

IN THE COURT OF APPEALS FOR THE STATE OF OREGON

CHARLES CIECKO and DAVID  
YAMAMOTO,

Petitioners

v.

Court of Appeals No. A156130

OREGON DEPARTMENT OF LAND  
CONSERVATION AND  
DEVELOPMENT,

Respondent.

BRIEF OF *AMICI CURIAE* GCI COMMUNICATION CORP., NORTH  
AMERICAN SUBMARINE CABLE ASSOCIATION, AND OREGON  
FISHERMEN'S CABLE COMMITTEE INC. IN SUPORT OF PETITIONERS

Judicial Review of Administrative Rule

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## **STATEMENT OF THE CASE AND ASSIGNMENT OF ERROR**

*Amici curiae* adopt the statements submitted by Petitioners.

### **SUMMARY OF ARGUMENT**

The failures of the Oregon Department of Land Conservation and Development (“DLCD”) and the Oregon Land Conservation and Development Commission (“LCDC”) to follow statutory procedures in amending Part 5 of Oregon’s territorial sea plan (“TSP”) has resulted in a TSP that needlessly increases known risks that uncoordinated renewable energy facilities will damage numerous submarine cables landing in Oregon, which the federal government has designated as critical infrastructure. Indeed, submarine cables provide almost all U.S. international Internet, voice, and data connectivity, and those landing in Oregon provide direct, low-latency connectivity that greatly benefits the Oregon economy and high-technology businesses.

Although directed by statute either to (1) make a finding that the TSP amendments proposed by the Ocean Policy Advisory Council (“OPAC”) carry out the requisite policies and are consistent with statewide planning goals, or (2) return the amendments to OPAC for revision, LCDC blazed its own third way. Specifically, LCDC revised the amendments proposed by OPAC and adopted them without sending the amendments back to OPAC for review. For the reasons set forth in detail in the Petitioners’ brief, LCDC thereby exceeded its



statutory authority and failed to comply with applicable rulemaking procedures in adopting amendments to Part 5 of Oregon's TSP.

*Amici curiae* sought and obtained the Court's permission to file in this proceeding to describe how LCDC's procedural error will harm submarine cable operators whose cables land in Oregon or traverse Oregon's territorial waters and in so doing harm U.S. critical infrastructure that greatly benefits Oregon. The revised version of the TSP amendments adopted by LCDC removed language recommended by OPAC that would have required applicants for new offshore renewable energy projects to obtain the approval of existing users of Oregon's marine resources, including submarine cable operators, before filing for regulatory authorizations. As a result, the amended TSP permits offshore renewable energy facility proponents to seek to construct new facilities on top of or very near to existing submarine cable infrastructure without requiring any prior coordination or consultation.

Such uncoordinated renewable energy projects pose numerous, well-known risks to submarine cables, including: direct damage from anchoring, sea floor scouring (sediment erosion occurring in areas around a structure on the sea floor, which can expose cables to damage), and power transmission cable crossings; physical disturbance of the sea floor, particularly with sea floor scouring; and impaired access to the sea floor, water column, and ocean surface necessary for repairs using cable ships and other equipment. Such damage and

impaired access can cause and prolong communications outages and slow Internet speeds, thereby harming economic and national security interests. Ultimately the adopted amendments could encourage submarine cable operators to land in other states that provide greater protections for submarine cables and better coordination with renewable energy projects, depriving Oregon of the economic benefits of these cables. This Court should therefore declare the DLCD's rule invalid.

## ARGUMENT

### **I. The DLCD and LCDC Violated Oregon Law and Long-Established Procedure by Adopting Last-Minute Amendments to Oregon's TSP Without Further OPAC Consultation.**

The amendments to Part 5 of Oregon's TSP recommended by the DLCD (ER-43-ER-121) and adopted by the LCDC (ER-1-ER-30) omitted at the very last minute key language proposed by OPAC for inclusion in the TSP amendments. *See* Pet. Br. at 9-10. As Petitioners discuss at length in their brief, the adoption by the DLCD and LCDC of revised Part 5 amendments without sending the revisions back to OPAC for review and approval violated Or. Rev. Stat. § 196.471 and contradicted years of established procedure for amending Oregon's TSP. Pet. Br. at 6-14.

Far from being mere technical breaches of procedure, the failure of the DLCD and LCDC to follow the law and established procedure regarding OPAC consultation resulted in flawed TSP amendments that were insufficiently vetted

to serve Oregon interests. In its recommended amendments to Part 5 of the TSP, OPAC provided that applications for new marine renewable energy (“MRE”) facilities in proprietary use and management areas (“PUMA”) “will not be accepted by regulating agencies unless the use is legally permissible, complies with the authorized use of the area, *and has been agreed to by the authorized users,*” including authorized operators of submarine fiber-optic cables. (*See* ER-98 (emphasis added).)

LCDC rejected this language in its amendment to Part 5 of the TSP. The relevant section now states merely that “[r]egulating agencies will not accept renewable energy facility applications in these areas unless the use is legally permissible and complies with the authorized use of the area.” (Rec. 53, 65.) Under this revised language, those who wish to build new MRE facilities may apply directly to the relevant regulatory authorities without engaging in any prior coordination with other users of marine resources, including submarine cable operators. In its October 7, 2013 Order, LCDC acknowledged that although OPAC’s recommended language did not conflict with Oregon statute or policy, LCDC was choosing to ignore it:

In the Proprietary Use and Management Area (PUMA) of Part Five, Appendix B, OPAC recommended that regulating agencies only accept renewable energy facility applications that have “been agreed to by the authorized users.” While this OPAC recommendation did not conflict with either ORS 196.405 to ORS 196.515 or Goal 19, under the advice of

counsel, the Commission approved different language than OPAC recommended in PUMA standards.

(ER-17.) Instead of following Oregon law and longstanding procedure, the agencies disregarded both the face and intent of OPAC's recommended language and adopted revisions to the TSP Part 5 amendments without sending the amendments back to OPAC for consideration. As a result, the TSP plan as adopted effectively rejected OPAC's language and does not require renewable energy project proponents to coordinate with and obtain the approval of existing submarine cable operators before submitting applications for new offshore MRE facilities.

## **II. Submarine Cables are Critically Important to the U.S. and Oregon Economies and to U.S. National Security, and They Enjoy Unique Federal and International Legal Protections.**

Approximately 95 percent of U.S. international voice, data, and Internet traffic travels by submarine cable<sup>1</sup>—a percentage that continues to increase over time. Submarine cables therefore play a critical role both in facilitating U.S.

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<sup>1</sup> Testimony of Lowell C. McAdam, Chairman and Chief Executive Officer, Verizon Communications, Inc., before the U.S. Senate, Committee on Foreign Relations, *The Law of the Sea Convention: Benefits for Submarine Cable Systems*, at 2 (June 28, 2012), <http://www.foreign.senate.gov/imo/media/doc/McAdamTestimony2.pdf>; see also United Nations Environment Programme World Conservation Monitoring Centre (“UNEP-WCMC”) and International Cable Protection Committee (“ICPC”), *Submarine Cables and the Oceans – Connecting the World*, UNEP-WCMC Biodiversity Series No. 31, at 8 (2009), <https://www.iscpc.org/documents/?id=132> (“UNEP-WCMC-ICPC Report”).

domestic and international communications, and in supporting the commercial and national security endeavors of the United States and its citizens. As evidenced by interregional Internet traffic flows, submarine cables support U.S.-based commerce abroad and provide access to Internet-based content, a substantial percentage of which is still located in the United States.<sup>2</sup> They also carry the vast majority of civilian and military U.S. Government traffic, as the U.S. Government does not generally own and operate its own submarine cable systems for communications purposes.<sup>3</sup> Indeed, the federal government has long classified submarine cables as critical infrastructure.<sup>4</sup> And as compared to alternatives such as satellites, submarine cables provide higher-quality, more reliable, more secure, and less expensive communications transmissions.<sup>5</sup>

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<sup>2</sup> See TeleGeography, *Global Internet Map 2012* (2012), <http://global-internet-map-2012.telegeography.com>.

<sup>3</sup> See, e.g., Naval Facilities Engineering Command, Capabilities, [https://www.navfac.navy.mil/products\\_and\\_services/ci/products\\_and\\_services/naval\\_ocean\\_facilities\\_program/capabilities.html](https://www.navfac.navy.mil/products_and_services/ci/products_and_services/naval_ocean_facilities_program/capabilities.html).

<sup>4</sup> Office of the Press Secretary, *Presidential Policy Directive – Critical Infrastructure Security and Resilience*, PPD-21, THE WHITE HOUSE (Feb. 12, 2013), <http://www.whitehouse.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil>; see Department of Homeland Security, *Communications Sector-Specific Plan: An Annex to the National Infrastructure Protection Plan* (2010), <http://www.dhs.gov/xlibrary/assets/nipp-ssp-communications-2010.pdf>.

<sup>5</sup> Communications Security, Reliability and Interoperability Council, *Working Group 8 Submarine Cable Routing and Landing Final Report—Protection of Submarine Cables Through Spatial Separation*, at 1 (Dec. 2014), [https://transition.fcc.gov/pshs/advisory/csrc4/CSRIC\\_IV\\_WG8\\_Report1\\_3Dec2014.pdf](https://transition.fcc.gov/pshs/advisory/csrc4/CSRIC_IV_WG8_Report1_3Dec2014.pdf) (“CSRIC Spatial Separation Report”).

Oregon is a key hub for submarine cable landings in the United States. Numerous active submarine cable systems currently connect Oregon directly with Australia, China, Fiji, Japan, Korea, New Zealand, Taiwan, as well as Alaska, California, Guam, and Hawaii.<sup>6</sup> Additional submarine cable systems connecting Oregon with Australia, China, Hawaii, Japan, Korea, and Taiwan are either planned or currently under construction.<sup>7</sup> Like international air service at Portland International Airport, direct submarine cable connectivity greatly benefits Oregon's economy by providing the fastest possible connections for Oregon businesses, particularly technology and data center companies, and Oregon residents.

U.S. treaty obligations and customary international law (as observed by the United States) recognize unique freedoms for the installation and maintenance of submarine cables and restrict the ability of coastal states (*i.e.* countries) to regulate them.<sup>8</sup> These rights and freedoms are not accorded to

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<sup>6</sup> TeleGeography, *Submarine Cable Map* (2015), <http://www.submarinecablemap.com> (“TeleGeography Submarine Cable Map”).

<sup>7</sup> *Id.*

<sup>8</sup> *See, e.g.*, United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397, art. 58(1), 79, 112(1), 113 (entered into force on Nov. 16, 1994) (“UNCLOS”). The United States recognized these freedoms starting in 1983, even though the United States has never ratified UNCLOS (it signed only in 1994) and even though the Convention did not enter into force for those states that had ratified it until 1994. Presidential proclamations by two different U.S. presidents expressly stated that the establishments of an Exclusive Economic Zone (“EEZ”) and a contiguous

energy-related activities, commercial fishing, or marine transport, and sometimes these rights and freedoms take precedence over those of other marine activities.

To implement the 1884 convention on cable protection, the United States established statutory penalties for submarine cable damage.<sup>9</sup> For willful damage, U.S. law provides for a fine of up to \$5,000 and/or a prison term not to exceed two years.<sup>10</sup> For culpably negligent damage, U.S. law provides for a fine of up to \$500 and a prison term not to exceed three months.<sup>11</sup> U.S. law provides for a fine up to \$250 and a prison term not to exceed 10 days for fishing-related damage.<sup>12</sup> Additionally, submarine cable operators have a right under U.S. law to sue for damage to their cables.<sup>13</sup>

These existing remedies are nevertheless insufficient to deter activities that result in damage and therefore provide insufficient protection for cable

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zone, respectively, did not infringe on the high-seas freedoms to lay and repair submarine cables. *See* Proclamation No. 5030, 48 Fed. Reg. 10,605 (Mar. 10, 1983) (“Pres. Proc. No. 5030”) (establishing the U.S. EEZ); Proclamation No. 7219, 64 Fed. Reg. 48,701 (Aug. 2, 1999) (establishing the U.S. contiguous zone).

<sup>9</sup> Convention for the Protection of Submarine Telegraph Cables, Mar. 14, 1884, 24 Stat. 989, 25 Stat. 1424, T.S. No. 380, (entered into force definitively for the United States on May 1, 1888).

<sup>10</sup> 47 U.S.C. § 21.

<sup>11</sup> *Id.* § 22.

<sup>12</sup> *Id.* § 25.

<sup>13</sup> *Id.* § 28.

operators. First, they focus on willful and negligent damage. Second, they are unlikely to have a significant deterrent effect. The penalties for willful and negligent damage—paltry when one considers the billions of dollars of commerce that depend on the connectivity submarine cables provide—have not been updated since adoption more than 125 years ago. Finally, they are not a substitute for advance coordination and planning, the functions that OPAC’s recommended consultation process is meant to perform.

### **III. Uncoordinated Offshore Renewable Energy Activities Pose Significant Risks to Submarine Cables.**

Uncoordinated offshore renewable energy projects pose known hazards to submarine cables and, absent coordination and agreement with submarine cable operators, can damage critical submarine cable infrastructure. Moreover, the omission of OPAC’s recommended language could make Oregon less attractive for submarine cable landings and discourage economic activity that depends on direct, high-capacity, low-latency communications connectivity.<sup>14</sup>

The procedural error by LCDC and DLCD in adopting revisions to the TSP Part

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<sup>14</sup> “Latency” refers to the delay—typically measured in milliseconds—in delivering a communications signal from its origination point to its destination point. Many applications and communications uses, such as real-time video and financial transactions executed over communications networks, depend on low latencies. Whereas telephone calls using geostationary satellites suffered from significant latency, often creating an echo effect, submarine fiber-optic cables have low latencies. Indirect fiber-optic routings can increase latency.



5 amendments without adopting OPAC's recommendation or sending the amendments back to OPAC for further consideration could therefore have far-reaching negative consequences for submarine cable operators and the State of Oregon.

**A. Installation and repair of submarine cables requires sufficient spatial separation between submarine cables and from other maritime activities.**

The complex process of laying, repairing, and maintaining a submarine cable requires sufficient spatial separation between the cable and other marine activities, including other submarine cables. Cable ships—used for both installation and repair activities—are large vessels that require adequate maneuvering space to accommodate operations and the effects of bad weather on the ocean. Indeed, they frequently operate in less-than-perfect weather and ocean conditions. Operation of cable ships in crowded marine areas can limit maneuvering room and slow down operations both before commencing a repair (as cable ship operators and submarine cable owners identify, notify, and coordinate with parties engaged in other marine activities) and during a repair. Such delays can be costly, as cable ships have significant running costs of more than US \$100,000 per day. Such delays also prolong communications outages, causing economic harm and raising national security risks.

During an installation, a cable ship will pay out cable from the ship's tanks. This is a precise process, requiring the operator to maintain tension to

ensure that the cable does not throw loops, which can result in transmission failures if pulled tight and render a cable more susceptible to physical damage due to greater exposure above the seabed. In shallow areas, cable is generally buried using a sea plow (typically to a depth of up to two meters) to protect it from hazards such as commercial fishing and anchoring. In limited areas where there are no significant fishing or anchoring risks or where the seabed does not permit burial, it will be laid on the surface of the seafloor.

When a submarine cable is damaged, it must be repaired onboard a cable ship. But a cable that is resting on, or buried in, the seabed will lack sufficient slack to reach the surface for repair. For this reason, unless a cable is already severed, it must first be cut in order to be brought to the surface. To recover a cable from the sea floor for repair purposes, a ship can either deploy a remotely operated vehicle (“ROV”), or it can grapple for the cable. ROV use is typically limited to shallower depths between 50 and 2000 meters, and typically limited to cable laid or exposed on the surface of the sea floor. To retrieve a cable laid on the surface of the sea floor (typically in deeper water, where the risks of disturbance are small) or buried in the seabed (typically in shallow water), a cable ship uses grapnels, the size and weight of which increases with the depth of water.

During retrieval, the grapnel is lowered to the sea floor from lines on the cable ship and dragged in a direction perpendicular to the cable. This allows

the grapnel to dig into the seabed and under the cable, maximizing the chance that the grapnel will hook the cable (rather than graze or accidentally release it) and bring it to the surface of the seabed. This retrieval operation takes at least three passes with the grapnel—one to cut the cable, a second to bring up and buoy one end of the cable, and a third to bring up and bring onboard the second end. After the ends are repaired and tested, a section of cable must be spliced in between the two ends in order to allow them to meet at the surface and restore connectivity. This additional section is typically two and a half times the depth of water in length. This length permits what was previously a cable lying flat on the sea floor to reach up to the cable ship, provide length for manipulation and repair activities on board, and reach back down to the sea floor.

This final configuration (known as the final bight) must be carefully placed back on the seabed. The ship uses additional rope to pull the bight in a direction perpendicular to the line of the original cable and then lower it to the seabed. Only with this careful placement can the repair ship have any chance of laying the cable flat. It is critical that the cable lay flat. If the cable has loops or is elevated above the seafloor, it is virtually impossible to bury the repaired section. Loops are undesirable for a variety of reasons: they can result in transmission failures if pulled tight and they can stand upright on the seabed, making them more susceptible to physical damage due to greater exposure.

Current ship positioning technology allows for extremely accurate placement of this gear and for controlled cable retrieval. Nevertheless, bad weather, heavy seas, or strong currents can decrease the accuracy of these operations—a situation which poses a greater risk to other submarine cables or sea floor installations in the vicinity of the target cable. Given these complex and costly tasks, and the fact that cable ships have to operate in frequently hostile weather conditions, buffer space from other cables and other maritime activities is absolutely crucial.

**B. Existing standards and recommendations recognize the need for early consultation with submarine cable operators and spatial separation between submarine cables and other marine activities.**

Existing standards and recommendations recognize both the need for consultation with submarine cable operators at the earliest stages of development of other marine projects and for adequate spatial separation between submarine cables and other marine activities in order to facilitate both the laying of new cables and the repair and maintenance of existing cables. This special need stems primarily from the particular care and cost associated with installation and repair and maintenance of submarine cables. These standards and recommendations have been developed at the behest of the Federal Communications Commission (“FCC”), the submarine cable industry, and inter-industry fora.

The FCC, which licenses submarine cables landing in the United States pursuant to the Cable Landing License Act of 1921, directed a federal advisory committee known as the Communications Security, Reliability and Interoperability Council (“CSRIC”) to analyze and make recommendations regarding spatial separation of submarine cables from other marine activities. The resulting report (developed with input from the submarine cable industry, the financial services industry, the Federal Reserve Board, and energy regulators, including both the Bureau of Ocean Energy Management and the Federal Energy Regulatory Commission (“FERC”)) urges the FCC and submarine cable operators to “work with other U.S. Government agencies and other stakeholders to consult with and among each other at the earliest possible time to address spatial requirements for submarine cables and their relationship to other proposed marine activities and infrastructure.”<sup>15</sup>

The CSRIC Spatial Separation Report also recommends that the FCC explore with other government agencies the creation of exclusion zones around existing submarine cables, based on well-established spatial requirements for submarine cable installation and maintenance activities, “that would exclude on a categorical basis activities within a defined distance of a submarine cable absent agreement with the submarine cable owner.”<sup>16</sup> CSRIC also

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<sup>15</sup> CSRIC Spatial Separation Report at 57.

<sup>16</sup> *Id.*

recommended that the FCC endorse a default separation distance of 500 meters in water depths of less than 75 meters and the greater of 500 meters or two times the depth of water in greater water depths that would govern in the absence of agreement among agencies and affected stakeholders.<sup>17</sup>

The submarine cable industry has also developed standards to protect submarine cables from other marine activities, including adjacent cables. The key recommendation of the International Cable Protection Committee (“ICPC”)—Recommendation 2—establishes principles for submarine cables located adjacent to each other, and is instructive for all marine activities near existing submarine cables. ICPC Recommendation 2 recognizes that cables can be placed only so close to each other until they endanger other cables during installation and maintenance, or until they impede access for installation and maintenance—particularly if there are multiple installation and maintenance companies operating in the same vicinity above or below the ocean surface.<sup>18</sup> The submarine cable industry therefore developed the following minimum cable separation distances: in shallow water when cables are plow buried, a cable separation of 500 meters is recommended; in deeper water, submarine

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<sup>17</sup> *Id.* at 57-58.

<sup>18</sup> See International Cable Protection Council, *Recommendation No. 2: Recommended Routing and Reporting Criteria for Cables in Proximity to Others*, Issue 10B (2014), <https://www.iscpc.org/publications/recommendations/>.

cable operators follow a guideline according to which two parallel cables are to be separated by a distance equal to the lesser of three (3) times the depth of water or nine (9) kilometers, though actual placement may vary on a case-by-case basis.<sup>19</sup> Similarly, if both operators of parallel cables agree, cables in deeper water may be separated by a distance equal to the lesser of two (2) times the depth of water, or (6) six kilometers.<sup>20</sup>

In developing its guideline, the CSRIC Spatial Separation Report relied heavily on recommendations developed jointly by the submarine cable and offshore wind energy industries in the United Kingdom, where offshore wind energy projects are significantly more developed than in the United States and where recurring marine spatial conflicts led to the development of inter-industry recommendations through Subsea Cables UK. The resulting guideline addresses the “installation and maintenance constraints related to wind farm structures, associated cables and other submarine cables where such structures and submarine cables will occupy proximate areas of seabed.”<sup>21</sup>

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<sup>19</sup> *See id.* at 10.

<sup>20</sup> *Id.* at 12-13. While the submarine cable operators may agree to place the cables as little as 200 meters apart—either because the length of the parallel is short or the probability of damage and repair is low—most operators take a more conservative approach to cable separation distances. The “three-times-the-depth-of-water” standard allows the repair ship to lay the repaired cable back flat on the seabed without laying it over the adjacent cable.

<sup>21</sup> Subsea Cables UK, *The Proximity of Offshore Renewable Energy Installations & Submarine Cable Infrastructure in UK Waters*, Guideline

**C. Without sufficient coordination and spatial separation, offshore renewable energy activities can cause physical disturbance and impede access to cables for installation and maintenance.**

As noted in the CSRIC Spatial Separation Report, “[u]ncoordinated renewable energy development poses numerous risks to submarine cables.”<sup>22</sup> These risks include direct physical disturbance to submarine cables and impeded access to cables for repair and maintenance.

Direct physical disturbance can result from anchoring, sea floor scouring, and power transmission cable crossings, regardless of whether the cable is resting on the surface of the seabed or buried. Anchoring alone accounts for approximately 15 percent of cable faults worldwide.<sup>23</sup> Both the vessels necessary to construct a renewable energy facility, or sometimes the renewable energy facility itself, will rely on anchors. Improperly stowed anchors that release or fall overboard can be dragged for great lengths across the sea floor, damaging cables along their paths. Even properly anchored vessels can, depending on sea conditions, drag anchors across the path of submarine cables.

Placing renewable energy facilities near submarine cables increases the risk of harm through seafloor scouring. Sea floor scouring occurs when

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No. 6, Issue 4, at 6 (Aug. 2012),  
[www.subseacablesuk.org.uk/download/?Id=123&source=guidelines](http://www.subseacablesuk.org.uk/download/?Id=123&source=guidelines).

<sup>22</sup> CSRIC Spatial Separation Report at 39.

<sup>23</sup> UNEP-WCMC-ICPC Report at 45.



“currents erod[e] sediment in the areas around a structure on the sea floor.”<sup>24</sup>

Scouring can lead submarine cables, which are typically laid either directly on or trenched into the sea floor, to become suspended. Suspended cables are at a greater risk of abrasion, and are more exposed to external threats, such as from fishing operations. Scouring can also redeposit sediment above a cable in a manner that increases the risk of erosion and abrasion.<sup>25</sup> The risk of scouring could lead submarine cable operators to bury cables more deeply, which is more costly and time consuming both at the time of installation and retrieval for repairs.

Most, if not all, renewable energy facilities rely on one or more power transmission cables. The installation, operation, and maintenance of those cables all pose a risk of direct physical disturbance to submarine cables in close proximity—particularly if the power transmission cable crosses the submarine cable—and also increase the complexity, time, and cost of submarine cable repair.<sup>26</sup>

In addition to the risk of direct physical disturbance, large renewable energy projects can also impede access to submarine cables for maintenance and repair activities. Such projects may attempt to build directly over or very

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<sup>24</sup> CSRIC Spatial Separation Report at 39.

<sup>25</sup> *Id.* at 40.

<sup>26</sup> *Id.* at 40-41.

near to existing submarine cables, impairing access to those portions of the cable under or nearest to the MRE facility. The installation of an energy project can also force new cables into de facto “cable corridors,” as all new cables must work around such facilities but may have limited routing options, forcing cables to be placed in closer proximity with each other.<sup>27</sup> It is more difficult for repair ships and personnel to retrieve and repair damaged cables when in close proximity to other marine activities like renewable energy facilities or other submarine cables. Moreover, forcing cables into these “cable corridors” greatly increases the odds that one damaging mishap could disrupt multiple cables, resulting in prolonged and wide-ranging outages. Where close proximity between cables and other infrastructure exists—especially without prior agreement or coordination—cable faults will be repaired less quickly, communications system outages will last longer, and the costs to cable operators and the customers they serve could increase considerably.

**D. The offshore renewable energy industry lacks both the awareness of submarine cables and the incentives to coordinate with their operators.**

The offshore renewable energy industry in the United States remains in the early stages of development. “[S]ubmarine cable operators, offshore renewable energy developers, and regulators have yet to develop systematic

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<sup>27</sup> *See id.*

risk-minimization strategies and consultation and coordination mechanisms, which has resulted in some unresolved conflicts.”<sup>28</sup>

Unsurprisingly, conflicts have arisen where operators of existing submarine cables have discovered belatedly that offshore renewable energy project developers have planned projects directly on top of or in very close proximity to those submarine cables. For example, FERC issued preliminary project permits for the Dynege Point Estero Wave Park Project and the Dynege Estero Bay Wave Park Project over the objection of the North American Submarine Cable Association that the projects would be located adjacent to or directly over four major trans-Pacific submarine cable systems, and that Dynege had not made any attempt to identify—much less coordinate with—submarine cable operators in the area.<sup>29</sup> Similarly, FERC granted preliminary permits for tidal energy projects in Puget Sound (threatening the PC-1 cable due to insufficient spatial separation) and in Alaska’s Cook Inlet (threatening the Kodiak-Kenai Fiber Link (“KKFL”) managed by GCI Communication Corp. due to insufficient spatial separation) absent any advance identification of the

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<sup>28</sup> *Id.* at 36.

<sup>29</sup> *Order Issuing Preliminary Permit and Granting Priority to File License Application*, FERC Nos. P-14584 & P-14585, 149 FERC ¶¶ 62,058 & 62,059 (Oct. 28, 2014); *see also* Comments of the North American Submarine Cable Association, FERC Nos. P-14584 and P-14585 (filed Sept. 15, 2014), [http://elibrary.ferc.gov/idmws/file\\_list.asp?document\\_id=14251566](http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14251566).

affected submarine cables or coordination with their operators.<sup>30</sup> The statutory penalties for cable damage, noted in Part II above, appear not to have deterred these project developers from proposing projects next to or on top of existing submarine cables.

Permit applications for renewable energy facilities like those filed by Dynegey, SnoPUD, and East Foreland demonstrate that the offshore renewable energy industry lacks both awareness of submarine cables and an incentive to coordinate with submarine cable operators. They further underscore the need for the language proposed by OPAC for MREs in PUMAs for submarine cables and the significance of LCDC and DLCD's failure to comply with Oregon law by deleting that language without further OPAC consultation.

#### **IV. Inadequate Protection of Submarine Cables Landing in Oregon Could Harm the Oregon Economy and Oregon Consumers.**

Oregon currently serves as a hub for submarine cable landings and related economic activity, but inadequate submarine cable protection could threaten existing cables and deter future ones. As of December 2014, seven

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<sup>30</sup> Federal Energy Regulatory Commission, *Licensed Marine and Hydrokinetic Projects* (Aug. 18, 2015), <http://www.ferc.gov/industries/hydropower/gen-info/licensing/hydrokinetics.asp>; Federal Energy Regulatory Commission, *Issued Hydrokinetic Projects Preliminary Permits* (Aug. 18, 2015), <http://www.ferc.gov/industries/hydropower/gen-info/licensing/hydrokinetics.asp>. The PC-1 dispute remains pending in the U.S. Court of Appeals for the Ninth Circuit. Case No.15-70331 (2015). GCICC and East Foreland reached an agreement providing for a one-kilometer "no work zone" on either side of KKFL.

active submarine cables landed in Oregon,<sup>31</sup> a number that is growing. Three more cable operators plan to land cables in Oregon in the next few years.<sup>32</sup> To put these numbers in perspective, only three submarine cables currently land in the State of Washington.<sup>33</sup>

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<sup>31</sup> Those cables include: China-U.S. Cable Network (landing at Bandon); ACS Alaska-Oregon Network (landing at Florence); Trans-Pacific Express (landing at Nedonna Beach); NorthStar, Southern Cross Cable Network, and Tata TGN-Pacific systems (landing at Hillsboro); and Alaska United West (landing at Warrenton). TeleGeography Submarine Cable Map; CSRIC Spatial Separation Report at Appendix A.

In addition to these telecommunications cables, two scientific cables owned by the National Science Foundation land in Oregon and represent a significant investment in undersea research by the U.S. government. *See Interactive Oceans, The Cabled Component of the NSF Ocean Observatories Initiative* (2015), [http://www.interactiveoceans.washington.edu/story/The\\_Cabled\\_Component\\_of\\_the\\_NSF\\_Ocean\\_Observatories\\_Initiative](http://www.interactiveoceans.washington.edu/story/The_Cabled_Component_of_the_NSF_Ocean_Observatories_Initiative). These cables face similar risks of harm under the improperly adopted amendments to Part 5 of the TSP.

<sup>32</sup> Cables under construction or planned with Oregon landings include: FASTER (landing at Bandon); the New Cross Pacific cable system (landing at Pacific City); and Hawaiki Cable (landing at Pacific City). TeleGeography Submarine Cable Map; CSRIC Spatial Separation Report at Appendix A.

<sup>33</sup> Those cables include Arctic Fibre (landing at Seattle); Pacific Crossing-1 (landing at Harbour Pointe); and Alaska United East (landing at Lynnwood). TeleGeography Submarine Cable Map; CSRIC Spatial Separation Report at Appendix A.

In addition to bringing some of the best connectivity in the country to Oregon,<sup>34</sup> submarine cable landings also attract other economic activity,<sup>35</sup> such as data center operations that create jobs for Oregon residents and, in turn, draw technology companies to the area. According to one estimate, “[i]n Hillsboro . . . the overall direct economic investment from data centers over the past three years has been \$680 million, according to the City of Hillsboro Economic

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<sup>34</sup> Approximately 82 percent of Oregonians live in households with high-speed Internet access, compared to just 78 percent of people nationwide. Thom File & Camille Ryan, *Computer and Internet Use in the United States: 2013*, at 6, 9-10 (Nov. 2014), <http://www.census.gov/history/pdf/2013computeruse.pdf>. Oregonians pay an average of \$53 per month for broadband Internet access, compared with an average cost of \$60-\$65 per month nationwide. Oregon Business Development Department, *Oregon Broadband Adoption*, at 39, 52 (Aug. 2014), <http://www.oregon.gov/Broadband/Documents/2014%20Oregon%20Broadband%20Adoption%20Survey%20Report%20Final.pdf>; Andrew Burger, *Report: Average U.S. Broadband Prices Are Below World Average of \$76.61*, TELECOMPETITOR (Apr. 30, 2014), <http://www.telecompetitor.com/report-average-u-s-broadband-prices-are-below-world-average-of-76-61/>.

<sup>35</sup> See, e.g., Oregon Broadband Advisory Council, *Broadband in Oregon*, at 8, (2014), <http://www.orinfrastructure.org/Infrastructure-Programs/Telecommunications/OBAC/Reports/BroadbandRpt2014.pdf> (“Undersea telecommunications cables and their interconnections add valuable telecommunications infrastructure to the state. Undersea fiber cables bring millisecond connectivity between Oregon and the Pacific Rim, Oregon permitting and easement fee revenue, contract work for the fishing fleet, and the potential of long-term jobs to manage and maintain related on-shore operations.”).

Development Office. Some 338 new full-time jobs are associated with these expansion projects.”<sup>36</sup>

If the TSP does not require applicants for offshore renewable energy projects to obtain the approval of the operators of existing submarine cables in the area, submarine cable-related economic activity could ultimately migrate to other states that provide adequate protection for submarine cable infrastructure.

**V. The Language Recommended by OPAC Would Ultimately Benefit the Offshore Renewable Energy Industry.**

The wording of the language proposed by OPAC is neutral when it comes to users of existing marine resources and would benefit the offshore renewable energy industry and the submarine cable industry alike. As described in more detail in Part I above, OPAC’s proposed language would prevent regulators from accepting applications for new offshore energy projects in certain areas unless the proposed use “has been agreed to by the authorized users.” This language would require applicants for new offshore energy facilities to coordinate with all existing authorized users in PUMA areas—including scientific instrumentation cables, users of navigation channel and pilotage safety corridors and, presumably, operators of existing offshore energy project facilities—before filing a new renewable energy facility application.

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<sup>36</sup> Ron Starner, *The Data Center Destination: How Oregon is Winning the Competition for the Next Generation of Security Data Facilities*, SITE SELECTION (July 2012), <http://siteselection.com/issues/2012/jul/oregon.cfm>.

This coordination would actually benefit offshore renewable energy project developers by sensitizing them to submarine cable issues, encouraging coordination at the planning stage, minimizing disputes at the permitting stage, and potentially sparing them from liability claims.

Moreover, once an offshore energy installation is in place, its operators would benefit from the language proposed by OPAC in the same way as submarine cable operators or users of marine navigation channels. This language would not benefit submarine cable operators or other users to the detriment of the renewable energy industry, but would benefit all existing users of Oregon's marine resources.

\* \* \*



## CONCLUSION

This Court should declare the DLCD's administrative rule invalid.

Respectfully submitted, this 10th day of September, 2015.

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## CERTIFICATE OF ELECTRONIC FILING AND SERVICE

I certify that on September 10, 2015, I electronically filed the original of the foregoing brief with the Appellate Court Administrator, Appellate Court Records Section, using the court's electronic filing system.

I further certify that on September 10, 2015, I electronically served a true copy of the foregoing document on the following persons using the court's electronic filing system:

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