international regulatory authority established to evaluate reliability of the bulk power system in North America. NERC develops and enforces Reliability Standards; assesses reliability annually via a 10-year forecast and winter and summer pre-seasonal forecasts; monitors the bulk power system; and educates, trains, and certifies industry personnel.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

PROJECT ECONOMICS

98. In determining whether to issue a license for this ocean energy project, the Commission must consider a number of public interest factors, including the economic benefit of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,[65] the Commission uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

99. In applying this analysis to the Reedsport Project, Commission staff considered two options: OPT's proposal and the project as licensed herein. As proposed by OPT, the levelized annual cost of operating the Reedsport Project is $3,496,940 or $844.67/megawatt-hours (MWh). The proposed project would generate an estimated average of 4,140 MWh of energy annually. When multiplying the estimate of average annual generation by the alternative power cost of $40.00/MWh,[66] staff gets a total value of the project's power of $165,600 in 2010 dollars. To determine whether the project is currently economically beneficial, staff subtracts the project costs from the value of the project's power. Therefore, in the first year of operation, the project would cost $3,331,340, or $804.67/MWh, more than the likely alternative cost of power.

100. As licensed herein with the mandatory conditions and staff measures, the levelized annual cost of operating the project would be about $3,502,190, or $845.94/MWh. Based on an estimated average generation of 4,140 MWh as licensed, the project would produce power valued at $165,600 when multiplied by the $40.00/MWh value of the project's power. Therefore, in the first year of operation, project power would cost $3,336,590, or $805.94/MWh, more than the likely cost of alternative power.

101. Although our analysis shows that the project as licensed herein would cost more to operate than our estimated cost of alternative power, it is the applicant who must decide whether to accept this license and any financial risk that entails.

102. Although staff does not explicitly account for the effects inflation may have on the future cost of electricity, the fact that hydropower generation is relatively insensitive

---

[65] 72 FERC ¶ 61,027 (1995).

[66] The alternative power cost of $40/MWh is based on information from OPT's license application.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

to inflation compared to fossil-fueled generators is an important economic consideration for power producers and the consumers they serve. This is one reason project economics is only one of the many public interest factors the Commission considers in determining whether or not, and under what conditions, to issue a license.

COMPREHENSIVE DEVELOPMENT

103. Sections 4(e) and 10(a)(1) of the FPA[67] require the Commission to give equal consideration to the power development purposes and to the purposes of energy conservation; the protection, mitigation of damage to, and enhancement of fish and wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued must be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

104. The EA for the project contains background information, analysis of effects, and support for related license articles. I conclude based on the record of this proceeding, including the EA and the comments thereon, that licensing the Reedsport Project as described in this order would not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of this license.

105. Based on staff's independent review and evaluation of the Reedsport Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EA, I have selected the proposed Reedsport Project, with the staff-recommended measures, and find that it is best adapted to a comprehensive plan for improving or developing Oregon State territorial waters.

106. I selected this alternative because: (1) issuance of a hydropower license will allow OPT to demonstrate the ability of its technology to contribute to a diversified electrical generation mix by bringing clean, renewable energy to commercial and residential consumers in Oregon State and other coastal states and to confirm potential environmental effects; (2) the required environmental measures will protect and enhance fish and wildlife resources, water quality, recreational resources, and historic properties; and (3) the 1.5 MW of electric capacity comes from a renewable resource that does not contribute to atmospheric pollution.

---

[67] 16 U.S.C. §§ 797(e) and 803(a)(1) (2006).

20120813-3045 FERC PDF (Unofficial) 08/13/2012

LICENSE TERM

107. Section 6 of the FPA[68] provides that original licenses for hydropower projects must be issued for a period not to exceed 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures. This license requires a moderate amount of new construction and environmental measures. However, in section 3.4 of the Settlement Agreement filed on August 2, 2010, the signatories agree to a 35-year license term. Because the term of the license was likely an important element in the negotiations that led to the Settlement Agreement, I will issue the license for the Reedsport Project for a term of 35 years.

The Director orders:

(A) This license is issued to Reedsport OPT Wave Park, LLC (licensee) for a period of 35 years, effective the first day of the month in which this order is issued, to operate and maintain the Reedsport OPT Wave Park Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in these lands, enclosed by the project boundary shown by Exhibit G filed on February 1, 2010:

Sheet No.	FERC No. 12713-002	Description
G-1	3	Project Boundary

(2) Project works consisting of: (a) ten 150-kilowatt OPT PowerBuoys attached to seabed anchors, tendon lines, subsurface floats, and catenary mooring lines; (b) transmission cables connecting each PowerBuoy to a single underwater substation pod; (c) a 5.8-mile-long, 13.8-kilovolt (kV) transmission line, transitioning from a subsea cable to an underground transmission line in an underground vault; (d) a small shore substation; and (e) appurtenant facilities.

[68] 16 U.S.C. § 799 (2006).

20120813-3045 FERC PDF (Unofficial) 08/13/2012

The project works described above are more specifically shown and described by those portions of Exhibits A and F shown below:

Exhibit A: The following sections of Exhibit A filed on February 1, 2010:

Pages A-2 through A-5, and pages A-7 and A-8, describing the specifications and components of the Powerbuoys and related facilities.

Exhibit F: The following sections of Exhibit F filed on February 1, 2010:

Sheet No.	FERC No. 12713-002	Description
F-1	1	Plans and Sections of the Reedsport Project 1 of 2
F-2	2	Plans and Sections of the Reedsport Project 2 of 2

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary; all portable property that may be employed in connection with the project and located within or outside the project boundary; and all riparian and other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A, F, and G described above are approved and made part of this license.

(D) The following sections of the FPA are waived and excluded from the license for this minor project: 4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is subject to the conditions submitted by the Oregon Department of Environmental Quality under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1), as those conditions are set forth in Appendix A to this order.

(F) This license is subject to the conditions submitted by the U.S. Forest Service under section 4(e) of the FPA, as those conditions are set forth in Appendix B to this order.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

(G) This license is subject to the incidental take term and condition of the biological opinion submitted by the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act (ESA), as those conditions are set forth in Appendix C to this order.

(H) This license is subject to the incidental take terms and conditions of the biological opinion submitted by the National Marine Fisheries Service under section 7 of the ESA, as those conditions are set forth in Appendix D to this order.

(I) This license is also subject to: (a) the articles set forth in Form L-19 (October 1975), entitled, "Terms and Conditions of License for Unconstructed Minor Project Affecting Navigable Waters and Lands of the United States" (*see* 54 FPC 1799 *et seq.*) with the modification to Article 11 to include the Secretary of Commerce as a recommending entity ; and (b) the following additional articles:

Article 201. *Administrative Annual Charges*. The licensee must pay the United States the following annual charges, as determined in accordance with the provisions of the Commission's regulations in effect from time to time:

(a) effective as of the date of commencement of project construction, to reimburse the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 1.5 megawatts. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kilowatts will not be assessed this annual charge; and

(b) to recompense the United States for the use, occupancy, and enjoyment of 4.97 acres of its lands for the transmission line right-of-way.

Article 202. *Exhibit Drawings*. Within 45 days of the date of issuance of the license, the licensee must file the approved exhibit drawings in aperture card and electronic file formats.

(a) Four sets of the approved exhibit drawings must be reproduced on silver or gelatin 35mm microfilm. All microfilm must be mounted on type D (3-1/4" x 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P-12713-1 through P-12713-3) must be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (i.e., F-1, G-1, etc.), Drawing Title, and date of this license must be typed on the upper left corner of each aperture card.

Two of the sets of aperture cards along with form FERC-587 must be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set must be filed with

20120813-3045 FERC PDF (Unofficial) 08/13/2012

the Commission's Division of Dam Safety and Inspections Portland Regional Office. The remaining set of aperture cards (Exhibit G only) and a copy of Form FERC-587 must be filed with the Bureau of Land Management (BLM) office at the following address:

State Director
Bureau of Land Management
Lands and Minerals Adjudication Section (OR 936.1)
P.O. Box 2965
Portland, OR 97208-2965
ATTN: FERC Withdrawal Recordation

(b) The licensee must file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set must be filed with the Commission's Division of Dam Safety and Inspections Portland Regional Office. Exhibit F drawings must be separated from other project exhibits and identified as Critical Energy Infrastructure Information (CEII) material under 18 C.F.R. §388.113(c) (2011). Each drawing must be a separate electronic file, and the file name must include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-12713-1, F-1, Plans and Sections of the Reedsport Project 1 of 2, MM-DD-YYYY.TIF]. Electronic drawings must meet the following format specification:

IMAGERY - black & white raster file
FILE TYPE – Tagged Image File Format (TIFF) CCITT Group 4
RESOLUTION – 300 dpi desired (200 dpi min)
DRAWING SIZE FORMAT – 24" x 36" (min), 28" x 40" (max)
FILE SIZE – less than 1 MB desired

Each Exhibit G drawing that includes the project boundary must contain a minimum of three known reference points (i.e., latitude and longitude coordinates or state plane coordinates). The points must be arranged in a triangular format for Geographic Information System (GIS) geo-referencing the project boundary drawing to the polygon data, and must be based on a standard map coordinate system. The spatial reference for the drawing (i.e., map projection, map datum, and units of measurement) must be identified on the drawing, and each reference point must be labeled. In addition, each project boundary drawing must be stamped by a registered land surveyor.

(c) The licensee must file two separate sets of the project boundary data in a geo-referenced electronic file format (such as ArcView shape files, GeoMedia files, MapInfo files, or a similar GIS format) with the Secretary of the Commission, ATTN: OEP/DHAC. The filing must include both polygon data and all reference points shown on the individual project boundary drawings. An electronic boundary polygon data file(s) is required for each project development. Depending on the electronic file format,

20120813-3045 FERC PDF (Unofficial) 08/13/2012

the polygon and point data can be included in single files with multiple layers. The geo-referenced electronic boundary data file must be positionally accurate to ±40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) must include: FERC Project Number, data description, date of this license, and file extension in the following format [P-12713, boundary polygon/or point data, MM-DD-YYYY.SHP]. The filing must be accompanied by a separate text file describing the spatial reference for the geo-referenced data: map projection used (i.e., UTM, State Plane, Decimal Degrees, etc.), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name must include: FERC Project Number, data description, date of this license, and file extension in the following format [P-12713, project boundary metadata, MM-DD-YYYY.TXT].

In addition, for those projects that occupy federal lands, a separate geo-referenced polygon file(s) is required that identifies transmission line acreage and non-transmission line acreage affecting federal lands for the purpose of meeting the requirements of 18 C.F.R. § 11.2. The file(s) must also identify each federal owner (e.g., BLM, Forest Service, Corps of Engineers, etc.), land identification (e.g., forest name, Section 24 lands, national park name, etc.), and federal acreage affected by the project boundary. Depending on the geo-referenced electronic file format, the polygon, point, and federal lands data can be included in a single file with multiple layers.

Article 203. *Documentation of Project Financing*. At least 90 days before starting construction, the licensee must file with the Commission, for approval, three copies of the licensee's documentation for the project's financing. The documentation must show that the licensee has acquired the funds, or commitment for funds, necessary to construct, operate, and maintain the project in accordance with this license. The documentation must include, at a minimum, financial statements, including a balance sheet, income statement, and a statement of actual or estimated cash flows, over the license term which provide evidence that the licensee has sufficient assets, credit, and projected revenues to cover project construction, operation, and maintenance expenses and any other estimated project liabilities and expenses.

The financial statements must be prepared in accordance with generally accepted accounting principles and signed by an independent certified public accountant. The licensee must not commence project construction or initiate any ground-disturbing activities that are associated with the project before the filing is approved.

Article 301. *Start of Construction.* The licensee must commence construction of the project works within two years from the issuance date of the license and must complete construction of the project within five years from the issuance date of the license.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Article 302. *Deep Excavation Plan*. The licensee must review and approve the design of any contractor-designed deep excavations prior to the start of construction and must ensure that deep excavations are consistent with the licensee-approved design. At least 30 days prior to the start of on-site construction, the licensee must submit one copy to the Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer and two copies to the Commission (one of these must be a courtesy copy to the Director, D2SI) of the approved deep excavation drawings and specifications, and the letter(s) of approval.

Article 303. *Contract Plans and Specifications*. At least 60 days prior to the start of any on-site construction, the licensee must submit one copy of its plans and specifications and a supporting design report to the Commission's Division of Dam Safety and Inspections (D2SI) - Portland Regional Engineer and two copies to the Commission (one of these copies must be a courtesy copy to the Commission's Director, D2SI). The submittal also must include as part of the preconstruction requirements: a Quality Control and Inspection Program, a Temporary Construction Emergency Action Plan, a Soil Erosion and Sediment Control Plan, and a letter from the Oregon Department of Land Conservation and Development stating that the licensee has satisfied the Oregon Department of Land Conservation and Oregon Parks and Recreation Department design specifications and installation requirements. The licensee may not begin construction until the D2SI-Portland Regional Engineer has reviewed, commented, and approved the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of construction.

Article 304. *As-Built Drawings*. Within 90 days of completion of construction of the facilities authorized by this, the licensee must file for Commission approval, revised Exhibits A, F, and G, as applicable, to describe and show those project facilities as built. A courtesy copy must be filed with the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer; the Director, D2SI; and the Director, Division of Hydropower Administration and Compliance.

Article 305. *Project and Public Safety Plan*. At least 90 days before starting project operations, the licensee must submit one copy of a Project and Public Safety Plan to the Division of Dam Safety and Inspections (D2SI) - Portland Regional Engineer and two copies to the Commission (one of these must be a courtesy copy to the Director, D2SI). The plan must describe the procedures the licensee will take during any project emergency that could adversely impact life or property. Possible emergencies could include, for example, a vessel and PowerBuoy collision, a PowerBuoy break-away, release of the submarine transmission cable anchoring system, or damage to the submarine transmission cable.

The plan, at a minimum, must include: (a) procedures to ensure the safety of the public near the project area; (b) description of how the project will be monitored to

20120813-3045 FERC PDF (Unofficial) 08/13/2012

determine if there is an emergency; (c) procedures the licensee will take during an emergency (including how the project will be taken off-line, if necessary); (d) procedures for reporting the emergency to local, state, and federal agencies; (e) description of contingency measures to modify operations; (f) a plan for annual testing of emergency equipment; and (g) a plan for annual coordination with response agencies.

The licensee must prepare the plan after consultation with the Oregon Department of Land Conservation, the Oregon Parks and Recreation Department, the U.S. Coast Guard, and any other pertinent emergency response agency. The licensee must include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's rationale, based on project-specific reasons. The licensee may not begin project operations until the Division of Dam Safety and Inspections (D2SI) - Portland Regional Engineer has reviewed, commented, and approved the plan.

Article 306. *Annual Performance Report and Certification.* Following start of operations and by December 31 of each year, the licensee must submit one copy of a report describing the project's performance to the Division of Dam Safety and Inspections (D2SI)-Portland Regional Engineer and two copies to the Commission (one of these must be a courtesy copy to the Director, D2SI). The report must include the following information for the previous year: the dates the PowerBuoys and other infrastructure were installed; the adequacy of project monitoring and operations; the findings of inspections; and a summary of the major maintenance and repairs performed. The report must certify that the project features are being operated, monitored, inspected, and maintained in accordance with the license and approved plans.

Article 307. *Annual Navigation Safety Report*. Following the start of operations and by December 31 of each year, the licensee must submit a letter to the Division of Dam Safety and Inspections (D2SI)-Portland Regional Engineer, with a copy to the U.S. Coast Guard, describing: (a) the operation and maintenance of private aids to navigation during the previous year; and (b) any navigation safety incidents that occurred during the previous year.

Article 308. *Project Land Rights Progress Report.* No later than four years after license issuance, the licensee must file a report with the Commission describing the status of acquiring title in fee or the rights for all the lands within the project boundary. The report must provide an overview map of each parcel and summary table identifying the licensee's rights over each parcel within the project boundary. The report must also include specific supporting documentation showing the status of the land rights on all

20120813-3045 FERC PDF (Unofficial) 08/13/2012

parcels of land within the project boundary that: (1) have been acquired up to the date of filing of the report, including pertinent deeds, lease agreements, and/or bill of sale information that specifically verify the licensee's rights; and (2) the licensee's plan and schedule for acquiring all remaining project lands prior to the five-year deadline, including a history of actions taken, current owner information, the type of ownership to be acquired whether in fee or by easement, and the timeline for completing property acquisition.

Article 401. *Commission Approval, Notification and Filing of Amendments.*

(a) Requirement to File Plans for Commission Approval

Certain conditions of the Oregon Department of Environmental Quality's (Oregon DEQ's) water quality certification (Appendix A) and the U.S. Forest Service's (Forest Service's) 4(e) conditions (Appendix B) require the licensee to prepare plans in consultation with other entities and for approval by Oregon DEQ or the Forest Service and implement specific measures without prior Commission approval. Each such plan must also be submitted to the Commission for approval. These plans are listed in the following table.

Forest Service condition no.	WQC condition no.	Description	Due date
1		Site-specific plans for habitat or ground-disturbing activities on National Forest System (NFS) lands as follows: A Spill Prevention and Control, and Hazardous Materials Plan for hazardous materials storage, spill prevention and cleanup on NFS lands, as needed	At least 60 days prior to the initiation of construction
	4	Plans for additional monitoring or to implement measures developed through the August 2, 2010, Settlement Agreement's Adaptive Management Process to address any significant shoreline changes observed through implementation of the Wave, Current and Sediment	At least 60 days prior to implementation

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Forest Service condition no.	WQC condition no.	Description	Due date
		Transport Monitoring Plan	

The licensee must submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with each plan, a description of how each plan accommodates the comments and recommendations, and documentation that it has received approval from Oregon DEQ and the Forest Service as applicable. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan submitted. Upon Commission approval, each plan becomes a requirement of the license, and the licensee must implement the plan, including any changes required by the Commission.

(b) Requirement to Notify Commission of Planned and Unplanned Deviations from License Requirements

Reasonable and prudent measures (RPMs) 10, 12, and 13 included in the National Marine Fisheries Service's (NMFS') biological opinion allow OPT to temporarily modify project operations under certain conditions. The Commission must be notified prior to implementing such modifications, if possible, or in the event of an emergency, as soon as possible, but no later than 10 days after each such incident.

(c) Requirement to File Amendment Applications

Certain RPMs in Appendix C contemplate unspecified long-term changes to project operations or facilities for the purpose of mitigating environmental effects. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license. These conditions are listed below.

NMFS RPM no.	Modification
2	Long-term corrective actions, monitoring protocols, and measures developed through the adaptive management process
12	Preventative measures taken to minimize the possibility of spill recurrence
13	Actions made to improve either the emergency response effort or safety controls so as to prevent future unanticipated emergency incidents, including recovery of any PowerBuoys that become detached from their moorings

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Article 402. *Operations and Maintenance Plan*. In addition to the requirements of the National Marine Fishery Service's reasonable and prudent measure 11, the licensee must conduct underwater inspections to detect and remove any derelict fishing gear entangled on project infrastructure in February, March, April, and May, weather and ocean conditions permitting, in the first year after deployment of the single PowerBuoy. If changes to the Operations and Maintenance Plan are proposed in the future, the licensee must develop a revised Operations and Maintenance Plan or addendum after consultation with the Aquatic Resources and Water Quality Implementation Committee (OPT, National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Environmental Quality, Oregon Department of Land Conservation and Development, Oregon Shores Conservation Coalition, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition), the Recreation and Public Safety Implementation Committee (OPT, U.S. Forest Service, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Land Conservation and Development, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition), and the Crabbing and Fishing Implementation Committee (OPT, Oregon Department of Fish and Wildlife, and Southern Oregon Ocean Resource Coalition) and file the revised Operations and Maintenance Plan or addendum for Commission approval. The Commission reserves the right to require changes to the revised Operations and Maintenance Plan or addendum.

By December 31 of each license year, the licensee must file with the Commission an Underwater Inspections Report, which documents inspections conducted during the previous calendar year including the date and results of each inspection. The report must document the methods used to inspect underwater mooring lines and cables and the effectiveness of the inspection methods, provide a listing and description of any fishing gear found entangled in project infrastructure, and document the successful removal of any entangled fishing gear that is identified. If any scheduled inspection is delayed due to unsafe weather or ocean conditions, the conditions that resulted in the delay must be documented. At the time the report is filed, the licensee must also file a copy of the annual report with the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the Oregon Department of Fish and Wildlife.

Article 403. *Navigation Lighting*. Within three months after license issuance, the licensee must file, for Commission approval, a lighting design and operation plan that fully describes the system that will be used to provide lighting to meet U.S. Coast Guard requirements to provide for navigation safety and minimize the potential for adverse effects on aesthetics and offshore birds. The lighting design and operation plan must include a description of the lighting equipment, flash rate, intensity, and any shielding that will be provided on each of the PowerBuoys. The submittal must also include a plan-view drawing showing the locations of all aids to navigation at the site. The plan must be developed after consultation with the Aquatic Resources and Water Quality

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Implementation Committee (OPT, National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Environmental Quality, Oregon Department of Land Conservation and Development, Oregon Shores Conservation Coalition, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition), the Recreation and Public Safety Implementation Committee (OPT, U.S. Forest Service, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Land Conservation and Development, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition), and the Crabbing and Fishing Implementation Committee (OPT, Oregon Department of Fish and Wildlife, and Southern Oregon Ocean Resource Coalition) and the U.S Coast Guard. The licensee must provide these committees and the U.S. Coast Guard a minimum of 30 days to comment and make recommendations before filing the lighting design and operation plan with the Commission. The final plan must include copies of any comments received and the licensee must address all comments and recommendations received from the agencies. If the licensee does not adopt a recommendation, the filing must include the licensee's rationale, based on project-specific reasons.

The Commission reserves the right to require changes to the lighting design and operation plan. Installation of additional PowerBuoys must not begin until the licensee is notified by the Commission that the plan has been approved.

If changes in the design or operation of the navigation lighting system are proposed in the future, the licensee must develop a revised lighting design and operation plan in consultation with the same committees identified above and file the revised plan for Commission approval. The Commission reserves the right to require changes to the revised lighting design and operation plan. Modification of navigation lighting must not begin until the licensee is notified by the Commission that the revised plan has been approved.

Article 404. *Spill Prevention, Control, and Countermeasure Plan (Spill Prevention Plan)*. In addition to the requirements of the National Marine Fisheries Service's reasonable and prudent measure 12, the licensee must file an addendum to the Spill Prevention Plan, within three months of license issuance, which identifies any fluids that would be used in the underwater substation pod and any monitoring methods that would be used to detect leakage of any fluids from the underwater substation pod that could cause adverse environmental effects. If changes to the plan are proposed in the future, the licensee must develop a revised Spill Prevention Plan after consultation with the Aquatic Resources and Water Quality Implementation Committee (OPT, National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Environmental Quality, Oregon

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Department of Land Conservation and Development, Oregon Shores Conservation Coalition, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition), the Recreation and Public Safety Implementation Committee (OPT, Forest Service, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Land Conservation and Development, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition), and the Crabbing and Fishing Implementation Committee (OPT, Oregon Department of Fish and Wildlife, and Southern Oregon Ocean Resource Coalition) and file the revised plan for Commission approval. The Commission reserves the right to require changes to the revised Spill Prevention Plan.

Article 405. *Single PowerBuoy Monitoring Report*. In addition to the requirements of the National Marine Fisheries Service's reasonable and prudent measures 3 and 4 and Water Quality Certificate conditions 4(c) and 4(d), a minimum of 90 days prior to installation of additional PowerBuoys, the licensee must file a report that provides the results of monitoring of acoustic emissions and electromagnetic fields produced by the single PowerBuoy deployed during Phase I of the project, using the methodology described in the cetacean study on pages A-32 through A-34 of Appendix A of the Settlement Agreement and in the EMF study on pages A-52 through A-55 of Appendix A of the Settlement Agreement. Prior to filing the report with the Commission, the licensee must submit the report to the Aquatic Resources and Water Quality Implementation Committee (OPT, National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Environmental Quality, Oregon Department of Land Conservation and Development, Oregon Shores Conservation Coalition, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition) and the Crabbing and Fishing Implementation Committee (OPT, Oregon Department of Fish and Wildlife, and Southern Oregon Ocean Resource Coalition) and allow a minimum of 30 days for the agencies to review and comment on the report. The final report must include copies of any comments received and the licensee must address all comments and recommendations received from the agencies. If the licensee does not adopt a recommendation, the report must include the licensee's reasons based on project-specific information.

Installation of additional PowerBuoys must not begin until the licensee is notified by the Commission that the Single PowerBuoy Monitoring Report, including any studies or measures proposed in the report, has been approved. Upon Commission approval, the licensee must implement those studies or measures, including any changes required by the Commission.

Article 406. *Reservation of Authority to Prescribe Fishways*. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain or to provide for the construction, operation, and maintenance of such fishways as may be

20120813-3045 FERC PDF (Unofficial) 08/13/2012

prescribed by the Secretaries of Interior or Commerce pursuant to section 18 of the Federal Power Act.

Article 407. *Marine Mammal and Turtle Injury Reporting*. Upon license issuance, the licensee must implement the reporting protocol for injured or entangled marine mammals included in Attachment 2 of Appendix A of the Settlement Agreement filed on August 2, 2010. The licensee must use the same protocols for reporting any injured or entangled marine turtles that are observed in the project area during project construction and operation. In addition, any incidences of injured or entangled marine mammals and marine turtles observed by the licensee in the project area must be reported to the Commission within 48 hours.

If changes to the reporting protocol are proposed, the licensee must provide the Aquatic Resources and Water Quality Implementation Committee (OPT, National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Environmental Quality, Oregon Department of Land Conservation and Development, Oregon Shores Conservation Coalition, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition) a minimum of 30 days for the entities to comment and make recommendations before filing the revised protocol with the Commission. The final plan must include copies of any comments received and the licensee must address all comments and recommendations received from the agencies. If the licensee does not adopt a recommendation, the filing must include the licensee's rationale, based on project-specific reasons. The Commission reserves the right to require changes to the revised reporting protocol for injured or stranded marine mammals and turtles.

Article 408. *Crabbing and Fishing Plan*. Upon license issuance, the licensee must implement the Crabbing and Fishing Plan included in Appendix C of the Settlement Agreement filed on August 2, 2010 with the following modification: within six months of license issuance the licensee must file a supplement to the plan, for Commission approval, to be developed after consultation with the Crabbing and Fishing Implementation Committee (OPT, Oregon Department of Fish and Wildlife, and Southern Oregon Ocean Resource Coalition). The supplement must include the following elements:

1. A proposed protocol to recover or provide compensation for crabbing and fishing gear that becomes entangled in the PowerBuoy array and a description of any other measures that are proposed to minimize the potential loss of fishing gear.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

2. Proposed procedures for initiating a transport moratorium during which no PowerBuoys would be moved outside of the deployment area for the first eight weeks of the Dungeness crab season.

3. Definition of a proposed pre-determined transit lane from the port to the PowerBuoy array for project-related vessels during construction and normal maintenance and a plan for providing a two-week notice of PowerBuoy transport associated with scheduled maintenance.

4. A plan and schedule for the process to designate the project area as a Restricted Navigation Area by the U.S. Coast Guard and as a No Fishing Area by Oregon Fish and Wildlife Commission, including filing a report on the outcome of the process prior to the start of project construction.

5. A proposed public information campaign to inform commercial and recreational users of the changes in designation and provide information about location, hazards, and ways to manage a vessel that inadvertently enters the PowerBuoy array area.

6. Documentation of consultation and coordination with the U.S. Coast Guard to ensure the distribution of appropriate navigation chart modifications, showing the location of project features, Restricted Navigation Areas, transit lanes for project-related vessels, and No Fishing Areas.

The licensee must provide the Crabbing and Fishing Implementation Committee a minimum of 30 days to comment and make recommendations before filing the supplement to the plan with the Commission. The filing must include copies of any comments received and the licensee must address all comments and recommendations received from the agencies. If the licensee does not adopt a recommendation, the filing must include the licensee's rationale, based on project-specific reasons. The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee must implement the supplement to the plan, including any changes required by the Commission.

Article 409. *Interpretive and Education Plan*. Within three months of license issuance, the licensee must file an interpretive and education plan, for Commission approval, to include the design and installation of interpretive displays onshore to inform and educate the public about the project. The plan must be developed after consultation with the Recreation and Public Safety Implementation Committee (OPT, Forest Service, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Land Conservation and Development, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition). The licensee must provide the Recreation and Public Safety Implementation Committee a minimum of 30 days to comment and make recommendations before filing the plan with the Commission. The filing must include

20120813-3045 FERC PDF (Unofficial) 08/13/2012

copies of any comments received and the licensee must address all comments and recommendations received from the agencies. If the licensee does not adopt a recommendation, the filing must include the licensee's rationale, based on project-specific reasons. The Commission reserves the right to require changes to the interpretive and education plan prior to implementation.

Article 410. *Visual Assessment Review*. Within six months of license issuance, the licensee must file a report that provides the results of a visual assessment review conducted in consultation with the Recreation and Public Safety Implementation Committee (OPT, Forest Service, Oregon Parks and Recreation Department, Oregon Water Resources Department, Oregon Department of Land Conservation and Development, Surfrider Foundation, and Southern Oregon Ocean Resource Coalition). The visual assessment review must include viewing the project from the beach, the top of a dune near the beach, and the Umpqua Lighthouse, following the installation of the first PowerBuoy. The report must include any recommendations, for Commission approval, for measures needed to minimize any adverse effects of the project on the scenic character of the project area.

The licensee must provide the Recreation and Public Safety Implementation Committee a minimum of 30 days to comment and make recommendations on the results of the visual assessment review before filing the report with the Commission. The filing must include copies of any comments received and the licensee must address all comments and recommendations received from the agencies. If the licensee does not adopt a recommendation, the filing must include the licensee's rationale, based on project-specific reasons. The Commission reserves the right to require changes in the project to minimize adverse effects on the visual character of the project area.

Article 411. *FERC Form 80 Exemption*. Upon the effective date of the license, the licensee is exempt from section 18 C.F.R. § 8.11, the filing of the FERC Form 80 recreation report, for the Reedsport OPT Wave Park Project.

Article 412. *Terrestrial and Cultural Resources Plan.* Upon license issuance, the licensee must implement the Terrestrial and Cultural Resources Plan included in Appendix D of the Settlement Agreement filed on August 2, 2010. The plan must be modified to require that if the licensee discovers previously unidentified cultural resources during the course of constructing, maintaining, or developing project works or other facilities at the project, the licensee must stop all land-clearing and land-disturbing activities in the vicinity of the resource and consult with the Oregon State Historic Preservation Officer (SHPO) and the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians (Confederated Tribes) to determine what steps need to be taken to evaluate the discovered cultural resources. If a discovered cultural resource is determined to be eligible for the National Register of Historic Places (National Register), the licensee, after consultation with the Oregon SHPO and Confederated Tribes, if

20120813-3045 FERC PDF (Unofficial) 08/13/2012

applicable, must develop measures to mitigate or to avoid any adverse effects. The licensee must file with the Commission for approval, a report on the historic property and the effects of the undertaking. If the property would be adversely affected the report should contain the proposed mitigation measures along with any comments received from the Oregon SHPO and Confederated Tribes on the report. The licensee must allow 30 days for an agency to comment. If there are no comments, the licensee must include its request for comments in the filing to the Commission. The licensee must not resume land-clearing or land-disturbing activities in the vicinity of a cultural resource discovered during construction until instructed by the Commission.

Article 413. *Use and Occupancy*. (a) In accordance with the provisions of this article, the licensees must have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy without prior Commission approval. The licensees may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee must also have continuing responsibility to supervise and control the use and occupancies, for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensees for protection and enhancement of the project's scenic, recreational, or other environmental values or if a covenant of a conveyance made under the authority of this article is violated, the licensee must take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensees may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures, and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensees must require multiple use and occupancy of facilities for access to project lands or waters. The licensees must also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensees must:

20120813-3045 FERC PDF (Unofficial) 08/13/2012

(1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensees may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kilovolt or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee must file three copies of a report briefly describing for each conveyance made under this paragraph during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; and (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

At least 60 days before conveying any interest in project lands under this paragraph (d), the licensees must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensees to file an application for prior approval, the licensees may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee must consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee must determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed must not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee must take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee must not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundary. The project boundary may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude

20120813-3045 FERC PDF (Unofficial) 08/13/2012

lands conveyed under this article from the project must be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article must not apply to any part of the public lands and reservations of the United States included within the project boundary.

(J) The licensee must serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

(K) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2012). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order. The licensee's failure to file a request for rehearing must constitute acceptance of this order.

Jeff C. Wright
Director
Office of Energy Projects

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Form L-19
(October, 1975)

FEDERAL ENERGY REGULATORY COMMISSION

TERMS AND CONDITIONS OF LICENSE FOR UNCONSTRUCTED MINOR PROJECT AFFECTING NAVIGABLE WATERS AND LANDS OF THE UNITED STATES

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar

20120813-3045 FERC PDF (Unofficial) 08/13/2012

as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variation in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

Article 4. The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project and for any subsequent alterations to the project. Construction of the project works or any features or alteration thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written

20120813-3045 FERC PDF (Unofficial) 08/13/2012

approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 7. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 8. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 9. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be

20120813-3045 FERC PDF (Unofficial) 08/13/2012

necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 10. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 11. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 12. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife

20120813-3045 FERC PDF (Unofficial) 08/13/2012

facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 13. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 14. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon the request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 15. The Licensee shall consult with the appropriate State and Federal agencies and, within one year of the date of issuance of this license, shall submit for Commission approval a plan for clearing the reservoir area. Further, the Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. Upon approval of the clearing plan all clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statues and regulations.

Article 16. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as

20120813-3045 FERC PDF (Unofficial) 08/13/2012

appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 17. Timber on lands of the United States cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: Provided, That timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

Article 18. The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned, to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

Article 19. The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

Article 20. The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of

20120813-3045 FERC PDF (Unofficial) 08/13/2012

damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

Article 21. The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

Article 22. In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

Article 23. The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility constructed, operated, or maintained under the license, and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

Article 24. The Licensee shall make use of the Commission's guidelines and other recognized guidelines for treatment of transmission line rights-of-way, and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

Article 25. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall

20120813-3045 FERC PDF (Unofficial) 08/13/2012

abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 26. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 27. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

APPENDIX A

Water Quality Certificate Conditions for the Reedsport OPT Wave Park Project No. 12713 issued by Oregon Department of Environmental Quality, on December 2, 2011[69]

1. Water Quality Sampling
Licensee shall collect vertical profiles of water quality in the water column as described in the Fish and Invertebrate Study Plan in the Reedsport OPT Wave Park Settlement Agreement, dated July 28, 2010 (Settlement Agreement).

2. Fungi or other growths
(a) Licensee shall monitor the seabed as described in the Fish and Invertebrate Study Plan in the Settlement Agreement.
(b) Licensee shall consult with the aquatics resources and water quality implementation committee as described in the Settlement Agreement, if biofouling debris is accumulating on the seabed.

3. Turbidity
Licensee shall monitor turbidity as described in the Fish and Invertebrate Study Plan in the Settlement Agreement.

4. Biological Criteria
(a) Licensee shall implement the Wave, Current and Sediment Transport Plan as described in the Settlement Agreement.
(b) If significant shoreline changes are observed, the additional steps or monitoring must be evaluated through the Settlement Agreement's adaptive management process.
(c) Licensee shall implement the EMF effects study plan as described in the Settlement Agreement.
(d) Licensee shall implement the acoustic emissions characterization study plan described in the Settlement Agreement.

5. Oily sheens
(a) Licensee shall hire only licensed, insured operators who have their own spill response plan.
(b) Licensee shall implement the Spill Prevention, Control and Countermeasures Plan (SPCC Plan) for this Project, as described in Appendix F to the FERC license application.

(c) Licensee shall modify the proposed SPCC Plan to identify any hazardous fluids that would be

[69] In a letter to OPT dated December 19, 2011, Oregon DEC notified OPT of a typographical error in the certification, which has been incorporated into Appendix A.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

used in the underwater substation pod and describe monitoring methods that would be used to identify any leaks of hazardous fluids.
(d) In the event of a spill or release or threatened spill or release to state waters, Licensee shall implement the SPCC Plan, or other applicable contingency plan, and notify the Oregon Emergency Response System (OERS) at 1-800-452-0311.

6. pH
Licensee shall ensure that cast-in-place concrete or poured cement or grout is cured for a minimum of 24-hours prior to contact with waters of the state. Pouring of uncured cement must be done in isolation from waters and with complete containment of any water contacting uncured cement.

7. Toxic pollutants
(a) Licensee shall use only Ameron's ABC3 Antifouling paint. Changes to the antifouling paint can only be made after consultation with DEQ.
(b) If monitoring of sediments for debris build-up underneath the PowerBuoys detects any accumulation of toxins that approach levels that could have an adverse effect on aquatic life, Licensee shall consult with the aquatic resources and water quality implementation committee on the need to evaluate water column and sediment concentrations of toxic pollutants from the biofouling paint.

8. General
(a) Implementation
Licensee shall, before construction of the Project, provide evidence to DEQ that Licensee has received all required approvals.
(b) §401 Certification Modification
DEQ, in accordance with OAR Chapter 340, Division 48 and, as applicable, 33 USC 1341, may modify this Certification to add, delete, or alter Certification conditions as necessary to address:
(1) Adverse or potentially adverse project effects on water quality or designated beneficial uses that did not exist or were not reasonably apparent when this § 401 Certification was issued;
(2) TMDLs (not specifically addressed above in these § 401 Certification Conditions);
(3) Changes in water quality standards;
(4) Any failure of these § 401 Certification Conditions to protect water quality or designated beneficial uses as expected when this § 401 Certification was issued; or
(5) Any change in the Project or its operations that was not contemplated by this § 401 Certification that might adversely affect water quality or designated beneficial uses.
(c) Other Federal Permits
Upon applying for any federal license or permit authorizing a discharge to waters of the United States other than the new FERC license, Licensee shall provide DEQ written notice of such application and of any proposed changes or new activity requested to be authorized under the application since issuance of this § 401 Certification. DEQ will notify Licensee and the applicable federal agency either that: (1) this § 401 Certification is sufficient for purposes of the federal license or permit; or (2) in light of new information related to the water quality impacts of the activity requested to be authorized under the application, there is no longer reasonable assurance of compliance with state water quality standards. In the latter event, DEQ will consider the new information, solicit and consider public and agency comment as required by law, and

20120813-3045 FERC PDF (Unofficial) 08/13/2012

issue a 401 certification determination for purposes of the federal license or permit.
(d) Project Modification
Licensee shall obtain DEQ review and approval before undertaking any change to the Project that might significantly affect water quality (other than project changes authorized by the new FERC license or required by or considered in this § 401 Certification), including changes to project structures and operations.
(e) Repair and Maintenance
Licensee shall obtain DEQ review and approval before undertaking project repair or maintenance activities that might significantly affect water quality (other than repair or maintenance activities authorized by the new FERC license required by or considered in this § 401 Certification). DEQ may, at Licensee's request, provide such prior approval effective prospectively for specified repair and maintenance activities.
(f) Inspection
Licensee shall allow DEQ access as necessary to inspect the project area and project records required by these § 401 Certification Conditions and to monitor compliance with these § 401 Certification Conditions, upon reasonable notice and subject to applicable safety and security procedures when engaged in such access.
(g) Posting
Licensee shall post or maintain a copy of these § 401 Certification Conditions at the Reedsport OPT Wave Park project office.

9. Project-Specific Fees
In accordance with ORS 543.080, Licensee shall pay a project-specific fee for DEQ's cost to oversee implementation of the conditions in this § 401Certification. The fee shall be $4000 annually (2011 dollars adjusted according to the formula below); made payable to "State of Oregon, Department of Environmental Quality" and due thirty days after the Licensee notifies US Army Corps of Engineers that Project construction will begin. DEQ must be copied on the notification to USACE. Payments will then be due on the second and third year anniversary of beginning of construction. DEQ and Licensee shall review the need, if any, to modify, extend, or terminate the fee, in accordance with ORS 543.080 during the third year following beginning of construction.
Adjusted payment formula:
AD = D x (CPI-U)/(CPI-U-August 2007)
Where:
AD = Adjusted dollar amount payable to ODEQ.
D = Dollar amount prior to adjustment.
CPI-U = the most current published version of the Consumer Price Index-Urban. The CPI-U is published monthly by the Bureau of Labor Statistics of the federal Department of Labor. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted by written agreement between DEQ and Licensee.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

APPENDIX B

Conditions filed by the U.S. Forest Service on August 27, 2010, pursuant to section 4(e) of the Federal Power Act, for the new license for Project No. 12713.

Condition No. 1—Implementation of the License on National Forest System Lands

The Licensee shall not commence implementation of habitat or ground-disturbing activities on National Forest System (NFS) lands until the USDA Forest Service has approved site-specific project designs and issued a notice to proceed.

Additional NFS Lands. If long term occupancy of NFS lands is required for Project related purposes and such occupancy is not authorized by including such lands within the FERC Project boundary, the Licensee shall obtain a special-use authorization for occupancy and use of such NFS lands from the USDA Forest Service. Within three months of License issuance and before conducting any habitat or ground-disturbing activities on such NFS lands, the Licensee shall apply to the USDA Forest Service for a special-use authorization for occupancy and use of NFS lands, and shall file the special-use authorization with the Commission once obtained.

Additional lands authorized for use by the Licensee in a new special-use authorization shall be subject to laws, rules, and regulations applicable to the NFS. The terms and conditions of the USDA Forest Service special-use authorization are enforceable by the USDA Forest Service under the laws, rules, and regulations applicable to the NFS. Should additional NFS lands be needed for this Project over the License term and such lands are not included within the FERC Project Boundary, the special-use authorization shall be amended to include any additional NFS lands.

Approval of Changes on NFS Lands after License Issuance. Notwithstanding any License authorization to make changes to the Project, the Licensee shall receive written approval from the USDA Forest Service prior to making changes in the location of any constructed Project features or facilities on NFS lands, or in Project uses of NFS lands, or any departure from the requirements of any approved exhibits for Project facilities located on NFS lands filed by the Licensee with the Commission. Following receipt of such approval from the USDA Forest Service, and at least 60 days prior to initiating any such changes or departure, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the USDA Forest Service for such changes. The Licensee shall file an exact copy of the report with the USDA Forest Service at the time it is filed with the Commission.

Coordination with Other Authorized Uses on NFS Lands. In the event that portions of the Project area are under federal authorization for other activities and permitted uses, the

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Licensee shall consult with the USDA Forest Service to coordinate such activity with authorized uses before starting any activity on NFS land that the USDA Forest Service determines may affect another authorized activity.

Site-Specific Plans. The Licensee shall prepare site-specific plans subject to review and approval by the USDA Forest Service for habitat and ground-disturbing activities on NFS lands affected by the Project required by the License, including such activities contained within resource management plans required by the License to be prepared subsequent to License issuance. The Licensee shall prepare site-specific plans for planned activities one year, or as otherwise agreed to by USDA Forest Service, in advance of implementation dates required by the License, except for those activities planned in the first year after license issuance where the Licensee shall prepare site-specific plans for activities timely to allow USDA Forest Service review in advance of implementation. For emergency situations, where corrective or mitigation actions must be implemented immediately, the Licensee will coordinate with the USDA Forest Service to expedite approvals and/or permits.

Site-specific plans shall include:

1. A map depicting the location of the proposed activity and GPS coordinates.

2. Draft biological evaluations or assessments including survey data as required by regulations applicable to habitat or ground-disturbing activities on NFS lands in existence at the time the plan is prepared.

3. An environmental analysis of the proposed action consistent with the USDA Forest Service policy and regulations for implementation of the National Environmental Policy Act (NEPA) in existence at the time the plan is prepared for FERC Licensed projects on NFS lands. Environmental Analysis completed by the Commission or others may be relied upon as appropriate on a project specific basis as agreed to by USDA Forest Service.

4. A Spill Prevention and Control, and Hazardous Materials Plan for hazardous materials storage, spill prevention and cleanup on NFS lands, as needed, will be provided to USDA Forest Service for review and approval before work commences.

Surveys and Land Corners: The Licensee shall avoid disturbance to all public land survey monuments, private property corners, and forest boundary markers. In the event that my such land markers or monuments are destroyed by an act or omission of the Licensee, in connection with the use and/or occupancy authorized by the license, depending on the type of monument destroyed, the Licensee shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or

20120813-3045 FERC PDF (Unofficial) 08/13/2012

(3) the specifications of the USDA Forest Service. Further, the Licensee shall ensure that any such official survey records affected are amended as provided for by law.

Condition No. 2—Surrender of License or Transfer of Ownership

At least 1 year in advance of filing an application for license surrender, the Licensee shall prepare a restoration plan for NFS lands approved by the USDA Forest Service. The restoration plan shall identify improvements to be removed, restoration measures, and time frames for implementation and shall be filed with the Commission as part of the surrender application.

Condition No. 3—Indemnification

The Licensee shall indemnify, defend, and hold the United States harmless for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the Licensee in connection with the Licensee's use and/or occupancy of National Forest System lands authorized by this License. This indemnification and hold harmless provision applies to any acts and omissions of the Licensee or the Licensee's assigns, agents, employees, affiliates, subsidiaries, fiduciaries, contractors, or lessees in connection with the Licensee's use and/or occupancy of National Forest System lands authorized by this License which result in: (1) violations of any laws and regulations which are now or which may in the future become applicable, and including but not limited to environmental laws such as the Comprehensive Environmental Response Compensation and Liability Act, Resource Conservation and Recovery Act, Oil Pollution Act, Clean Water Act, Clean Air Act; (2) judgments, claims, demands, penalties, or fees assessed against the United States; (3) costs, expenses, and damages incurred by the United States (other than as contemplated by the license); or (4) the release or threatened release of any solid waste, hazardous substances, pollutant, contaminant, or oil in any form in the environment.

Condition No. 4—Reservation of Authority

The Licensee shall implement, upon order of the Commission, such additional conditions as may be identified by the Secretary of Agriculture, pursuant to the authority provided in Section 4 (e) of the Federal Power Act, as necessary for the adequate protection and utilization of the public land reservations under the authority of the USDA Forest Service, provided that such additional conditions are necessary, based on compelling evidence, to address changed circumstances.

Condition No. 5—Emergency Action Plans

The Licensee shall implement the Spill Prevention, Control, and Countermeasure Plan and Response and Recovery Plan submitted as part of the Project's Final License

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Application as they relate to NFS lands. Revision of the components of the plans relating to actions on NFS lands shall be subject to consultation with and approval by the USDA Forest Service.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

APPENDIX C

Reasonable and Prudent Measures and Terms and Conditions included in the U.S. Fish and Wildlife Service's Biological Opinion for the Reedsport Hydroelectric Project No. 12713 filed May 5, 2011

REASONABLE AND PRUDENT MEASURES

The Service participated in Project settlement agreement negotiations, and successfully incorporated a full array of marbled murrelet avoidance and minimization measures. Therefore the Service believes that the following reasonable and prudent measure is necessary and appropriate to minimize take of marbled murrelets from the actions covered in this Opinion.

- The Project shall ensure the Service receives a copy of any reports associated with the Offshore Avian Use Study.

TERMS AND CONDITIONS

To be exempt from the provisions of section 9 of the Act, the Service requires the Project to comply with the following term and condition, which implements the reasonable and prudent measure described above.

- Immediately report any field data and analysis associated with the Offshore Avian Use Study in order to assess and address the collision-related effects of this Project on marbled murrelets.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

APPENDIX D

Reasonable and Prudent Measures and Terms and Conditions included in the National Marine Fisheries Service's Biological Opinion for the Reedsport Hydroelectric Project No. 12713 filed June 7, 2012

"Reasonable and prudent measures" are nondiscretionary measures to minimize the amount or extent of incidental take (50 CFR 402.02). "Terms and conditions" implement the reasonable and prudent measures (50 CFR 402.14). These must be carried out for the exemption in section 7(o)(2) to apply.

The following reasonable and prudent measures are intended to minimize impacts on listed species, and ensure that NMFS receives information about the effects the authorized action has on the species concerned.

The following language is intended to include all measures from the SA in the event that this language differs, the SA shall prevail. Terms and Conditions provided in this section apply to the implementation of Settlement Agreement measures.

1. Management Plan Work Groups

Within 120 days of the issuance of the License, the Licensee shall convene and administer the following work groups for implementation of the license, SA, and any applicable study plans and/or management plans required by this license or SA: the Coordinating Committee, and four "Implementation Committees": the Aquatic Resources and Water Quality Committee, and the Terrestrial and Cultural Resources Committee, the Recreation and Public Safety Committee, and the Crabbing and Fishing Committee. The Licensee shall coordinate the work groups in cooperation with the applicable work group members, as identified in Table 1 of Section 4.2 of the SA, and consistent with the Adaptive Management Plan in Exhibit B of the Settlement Agreement.

2. Adaptive Management Process, Consultation and Approval Requirements, including Study Plan Results, Modifications to Study Plans, and Action Plans

To incorporate the results of proposed studies (including studies required in Reasonable and Prudent Measures 3 – 8 below and other studies identified in the SA), future studies, and any other new information or reinterpretation of existing information into the management and operation of the Reedsport Wave Energy Park as necessary to reduce impacts to fish, wildlife and their habitats, the Licensee, in consultation with the Fish Agencies, shall implement the adaptive management plan described in Exhibit B of the SA (Exhibit B) for the term of the license.

In addition to Exhibit B of the SA, the Licensee shall use the following consultations procedures in conjunction with Exhibit B for the implementation of Reasonable and Prudent Measures 3 – 8, future studies, and any other new information or reinterpretation of existing information into the management and operation of the Reedsport Wave Energy Park. All of the

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Licensee's consultation with the Fish Agencies will be consistent with this article, and the Adaptive Management Process, as described in Exhibit B.

For each year of each study conducted under this license, the SA, its Appendices, and or Reasonable and Prudent Measures 3 – 8, and this Reasonable and Prudent Measure the Licensee shall provide a draft report containing the results of that year's work to the Aquatic Resources and Water Quality Implementation Committee (including the Fish Agencies) for a minimum of 30 days for review and comment. After revising each draft report to address the comments and recommendations of the Aquatic Resources and Water Quality Implementation Committee (including Fish Agencies), the Licensee shall file the revised results report with the Commission, and include with the report documentation of consultation with the Aquatic Resources and Water Quality Implementation Committee and approval by the Fish Agencies, copies of comments and recommendations on the draft results report after it has been prepared and provided to the Aquatic Resources and Water Quality Committee, and specific descriptions of how the Aquatic Resources and Water Quality Implementation Committee's (including Fish Agencies) comments and recommendations are accommodated by the report. Upon receiving Fish Agencies' approval, the Licensee shall file the results report with the Commission.

If a modification to a study plan is necessary, or the results from a single year of data collection or an entire study indicate additional information is necessary, and/or suggest or identify unanticipated and/or unacceptable levels of impacts are occurring, the Licensee shall consult with the Aquatic Resources and Water Quality Implementation Committee, including the Fish Agencies, with respect to these modifications, additional studies or impacts, and develop and implement a revised study plan or an action plan (plan), subject to approval by the Fish Agencies, to collect necessary information and/or undertake corrective actions in a time and manner appropriate to the scope and nature of the impacts. The Licensee shall provide a draft plan to the Aquatic Resources and Water Quality Implementation Committee (including the Fish Agencies) for a minimum of 30 days for review and comment. After revising the draft plan to address the comments and recommendations of the Aquatic Resources and Water Quality Implementation Committee (including Fish Agencies), the Licensee shall file the revised plan with the Commission, and include with the plan documentation of consultation with the Aquatic Resources and Water Quality Implementation Committee and approval by the Fish Agencies, copies of comments and recommendations on the draft plan after it has been prepared and provided to the Aquatic Resources and Water Quality Implementation Committee, and specific descriptions of how the Aquatic Resources and Water Quality Implementation Committee's comments and recommendations are accommodated by the plan. Upon receiving Fish Agencies' approval, the Licensee shall file the action plan report with the Commission.

If any Fish Agency has not provided its approval or disapproval for a results report, revised study plan, or action plan within 30 days, or as such time period may be extended by the Licensee upon request of a Fish Agency, the Licensee may file such results report, revised study plan, or action plan with the Commission. If a Fish Agency disapproves a results report, revised study plan, or action plan, the Licensee shall not file the disapproved report or plan with the Commission until the dispute resolution process specified in Section 7.5 of the SA and

20120813-3045 FERC PDF (Unofficial) 08/13/2012

Exhibit B has been completed.

3. Implement Study to Identify Potential Effects to Cetaceans

The Licensee shall implement Section 5.0 of the SA, entitled Study Plan [for Cetaceans], of the Issue Assessment, Cetaceans, in the Aquatic Resources and Water Quality Plan, Appendix A (pages A-28 - A-39) of the SA, and including Attachment 2 of that Issue Assessment, entitled Reporting Protocol for Injured or Stranded Marine Mammals. The Licensee shall implement Section 5.0 of the SA Study Plan, all of its subsections, and any modifications or additions made to that Study Plan, in consultation with the Aquatic Resources and Water Quality Implementation Committee (including the Fish Agencies), and subject to approval by the Fish Agencies, including consultation processes and approval requirements as further described in Terms and Conditions 2.

4. Implement Study to Identify Potential Electromagnetic Field (EMF) and Effects

The Licensee shall implement Section 5.0 of the SA entitled Study Plan [for EMF], of the Issue Assessment, EMF, in the Aquatic Resources and Water Quality Plan, Appendix A (pages A-52 - A-55) of the SA. The Licensee shall implement Section 5.0 of the SA Study Plan, all of its subsections, and any modifications or additions made to that Study Plan, in consultation with the Aquatic Resources and Water Quality Implementation Committee (including the Fish Agencies), and subject to approval by the Fish Agencies, including consultation processes and approval requirements as further described in Terms and Conditions 2.

5. Implement Study to Assess Pinniped Presence and Use of PowerBuoys

The Licensee shall implement Section 5.0 of the SA entitled Study Plan [for Pinnipeds], of the Issue Assessment, Pinnipeds, in the Aquatic Resources and Water Quality Plan, Appendix A (pages A-68 - A-72) of the SA. The Licensee shall implement Section 5.0 of the SA Study Plan, all of its subsections, and any modifications or additions made to that Study Plan, in consultation with the Aquatic Resources and Water Quality Implementation Committee (including the Fish Agencies), and subject to approval by the Fish Agencies, including consultation processes and approval requirements as further described in Terms and Conditions 2.

6. Implement Study to Identify Alteration of Fish and Invertebrate Habitat and the Effects of Project Installation

The Licensee shall implement Section 5.0 of the SA entitled Study Plan [for Fish and Invertebrates], of the Issue Assessment, Alteration of Fish and Invertebrate Habitat and the Effects of Project Installation, in the Aquatic Resources and Water Quality Plan, Appendix A (pages A-79 - A-103) of the SA. The Licensee shall implement Section 5.0 of the SAStudy Plan, all of its subsections, and any modifications or additions made to that Study Plan, in consultation with the Aquatic Resources and Water Quality Implementation Committee (including the Fish Agencies), and subject to approval by the Fish Agencies, including consultation processes and approval requirements as further described in Terms and Conditions

20120813-3045 FERC PDF (Unofficial) 08/13/2012

2.

7. Implement Study to Identify Project Effects to Wave, Current and Sediment Transport

The Licensee shall implement Section 5.0 of the SA Study Plan [for Wave, Current and Sediment Transport], of the Issue Assessment, Wave, Current and Sediment Transport, in the Aquatic Resources and Water Quality Plan, Exhibit A (pages A-138 - A-144) of the SA. The Licensee shall implement Section 5.0 of the SA Study Plan, all of its subsections, and any modifications or additions made to that Study Plan, in consultation with the Aquatic Resources and Water Quality Committee (including the Fish Agencies), and subject to approval by the Fish Agencies, including consultation processes and approval requirements as further described in Terms and Conditions 2.

8. Implement Study to Identify Impacts to Offshore Avians

The Licensee shall implement Section 5.0 of the SA entitled Study Plan [for Impacts to Offshore Avians], of in the Issue Assessment, Impacts to Offshore Avians, in the Aquatic Resources and Water Quality Plan, Exhibit A (pages A-118 - A-127) of the SA. The Licensee shall implement Section 5.0 of the SAStudy Plan, all of its subsections, and any modifications or additions made to that Study Plan, in consultation with the Aquatic Resources and Water Quality Committee (including the Fish Agencies), and subject to approval by the Fish Agencies, including consultation processes and approval requirements as further described in Terms and Conditions 2.

9. Reporting Requirements

Each quarter, the Licensee shall distribute to the Settlement Parties, including the Fish Agencies, by email or other appropriate method a brief update on the status of any ongoing monitoring and studies and plans for the next quarter ("Quarterly Update"). Quarterly Updates shall be distributed to the Settlement Parties, including the Fish Agencies, as soon as practicable, but not to exceed 30 days, following completion of the previous quarter. Notwithstanding the language of Section 3.3.9 of the SA, the Licensee will provide the Quarterly Updates to the appropriate Implementation Committees' representatives.

In addition, the Licensee, in consultation with the Coordinating Committee and appropriate Implementation Committees, will submit annual reports ("Annual Report") to the Commission summarizing any monitoring and study results from the past calendar year, describing plans and schedules for the coming calendar year, and describing the decisions of the Implementation Committees from the past calendar year. The Licensee shall also include in the Annual Report the following information:

a) A summary of the actions implemented during the previous calendar year.

b) A discussion of any substantial differences between the actions provided in the previous years' annual report and the actions that the Licensee implemented, including explanations and any necessary agency approvals for any substantial differences.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

c) A summary of the actions the Licensee plans to implement for the current calendar year.

d) A discussion of any significant differences between the implementation schedule in the previous year's annual report and the schedule for the actions the Licensee plans to implement in the current calendar year, including an explanation for any significant differences.

e) Documentation of consultation with the respective Implementation Committee and approval by the agencies with approval authority regarding actions the Licensee implemented in the previous calendar year.

f) Results of any monitoring that occurred during the previous calendar year, conclusions that the Licensee draws from the monitoring results, and any changes or modifications the Licensee proposes based on the monitoring results. Prior to formally proposing any changes to the Commission, the Licensee will consult with the appropriate Implementation Committee (including Fish Agencies) and obtain the appropriate agency approvals as necessary in accordance with Terms and Conditions 2.

The first Annual Report will be due to the Commission on April 1 after License issuance, except that if the License is issued between October 1 and April 1, the first Annual Report will be due to the Commission on the second April 1 following issuance of the License. For the first five years after license issuance and thereafter on request of the Coordinating Committee, the Licensee will convene a meeting to present the Annual Report to the Coordinating Committee after submission to the Commission.

10. Fish or Wildlife Emergency Circumstances

If at any time circumstances arise during construction or operation of the Project in which fish or wildlife are being killed or injured in a manner not anticipated or previously authorized, the Licensee shall immediately take appropriate action to prevent further loss in a manner that does not pose a risk to human life, limb or property. The Licensee shall, within six hours of becoming aware of an emergency circumstance, call the emergency contacts listed in Exhibit C of the SA and shall cooperate with the relevant agency or agencies to allow them to perform life-saving measures or collect dead animals. As soon as practicable but no later than 10 days after any such occurrence, the Licensee shall notify the appropriate Implementation Committee members to allow members to initiate the Adaptive Management Process, as provided in Section 3.3 (and its subsections) of the SA and Exhibit B of the SA, if appropriate. The Licensee shall provide a copy of this notification to the Commission and the Settlement Parties (including the Fish Agencies). Notification shall include a description of the nature, time, date, location and any action by the Licensee to prevent further loss. Nothing in this paragraph authorizes or requires the Licensee to perform life-saving measures or collect dead animals. Each Settlement Party shall be responsible for notifying the Licensee pursuant to Section 8.11 of the SA of changes in its emergency contact information. The Licensee is responsible for making one phone call to each of the emergency contacts. The Licensee may leave a message or, in the event a message cannot be left, will make reasonable efforts to continue attempting to

20120813-3045 FERC PDF (Unofficial) 08/13/2012

contact the emergency contact; however, the Licensee will not be considered in violation of Section 3.6 of the Settlement Agreement for failure to contact an entity that does not answer the phone number provided.

11. Implement Operations and Maintenance Plan

The Licensee, in consultation with the Fish Agencies, shall implement the Operations and Maintenance Plan, as described in License Application for the term of the license.

The O&M plan includes the following elements:

Description	Frequency
Continuous on-shore monitoring and operation	Throughout the duration of the Commission license
Preventative maintenance/site inspection	Monthly
Equipment inspection	Annually
Planned maintenance – retrieval, refurbishment, Redeployment	The first PowerBuoy may initially be retrieved after 2 years. A five-year major service period is anticipated for the other PowerBuoys deployed at the site.
Unplanned maintenance	As required, weather and personnel safety being considered.
Supporting documentation	Reports produced after monthly inspections, equipment inspections, and appropriate maintenance procedures.
Management and storage of spare parts	As required

The Licensee shall consult with the Aquatics Resources and Water Quality Implementation Committee concerning materials, not originally listed in the License Application or SA, which are present and in use at the array, and which, if accidentally released into the environment in sufficient quantity would cause harmful effects to the marine environment.

12. Spill Prevention Control and Countermeasure Plan

To prevent oil from entering the water, or address an unanticipated spill of oil, the Licensee, shall implement the SPCC Plan, as described in License Application for the term of the license. In the event of a spill, the Licensee shall consult with the Fish Agencies as required within that plan, and as necessary to minimize impacts to fish, wildlife and their habitats, as soon as possible after the Licensee has taken necessary actions to stabilize an unanticipated spill.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

13. Emergency Response/Recovery Plan

To limit impacts to fish and wildlife resources during an unanticipated emergency and/or recovery of a detached Powerbuoy(s), the Licensee, shall implement the Emergency Response/Recovery Plan, as described in License Application for the term of the license. In the event of an emergency, the Licensee shall consult with the Fish Agencies as required within that plan, and as necessary to minimize impacts to fish, wildlife and their habitats, as soon as possible after the Licensee has taken necessary actions to stabilize and/or address the emergency.

14. Inspection of Project

To the extent access is restricted, the Licensee shall permit the Fish Agencies, at any reasonable time, access to, through, and across the Project boundary and works for the purpose of inspecting Project facilities and Project records pertaining to the operation of the Project and implementation of the SA and Commission License for this Project. The Licensee shall allow such inspections only after the Fish Agency(ies) requesting the inspection provides the Licensee reasonable notice of such inspections and agrees to follow the Licensee's standard safety and security procedures when engaged in such inspections including, but not limited to, taking safety training and executing a waiver of liability.

As soon as practicable after completion of construction and initiation of PowerBuoy operations, and considering the season and weather conditions, the Licensee will host one site visit to the PowerBuoy array to view the PowerBuoys and their environment from the boat deck. The Licensee will provide at least 30 days' notice regarding the site visit date, but is not responsible for ensuring that all Fish Agencies are available on the site visit date. The Licensee may limit the number of representatives that each Fish Agency sends to the site visit based on boat capacity and safety issues and may require representatives to sign liability waivers.

15. Decommissioning Plan

In the event the Project is decommissioned for any reason, the Licensee shall develop a Decommissioning Plan, in consultation with and subject to approval by the Fish Agencies. The Licensee will provide a plan to restore the natural characteristics of the site to the extent practicable by describing the facilities to be removed. The plan will include:

- a proposed decommissioning schedule;
- a description of removal and containment methods;
- description of site clearance activities;
- plans for transporting and recycling, reusing, or disposing of the removed facilities; a description of those resources, conditions, and
- activities that could be affected by or could affect the proposed

20120813-3045 FERC PDF (Unofficial) 08/13/2012

decommissioning activities;

- results of any recent biological surveys conducted in the vicinity of the structure and recent observations of marine mammals at the structure site;
- mitigation measures to protect archaeological and sensitive biological features during removal activities;
- a statement as to the methods that will be used to survey the area after removal to determine any effects on marine life; and
- Identification of how the Licensee will restore the site to the natural condition that existed prior to the development of the site, to the extent practicable.

The Licensee shall provide a draft decommissioning plan to the Fish Agencies for a minimum of 30 days for review and comment and approval, prior to filing the results report with the Commission. The Licensee shall include with the report documentation of consultation with all agencies and approval by the Fish Agencies, copies of comments and recommendations on the draft decommissioning plan after it has been prepared and provided to the Fish Agencies, and specific descriptions of how the Fish Agencies' comments and recommendations are accommodated by the Decommissioning Plan. Upon approval by the Commission, the Licensee shall implement the Plan.

2.8.3.1 Terms and Conditions

To carry out Reasonable and Prudent Measures 3-8 the licensee must comply with the following Terms and Conditions.

The applicant (OPT) must ensure that listed species are taken only at the levels, by the means, in the areas and for the purposes stated in the study plan, and according to the incidental take statement. "Applicant (OPT)" means the applicant (OPT) or any employee, contractor, or agent of the applicant (OPT).

1) The applicant (OPT) must not intentionally kill or cause to be killed any listed species unless the incidental take statement specifically allows intentional lethal take.

2) The applicant (OPT) must include in all sampling efforts that capture salmonids, the collection, processing and reporting of genetic stock indicator (GSI) data to identify the species affected by the sampling efforts. All GSI sampling, processing and reporting must be conducted in accordance with currently accepted GSI protocols for DNA sampling and identification of salmonids.

3) The applicant (OPT) must submit a detailed annual sampling plan, with sampling locations and detailed sampling protocols, including collection, processing and reporting of GSI samples as noted above in Terms and Conditions 3 for all salmonids captured for approval by NMFS 120 days prior to starting any proposed study which may affect ESA- listed species.

4) The applicant (OPT) must handle listed fish with extreme care and keep them in cold water to the maximum extent possible during sampling and processing procedures. When

20120813-3045 FERC PDF (Unofficial) 08/13/2012

fish are transferred or held, a healthy environment must be provided; e.g., the holding units must contain adequate amounts of well-circulated water. When using gear that captures a mix of species, the applicant (OPT) must process listed fish first to minimize handling stress.

5) The applicant (OPT) must stop handling listed juvenile fish if the water temperature exceeds 68 degrees Fahrenheit at the capture site. Under these conditions, listed fish may only be visually identified and counted.

6) If the applicant (OPT) is approved to anesthetize listed fish to avoid injuring or killing them during handling, the fish must be allowed to recover before being released. Fish that are only counted must remain in water and not be anesthetized.

7) The applicant (OPT) must obtain approval from NMFS before changing approved sampling locations or sampling protocols.

8) The applicant (OPT) must cease sampling and monitoring efforts if it is anticipated that the authorized level of take is likely to be exceeded. The applicant (OPT) must submit a written report detailing why the authorized take level was likely to be exceeded.

9) The applicant (OPT) must notify NMFS as soon as possible but no later than two days after any authorized level of take is exceeded. The applicant (OPT) must submit a written report detailing why the authorized take level was exceeded.

10) The applicant (OPT) is responsible for any biological samples collected from listed species as long as they are used for research purposes. The applicant (OPT) may not transfer biological samples to anyone not listed in the approved study plan without prior written approval from NMFS.

11) The person(s) actually doing the sampling must carry a copy of this permit while conducting the authorized activities.

12) The applicant (OPT) must allow any NMFS employee or representative to accompany field personnel while they conduct the sampling and monitoring activities.

13) The applicant (OPT) must allow any NMFS employee or representative to inspect any records or facilities related to the sampling and monitoring activities.

14) The applicant (OPT) may not transfer or assign this authorization to any other person as defined in section 3(12) of the ESA. This authorization ceases to be in effect if transferred or assigned to any other person without NMFS' authorization.

15) NMFS may amend the provisions of this authorization after giving the applicant (OPT) reasonable notice of the amendment.

16) The applicant (OPT) must obtain all other Federal, state, and local permits/authorizations needed for the sampling and monitoring activities.

20120813-3045 FERC PDF (Unofficial) 08/13/2012

17) On or before January 31st of every year, the applicant (OPT) must submit to NMFS a postseason report describing the sampling and monitoring activities, the number of listed fish taken and the location, the type of take, the number of fish intentionally killed and unintentionally killed, the take dates, and a brief summary of the sampling and monitoring results. Falsifying annual reports or permit records is a violation of this authorization.

18) If the applicant (OPT) violates any condition of this authorization they will be subject to any and all penalties provided by the ESA. NMFS may revoke this authorization if the authorized activities are not conducted in compliance with the terms and conditions and the requirements of the ESA or if NMFS determines that its findings are no longer valid.

Finally, NMFS will use the annual reports to monitor the actual number of listed fish taken annually in the sampling and monitoring activities and will adjust authorized take levels if they are deemed to be excessive.

Document Content(s)

P-12713-002Order.DOC.....1-75

20120927-3021 FERC PDF (Unofficial) 09/27/2012

140 FERC ¶ 62,236
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Reedsport OPT Wave Park, LLC Project No. 12713-002

ORDER AMENDING LICENSE

(Issued September 27, 2012)

1. On September 11, 2012, Reedsport OPT Wave Park, LLC, licensee for the Reedsport Opt Wave Park Hydroelectric Project, FERC No. 12713, filed aperture card and electronic file formats of approved Exhibit F and G drawings. The project will be located in Oregon State territorial waters, about 2.5 nautical miles off the coast of Reedsport, in Douglas County, Oregon.

Background

2. The Commission issued an Order Issuing Original License on August 13, 2012.[1] Article 202 of the license requires the licensee to file the approved exhibit drawings in aperture card and electronic file formats within 45 days of the date of issuance of the license.

Review

3. Our review of the aperture card and electronic file formats filed on September 11, 2012, identified that the license order referenced the incorrect filing date for the Exhibit G drawing. Ordering paragraph (B) (1) of the license references the Exhibit G drawing filed in the license application on February 1, 2010. However, the Commission sent a letter to the applicant on March 18, 2010, that identified several deficiencies with the drawing and requested the licensee to correct and re-file the drawing. The licensee filed a revised Exhibit G drawing on May 18, 2010.

4. Ordering paragraph (A) of this order revises ordering paragraph (B) (1) of the license to reflect the revised Exhibit G drawing filed on May 18, 2010. The Exhibit G drawing filed in aperture card and electronic file formats by the licensee is the same drawing as the drawing filed on May 18, 2010, therefore no further action is required from the licensee.

[1] 140 FERC ¶ 62,120 (issued August 13, 2012).

20120927-3021 FERC PDF (Unofficial) 09/27/2012

The Director orders:

(A) Ordering paragraph (B) (1) of the license for the Reedsport Opt Wave Park Hydroelectric Project, FERC No. 12713, is amended, in part, as follows:

(1) All lands, to the extent of the licensee's interests in these lands, enclosed by the project boundary shown by Exhibit G filed on May 18, 2010: …

(B) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 825*l* (2006), and the Commission's regulations at 18 C.F.R. § 385.713 (2012). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Charles K. Cover, P.E.
Chief, Project Review Branch
Division of Hydropower Administration
and Compliance

Document Content(s)

P-12713-002.DOC.....1-2

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the *Application for Surrender of License* on behalf of Reedsport OPT Wave Park, LLC for the Reedsport OPT Wave Park Project Docket Number P-12713-000 upon each person designated on the official service list below compiled by the Secretary in this proceeding.

DATED at Seattle, Washington this 30th day of May, 2014.

Judy Shore

Judy Shore, Practice Assistant
to Cherise M. Oram
STOEL RIVES LLP
600 University St., Suite 3600
Seattle, WA 98101
Telephone: (206) 386-7622 (Cherise)
Telephone: (206) 386-7571 (Judy)
Facsimile: (206) 386-7500
cmoram@stoel.com

Service List for P-12713-000 Reedsport OPT Wave Park, LLC

Contacts marked ** must be postal served

Party	Primary Person or Counsel of Record to be Served	Other Contact to be Served
Confederated Tribes of Coos, Lower Umpqua & Siuslaw indians	James Williams 1318 NE Broadway St. Portland, OREGON 97232 UNITED STATES jdw@jdw-law.net	Howard Crombie Dir, Dept of Natural Resources Confederated Tribes of Coos, Lower Umpqua & Siuslaw indians 1245 Fulton Ave. Coos Bay, OREGON 97420 hcrombie@ctclusi.org
INDIVIDUAL	Ken Homolka Hydropower Program Leader Oregon Department of Fish & Wildlife 4034 Fairview Industrial Dr. SE Salem, OREGON 97302-1142 UNITED STATES Ken.Homolka@state.or.us	
INDIVIDUAL	Ronald Kohanek Oregon Water Resources Department 725 Summer St. NE, Suite A Salem, OREGON 97301-1271 UNITED STATES Ron.C.KOHANEK@wrd.state.or.us	
INDIVIDUAL	Randy Henry Policy Planning Analyst Oregon State Marine Board 435 Commercial St NE #400 Salem, OREGON 97309 UNITED STATES randy.h.henry@state.or.us	
INDIVIDUAL	David Harris SW Hydro Coordinator Oregon Department of Fish & Wildlife 4192 North Umpqua Highway Roseburg, OREGON 97470 UNITED STATES dave.a.harris@state.or.us	

Natural Resources Policy Bureau		Jessica H. Keys Natural Res. Policy Advisor Natural Resources Policy Bureau 900 Court Street, NE Salem, OREGON 97301 jessica.h.keys@state.or.us
NOAA National Marine Fisheries Service	Keith Kirkendall NOAA 1201 NE Lloyd Blvd Suite 1100 Portland, OREGON 97232 UNITED STATES keith.kirkendall@noaa.gov	
NOAA National Marine Fisheries Service	Scott Carlon NOAA National Marine Fisheries Service 1201 NE Lloyd Blvd. Suite 1100 Portland, OREGON 97232 UNITED STATES scott.carlon@noaa.gov	
NOAA National Marine Fisheries Service	Cathy Tortorici National Marine Fisheries Service - Northwest Region 1201 NE Lloyd Blvd Suite 1100 Portland, OREGON 97232 UNITED STATES Cathy.Tortorici@noaa.gov	
NOAA National Marine Fisheries Service	Christopher Fontecchio Attorney-Advisor NOAA 7600 Sand Point Way NE Seattle, WASHINGTON 98115 UNITED STATES chris.fontecchio@noaa.gov	
NOAA National Marine Fisheries Service	Bridgette Lohrman Natural Resource Specialist NOAA 1201 NE Lloyd Blvd Suite 1100 Portland, OREGON 97232 UNITED STATES bridgette.lohrman@noaa.gov	Cathryn E. Tortorici Branch Chief 1201 NE Lloyd Blvd. Suite 1100 Portland, OREGON 97232 Cathy.Tortorici@noaa.gov

NOAA National Marine Fisheries Service	Christopher Fontecchio Attorney-Advisor NOAA 7600 Sand Point Way NE Seattle, WASHINGTON 98115 UNITED STATES chris.fontecchio@noaa.gov	
Ocean Power Technologies, Inc.	George Wolff Manager, Business Development Ocean Power Technologies, Inc. Ocean Power Technologies, Inc. 1590 Reed Road Pennington, NEW JERSEY 08534 UNITED STATES gwolff@oceanpowertech.com	
Ocean Power Technologies, Inc.	Kevin Watkins kwatkinspdx@gmail.com	
Oregon Department of Energy	Kathy Stuttaford Oregon Department of Energy 625 Marion St. NE Salem, OREGON 97301 UNITED STATES Kathy.D.Stuttaford@odoe.state.or.us	
Oregon Department of Fish and Wildlife	Ken Homolka Hydropower Program Leader Oregon Department of Fish & Wildlife 4034 Fairview Industrial Dr. SE Salem, OREGON 97302-1142 UNITED STATES Ken.Homolka@state.or.us	Caren Braby Oregon Department of Fish and Wildlife 2040 SE Marine Science Drive Newport, OREGON 97365 Caren.e.braby@state.or.us
Oregon Department of Justice	Steve Shipsey Assistant Attorney General State of Oregon 1162 Court Street NE Salem, OREGON 973100001 UNITED STATES steve.shipsey@doj.state.or.us	

Oregon Department of Land Conservation and Development	Paul Klarin Oregon Department of Land Conservation and Development 635 Capitol St. NE #150 Salem, OREGON 97301 UNITED STATES paul.klarin@state.or.us	
Oregon Parks & Recreation Department		**Laurel Hillmann Oregon Parks and Recreation De 725 Summer Street NE, Suite C Salem, OREGON 97301
Port Orford Ocean Resource Team	Suzanna Stoike POORT PO Box 679 Port Orford,OREGON 97465-0679 UNITED STATES slstoike@gmail.com	
Port Orford Ocean Resource Team	Leesa Cobb UNITED STATES leesa@oceanresourceteam.org	
Portland General Electric Company	Richard George Assistant General Counsel INDIVIDUAL 121 SW Salmon Street 1WTC1301 Portland, OREGON 97204 UNITED STATES richard.george@pgn.com	Quisha A Light Regulatory Paralegal Portland General Electric Company 121 SW Salmon ST 1WTC 1301 Portland, OREGON 97204 quisha.light@pgn.com
Reedsport OPT Wave Park, LLC	**George Taylor Reedsport OPT Wave Park, LLC 1590 Reed Rd Pennington, NEW JERSEY 085345010 UNITED STATES	**Charles F Dunleavy Reedsport OPT Wave Park, LLC 1590 Reed Rd Pennington, NEW JERSEY 085345010 Mercer
Reedsport OPT Wave Park, LLC	**Jessica Key Natural Resources Policy Advis Reedsport OPT Wave Park, LLC 900 Court Street NE Salem, OREGON 97301 UNITED STATES	

U.S. Department of Interior	Eric Nagle U.S. Department of Interior Office of the Regional Solicitor 805 SW Broadway, Suite 600 Portland, OREGON 97205 UNITED STATES eric.nagle@sol.doi.gov	Ann E Gray Oregon Fish and Wildlife Offic U.S. Fish & Wildlife Service 2600 SE 98th Ave, #100 Portland, OREGON 97266 ann_e_gray@fws.gov
U.S. Department of Interior	**Robyn Thorson Regional Director U.S. Fish & Wildlife Service 2800 Cottage Way Fish and Wildlife Service Sacramento, CALIFORNIA 95825 UNITED STATES	Susan Rosebrough Project Manager National Park Service 909 First Avenue 5th Floor Seattle, WASHINGTON 98104 susan_rosebrough@nps.gov
USDA Forest Service	Walt Dortch Contact/Addr No Longer Valid USDA Forest Service UNITED STATES Inactive	**Forest Supervisor Siuslaw National Forest Siuslaw National Forest 4077 SW Research Way Corvallis, OREGON 97333
USDA Forest Service	Kristen Bonanno Region 6 Energy Coordinator USDA Forest Service PO Box 3623 Portland,OREGON 97208-3623 UNITED STATES kbonanno@fs.fed.us	Michael Harvey Lands Staff Officer USDA Forest Service 4077 SW Research Way Corvallis, OREGON 97333 mharvey@fs.fed.us
USFS, Region 6	Kristen Bonanno Region 6 Energy Coordinator Office of the General Counsel, USDA PO Box 3623 Portland,OREGON 97208-3623 UNITED STATES kbonanno@fs.fed.us	Michael Harvey Lands Staff Officer USDA Forest Service 4077 SW Research Way Corvallis, OREGON 97333 mharvey@fs.fed.us