Application for Use of State-owned Aquatic Lands

Applicant Name: Columbia Power Technologies, LLC
County: King County
Water Body: Puget Sound
Type of Authorization - Use: Lease – Testing of a Wave Energy Buoy
Authorization Number: 23-085836
Term: 1 year

Description: This agreement will allow the use of State-owned aquatic lands for the sole purpose of Deployment of a test wave energy buoy. It is located in Puget Sound, in King County, Washington.

Columbia Power Technologies has applied for a lease to conduct research of a scaled down version of their wave energy device. The deployment will occur in approximately 80 feet of water and will be marked by Coast Guard approved navigation lights.
APPLICATION FOR AUTHORIZATION
TO USE STATE-OWNED AQUATIC LANDS

No work can be started on the project area until a use authorization has been granted by the state Department of Natural Resources

I. SUBMISSION OF APPLICATION

This application form will be reviewed by the state Department of Natural Resources upon receipt at the address given below, and also posted on the DNR website as public information. Applicants will be notified in writing if the application will be accepted for further review. However, this application may be rejected at any time before signed execution of a use authorization.

APPLICATION MUST BE FILLED OUT IN BLUE OR BLACK PEN

Please send the completed application form to your region land manager at:

Ms. Cindy Rathbone
Washington State Department of Natural Resources
South Puget Sound
950 Farman Avenue N
Enumclaw, WA 98022-9282

Enclose a $25.00 non-refundable application processing fee with the application. (This fee is not required for local, state, and other government agencies).

II. APPLICANT INFORMATION

Date of Application: March 25, 2010

Authorization to be Issued To (how name is to appear in the lease document):

Columbia Power Technologies, LLC

Applicant’s Representative: Bradford Lamb

Relationship to Applicant: Company President

Address: 236 East High Street
City: Charlottesville
State: VA
Zip Code: 22902

Telephone: (434) 817-8799
Fax: (434) 817-00271
E-Mail: blamb@columbiapw.com

FOR OFFICIAL USE ONLY
Support staff: Application Fee Received □ JARPA Received □ Date: 3/20/10
Land Manager: □ New Application □ Renewal Application Land Manager Initials CR 3/20/10
Land Manager: Type: (20, 21, 22, 23, 31, 51)
NonE Use Code
Land Records: New Application Number: 23-026836 Trust: 15 ; County 17 ; AQR Plate No. TF17-005 Note 1

EN 4-21-2610
II. APPLICANT INFORMATION cont'

Department of Revenue Tax *Registration Number (Unified Business Identifier) is Required: [59-3810136]

Which of the following applies to Applicant (Check One and Attach written authority to sign - bylaws, power of attorney, etc):

<table>
<thead>
<tr>
<th>Corporation ☐</th>
<th>Limited Partnership ☐</th>
<th>General Partnership ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Registration:</td>
<td>State of Registration:</td>
<td>State of Registration:</td>
</tr>
<tr>
<td>Sole Proprietorship ☐</td>
<td>Marital Community Spouse: ☐</td>
<td>Government Agency ☐</td>
</tr>
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</table>

Other ☒ (Please Explain:) Limited Liability Corporation (Registered in Delaware)

Has the site use been authorized before or is it currently under lease? Yes ☐ Lease Number: No ☒ Don't Know ☐

III. LOCATION

The Body of Water on which the state property is located:

Approximately 0.5 miles offshore of West Point, Seattle, WA in Puget Sound (see attached figures)

County in which the state property is located: King

| Government Lot: N/A |
|---------------------|-------------------|
| Section: 16 | Township: T25N |
| Range: R03 | E ☒ or W ☐ |

Note: A legal property survey including the legal description and other information about the property is required to obtain a use authorization. WA DNR survey requirements are attached to this form. The survey plat will be attached to the lease/easement as Exhibit A. DO NOT HAVE THIS SURVEY CONDUCTED UNTIL YOU HAVE BEEN NOTIFIED IN WRITING THAT THE APPLICATION HAS BEEN ACCEPTED FOR PROCESSING.

The proposed work would occur in the marine waters of Puget Sound, all of which is Washington State submerged lands.

Physical description of Project Area (For example, Marsh, Tideflat adjacent to the Chehalis River, etc.):

The project area is located in the marine waters of Puget Sound – in fine sandy sediment.

Name of Owner(s) of Uplands, Shorelands, and/or Tidelands shoreward and adjacent to the Property:

The nearest land properties (approximately 0.5 miles to the east) are industrial (West Point Sewage Treatment Plant) and recreational (Discovery Park). King County is the property owner of the treatment plant and the City of Seattle owns Discovery Park.

Address:  
City:  
State:  
Zip Code:  

Phone Number:  
Fax Number  
E-mail:  

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Note: Except for property located within established Harbor Areas, proof of ownership, or authorization to use the adjacent tideland, shortland, or upland property may be required. If the applicant is the owner of the adjacent land, attach a copy of the deed.

County Parcel No(s). for adjacent properties, upland, and/or adjacent tideland properties:
- Parcel # 0925939005 - City of Seattle Parks Department
- Parcel # 0925939004 - King County

IV. USE OF PROPERTY

Describe, in detail, the proposed use of the Property:

Columbia Power Technologies proposes to conduct research on a scaled version of their wave energy device (WEC). Primary objectives of this project are to optimize the energy extraction performance of the wave energy device through shape improvements and control optimization. An intermediate scale version of the device will be temporarily anchored to collect data that will be used to validate computer models that predict performance at full scale. This testing will be temporary, lasting for approximately four months (October/November 2010 to January/February 2011) from deployment to retrieval. The deployment site will be in approximately 80 feet of water half a mile offshore of Discovery Park in the City of Seattle.

The buoy structure is constructed primarily of fiberglass and consists of three moving bodies (a spar-damper and two rotating wings) (see attached figure). In the presence of waves, the spar-damper tends to rock, while the wings rotate. In this way, the device converts the wave motion into rotation of the internal generators, resulting in creation of electricity. The buoy will have a top-side diameter of 11.8 feet, spar draft of 16.4 feet, and a displacement of between 5.1 to 14 tons. It will have a maximum power output of 1.4 kilowatts (or 1.8 horsepower). The device will power a maximum of 1.4 kilowatts and will be used to run buoy instrumentation. Excess power will be removed via water heaters on the buoy. There will be no grid connection and the unit will be decommissioned and removed from the project area at the end of the test.

The device will be towed by boat to the testing location and then placed in position with use of a crane. The device will be placed at a maximum water depth of 80 feet and secured using three clump anchors (7 ton each). The anchoring diameter will be 320 feet. Navigational lights and radar reflector will be placed on the device and meet the U.S. Coast Guard’s aids to navigation requirements (33 CFR 66 Private Aids to Navigation).

Is or will the Property be subleased to another party? Yes ☐ No ☒
If yes, submit a copy of the sublease agreement.

What are the current and past uses of the site?

The site is located within Puget Sound, as such there are no current or past uses of the site other than recreational and fishing.

Do you have any knowledge of contamination of the site by toxic or hazardous substances, or of past uses or practices that might have lead to contamination by such substances? Yes ☐ No ☒
If so, please explain:

Do you know if any fill material has been placed on the property in question? Yes ☐ No ☒
If yes, please explain:

V. IMPROVEMENTS

Physical improvements are structures placed on the land that cannot be removed without damage to the land. Examples of such structures include: pilings, dolphins, piers, wharves, piling-supported buildings, structures built on fill or concrete...
foundations, buried pipelines and cables, and support structures for bridges.

What physical improvements currently exist on the site? (Photos may be required.) N/A. The site is in the waters of Puget Sound.

If there are physical improvements currently on the site, who owns them? N/A

If there are physical improvements currently on the site, describe their condition: N/A

Which, if any, of the existing physical improvements will be removed, remodeled, or reconstructed? N/A

Describe any physical improvements that the applicant is proposing to construct on the site:

No physical improvements will be constructed on the site. A wave energy converter (scientific measurement buoy) will be temporarily placed in Puget Sound. The buoy will be towed into position by a small vessel and/or crane barge.

Has any fill material been placed on the site? Yes ☐ No ☒
If Yes, please describe:

VI. LOCAL, STATE, AND FEDERAL REGULATORY PERMITS Copies of all Government Regulatory Permits, or Permit Waivers Are Required Before Issuance of a DNR Use Authorization. Your project may require all or some of the following.

Please include the following permit applications, permits, or waivers with the application:

JARPA (Joint Aquatic Resource Permit Application) - This one form is used to apply for all of the following individual permits:
1. Section 10 Permit (Required by the US Army Corps of Engineers for any work in or affecting navigable waters, e.g., floats, docks, piers, dredging, pilings, bridges, overhead power lines.)
2. Shoreline Substantial Development, Conditional Use, Variance Permit or Exemption (Issued by Local Government, and is required for work or activity in the 100 year flood plain, or within 200 feet of the Ordinary High Water mark of certain waters; and which included any one of the following: dumping, drilling, dredging, filling, placement or alteration of structures or any activity which substantially interferes with normal public use of the waters.)
3. Hydraulic Project Approval (Required by the Department of Fish and Wildlife if the project includes work that will use, divert, obstruct, or change the natural flow or bed of any fresh or salt water of the state.)
4. Section 404 Permit (Required by the US Army Corps of Engineers if your project will discharge or excavate any dredged or fill material waterward of the Ordinary High Water mark or the Mean Higher High Tide Line in tidal areas.)
5. Section 401 Water Quality Certification (Required by the Department of Ecology if a Section 404 permit is required.)

NPDES (National Pollutant Discharge Elimination System Permit) - Required by the Department of Ecology under delegated authority from the Federal Environmental Protection Agency for projects that include the discharge of fluid on or into surface water.

SEPA (State Environmental Policy Act) Checklist and Environmental Assessments - When you submit a permit application to any agency, if the project is not exempt, the lead agency will ask you to fill out an environmental checklist. Based on checklist answers and the reviewers knowledge of the project site, agency personnel will determine the types of impacts the project may have on the environment. The agency assessments may be the following forms: Determination of Non-significance, Determination of Significance, scoping documents, draft or final Environmental Impact Statements (EIS).
Describe any habitat mitigation required by any of the permitting agencies identified above and identify where such mitigation is proposed to occur.

The project will follow mitigation outlined in permits and approvals listed above.

All answers and statements are true and correct to the best of my knowledge.

Applicant Name (please print):
Bradford Lamb

Title:
President, Columbia Power Technologies, LLC

Applicant or Authorized Signature:

Date: March 25, 2010

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES
REQUIREMENTS FOR RECORDS OF SURVEY FOR LEASES AND EASEMENTS

Records of Survey are required for easements and leases granted by the department for:

- County roads
- Highways
- Easements across high value lands
- Easements across transition lands
- Utilities
- Upland leases
- Communication sites
- Drainage or irrigation easements
- Railroads
- Aquatic land uses: exemptions are provided for recreational docks and mooring buoys per RCW 79.105.430 and for those permits issued as a Right of Entry
- Other grants as determined by the department based upon site specific considerations

The applicant is responsible for:

- All costs and work associated with creating, submitting, revising and recording the Record of Survey
- Submitting a preliminary Record of Survey for review and approval by the department prior to approval of the agreement.
- Recording the final Record of Survey with the county auditor’s office.
- Submitting a digital copy in AutoCAD.DWG or DXF (drawing exchange format) of the final survey.
- Submitting two full size copies and one 8 ½ X 11” copy and of the recorded survey including the auditor’s recording information to the department.

A Record of Survey must:

1. Be produced by a licensed surveyor.
2. Meet the requirements of Title 58 RCW and Chapter 332-130 WAC.
3. Include the name of the applicant, the purpose of the easement or lease and the DNR easement or lease number.
4. Clearly show easement or lease boundaries with distances and directions of all boundary lines.
5. Show the easement or lease area to an accuracy of (±) 0.5% of the total area or (±) 10 square feet, whichever is greater.

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6. (Not required for aquatic lands lease across the bed of Puget Sound or the Pacific Ocean) Indicate the acreage encompassed by the lease or easement within each quarter-quarter section or government lot.

7. Show distances and directions from two or more controlling corners of a recorded subdivision, recorded survey or government survey (GLO) corners.

8. Be related by meridian and coordinate to the Washington Coordinate System NAD’83(1991) by closed ties to NGS Control monuments, or the extension thereof. The designation of the control stations used shall appear on the plat.

9. Include a narrative legal description describing the servient estate (grantor's parcel) on the Record of Survey.

10. Show a detailed plan of improvements to be constructed or already existing on the easement or lease area. All improvements must be shown in sufficient detail to determine what they are used for and to ensure they are entirely within the easement area.

11. Show the location of any proposed utility.

12. (Easement or lease) Show the lineal footage along the centerline.

13. (Easement or lease) Show the complete alignment information and width including any necessary curve data.

14. (Easements or leases, across a section line or state ownership boundary, not required for aquatic lands lease across the bed of Puget Sound or the Pacific Ocean) Provide ties to the centerline of an easement along the section or subdivision line from the nearest appropriate Public Land Survey System (PLSS) section corner, quarter section or subdivision corner, where the easement enters and leaves the section or state ownership.

15. (Easements or leases falling entirely within one section and not crossing a section line or state ownership boundary) Provide ties from both end points of the linear easement to PLSS corners or other subdivision corners shall be provided.

16. (A lease which encroaches on a previously leased site) Show the boundary for the senior lease in the vicinity of the proposed lease shall also be shown, together with ties between the two leases sufficient to determine the full extent of the encroachments.

Additional Requirements for Communication Site Leases

17. Show ties to the corners of previously monumented communication sites adjacent to, or in the immediate vicinity of the proposed communication site.

18. Show access to the site.

19. Mark the corners of the communication site, as described and granted, with substantial permanent magnetically locatable monuments. The monuments shall be in place and obviously marked on the ground after the construction of installations and improvements.

20. Show the center of any communication site tower by Washington Plane Coordinates, NAD83 (1991), or latitude and longitude. NAD83 datum must be used to determine global location coordinates and must be in decimal degrees. Coordinates must have at least five decimal places to the right of the decimal point and include a negative longitude.

21. On all communication sites where towers or beam paths are shown, an elevation is required at the base of the tower.

22. Show the tower height, and the height of the antenna or microwave dish and any beam path used shall have the diameter and tilt thereof shown.

23. The elevation shall be derived from an established benchmark in the vicinity of the site, or an elevation designated by the Department of Natural Resources.

Additional Requirements for Aquatic Land Uses:

24. The lease of aquatic lands is often subject to preference rights. Applicants and surveyors should carefully determine the direction, and show details of the proration of coves and irregular shoreline.

25. (Lease sites which contain existing or proposed structures and improvements that are classified as a non water-dependent or a water oriented use as described within RCW 79.105.060 and WAC 332-30-106)
Provide the square footage of each structure and improvement.

26. Where applicable, the survey of aquatic lands must show the location of the following lines for:

a. Tidal areas – Government meander line, the original and current locations of line of mean high tide, line of mean low tide, and line of extreme low tide. The survey must include the name of tidal bench mark(s) used or describe the alternate method employed for determining a Tidal Datum. **Lease areas which contain tidelands and bedlands** at a minimum must show the location of the line of extreme low tide crossing the lease area. **Lease areas containing bedlands exclusively** may be required to show the relationship to the line of extreme low tide and the -18 foot contour line only.

b. Lakes – Government meander line, line of ordinary high water (original ordinary high water if the lake has experienced artificial raising or lowering of the water level), and line of ordinary low water (include source of data) and line of navigability if established.

c. Rivers - Line of ordinary high water and line of ordinary low water (include source of data) and line of navigability if established.

d. Lots and blocks of platted tide lands or shore lands, inner and outer harbor lines, waterway lines, street boundaries, any local construction limit lines, any dredge or fill areas, and easements of record within the lease site.

e. All lines must be shown in sufficient detail to compute and show the area of each area of State-owned bedlands, tidelands, shore lands, harbor area, or waterways included within the proposed lease site.

*Include any other data necessary for the complete understanding of the information shown on the survey. If, in the opinion of the department, such information is lacking, the survey may be rejected.*

**Record of Survey Revisions:**

27. Any differences between the as-built road and the regulation plat must be reflected in a revised Record of Survey and recorded with the county by the applicant.

28. When any portion of the completed improvements are located outside of the granted lease site, the as-built locations must be reflected in a revised Record of Survey and legal description. In this instance, a new application for an amended lease site may be required if the as-built location creates adverse impacts. In the case of linear leases across the bed lands of the sound or the ocean, an as-built Record of Survey and a revised legal description of the linear lease must be provided.

**Survey Information updated July 2002.**

For additional information contact one of the following region offices:

**Southeast Region**
713 Bowers Rd
Ellensburg, WA 98926-9341
509-925-8510
TTY: 509-925-8527

**Olympic Region**
411 Tillicum Ln
Forks, WA 98331-9797
360-374-2800
TTY: 360-374-2819

**Northeast Region**
P.O. Box 190
225 S Silke Rd
Colville, WA 99114-0190
360-684-7474
TTY: 509-684-7474

**Pacific Cascade Region**
P.O. Box 280
601 Bond Rd
Castle Rock, WA 98611-0280
360-577-2025
TTY: 360-577-2025

**Northwest Region**
919 N Township St
Sedro-Woolley, WA 98284-9333
360-856-3500
TTY: 360-856-1371

**South Puget Sound Region**
950 Farman Ave N
Enumclaw, WA 98022-9282
360-825-1631
TTY: 360-825-6381