

# Committee on Natural Resources

Rob Bishop, Chairman  
Markup Memorandum

April 24, 2017

To: All Natural Resources Committee Members

From: Majority Committee Staff  
Subcommittee on Water, Power and Oceans (x5-8331)

Mark-Up: **H.R. 220 (Rep. Don Young, R-AK)**, To authorize the expansion of an existing hydroelectric project, and for other purposes.  
**April 26-27, 2017; 1324 Longworth HOB**

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## **Bill Summary:**

H.R. 220 authorizes the limited expansion of the Terror Lake hydroelectric project on Kodiak Island, Alaska.

## **Background:**

The Terror Lake Hydroelectric Project (Project) on Kodiak Island (Island), Alaska provides 31 Megawatts<sup>1</sup> of hydropower capacity to the Island's approximately 13,800 residents and a U.S. Coast Guard Station (USCG). The Island is off the North American electricity grid and is reliant solely on electric generation within the Island or imported diesel fuel. The Island primarily relied on diesel fuel before the Project's completion.<sup>2</sup>

The Project, licensed by the Federal Energy Regulatory Commission (FERC) as Project No. 2743 in 1981, was the result of an agreement between the federal government, the State of Alaska, environmental groups and the Kodiak Electric Association (KEA).<sup>3</sup> Since the Project is within the Kodiak Island National Wildlife Refuge (Refuge), the settlement required the following mitigation measures: 1) the Alaska Department of Natural Resources agreed to manage 28,000 acres of state-owned land contiguous to the Refuge at Kiliuda Bay as though it were part of the refuge; and 2) The State of Alaska agreed that at least half of the Shearwater

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<sup>1</sup> <http://www.akenergyauthority.org/TerrorLake>.

<sup>2</sup> Olive, Stewart W. and Lamb, Berton L. *Conducting a FERC Environmental Assessment: A Case Study and Recommendations from the Terror Lake Project*. U.S. Fish and Wildlife Service. April 1984, p. 8.

<sup>3</sup> Yaffee Steven L. and Wondolleck Julia M., *Negotiating Extinction: An Assessment of the Potential Use of Alternative Dispute Resolution Techniques for Resolving Conflicts Between Endangered Species and Development*. School of Natural Resources and Environment, The University of Michigan, September 1994, (prepared for the Administrative Conference of the United States). Case Study #9: "The Terror Lake Case", p. 1.  
[http://www.snre.umich.edu/ecomgt/cases/pubs/acus/Terror\\_Lake.pdf](http://www.snre.umich.edu/ecomgt/cases/pubs/acus/Terror_Lake.pdf)

Peninsula would be designated as wildlife habitat where grazing would be prohibited.<sup>4</sup> The Refuge currently comprises 82.6% of the Island.<sup>5</sup>

The KEA, a rural electric cooperative, owns and operates the Project. Almost 99.7% of KEA's energy sources are renewable and consist of wind energy and hydropower produced at Terror Lake with the remaining 0.3% consisting of diesel generation.<sup>6</sup> One of KEA's largest customers is the Island's USCG Base, which includes Air Station Kodiak, USCG Cutter Spar and the USCG Cutter Alex Haley.<sup>7</sup> Due to the harsh environment in Alaska and the importance of offshore activities to the local economy, these USCG activities are essential not only to the Island's residents but to activities in the Bering Sea and the Gulf of Alaska.

In light of the Island's growing electricity demand, KEA will be unable to meet the needs of the residents without acquiring additional energy resources. KEA believes that the increased generation capacity must come in the form of either an expansion of the Terror Lake Hydroelectric Project or increased diesel fuel imports.<sup>8</sup> As a result, the utility seeks to expand the Project. The proposed expansion would divert a small portion of flows in the Upper Hidden Basin into Terror Lake via a 1.2 mile underground tunnel (see Map 1 below). This diversion would increase the water resources at Terror Lake by 25%, resulting in an additional 33,000 Megawatt-hours (MWh) of generation each year and totaling an estimated output of the Project of approximately 168 million MWh annually.<sup>9</sup> According to KEA estimates, if the expansion of Terror Lake is not approved, the diesel generation required for heat alone will result in an annual release of 140 tons of NO<sub>x</sub> and 6,500 tons of greenhouse gases into the atmosphere.<sup>10</sup>

KEA plans to use up to twenty acres of land on the Refuge to accommodate the construction of the needed tunnel and remediation site. H.R. 220 allows KEA to use not more than twenty acres of federal land within the Refuge for the proposed expansion. The legislation specifically requires the expansion to be subject to appropriate terms and conditions under the Federal Power Act. This would allow the U.S. Fish and Wildlife Service (USFWS) to impose

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<sup>4</sup> "The Terror Lake Case", p. 5.

<sup>5</sup> <https://www.fws.gov/refuge/Kodiak/about.html>; [http://www.kodiak.org/kodiak\\_island\\_detailed\\_geography](http://www.kodiak.org/kodiak_island_detailed_geography). Percentage determined as 1.9MM acres of refuge out of 2.3 MM acres total land comprising Kodiak Island.

<sup>6</sup> <http://www.kodiakelectric.com/generation.html>.

<sup>7</sup> <https://www.uscg.mil/BaseKodiak/default.asp> (See "Team Kodiak" tab).

<sup>8</sup> As KEA explained in its FERC amendment application, the stability and reliability that will be provided by the Upper Hidden Basin Diversion cannot be met by additional variable renewable resources: KEA is already pushing the technologic edge for wind energy penetration on its isolated micro-grid with battery and flywheel energy storage system integration, and cannot practically engineer any more wind energy additions to its system. The stable integration of all variable energy forms . . . on KEA's isolated micro-grid has reached its maximum under KEA's current conditions. Application for Non-Capacity Amendment to License, Preliminary Draft Environmental Assessment § 2.2.2. <https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14258904>.

<sup>9</sup> Application for Non-Capacity Amendment to License, Exhibit B.

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14258904>.

<sup>10</sup> Alaska Dept. of Environmental Quality, Kodiak Generating Station Title V Air Quality Operating Permit No. AQ0211TVP03, Condition 10.3.b for Emission Units 2C and 3C.

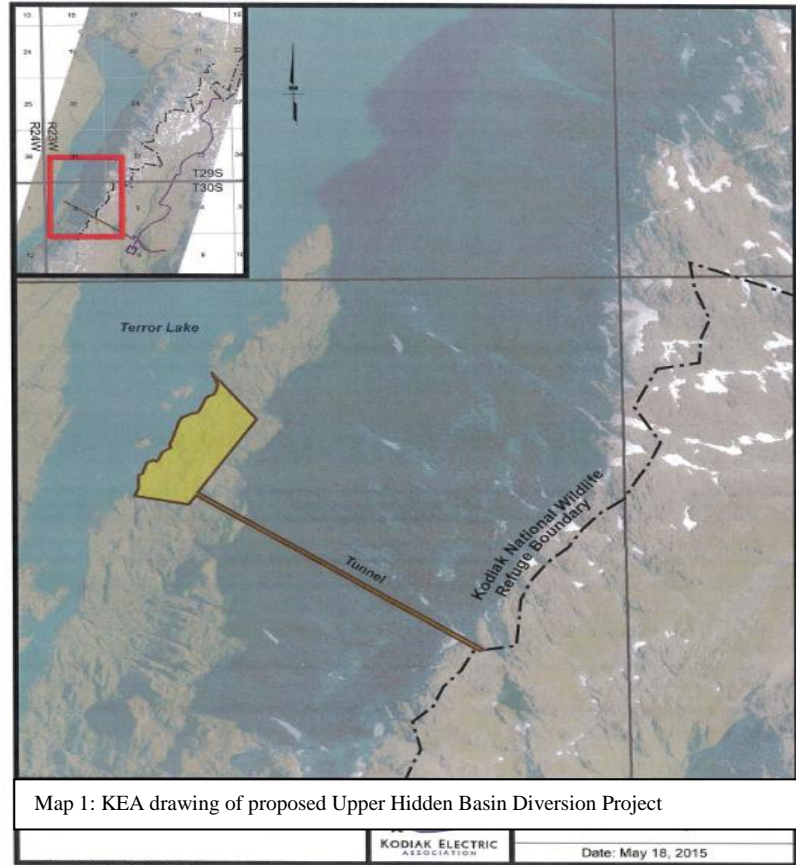
<http://dec.alaska.gov/Applications/Air/airtoolsweb/AirPermitsApprovalsAndPublicNotices> .

what's commonly referred to as "mandatory conditions" under Section 4(e) of the Federal Power Act as a way for the federal agency to order mitigation.

On March 8, 2017, FERC and the USFWS entered into a Memorandum of Understanding (MOU), which designated FERC as the lead agency for preparing an environmental assessment (EA) for the Terror Lake expansion<sup>11</sup>. The MOU will reduce some duplication in the permitting processes.

Due to the short construction season in Alaska, proponents want to start construction soon. At the recent Water, Power and Oceans Subcommittee

legislative hearing on this bill, Mr. Darron Scott, President & CEO of KEA, testified that "Due to climbing interest rates, inflation on the project and lost production, it is estimated that a one-year delay will cost our cooperative and community approximately \$11 million. This is a very challenging cost increase for any small community like Kodiak to bear... The common sense solution envisioned in H.R. 220 would allow this vitally important project to move forward, on schedule—and without evading any environmental review and protections."<sup>12</sup> H.R. 220 seeks to expedite the expansion in light of rising costs and a limited construction season. Of the projected \$11 million in additional project costs associated with a one-year delay, the costs of future supplemental diesel generation that will be required to meet electricity demand account for \$1.3 million.<sup>13</sup> All of these costs would be borne by the Island's ratepayers, including the U.S. Coast Guard.



<sup>11</sup> "Memorandum of Understanding between the Federal Energy Regulatory Commission and the U.S. Fish and Wildlife Service on National Environmental Policy Act (NEPA) Document Preparation Terror Lake Hydroelectric Project (FERC No. 2743-079)". Signed by FERC on March 2, 2017 and USFWS on March 8, 2017.

<sup>12</sup> Submitted testimony of Mr. Darron Scott, President & CEO, Kodiak Electric Association, Inc. to the Subcommittee on Water, Power and Oceans, 115<sup>th</sup> Congress, Legislative Hearing on H.R. 220 "To authorize the expansion of an existing hydroelectric project, and for other purposes," April 4, 2017, p. 5.

<sup>13</sup> KEA estimates that 600,000 gallons of diesel would be required annually to produce the electricity that will be provided by the Upper Hidden Basin Diversion. Although the price of diesel fuel is volatile and KEA's contract price is tied to the Oil Price Information Service, its most recent delivery of diesel fuel (in January 2017) was invoiced at \$2.26/gallon.

## **Major Provisions of H.R. 220:**

Section 1(b) – Authorizes the licensee for the Terror Lake hydroelectric project to occupy not more than 20 acres of Federal land to construct, operate and maintain the Upper Hidden Basin Diversion Expansion without further authorization of the Secretary of the Interior or under the Alaska National Interest Lands Conservation Act.

Section 1(c) – Clarifies that this legislation does not impact any requirement to procure a revised license from FERC nor impact the ability of the USFWS to impose conditions on that license, pursuant to the Federal Power Act.

## **Cost**

The Senate Energy and Natural Resources Committee voice voted an identical bill (S. 1583 – Sen. Murkowski) during the 114<sup>th</sup> Congress. The Congressional Budget Office (CBO) found that that the Senate language would have “no significant impact on the federal budget.”<sup>14</sup> The Senate Energy and Natural Resources Committee passed an identical bill (S. 214) in this Congress by voice vote on March 30, 2017.

## **Administration Position**

The Administration submitted written testimony in support of H.R. 220 in response to an April 4, 2017 Water, Power and Oceans Subcommittee legislative hearing.

## **Anticipated Amendments:**

There may be a technical amendment offered to make the bill identical to the Senate Energy and Natural Resources Committee-passed bill, S. 214.

## **Effect on Current Law (Ramseyer)**

Not applicable.

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<sup>14</sup> <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/costestimate/s1583.pdf>.