

**April 5, 2010  
OPINION 09-0148**

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U.S. Const. Art. I, § 8(3); U.S. Const. Amends. V & XIV  
La. Const. Arts. I, Sec. 4(A); IV, Sec. 21(B); IX, Sec. 3  
16 U.S.C. §§ 470, *et seq.*, 791 *et seq.*, 824(a) & (b)(1) & (c) & (d), 831, *et seq.*,  
1451-1465, 1531, *et seq.*, 33 U.S.C. §§ 1, *et seq.*; 401, *et seq.*; 33 U.S.C. §§  
1251-1387, 42 U.S.C. § 4321, *et seq.*; 43 U.S.C. § 2101, *et seq.*  
La. C.C. Arts. 450, 452  
La. R.S. 9:1101, 30:124, 30:800, *et seq.*, 30:2071, *et seq.*, 38:2321, *et seq.*,  
41:1211, *et seq.*; 41:1601, *et seq.*; 41:1731, *et seq.*, 48:951; 49:214.2(4),  
49:214.3.1(B)(2)(d), 49:214.21, *et seq.*, 56:1840, *et seq.*

The Federal Power Act, the Federal Clean Water Act, and the Federal Coastal Zone Management Act, grant some regulating authority to states for hydrokinetic projects. Additionally, if the hydrokinetic projects are to occur on state lands or water bottoms, federal licensees must obtain a lease from the State for the impacted State-owned things. Last, it is the opinion of this Office that the State cannot charge a “royalty” for the use of the natural resources/running waters, unless the use includes a withdrawal or depletion of the running waters. On the other hand, the State can charge a rental when leasing State-owned things for the siting of hydrokinetic devices. Additionally, there are no legal prohibitions on the State requiring all or part of its rental payment to be a reasonable percentage of the electricity produced from hydrokinetic or other renewable energy projects on state lands.

Dear Mr. Heck:

This Office is in receipt of your opinion request, authorized by the State Mineral Board, in which you ask the following questions:

- 1) Can the State of Louisiana regulate or permit a hydrokinetic electricity project on the Mississippi River within the State’s borders?

- 2) Would State Agencies, and if so, which State Agencies, be involved in the permitting and regulating process of such hydrokinetic electricity projects?
- 3) Is there a basis for the State of Louisiana to collect rentals or royalties stemming from the permitting and regulating of such hydrokinetic electricity projects?
- 4) Does the State have any ownership rights to the power generated by any hydrokinetic electric facilities within the State's borders?

## I. Brief Background on Hydrokinetic Power

Hydrokinetics is the process of harnessing electric power from moving water currents.<sup>1</sup> Hydrokinetic power is a renewable, carbon free power source created when electrical generation turbines are placed in rivers or other bodies of running water to use the flow of the water to create electric power.<sup>2</sup> Unlike hydropower dams, which also produce hydroelectric power but operate on water pressure, hydrokinetic turbines produce energy from ambient movement in the water.<sup>3</sup> Tidal power and wave power are two other examples of hydrokinetic power in addition to the stream flow power generation contemplated in this opinion and by your request.<sup>4</sup>

## II. Overarching Legal Principles, Concepts and Distinctions

There are two basic premises that underlie this entire opinion. First, under Louisiana law, the **beds** of naturally navigable water bodies are public things and the **beds** of non-navigable water bodies are private things.<sup>5</sup> Second, the water **running** in a water body, whether navigable or not, is a public thing subject to public use.<sup>6</sup> Therefore, if there is running water, the State of Louisiana owns the water in its capacity as a public person and holds it in trust for the people of the State. Due to the fact that the running water belongs to the State, La. Const. Art. VII, Sec. 14 applies. This law provides (in pertinent part): "Except as otherwise

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<sup>1</sup> David Leary and Miguel Esteban, *Renewable Energy from the Ocean and Tides: A Viable Renewable Energy Resource in Search of a Suitable Regulatory Framework*, 4 CARBON & CLIMATE L. REV. 417, 417 (2009).

<sup>2</sup> Larry Eisenstat and Bethany Dukes, *Overcoming Boundaries (Real and Imagined) to Hydrokinetic Power Development*, 87 ELECTRIC LIGHT & POWER 14, 14 (2009).

<sup>3</sup> Zach Kupperman, *Recent Developments in Environmental Law*, 22 Tul. Envtl. L.J. 461, 486-491 (2009).

<sup>4</sup> Rachael E. Salcido, *Rough Seas Ahead: Confronting Challenges to Jump-Start Wave Energy*, 39 ENVTL. L. 1073, 1074-1078 (2009) (commenting on the tidal and wave (i.e., nonriverine) hydrokinetic technology presently available. The author also notes the scientific community's concerns with these devices' potential impacts to marine environments, thereby supporting this Office's concerns voiced herein that the entire panoply of State and federal environmental protection laws must be applied to these devices to ensure that their uses outweigh any costs.).

<sup>5</sup> La. C.C. Art. 450.

<sup>6</sup> *Id.*; see also La. C.C. Art. 452; La. R.S. 9:1101.

provided by this constitution, the... property, or things of value of the state or any political subdivision shall not be... donated to or for any person, association, or corporation, public or private.”<sup>7</sup> Accordingly, running water or impounded running water is not free to be taken out of a water body. In sum, running water is a thing of value that belongs to the people of the State of Louisiana, and is thus subject to oversight by the government of the State.<sup>8</sup>

Additionally, for purposes of this opinion, a distinction needs to be understood. That distinction is the difference between 1) the use of the State’s natural resources to create the subject electricity production; and 2) the regulation of the electricity once it is produced. To understand these distinctions, we suggest that you consider the following example. In a traditional oil and gas lease, the lessee might produce natural gas and then sell the natural gas to an electric generation facility. Once sold to the generation facility, the generator uses the natural gas to produce, transmit, and market the generated electrical power. In this example, there are two distinct operations occurring, namely, a) acquiring the right to the production, capture, and selling of a fugacious mineral, and b) the generating, transmitting, and marketing of the power that is generated by the use of that mineral. Because there are distinct operations, there are different agencies and regulatory authorities implicated by the two operations. The production and marketing of natural gas is a use of a natural resource and is permitted and regulated by certain traditional State natural resource agencies.<sup>9</sup> Similarly, the generation, transmission, and marketing of the produced power is regulated by other separate State agencies.<sup>10</sup>

Using the above example will assist in explaining which agencies might traditionally have jurisdiction over hydrokinetic projects.<sup>11</sup> The water that flows through a hydrokinetic generator is a use of a natural resource. Similarly, the land, water bottoms, or bridges to which the hydrokinetic generators might be attached would be a use of a State resource. Therefore, as it pertains to the use of the State’s natural resources, certain State agencies should assume their traditional roles in the regulating, permitting, and leasing related to these hydrokinetic projects. Further, once the electricity has been generated, the production, transmission, and marketing of the electricity should be regulated by the traditional federal and State agencies charged with the regulation of such activity.

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<sup>7</sup> La. Const. Art. VII, Sec. 14(A).

<sup>8</sup> La. Atty. Gen. Op. Nos. 08-0176; 09-0028; and 09-0066. Please see the referenced Opinions for a more complete analysis of Louisiana water law and riparian owners’ rights.

<sup>9</sup> These functions are typically handled by the Louisiana Department of Natural Resources.

<sup>10</sup> These functions are typically handled by the Louisiana Public Service Commission.

<sup>11</sup> It should be noted that this opinion was developed looking at the current status of the law and that any suggested State agency jurisdiction is just that, a suggestion based on the traditional roles of the various State agencies. The Legislature could directly address the issue of which State agency would have jurisdiction over these hydrokinetic projects.

### III. Questions 1 & 2 – Regulating and Permitting of Hydrokinetic Projects

Black's Law Dictionary defines "regulation" as "the act or process of controlling by rule or restriction,"<sup>12</sup> whereas Black's defines "permit", when used as a noun, "as a certificate evidencing permission; a license", and when used as a verb, "to consent to formally."<sup>13</sup> As was discussed above, when analyzing "regulating" and "permitting" of the hydrokinetic electricity projects, the regulating and permitting must be broken down into two categories. The use of the State's natural resource to generate the electric power and the regulating of the electricity once it is produced.<sup>14</sup>

#### A. Regulation of the Hydrokinetic Industry

Before getting to the specific Louisiana laws that may be implicated by a hydrokinetic electricity project, it is useful to first discuss the laws that regulate, generally, the hydrokinetic industry and the federal licensing process involved in these projects. The federal process for licensing hydrokinetic energy is set forth in the Federal Power Act ("FPA").<sup>15</sup> Congress, through the FPA, delegated to the Federal Energy Regulatory Commission ("FERC") the leading role with respect to the development and regulation of the hydrokinetic industry.<sup>16</sup> The FPA's hydropower regulatory scheme is based on the premise that the power potential of the nation's waterways is a public resource.<sup>17</sup> Several provisions of the FPA affirm FERC's jurisdiction over the regulation and development of the hydrokinetic industry. Particularly, Section 4 of the FPA provides in part:

[FERC] is authorized and empowered –

(e) To issue licenses... for the purpose of constructing, operating, and maintaining... power houses, transmission lines, or other project works necessary or convenient for... the development,

<sup>12</sup> See BLACK'S LAW DICTIONARY 1289 (Bryan A. Garner, ed., 7<sup>th</sup> ed, West 1999) (hereinafter, "BLACK'S 7<sup>TH</sup>").

<sup>13</sup> *Id.* at 1160.

<sup>14</sup> For a discussion of "use", see Part III(C), *infra*.

<sup>15</sup> 16 U.S.C. § 791, *et. seq.*

<sup>16</sup> 16 U.S.C. § 797. The supremacy of FERC over even other federal agencies with regard to hydrokinetic power matters has been solidified with the resolution of a recent dispute between FERC and the Minerals Management Service ("MMS"). In this regard, although MMS is generally the federal agency charged with managing energy assets in federal waters and on federal lands, "[f]or [Outer Continental Shelf] hydrokinetic (nonwind) activities such as wave and current projects, MMS and FERC agreed that MMS will have authority to issue the leases, easements, and rights-of-way and that FERC will have exclusive jurisdiction to issue the licenses and exemptions for such projects." Peter J. Schaumberg and Ami M. Grace-Tardy, *The Dawn of Federal Marine Renewable Energy Development*, 24 NAT. RESOURCES & ENV'T 15, 16 (2010). Thus, not only is FERC leading the states on all matters hydrokinetic, but it is also leading the federal government in the issuance of licenses and exemptions.

<sup>17</sup> See 4 Pub. Nat. Resources L. 2<sup>nd</sup> Ed. § 37:4 (2009), See also Bornong, *The Electric Consumer Protection Act of 1986: Changes in Hydro Licensing?*, 23 GONZAGA L. REV. 135, 136 (1988).

transmission, and utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations among the several States, or upon any part of the public lands and reservations of the United States.<sup>18</sup>

Section 23(b)(1) of the FPA uses similar terminology to explicitly link FERC's authority to the regulation of hydrokinetic development stating:

[i]t shall be unlawful for any person, State, or municipality, for the purpose of developing electric power, to construct, operate, or maintain any dam, water conduit, reservoir, powerhouse, or other work incidental thereto across, along, or in any of the navigable waters of the United States, or upon any part of public lands or reservations of the United States.<sup>19</sup>

Additionally, it should be noted that Section 3(8) of the FPA defines "navigable waters" to mean:

[t]hose parts of streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and which either in their natural or improved condition... are used or suitable for use for the transportation of persons or property in interstate commerce.<sup>20</sup>

Based on the powers granted to FERC in the FPA, it is clear that FERC is the lead agency in the development and regulation of the hydrokinetic industry and its projects as a whole when those projects occur on the streams and other water bodies which Congress has jurisdiction to regulate. As mentioned, these powers include the licensing, on a federal level, of all electric energy projects, including hydrokinetic projects, which will generate power and market that power into interstate commerce. Nonetheless, the FPA does not preempt the states' authority to permit and regulate the use of their natural resources. Specifically, when a hydrokinetic project is being developed in state waters, the hydrokinetic project licensee must obtain all applicable permits, licenses, and leases from the relevant state resource agencies.<sup>21</sup>

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<sup>18</sup> 16 U.S.C. § 797(e).

<sup>19</sup> 16 U.S.C. § 817(1).

<sup>20</sup> 16 U.S.C. § 796(8).

<sup>21</sup> See Jon Wellinghoff, James Pederson, and David L. Morenoff, *Facilitating Hydrokinetic Energy Development Through Regulatory Innovation*, 29 ENERGY L.J. 397, 401 (2008).

**B. Regulation of the production, transmission, and marketing of generated power**

As to the question of which State agency would traditionally be in the position to regulate and permit the production, transmission, and marketing of the generated electric power by these hydrokinetic projects, this Office must, again, begin its analysis with the FPA. The FPA is the starting point because, through the Commerce Clause<sup>22</sup> of the United States Constitution, Congress is granted great authority to regulate those industries or items that affect interstate commerce. Congress has chosen to regulate the production, transmission, and marketing of generated electricity. Specifically, the FPA states, in pertinent part:

(a) Federal regulation of transmission and sale of electric energy

It is declared that the business of transmitting and selling of electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation... which consist of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.<sup>23</sup>

(b) Use or sale of electric energy in interstate commerce

(1) The provisions of this subchapter shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but... shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line.<sup>24</sup>

(c) Electric energy in interstate commerce

For the purpose of this subchapter, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.<sup>25</sup>

(d) "Sale of electric energy at wholesale" defined

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<sup>22</sup> See U.S. Const. Art. I, cl. 8(3).

<sup>23</sup> 16 U.S.C. § 824(a).

<sup>24</sup> 16 U.S.C. § 824(b)(1).

<sup>25</sup> 16 U.S.C. § 824(c).

The term “sale of electric energy at wholesale” when used in this subchapter, means the sale of electric energy to any person for resale.<sup>26</sup>

As is evidenced by the above listed statutes, FERC has the authority to regulate the production, transmission, and marketing of **interstate** transactions and wholesale transactions. However, also explicit in the FPA is the fact that certain authority over the production, transmission, and marketing of produced electric energy is maintained by the states. As such, in the State of Louisiana, regulation of **intrastate**/retail power falls under the jurisdiction of the Louisiana Public Service Commission (“PSC”). The Louisiana Constitution vests the PSC with the authority to “regulate all common carriers and public utilities and have such other regulatory authority as provided by law.”<sup>27</sup> In Louisiana, electric public utilities are defined as:

[a]ny person furnishing electric service within this state, the parish of Orleans excepted, including any electric cooperative transacting business in this state, provided, however, that said term shall not be construed to apply to any person owning, leasing and/or operating an electric generation facility provided such person is not primarily engaged in the generation, transmission, distribution, and/or sale of electricity, and provided that such person: (a) consumes all of the electric power and energy generated by such facility for its own use at the site of generation or at some other location if mutually acceptable agreements to transport such electric power and energy can be reached with each electric public utility whose transmission facilities would be electrically utilized therefor, provided, however, notwithstanding any provision contained herein, there shall be no obligation or duty, expressed or implied, to purchase, to sell, to transport, or to engage in any other type of transaction with respect to the electric power and energy that may be generated by such person, imposed upon any public utility by this Section except as shall be provided in the cogeneration rules and regulations adopted by the Louisiana Public Service Commission pursuant to the Public Utility Regulatory Policies Act of 1978; or, (b) only consumes a portion thereof in such manner and sells the entire remaining portion of such electric power and energy generated to an electric public utility as herein defined; or, (c) sells the entire production of electric power and energy generated by such facility to an electric public utility as herein defined.

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<sup>26</sup> 16 U.S.C. § 824(d).

<sup>27</sup> La. Const. Art. IV, Sec. 21(B).

La. R.S. 45:121. It is not possible to know, from the broad scope of the questions in your request (nor is it necessary to know for the purposes of this opinion) whether the licensees of private hydrokinetic projects will be transmitting and marketing the produced electric energy to an end-user for commercial utilization, whether the electric energy will be sold locally in the retail market, or whether the electric power will be placed into the national transmission grid for sale in interstate commerce. Regardless, it is the opinion of this Office that the electric energy produced from any hydrokinetic projects will be regulated either by FERC (if sold interstate or at the wholesale level), or, if sold intrastate or at the retail level, then the produced electric energy falls under the regulatory jurisdiction of the PSC.

### C. Regulating and permitting the use of the natural resource

Your specific request letter does not present any facts, but rather asks this Office to opine as to the law applicable to a wide swath of factual scenarios. For the purposes of fleshing out each of the scenarios, we must assume certain facts. The factual scenario that this Office herein assumes is as follows: (1) hydrokinetic generators will be submerged into a running body of water, generally a navigable river; (2) the submerged generators will use the flow of the water to rotate the blades of their turbines; and (3) the kinetic movement of the blades will create energy that the generator will capture, thereby generating electric power.

With regard to the regulating and permitting of the use of the State's natural resources, there are two federal laws that require the issuance of permits or certifications by the State when there is a federal project with a federal licensee, as is the case with these FERC-licensed hydrokinetic projects. Those two laws are the Clean Water Act ("CWA")<sup>28</sup> and the Coastal Zone Management Act ("CZMA").<sup>29</sup>

Section 401(a)(1) of the CWA provides "[a]ny applicant for a Federal license or permit to conduct any activity...which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate...".<sup>30</sup> The required certification must provide that any such discharges will comply with the applicable water quality standards of the CWA, as well as with "any other

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<sup>28</sup> 33 U.S.C. §§ 1251-1387.

<sup>29</sup> 16 U.S.C. §§ 1451-1465. Note that the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401-7671q, has been precluded from this list because the hydrokinetic generating devices are said to be "emissions free." See Salcido, *supra*, at 1074-1078, for a brief discussion of the generally environmentally-friendly benefits of this technology. Should it be discovered during the testing and development of these hydrokinetic devices that emission of pollutants does occur, then the licensees must comply with all relevant federal and State clean air laws, including, but not limited to the CAA.

<sup>30</sup> 33 U.S.C. § 1341(a)(1).

appropriate requirement of state law.”<sup>31</sup> Any such “appropriate” limitations included in a state certification become a condition on the federal license.<sup>32</sup> Finally, Section 401 clearly states that, “[n]o license or permit shall be granted until the certification required by this section has been obtained or has been waived...” and that “[n]o license or permit shall be granted if certification has been denied by the State...”<sup>33</sup>

Similarly, the CZMA requires projects that are federally licensed to be in compliance with a state’s approved Coastal Zone Management Plan.<sup>34</sup> More specifically, the CZMA states that:

any applicant for a required Federal license or permit to conduct any activity...affecting any land or water use or natural resource of the coastal zone...shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state’s approved program...<sup>35</sup>

With language almost identical to that of the CWA, the plain language of the CZMA further provides:

[n]o license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant’s certification or until, by the state’s failure to act, the concurrence is conclusively presumed.<sup>36</sup>

Applying the CWA to the relevant factual scenario, within the State of Louisiana, the Department of Environmental Quality (“DEQ”) is the State agency delegated to implement the State’s water quality certification program.<sup>37</sup> Therefore, the State agency with the traditional authority to establish water quality standards and permit any potential discharges from federally-licensed projects is DEQ. In order for the hydrokinetic projects to be consistent with the requirements of the CWA, the federal licensee must obtain a certification from DEQ that the hydrokinetic project will comply with Louisiana’s enforceable water quality standards.

Additionally, in Louisiana, the federally approved Coastal Zone Management Plan is under the jurisdiction of the Office of Coastal Management (“OCM”) within the Louisiana Department of Natural Resources.<sup>38</sup> The OCM coastal use

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<sup>31</sup> 33 U.S.C. § 1341(d).

<sup>32</sup> *Id.*

<sup>33</sup> 33 U.S.C. § 1341(a)(1).

<sup>34</sup> 16 U.S.C. § 1456(c)(3).

<sup>35</sup> *Id.*

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

<sup>37</sup> La. R.S. 30:2071, *et. seq.*

<sup>38</sup> La. R.S. 49:214.21, *et. seq.*

permitting program is required to permit uses of “State concern.”<sup>39</sup> Uses of “State concern” are identified as, “[t]hose uses which directly and significantly affect coastal waters and which are in need of coastal management and which have impacts of greater than local significance or which significantly affect interests of regional, state, or national concern.”<sup>40</sup> Explicitly included in the list of “uses of state concern” is “[e]nergy facility siting and development.”<sup>41</sup>

Therefore, when a hydrokinetic project is located within the designated “coastal zone,” as defined in La. R.S. 49:214.24, then the hydrokinetic project licensee must obtain a coastal use permit from OCM.<sup>42</sup> In sum, the second State agency implicated in the permitting of a hydrokinetic electricity project is OCM.<sup>43</sup>

Although outside of the direct scope of your opinion request, this Office would be remiss if it did not at least identify several laws that may be implicated by the introduction of hydrokinetic power generation devices into the water courses of this State. We have already discussed the permitting requirements of the CWA and the CZMA. However, it is also probable that such devices must also comply with the National Environmental Policy Act,<sup>44</sup> the Endangered Species Act,<sup>45</sup> the National Historic Preservation Act,<sup>46</sup> the Abandoned Shipwrecks Act,<sup>47</sup> Louisiana’s Scenic Rivers and Streams Act,<sup>48</sup> and any other State analogues to the federal laws mentioned herein. Further, in the permitting, licensing, or leasing related to such devices, it is also important to ensure that navigation on the State’s navigable waterways is not impeded. Thus, any hydrokinetic projects will have to be conducted in such a manner as to comply with applicable federal and State navigability law.<sup>49</sup>

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<sup>39</sup> La. R.S. 49:214.25(A)(1).

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

<sup>41</sup> La. R.S. 49:214.25(A)(1)(h).

<sup>42</sup> The CZMA may not affect all hydrokinetic projects within the borders of the State of Louisiana. The CZMA would only be enforced in the “coastal zone” of Louisiana. *See also* 16 U.S.C. §§ 1451-1465, La. R.S. 49:214.21, *et seq.*

<sup>43</sup> It should also be noted that any coastal use permit must be accepted as consistent with Louisiana’s Coastal Master Plan for a Sustainable Coast by the Executive Assistant of the Governor’s Office – Coastal Activities. La. R.S. 49:214.2(4), 49:214.3.1(B)(2)(d).

<sup>44</sup> 42 U.S.C. § 4321, *et seq.*

<sup>45</sup> 16 U.S.C. § 1531, *et seq.*

<sup>46</sup> 16 U.S.C. § 470, *et seq.*

<sup>47</sup> 43 U.S.C. § 2101, *et seq.*; La. R.S. 41:1601, *et seq.*

<sup>48</sup> La. R.S. 56:1840, *et seq.*

<sup>49</sup> Most matters related to maintaining navigability on the waterways of the United States are left to the federal government, especially the auspices of the United States Coast Guard. *See e.g.* 33 U.S.C. § 1, *et seq.*; 33 U.S.C. 401, *et seq.* However, any hydrokinetic project in Louisiana would also have to comply with any relevant general and specific provisions of Title 34 (Navigation & Shipping Title) of the Louisiana Revised Statutes.

#### **IV. Question 3 – Leasing, Rentals, and Royalties related to Hydrokinetic Projects and Renewable Energy**

Question 3 of your request involves the concepts of leasing, royalties, and rentals. These concepts are important to the State and the development of the hydrokinetic industry because these concepts deal with the broader issue of whether and how the State may choose to impose fees and rentals upon the development of “renewable energy”<sup>50</sup> sources. Thus, in responding to your opinion request, this Office must discuss the relevant law and concepts relating to these matters, as such law and concepts presently exist.

##### **A. Leasing of State lands and water bottoms**

There are several different issues that must be addressed in order to determine who can lease which rights for the purposes of the subject hydrokinetic projects. As mentioned, it is this Office’s understanding that the generators required to facilitate hydrokinetic power generation must either be attached to the bottom of the water body or to a structure situated within a water body. If the waterway is navigable, pursuant to La. C.C. Art. 450, the running waters, the waters, and the water bottoms are owned by the State. Thus, any attachment to the bottom of the waterway must be accomplished pursuant to a lease from the State.<sup>51</sup> Pursuant to La. R.S. 41:1222, the Louisiana State Land Office (“SLO”) has the authority to lease the bottoms of navigable waterways in the State. Thus, to the extent that any of the hydrokinetic power generation mechanisms must be located on State water bottoms, such must be accomplished pursuant to a lease from the SLO. It should also be noted that historically the Legislature has designated the State Mineral and Energy Board (“SMEB”) as the State entity empowered to lease state lands and water bottoms for purposes of mineral production,<sup>52</sup> geothermal development,<sup>53</sup> and wind energy generation.<sup>54</sup> However, because there exists no specific grant of the authority to lease State land for hydrokinetic power generation purposes to the SMEB, it is the opinion of this Office that such authority remains with the SLO unless and until that authority is specifically, legislatively reallocated to the SMEB or another agency.

Should the hydrokinetic power generation equipment not be attached to the bottom of a navigable waterway, but rather to a bridge, a different suite of laws

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<sup>50</sup> “Renewable energy” is defined as “energy obtained from sources that are essentially inexhaustible (unlike for example fossil fuels). Renewable sources of energy include, but are not limited to: waste heat, geothermal, wind, photovoltaic, and solar thermal.” See Susan Toalson, ed., A DICTIONARY FOR THE OIL AND GAS INDUSTRY 223 (Petroleum Extension Service, The University of Texas at Austin 2005).

<sup>51</sup> It is important to note that the water bottoms of navigable waterways cannot be alienated. La. Const. Art. IX, Sec. 3.

<sup>52</sup> La. R.S. 30:124.

<sup>53</sup> La. R.S. 30:800, *et seq.*

<sup>54</sup> La. R.S. 41:1731, *et seq.*

will apply.<sup>55</sup> Although it may be possible for the licensee to lease the right to attach its equipment to a private waterway crossing, this opinion only focuses on those waterway crossings that are owned by the State. Under La. R.S. 48:951, the Louisiana Department of Transportation and Development (“DOTD”) is authorized to lease State-owned bridges for numerous purposes. With the catch-all language that such a lease may be for “appliances or equipment for any other purposes,”<sup>56</sup> it is the opinion of this Office that La. R.S. 48:951 clearly encompasses the authority to lease bridges for the purposes of attaching hydrokinetic power generation mechanisms thereto.

The ultimate question of who has the right to grant hydrokinetic leases will turn on whether the thing being encumbered is publicly or privately owned. If it is a navigable waterway, as noted above, the bottom will always be State-owned and the SLO will be the proper lessor. If it is a non-navigable waterway, the bottom may be privately owned, thus meaning that the lessor will likely be a private entity. If the structure being encumbered is anything publicly owned besides the bridges referred to in La. R.S. 48:951, then the specific legislation applicable to those things must be consulted. If such structures are privately-owned, then, again, the private owner will be the proper lessor.

In anticipation of any jurisdictional issues that are intertwined with the matters considered herein, a discussion of the questions of the powers of port authorities to lease or permit hydrokinetic generator placement, considering a recent opinion of this Office, is necessary. As was succinctly noted in La. Atty. Gen. Op. No. 04-0276, La. R.S. 41:1705 exempts from the authority of the SLO the permitting to “construct, create, alter, improve, extend, or maintain any wharf, pier, dock, structure, or other improvement” within the jurisdiction of any deepwater port. It is clear that hydrokinetic power generation devices are not, in and of themselves, wharves, piers, docks, or structures. Thus, it must be determined whether the hydrokinetic power generation devices constitute “improvements”. This inquiry is especially important, because, if these devices are legally classified as improvements, then pursuant to La. R.S. 41:1701, *et seq.*, and La. Atty. Gen. Op. No. 04-0276, not only would an entity seeking to locate these devices within a deepwater port’s jurisdiction be required to lease the relevant property from the proper State entity (the SLO or DOTD, as the case may be), but the entity would also have to obtain a permit from the relevant port.

Louisiana law does not define the term “improvement.” Nonetheless, it is a fundamental principle of statutory interpretation that the meaning of a word or phrase may be ascertained by the meaning of other words or phrases with which

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<sup>55</sup> In addition to the bottoms, hydrokinetic devices are often attached to large, fixed structures within the water column. Although we here discuss the law applicable to the leases of bottoms and bridges, future factual scenarios encompassing the attachment of these devices to other State-owned things may require the examination and application of different laws than those mentioned herein.

<sup>56</sup> La. R.S. 48:951.

it is associated.<sup>57</sup> Additionally, under the doctrine of *ejusdem generis* (of the same kind or class), general words, such as “other, etc.,” following an enumeration of particular or specific classes or things are to take color from the specific, so that the general words are restricted to a sense analogous to the less general.<sup>58</sup> Thus, the general words are not to be construed in their widest extent, but are to be held as applying only to such classes of things of the same general kind as those specifically mentioned.<sup>59</sup> Using these principles, it is clear that the term “other improvements,” as used in La. R.S. 41:1705, should be construed as meaning an improvement similar in kind to the more specifically-enumerated water structures listed in the statute. The water structures listed – wharf, pier, dock – are all structures placed on water bottoms that are intended to enhance the value of the property by enabling additional uses of a waterway (e.g. fishing, mooring a vessel, etc.). A hydrokinetic power generator, on the other hand, is not in the same general class of water structures as those specifically listed. Therefore, it is our opinion that the hydrokinetic power generation devices do not meet the definition of “improvement” set forth herein, as they do not fall into the same class of structures specifically identified in La. R.S. 41:1705.<sup>60</sup> As a result, it is not necessary for any licensee of these hydrokinetic projects to obtain a permit to construct, create, alter, improve, extend, or maintain their projects from the various port authorities. The conclusion that the hydrokinetic generators do not constitute “other improvements” for purposes of a deepwater port’s jurisdiction is bolstered by the fact that any increased utility derived from the hydrokinetic power generators would primarily benefit the separate owner of the devices, rather than the port authorities, which presumably, would receive only a rental-type payment.

Similar statements can be made of the attachment of the devices to other State-owned structures. Although structures may, in some instances, be alienable, it is doubtful that the encumbrance of such structures with a separate party’s devices

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<sup>57</sup> *Pumphrey v. City of New Orleans*, 2005-979 (La. 4/4/06), 925 So.2d 1202.

<sup>58</sup> *Hall v. Rostreet*, 169 So.2d 903, 907-08 (La. 1964).

<sup>59</sup> *Continental Group, Inc. v. Allison*, 404 So.2d 428, 431, n.4 (La. 1981).

<sup>60</sup> This conclusion is also supported by a close examination of the term “improvement”. A definition of improvement from BLACK’S LAW DICTIONARY 8<sup>TH</sup> (2004) provides that an improvement is “[a]n addition to real property, whether permanent or not; esp., one that increases its value or utility or that enhances its appearance.” BLACK’S LAW DICTIONARY, 6<sup>TH</sup> (1990) actually contains a more comprehensive definition of the term, which is defined thus:

A valuable addition made to property (usually real estate) or an amelioration in its condition, amounting to more than mere repairs or replacement, costing labor or capital, and intended to enhance its value, beauty or utility or to adapt it for new or further purposes. Generally has reference to buildings, but may also include any permanent structure or other development, such as a street, sidewalks, sewers, utilities, etc. An expenditure to extend the useful life of an asset or to improve its performance over that of the original asset. Such expenditures are capitalized as part of the asset’s cost.

It is our opinion that the hydrokinetic power generation devices do not meet any of the definitions of “improvement” set forth herein, as they do not really constitute additions to real property that increase the value or utility of the property.

would raise the value of that structure. Again, because any increased utility would primarily benefit only the separate owner of the addition or improvement, it cannot be said to benefit the State owner of the underlying structure. Accordingly, these devices do not fit the definition of “improvements” and are thus not subject to the permitting requirements of the deepwater ports. Instead, they are only subject to the leasing authority of the SLO or DOTD (depending on the thing to which they are attached).

## **B. Rentals and Royalties**

Due to a lack of jurisprudential guidance with regard to rentals and royalties stemming from a “renewable energy” source, it is necessary to define rentals and royalties. Rent is defined as, “[c]onsideration paid, usually periodically, for the use or occupancy of property, especially real property.”<sup>61</sup> Rental is an extension of rent and is defined as, “the income received from rent.”<sup>62</sup> Royalty, on the other hand, is defined as “the portion of oil, gas, and minerals retained by the lessor on execution of a lease or their cash value paid by the lessee to the lessor or to one who has acquired possession of the royalty rights.”<sup>63</sup> Royalty is also defined by Black’s Law Dictionary as “[a] share of the product or profit from real property, reserved by the grantor of a mineral lease, in exchange for the lessee’s right to mine or drill on the land.”<sup>64</sup>

Inherent within the definition of royalty is the notion that royalties are paid on the production and depletion of oil and gas, or other minerals. Stated otherwise, royalties go hand-in-hand with the “rule of capture”<sup>65</sup> and the depletion of fugacious minerals. Conversely, in the case of renewable energy sources, the fuel used to generate electricity is not a fugacious mineral subject to the rule of capture and depletion. The fuel for renewable energy is often the wind, waves, and sunlight, i.e., those fuel sources that are not subject to depletion. Therefore, to call any revenues derived by the State from the use of the natural resource by any hydrokinetic project or any other renewable energy project a royalty, would, in the opinion of this Office, be a misnomer.

Further and as noted above, the running waters of the State are a State-owned resource. Thus, while probably unlikely, *if* during the course of the production of electricity by a hydrokinetic generation project, the State-owned waters are depleted, then the State must be compensated for that depletion. This conclusion is based on the general premise that running water is a thing that is owned by the State and that “thing” has intrinsic value. Because running water is a thing of value belonging to the State, any depletion of its corpus must result in

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<sup>61</sup> See BLACK’S LAW DICTIONARY 7<sup>TH</sup>, at 1299.

<sup>62</sup> *Id.* at 1300.

<sup>63</sup> See Toalson, *supra*, at 232.

<sup>64</sup> See BLACK’S LAW DICTIONARY 7<sup>TH</sup>, at 1330.

<sup>65</sup> “Rule of capture” is defined as the “rule applied by the courts that gives title to oil and gas produced from a tract of land to the party reducing it to possession.” See Toalson, *supra*, at 233.

compensation to the State to avoid running afoul of La. Const. Art. VII, Sec. 14. In addition, La. C.C. Art. 658 requires that any running water diverted from its original course must be returned to that course without depletion. Thus, the State must be compensated for any depletion of any running waters (subject to allowable riparian uses) occasioned by the hydrokinetic power generation process. However, because it is our understanding that these devices allow running water to flow through them, without a diminution of its corpus, it is doubtful that any compensation for the actual use (i.e., diminution) of the water would be required. This Office is unaware and unable to locate any source of law that would require compensation to be paid for the use of water, if the use of the water does not diminish its quantity or flow. In other words, it is our opinion that the simple passing through of water in hydrokinetic devices is not a use of the water for which the State is due compensation, because such use results in no diminution or depletion of the water.

While it is the opinion of this Office that any revenues derived by the State from a renewable energy project would not necessarily be deemed a royalty and that the State cannot charge for the use of the natural resource in the absence of a depletion of the resource, the State may charge a rental for the leasing of State-owned things to facilitate the siting of these hydrokinetic projects.

#### **V. Question 4 – Rentals and Ownership of Produced Electric Energy from Hydrokinetic Projects**

Question 4 of your opinion request asks “[w]hether the State has any ownership rights to the power generated by any hydrokinetic electric facilities within the State’s borders.”

With regard to Question 4, it is important to understand that these FERC-licensed hydrokinetic projects are being developed by private companies. The private companies are using a state resource for power generation and are placing the hydrokinetic generators on State-owned property, but the capital used and the equipment necessary for these projects is privately owned and funded. An analogy would be a traditional fossil-fuel-fired generating facility was to be placed on State lands. In both cases, the hydrokinetic project and the traditional fossil-fuel-fired generator, it cannot be legally justified under the current law for the State to take ownership of the generated power simply due to the fact that the facilities are located on State-owned property, insofar as all lease and other legally required payments any received by the State.

This Office is aware that other hydro-power sources, such as dams, are traditionally owned and operated by governmental agencies, political subdivisions, or quasi-governmental corporations that are funded by taxpayers.<sup>66</sup>

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<sup>66</sup> Examples being the Sabine River Authority (La. R.S. 38:2321, *et seq.*) in Louisiana and the Tennessee Valley Authority (16 U.S.C. § 831, *et seq.*) at the federal level.

In the case of dams and traditional hydro-power sources, the above-listed entities often take possession of and distribute the produced electricity. Due to the fact that those entities are public in nature, coupled with the fact that their facilities are supported by tax revenue, these entities are authorized to take ownership of the produced electricity. However, the same is not currently the case with the new, privately owned hydrokinetic generators that are the subject of this opinion. As mentioned, these FERC licensees (including their facilities and equipment) are privately held and funded corporations. Thus, the State could not take ownership of the produced electric energy without potentially being subject to a takings clause<sup>67</sup> challenge for such an action.

Nonetheless, a State agency or entity may charge a reasonable rent or obtain something of value in exchange for the leasing of State-owned things for the siting of hydrokinetic devices. As such, this Office cannot find any legal restriction prohibiting a State agency or entity from making a part of its rentals a reasonable percentage of the electricity produced. In other words, due to the fact that the State has the authority to lease the State-owned things, there is nothing in the law that would prevent the State by contract from using a reasonable percentage of the electricity produced from any renewable energy source as part of the formula for determining the rental payment owed to the State for the leasing of its things.

In fact, the United States Department of the Interior, Bureau of Land Management<sup>68</sup> and the State of Texas<sup>69</sup> have both developed leases for the development of geothermal power generation, a different but similar renewable energy source, in which the rental is a scaled percentage of the electricity produced. An example of a scaled rental would be: 3% of the electricity produced by a renewable energy project for the 1<sup>st</sup> through 5<sup>th</sup> year of the lease, and 7 % of the electricity produced by a renewable energy project for the 6<sup>th</sup> through 10<sup>th</sup> year of the lease.<sup>70</sup> This scaling of percentage of generation as a rental has the added benefit of encouraging the development of renewable energy generation sources because the lower rental percentage in the early stages of development allows for the industry to better absorb the initial capital outlay required by these types of projects.

## **VI. Public Lease Law must be followed**

One final matter must be discussed because, though not directly raised in your request, it is inherent in the outcome of that request – namely that some State-owned property will ultimately be leased for the purposes of siting hydrokinetic

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<sup>67</sup> See generally U.S. Const. Amend. V and U.S. Const. Amend. XIV; see also La. Const. Art. I, Sec. 4(A).

<sup>68</sup> Attached is a copy of the referenced lease.

<sup>69</sup> Attached is a copy of the referenced lease.

<sup>70</sup> The numbers used are purely for the purposes of illustration and should not be interpreted to be the opinion of this Office as to what a reasonable percentage of generation is.

power generation devices at some time in the future. In this regard, we would be remiss were we not to include a reminder that any agency so leasing State-owned property is required to adhere to the mandates of the Public Lease Law. La. R.S. 41:1211, *et seq.*

## **VII. Conclusion**

In sum, it is the opinion of this Office that the State cannot charge a “royalty” for the use of the natural resources/running waters, unless the use includes a withdrawal or depletion of the running waters. On the other hand, the State can, by contract, charge a rental when leasing State-owned things for the siting of hydrokinetic devices. Additionally, there are no legal prohibitions on the State requiring all or part of its rental payment to be a reasonable percentage of the electricity produced from hydrokinetic or other renewable energy projects on State lands.

We hope this sufficiently answers your inquiry; however, if we may be of further assistance please do not hesitate to contact our office.

Sincerely yours,

**JAMES D. “BUDDY” CALDWELL**  
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**OPINION 09-0148**

**11-B CONSERVATION OF NATURAL RESOURCES – Energy**  
**62 LEASES**  
**72 NAVIGABLE WATERS**  
**85-A PERMITS**  
**90-B-2 PUBLIC LANDS – Leases of other than oil and gas**  
**167-B UTILITIES - Public**  
**172-B WATERS – Natural Resources**

U.S. Const. Art. I, § 8(3); U.S. Const. Amends. V & XIV  
La. Const. Arts. I, Sec. 4(A); IV, Sec. 21(B); IX, Sec. 3  
16 U.S.C. §§ 470, *et seq.*, 791 *et seq.*, 824(a) & (b)(1) & (c) & (d), 831, *et seq.*,  
1451-1465, 1531, *et seq.*, 33 U.S.C. §§ 1, *et seq.*; 401, *et seq.*; 33 U.S.C. §§  
1251-1387, 42 U.S.C. § 4321, *et seq.*; 43 U.S.C. § 2101, *et seq.*  
La. C.C. Arts. 450, 452  
La. R.S. 9:1101, 30:124, 30:800, *et seq.*, 30:2071, *et seq.*, 38:2321, *et seq.*,  
41:1211, *et seq.*; 41:1601, *et seq.*; 41:1731, *et seq.*, 48:951; 49:214.2(4),  
49:214.3.1(B)(2)(d), 49:214.21, *et seq.*, 56:1840, *et seq.*

The Federal Power Act, the Federal Clean Water Act, and the Federal Coastal Zone Management Act, grant some regulating authority to states for hydrokinetic projects. Additionally, if the hydrokinetic projects are to occur on state lands or water bottoms, federal licensees must obtain a lease from the State for the impacted State-owned things. Last, it is the opinion of this Office that the State cannot charge a “royalty” for the use of the natural resources/running waters, unless the use includes a withdrawal or depletion of the running waters. On the other hand, the State can charge a rental when leasing State-owned things for the siting of hydrokinetic devices. Additionally, there are no legal prohibitions on the State requiring part of its rental payment to be a reasonable percentage of the electricity produced from hydrokinetic or other renewable energy projects on state lands.

**DATE REQUESTED:** June 9, 2009

**DATE RELEASED:** **April 5, 2010**

**REQUESTED BY:** Mr. Frederick D. Heck  
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