USING EXECUTIVE AUTHORITY TO ADVANCE U.S. HYDROPOWER:

A GUIDE FOR POLICYMAKERS TO ENSURE THAT HYDROPOWER REMAINS AN IMPORTANT COMPONENT OF THE UNITED STATES’ CLEAN ENERGY STRATEGY WITHOUT COMPROMISING ENVIRONMENTAL VALUES

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# Using Executive Authority to Advance U.S. Hydropower:

*A Guide for Policymakers to Ensure that Hydropower Remains an Important Component of the United States’ Clean Energy Strategy Without Compromising Environmental Values*

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I. EXECUTIVE SUMMARY

Hydropower is a clean, renewable, domestic source of electric energy that provides flexibility and reliability to the electric grid, allows increased use of variable forms of renewable energy, such as solar and wind power, and has the potential to substantially expand the nation’s renewable energy supply. Although capital intensive to develop, hydropower projects have long, useful lives and their fuel is renewable and free. As our nation’s single largest source of renewable electricity—nearly equaling the annual production of all other renewables combined—hydropower must play a critical role in meeting President Obama’s goals set forth in his Climate Action Plan for doubling renewable energy generation by 2020 and meeting our national greenhouse gas reduction commitments.

Hydropower is particularly critical to our “all of the above” energy strategy, as it is the only viable baseload renewable and non-carbon alternative to fossil fuel generation. Hydropower pumped storage, moreover, is the only utility-scale energy storage technology currently available.

Despite all these critical attributes, preserving existing hydropower and developing new projects has proven challenging over the last three decades due to complicated, fragmented, and lengthy federal regulatory processes, and with the difficulties and uncertainties that such processes present for obtaining long-term, low-cost financing. With the growing need to substantially reduce fossil fuel emissions, there has never been a more urgent time to preserve and grow our nation’s largest source of clean, renewable, and reliable electricity.

The Obama Administration has the opportunity to use legal tools already at its disposal to promote and advance the use of hydropower without seeking new authority from Congress. While many of the challenges to hydropower development identified in this document may best be addressed through legislation, existing law and legal authorities provide immediate opportunities for improvements to regulatory processes.

Without significant improvements—achieved through a combination of legislative and administrative action—the current regulatory regime will continue to present a significant disincentive to developing new clean and reliable hydropower projects and preserving our existing hydropower fleet. Prolonged regulatory approvals for hydropower, with their accompanying front-loaded costs, disadvantage hydropower as a cost-competitive resource. For existing projects requiring relicensing, those same regulatory requirements increase costs to consumers, reduce operational flexibility, and actually remove renewable power from the grid. In both cases, electric consumers and the environment lose. Opportunities for clean renewable power development are needlessly lost. Consumers bear higher costs for electricity. Job creation and other local economic benefits are stifled. And fossil fuels must make up the difference.
The stakes are high. Over the next 10 years, Federal Energy Regulatory Commission (FERC) licenses for nearly 250 hydropower projects, totaling more than 11,000 MW in installed capacity, will expire. Moreover, recent studies by federal regulators, academia, and private institutions have found tremendous potential for new hydropower development—particularly utilizing existing dams and other infrastructure. The National Hydropower Association (NHA) estimates that only about 3 percent of the nation’s approximately 80,000 existing dams are equipped with generation facilities. We have opportunities to expand existing hydropower projects, install emerging technologies that make it feasible to exploit the lower hydroelectric potential of irrigation canals and municipal water supply infrastructure, and develop hydropower at existing, non-powered dams. These opportunities provide steady jobs, grow our economy, and result in more stable, clean and renewable energy—all without sacrificing environmental values.

This report, prepared at the request of the Council on Environmental Quality, presents a suite of options that the President could implement early in 2016 to promote new hydropower development and modernize the hydropower licensing process. These options address the following priorities:

- Reforming licensing and permitting processes to promote non-federal hydropower development at U.S. Corps of Engineers and Bureau of Reclamation Facilities;

- Amending administrative implementation of trial-type hearing and alternative conditions processes to make hydropower licensing more efficient and cost effective;

- Improving coordination and efficiency of other federal authorizations applicable to hydropower licensing and development; and

- Recognizing hydropower in Administration-wide and agency renewable energy goals, policies, programs and initiatives.
II. Opportunities to Utilize Existing Authorities to Advance Hydropower

Unlock Potential of Non-Federal Hydropower at U.S. Corps of Engineers and Bureau of Reclamation Facilities

| Agency          | U.S. Corps of Engineers (USACE)  
|                 | Bureau of Reclamation (BuRec)    |
| Program         | Federal Energy Regulatory Commission (FERC) licensing under the Federal Power Act (FPA)  
|                 | USACE permitting under the Clean Water Act (CWA) and Rivers and Harbors Act (RHA)  
|                 | BuRec issuance of leases of power privilege |
| Authority       | CWA sections 401 & 404 (33 U.S.C. §§ 1341, 1344)  
|                 | FPA (16 U.S.C. § 791a et seq.)  
|                 | National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.)  
|                 | Reclamation Project Act of 1939 (43 U.S.C. § 485 et seq.)  
|                 | RHA, 33 U.S.C. §§ 403, 408  
|                 | Water Resources Reform and Development Act of 2014, 33 U.S.C. §§ 408a and 2321b)  
|                 | BuRec Small Conduit Hydropower Development and Rural Jobs Act (43 U.S.C. 485k note)  
|                 | Council on Environmental Quality (CEQ) NEPA regulations, 40 C.F.R. §§ 1501.6 and 1508.5.  
|                 | USACE NEPA regulations, 33 C.F.R. § 230 |
| Description     | While hydropower’s existing contribution to the nation’s energy system is significant, there is tremendous opportunity to increase capacity. One such growth area is at existing federal dams, conduits, and canals under the jurisdiction of USACE and BuRec. The vast majority of U.S. dams and water infrastructure were constructed for purposes other than hydropower generation, such as water supply, flood control, irrigation, and navigation. These dams include structures and impoundments that provide opportunities to install hydropower generation with little or no incremental environmental impact.  
|                 | A 2012 study by the U.S. Department of Energy (DOE) concluded that an additional 12 GW of capacity were available for development at existing non-powered dams, including over 8 GW at USACE facilities. This same report identified 268 MW available at existing BuRec dams. In addition, a
2015 DOE report highlights that an additional 103 MW of capacity could be tapped at existing conduits and irrigation canals on the BuRec system. In its recent Renewable Energy Update, BuRec reports even more potential and interest in developing hydropower on its infrastructure and associated reservoirs. Using the assumptions in the aforementioned studies, this potential to capitalize on existing federal infrastructure to develop renewable, carbon-free hydropower would power a minimum of 3.3 million homes across the U.S.

As hydropower can be added to many existing dams with few incremental environmental impacts, which can be addressed during licensing, this makes hydro generation, arguably, the cleanest of all new capacity options. In addition, as recent new projects have demonstrated, adding hydropower to federal facilities can be done in such a way that works in concert with the other Congressionally-authorized purposes of the dams. In March 2015, the U.S. Departments of Energy, Interior, and the USACE extended their *Memorandum of Understanding for Hydropower* (MOU) originally executed in March 2010 to promote new hydropower development at existing federal facilities and on federal lands. The MOU sets goals to identify opportunities for new hydropower generation at undeveloped federal dams, the addition of new pumped storage facilities, and improvements at existing facilities.

### Current Barriers—Examples

For proposed hydropower development at federal dams managed by USACE, project developers report significant resistance from USACE staff across the U.S.—particularly at the district level—in working cooperatively with hydropower developers to license, permit and otherwise authorize these proposed facilities. There is a strong sentiment that installing renewable hydropower at USACE-managed federal facilities is not a priority.

USACE rarely participates in the FERC licensing process for proposed hydropower projects at federal dams under its jurisdiction. Its absence often requires the developer to begin anew—after FERC issues the license—with the conduct of studies and environmental reviews, as USACE completes its environmental review under NEPA and issues permits and authorizations under the CWA and RHA. The sequential nature of these permitting activities adds significant time and expense to the deployment of new hydropower resources.

All too often, without clear directive or the lack of a strong “champion” in the district, hydropower project work is given low-priority status and is reviewed and processed only as time permits, after “normal” USACE work.
Even though NEPA review is required for both FERC’s licensing and the various permits and authorizations issued by USACE under the CWA and RHA, most districts do not accept FERC’s invitation to be a cooperating agency with FERC in its NEPA analysis, despite the fact that such cooperation is available under CEQ’s NEPA regulations, and encouraged in the recent Memorandum of Understanding between FERC and USACE and USACE’s Section 408 Engineering Circular. By not participating as a cooperating agency, districts have been reported to impose duplicative study requirements and environmental conditions, as well as conditions that differ from FERC license conditions and environmental analysis, which creates delay and adds uncertainty.

Developers have also observed that some USACE districts are adverse to hydropower development, and work actively to discourage its development by denying the developer access to data and refusing to share baseline operating information. Some USACE district personnel have refused even to share such information with FERC, and have imposed restrictions on data access beyond what is required by USACE Headquarters. Even in instances in which district personnel share baseline data, districts have not always notified developers when they decide to change operations that could affect economics or environmental impacts of the proposed hydropower project, such as changing flow regimes. Such changes fundamentally affect the design, operation, and economics of a project and can cost significant funds and extended time to analyze.

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<tr>
<th>Proposed Actions Under Existing Law</th>
<th>Actions Applicable to USACE and BuRec</th>
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<tr>
<td>1. The President should set a goal to double the economically and environmentally feasible hydropower resources at federal infrastructure administered by USACE and BuRec. Currently, there is approximately 3,000 MW of non-federal capacity at USACE infrastructure and 500 MW at BuRec infrastructure.</td>
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<td>2. The President should direct all proposed non-federal hydropower projects at USACE and BuRec facilities to be included on the Federal Permitting Dashboard.</td>
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<td>3. For projects requiring licensing by FERC, the President should direct USACE and BuRec to be cooperating agencies in FERC’s environmental review under NEPA, and to otherwise participate in the FERC licensing process within the timelines established by FERC regulations.</td>
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<td>4. The President should commit to significantly increase funding for</td>
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hydropower operations and maintenance activities at USACE and BuRec facilities to increase performance of the federal system.

**Actions Applicable Only to USACE**

All of the following actions are intended to avoid unnecessary delay and minimize duplication of effort in the authorization of hydropower projects:

5. The President should direct USACE to amend its regulations and policies to require its personnel to process a CWA Section 404 permit application concurrent with FERC’s licensing process.

6. The President should direct USACE to amend its regulations and policies, such that it will issue CWA 404 permits prior to any required authorization under RHA section 14 (33 U.S.C. § 408).

7. The President should direct USACE to address all environmental issues associated with a project at a USACE-managed federal dam in the FERC licensing process and any permit required under CWA 404 (including any RHA section 10 authorization), and to focus the authorization required under RHA section 14 (33 U.S.C. § 408) solely on technical and engineering issues related to the hydropower project’s use of the federal dam. Moreover, RHA section 14 authorizations should be processed concurrently with FERC’s pre-construction review, such that dual review by both agencies does not delay the commencement of construction.

8. The President should direct USACE to accept a state’s water quality certification, issued pursuant to CWA section 401 in the context of the FERC licensing, as satisfying the water quality certification requirement in any permit issued by USACE in furtherance of the project, such as CWA section 404, or section 10 or 14 of RHA. This approach is expressly authorized under CWA section 401(a)(3) (33 U.S.C. § 1341(a)(3)).

9. The President should direct USACE to designate a Senior Executive Service official within its headquarters, and who has direct supervisory authority over staff at the local/district level involved in processing proposed hydropower projects, to assume responsibility and accountability for the timely and consistent decisions on proposed non-federal hydropower projects throughout the agency. This official should be empowered to: (1) resolve disputes between the agency and the developer; (2) be a resource for agency personnel, developers, resource agencies and stakeholders relating to hydropower
development with the agency’s jurisdiction; (3) ensure that the agency engages with other federal and state agencies effectively, and in a manner that minimizes duplication of effort and other inefficiencies; (4) coordinate with FERC on licensing matters; and (5) otherwise facilitate timely action on all aspects of federal permitting required for hydropower development.

10. The President should direct USACE to designate a “Project Delivery Team” for each proposed project, consisting of USACE personnel within the district, division, and at headquarters. The Team should be accountable to the Senior Executive Service official, described above, who has overall responsibility for non-federal hydropower development within USACE. Each Project Delivery Team will be responsible for working with the developer, coordinating with other federal and state resource agencies, and otherwise directly processing proposals to develop hydropower on USACE dams.

11. The President should direct that each USACE Project Delivery Team work with the developer early in the process, including review of a developer’s preliminary design documents and providing preliminary feedback to the developer on the project design, as well as direction on permits and measures necessary for USACE to authorize all components of the project, including engineering designs and measures under RHA section 14 (33 U.S.C. § 408).

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Hydropower Resource Assessment at Existing Reclamation Facilities, Bureau of Reclamation, 2011.

Pumped Storage and Potential Hydropower from Conduits, Department of Energy Wind and Water Power Program, February 2015.

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The President’s Climate Action Plan (June 2013), available at:
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**Memorandum of Understanding for Hydropower** (March 2010), available at:
http://energy.gov/sites/prod/files/2015/02/f19/Memorandum%20of%20Understanding%20for%20Hydropower%20March%202010.pdf

Memorandum of Understanding between USACE and FERC on Non-Federal Hydropower Projects (March 2011), available at:


Bureau of Reclamation Renewable Energy Update (Fiscal Year 2016, Q1), available at:
http://www.usbr.gov/power/FY_2016_Q1_Renewable_Update.pdf

Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408. No. 1165-2-216, (408 Engineering Circular) available at:
**More Efficient and Focused Administration of Federal Resource Agencies’ “Mandatory Conditioning” Authorities**

| Agency                  | U.S. Department of the Interior  
|                        | U.S. Department of Commerce  
|                        | U.S. Department of Agriculture |
| Program                | FERC licensing under the FPA |
|                        | • FPA section 18 (16 U.S.C. § 811 (as amended EPAct 2005 section 241)  
|                        | • 43 C.F.R. Part 45 (Interior EPAct 2005 rules)  
|                        | • 7 C.F.R. Part 1 (Agriculture EPAct 2005 rules)  
|                        | • 50 C.F.R. Part 221 (Commerce EPAct 2005 rules) |
| Description            | Under section 4(e) of the FPA, federal land management agencies are authorized to submit conditions for the adequate protection and utilization of federal reservations occupied by a hydropower project. Under FPA section 18, the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) are authorized to prescribe fishways. Conditions submitted under these authorities are considered “mandatory” because the U.S. Supreme Court has held that FERC cannot reject or modify these conditions and prescriptions, and must incorporate them into the FERC license for the project. *Escondido Mutual Water Co. v. La Jolla Band of Mission Indians*, 466 U.S. 765 (1984). In *City of Tacoma v. FERC*, 460 F.3d 53, 131 (D.C. Cir. 2006), the U.S. Court of Appeals for the D.C. Circuit held, among other things, that Section 4(e) is not limited only to those portions of the federal reservation that are occupied by the hydropower project. Instead, the conditions can be imposed to protect areas of the reservation that are well downstream of the project, or otherwise not proximate to the project. The court in *City of Tacoma* clarified, however, that mandatory conditions submitted under Section 4(e) must address project-related effects.  
|                        | In 2005, under the Energy Policy Act of 2005 (EPAct 2005), Congress amended sections 4(e) and 18 to provide that, where mandatory conditions and prescriptions are disputed with respect to issues of material fact (e.g., disputes over study results, data, or scientific questions), licensing parties to the FERC proceeding are entitled to a determination of the issue on the record after an evidentiary trial-type hearing (TTH), including discovery and cross-examination. The TTH allows for resolution of factual issues administratively prior to the licensing decision, rather than relying on expensive and time-consuming litigation in the court of appeals after a license is issued by FERC. In addition, EPAct 2005 added section 33 to
the FPA, which authorizes hydropower licensing parties to submit alternatives to mandatory conditions. Section 33 directs the Secretary concerned to adopt an alternative in lieu of its own condition, if the alternative at least as protective as the Secretary’s original condition, but does so at a lower cost or results in improved project operations.

EPAct 2005 also requires an agency to document that it gave “equal consideration” to the effects of the conditions adopted (and alternatives rejected) on energy supply, distribution, cost, flood control, navigation, water supply, air quality and other aspects of environmental quality. The goal of this provision is to ensure that a hydropower project’s many benefits are preserved as fully as possible during the licensing process while at the same time providing for the appropriate and necessary level of environmental impact mitigation.

In November 2005, the Departments of the Interior, Commerce, and Agriculture jointly issued interim final rules establishing procedures to implement these provisions of EPAct 2005. The Departments updated these regulations in March 2015.

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<tr>
<th>Current Barriers—Examples</th>
<th>The Secretaries’ implementation of mandatory conditioning authority under the FPA presents significant procedural challenges to new hydropower development and reauthorization of existing projects.</th>
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“Equal Consideration” Requirement

The plain language of FPA section 33 requires the Secretaries to submit into the public record with any 4(e) condition or section 18 prescription a written statement demonstrating that the Secretary gave equal consideration to the effects of the conditions adopted and alternatives rejected on energy supply, distribution, cost, flood control, navigation, water supply, air quality and other aspects of environmental quality. Over the last 10 years since EPAct 2005’s passage, however, the Secretaries repeatedly and consistently have declined to give “equal consideration” when submitting “any” mandatory condition, as required by the statute. Instead, the Secretaries have narrowly interpreted this requirement to apply only when a party submits an alternative condition.

For example, shortly after the Secretaries adopted their initial rule implementing EPAct 2005, a licensee filed a motion to reject a fishway prescription, on the basis that the Secretary had not included an equal consideration statement. In response, the Secretary indicated that it is under no obligation to apply the “equal consideration” standard to mandatory conditions unless an alternative is submitted under FPA section 33. In their recent revisions to the interim final rules, the Secretaries
continued to maintain this position.

**Alternative Mandatory Conditions**

EPAct 2005 provides that if a party develops an alternative condition or prescription that meets the level of protection required for the resource, but at a lower cost or with an improved operation of the project, the Secretaries must adopt the alternative in lieu of their own condition. In practice, however, Secretaries have not implemented this requirement. A 2010 Government Accountability Office (GAO) Report on Hydropower Relicensing found that instead of accepting an alternative, the Secretary concerned frequently develops a modified condition not submitted by any party. The Secretaries’ decision to forgo this analysis mandated under EPAct 2005 is important, because the whole purpose is to require all parties to develop the most effective and economic solution. By ignoring this statutory directive, this accountability is lost—along with any discipline to develop those solutions. In fact, the 2010 GAO Report found that, after five years of EPAct 2005 implementation, no Secretary had ever adopted any alternative submitted by a licensing participant.

**Accessibility and Fairness of Trial-Type Hearings**

EPAct 2005 was intended to afford licensing participants an opportunity to obtain a TTH to ensure that the most crucial facts—supporting what typically are the most costly and extensive environmental protection measures in a license—are scrutinized and confirmed through a hearing process. In practice, however, the Secretaries have crafted a TTH process that is biased against parties challenging mandatory conditions and extraordinarily burdensome. In the 10 years since enactment of EPAct 2005, only 3 TTHs have proceeded through final disposition by an administrative law judge (ALJ). Among the problems experienced in the TTH process:

- The Secretaries have required the party requesting the TTH to bear the burden of proof to demonstrate, by a preponderance of the evidence, a lack of factual support for the Secretary’s condition. As the proponents of the submitted mandatory condition, standard trial practice would require the Secretaries to carry the burden of proof.
- The Secretaries’ TTH regulations do not permit the resolution of key factual disputes related to the criteria for alternative conditions (e.g., disputes related to costs or effectiveness of alternative measures).
- The Secretaries have characterized factual issues ripe for a TTH as “policy” matters to evade a hearing on the issue.
- The TTH procedures do not require the Secretaries to consolidate
TTHs when issues are raised in response to multiple agencies’ conditions, forcing the licensee to concurrently litigate duplicative issues in two separate hearings, before two separate ALJs, in two separate venues—at times at opposite ends of the U.S.

- The Secretaries’ procedures embody an extremely narrow interpretation of the 90-day hearing requirement under EPAct 2005, imposing unreasonable and unworkable time constraints on participants.

Avoidance of TTHs and Alternative Mandatory Conditions

Agencies have used their separate authorities under the Endangered Species Act (ESA), CWA, the Federal Land Policy Management Act (FLPMA), and other federal programs, to avoid TTHs and alternative mandatory conditions. For example, at a small project in California, NMFS imposed expensive fish passage requirements in its biological opinion issued under ESA section 7, and avoided using its FPA section 18 fishway authority, thereby stripping the licensee of the protections of a TTH and alternatives afforded under EPAct 2005.

In addition, because the Secretaries’ TTH rules provide that a party must seek a TTH request within 30 days after the Secretaries submit their preliminary conditions, they can avoid a TTH by waiting until after this deadline passes to submit entirely new conditions. In the relicensing of a California project, for example, the USFS submitted modified FPA section 4(e) conditions after the deadline for requesting a TTH. USFS included in its modified conditions several new, significant measures—including a requirement to implement project ramping rates, which significantly changed and devalued project operations. In response, the licensee requested a TTH, which USFS rejected on the basis that the TTH process is only available for preliminary conditions.

Overreaching Mandatory Conditions

Although the D.C. Circuit in the City of Tacoma case confirmed that mandatory conditions must address effects of the hydropower project, in many instances agencies have not followed this constriction—and instead have leveraged the “mandatory” nature of these conditions to impose unreasonable obligations upon hydropower licensees. In fact, FERC many times has concluded that submitted conditions are unwarranted (although, of course, FERC has no statutory authority to reject or modify these conditions). For example:

- At a project in Washington, NMFS issued a “no jeopardy” opinion, agreeing with FERC’s conclusion that the project would not
jeopardize the continued existence of steelhead trout, but nonetheless imposed, as a condition of its incidental take statement, a requirement to construct expensive upstream fish passage facilities. FERC found that the condition rendered the project uneconomic, and therefore rescinded the license.

- At a small project in California, NMFS imposed expensive fish passage requirements, despite FERC’s conclusion that providing fish passage around the dam was not justified given: (1) the small number of adult steelhead observed passing the downstream dam; (2) the engineering challenges; and (3) the high cost.

- At a project in Washington, the licensee and state water quality agency reached agreement on water quality conditions, which were included in the CWA section 401 certification under the CWA. Nonetheless, USFWS imposed a mandatory condition requiring complex water quality monitoring at an annualized cost of $151,000, even though FERC found that such monitoring would be of little value.

- At a small project in Wisconsin, both federal and state agencies required seasonal upstream and downstream fish passage, despite FERC’s decision in the NEPA document not to recommend fish passage because it found that the fisheries above and below the project were healthy and diverse.

- At a project on the Texas-Louisiana border, federal fish agencies pressed the licensees to install upstream and downstream American eel passage facilities, despite the project’s location well outside the primary range for eels, the presence of thousands of miles of habitat downstream of the project, and the fact that relicensing studies captured only 17 eels downstream of the project during a two-year fish sampling study.

- At a project in Wisconsin, the Secretary of the Interior imposed a section 4(e) condition requiring the licensee to lower the project reservoir by nine inches (and contribute $200,000 toward planting and monitoring wild rice) to reverse the depletion of wild rice at the reservoir, even though it would cause a significant impact upon the entire project, and the federal reservation covered only a minute portion of the project shoreline area.

- At a Project in California, USFS imposed a section 4(e) condition requiring the licensee to install a portable bridge on Lake Isabella (owned by the USACE and not part of the project) and to conduct flow measurements and fish monitoring in areas outside the project boundary.

- At a project in Washington, the Secretary of the Interior required the licensee to mitigate for the loss of wildlife habitat on reservation lands, despite a prior settlement under which the
licensee had already purchased and managed over 700 acres of wildlife lands to address habitat losses from the reservoir’s inundation of lands within the project boundary, including those on the reservation, and FERC’s conclusion in its NEPA document that no further wildlife enhancement was needed.

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<th>Proposed Actions Under Existing Law</th>
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<td><strong>The President should direct the Secretaries of Agriculture, Commerce, and Interior (collectively, Secretaries), to:</strong></td>
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1. Adhere to the “equal consideration” requirement under EPAct 2005 (codified at 16 U.S.C. 823d) for every mandatory condition submitted to FERC under FPA section 4(e) or 18—and not only when a party submits an alternative condition.

2. Properly implement the requirement under EPAct 2005 (codified at 16 U.S.C. 823d) to adopt—without modification—an alternative mandatory condition that meets the statutory criteria, and to cease their practice of developing a revised modified condition in response to a proffered alternative.

3. Amend their EPAct 2005 implementation regulations:
   a. To consolidate all TTHs in each licensing proceeding to occur before a single ALJ, chosen at random;
   b. To provide that the proponent of a challenged mandatory condition or alternative (including the Secretary concerned) bears the burden of proof for such condition or alternative;
   c. To allow additional time in the TTH process, recognizing that the 90-day hearing requirement under EPAct 2005 can be reasonably interpreted as the hearing itself, and not pre- or post-hearing procedures and decision making by the ALJ; and
   d. To allow a licensing participant an opportunity to submit an alternative or obtain a TTH whenever the Secretary modifies or imposes a new mandatory condition.

4. Cease their practice of using other statutory authorities to evade the rights granted to licensing parties under EPAct 2005 to obtain a TTH and submit alternative conditions. For any permit or measure imposed by the Secretaries under any other statutory authority (e.g., CWA, ESA, or FLPMA) that is within the scope of mandatory conditioning authority under the FPA, the Administration should require such measure to be submitted under FPA section 4(e) or 18, as appropriate.

5. Submit mandatory conditions that are within the scope of their authority under FPA sections 4(e) and 18—and particularly conditions that address project-related effects. Should FERC conclude that a submitted
mandatory condition is unnecessary to address project effects, the President should direct the Secretary to conduct additional review at headquarters, to reevaluate the need for the submitted condition in light of FERC’s conclusions.

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<th>References</th>
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| **Agency** | U.S. Fish and Wildlife Service (USFWS)  
National Marine Fisheries Service (NMFS)  
U.S. Forest Service (USFS)  
Environmental Protection Agency (EPA) |
| **Program** | FERC licensing under the FPA  
Endangered Species Act (ESA) section 7 consultation  
State water quality certification under CWA Section 401 permit  
Federal Land Policy and Management Act (FLPMA) permitting |
| **Authority** | CWA section 401 (33 U.S.C. § 1341)  
ESA section 7 (16 U.S.C. § 1536)  
FLPMA (43 U.S.C. §§ 1701 et seq.)  
FPA (16 U.S.C. § 791a et seq.)  
Joint Regulations; Endangered Species Committee Regulations (50 C.F.R. Pt. 200-599) |
| **Description** | FERC’s issuance of a hydropower license is a complex and lengthy process, as FERC’s action triggers authorities held by other federal and state resource agencies. Statutes like the ESA and CWA, for example, provide substantive authorities to the states and federal resource agencies to review and approve proposed new projects, as well as the reauthorization of existing projects. These agencies’ statutory responsibilities are an important part of the project review process and for resource protection. However, there is no mechanism to coordinate all agencies’ programs to reduce duplication of effort, encourage concurrent review and collaboration, and ensure timely action. Rather, each of these individual authorizations under federal law largely occurs in a disjointed, separate, and often sequential manner. The current regulatory landscape causes significant delays, increases costs, inconsistent agency directives, and stifles new project development.  

In the Energy Act of 2000, Congress directed FERC to investigate ways to reduce the cost and time of the hydropower licensing process. Upon completing a comprehensive investigation of impediments in the licensing process—reviewing data as far back as the 1980s—FERC concluded that CWA water quality certification, as well as other factors, cause significant delay. In response to Congress’s direction to provide recommendations to address the delays, FERC (among other things) encouraged more centralized management of the approval process and better coordination among agencies involved.  

More recently, a FERC Commissioner testified in Congress that continued delays in receiving the multiple federal and state agency approvals
required before FERC can issue a license are significantly impeding the relicensing of existing facilities and suppressing new hydropower project proposals—in some cases for several years:

“It is a fact that the licensing process of hydropower projects (and the re-licensing of existing projects) is an expensive and multi-year process. However, most of the cost and time involved in this process can be traced to the requirements of the federal hydropower licensing law. This existing law emphasizes both extensive environmental reviews of a project’s impacts and a role for federal and state resource agencies. There are no consequences to these agencies if they miss deadlines that are part of the Commission’s licensing process or of the laws and regulations they must comply with before the Commission can issue a license, such as the Endangered Species Act and the Clean Water Act. For those members interested in promoting hydropower development, an examination of this and related laws and specifically the roles and responsibilities of resource agencies could help streamline the licensing process and allow greater certainty for those seeking to develop this abundant renewable resource.” FERC Commissioner Philip Moeller, 2011 (emphasis added).

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<th>Current Barriers—Examples</th>
<th>The lack of centralized coordination and schedule discipline in the hydropower approval process causes excessive delays and unnecessary duplication of effort. For example:</th>
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<td>• Although ESA regulations require formal consultation to conclude with a biological opinion within 135 days, USFWS and NMFS routinely fail to meet this regulatory deadline—in some cases by an inordinate amount of time. For several pending hydropower licensings in the Southeast, biological opinions on shortnose and Atlantic sturgeon have been delayed for many years. Despite urgings from the applicants, the hydropower industry generally, and even FERC, NMFS has yet to issue its biological opinions and allow the licensing of these projects to proceed.</td>
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<td>• At a hydropower project in California, a biological opinion on green sturgeon has delayed for over 6 years implementation of a ground-breaking comprehensive relicensing settlement—agreed to by over 50 agencies and stakeholders, including USFWS and NMFS—which would provide approximately $1 billion in numerous environmental, recreational, and other public benefits.</td>
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• Similar delays in biological opinions persist at other hydropower projects located in Idaho, Oregon, California, Washington, Ohio, and West Virginia.

• Applicants are routinely required to withdraw their application for a state CWA section 401 water quality certificate because the states cannot act upon it within the one-year timeframe (for action or waiver) established under federal law (the alternative to which is denial of certification). 33 U.S.C. § 1341(a). Illustrating this issue, FERC stated in a recent order that of the 43 then-pending license applications for which FERC staff had completed environmental analysis, 29 (67 percent) were awaiting state water quality certification. Thirteen of these projects are in California. Since that FERC order (issued in late 2014), FERC was finally able to move forward and issue licenses for some of these projects—but only for two California projects, which had been waiting for 7 years for the state to issue water quality certification.

• For new project development on certain federal lands, a hydropower operator must obtain a special use permit under FLPMA. Often, the FLPMA permitting agency does not participate as a cooperating agency in FERC’s preparation of the NEPA document, requiring the agency to undertake a separate NEPA analysis. Because this occurs after the FERC licensing, the sequential processing of the FLPMA permitting causes additional delays.

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<th>Proposed Actions Under Existing Law</th>
<th>To address these challenges, the President should:</th>
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<td>1. Direct NMFS and USFWS to expeditiously complete any biological opinion required in the licensing or relicensing of a hydropower project that has been pending for more than one year.</td>
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<td>2. Require all federal departments, agencies and bureaus to engage in the FERC licensing effort from the very beginning of the process—in accordance with FERC’s regulations—to identify studies and other information needed to complete their authorizations under federal law and collaborate with FERC during the licensing process to encourage concurrent rather than sequential action.</td>
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<td>3. Direct EPA to conduct a study with recommendations on best practices for States to complete water quality certification decisions within the one-year deadline provided under CWA section 401, and in a manner that minimizes delays.</td>
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4. Direct USFWS and NMFS to involve all decisional staff for each ESA section 7 consultation to be involved from the beginning of the licensing process, and throughout the entire process, to avoid delays, new issues raised by new staff on a project, and inconsistent decisions later in the process.

5. Direct that all hydropower projects, including those in relicensing, be included on the Federal Permitting Dashboard.

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<td>Permitting Dashboard -</td>
<td><a href="https://www.permits.performance.gov/">https://www.permits.performance.gov/</a></td>
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Recognition of Hydropower in Administrative Renewable Energy Goals, Policies, Programs and Initiatives

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<th>Agency</th>
<th>All agencies</th>
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<tr>
<td>Program</td>
<td>“All of the Above” Energy Policy</td>
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<tr>
<td>Description</td>
<td>Promoting sustainable hydropower fits squarely into several intersecting priorities of the President: an “all of the above” energy strategy; providing a solution for, and mitigating the impacts of, climate change; promoting clean air; energy independence; job creation; and improving regulatory processes. Particularly when it comes to harnessing private capital and creating new clean hydropower generation, improving regulatory processes is perhaps the single most important step the Administration can take. The hydropower industry can help meet all of these goals. Over the past several years numerous initiatives related to renewable energy development on public lands, federal renewable energy procurement policies, and government-wide sustainability goals have been released or issued. Unfortunately, these initiatives and programs exclude hydropower as an eligible renewable technology, or qualify hydropower in a way that significantly reduces (or effectively eliminates) its ability to participate.</td>
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<td>Current Barriers—Examples</td>
<td>Examples in which federal initiatives have excluded hydropower include:</td>
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<td>- Of all the resources defined as “renewable electric energy” in Executive Order No. 13,693, the only resource that contains any limited applicability is hydropower. The Executive Order defines “renewable electric energy” as: “energy produced by solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, geothermal heat pumps, microturbines, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.” This definition excludes new hydropower at existing non-powered dams and infrastructure, a high potential area of new development specifically mentioned in the CAP.</td>
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| - EPA’s Green Power Partnership significantly limits the definition of hydropower as: hydropower from new generation capacity on a non-
impoundment or new generation capacity on an existing impoundment that meets one or more of the following conditions:

- Hydropower facilities certified by the Low Impact Hydropower Institute;
- Run-of-the-river hydropower facilities equal to or less than 5 megawatts nameplate capacity; or
- Hydropower facilities that consist of a turbine in a pipeline or a turbine in an irrigation canal.

EPA will consider new incremental capacity on an existing dam on a case-by-case basis, where the “new” output is equal to or less than 5 megawatts, and EPA will review and consider “ocean-based or tidal generation resources.”


- A 2012 Memorandum of Understanding (MOU) between the Departments of Defense and Interior, entitled *Renewable Energy and Renewable Energy Partnership Plan*, includes a stated purpose of helping “DOD develop renewable energy in the interests of greater installation energy security and reduced installation energy costs….“ Eligible technologies discussed in the MOU include wind, solar, geothermal and biomass. Hydropower is not included in the MOU. While touching on energy storage technologies, moreover, the MOU does not recognize pumped storage—the only utility-scale energy storage technology currently available. The MOU discusses offshore wind potential on the OCS, but does not discuss marine and hydrokinetic assessments conducted by the U.S. Department of Energy. The MOU includes an Alaska Initiative, and even though hydropower is an essential resource in Alaska to avoid high-priced and environmentally costly diesel generation, the MOU excludes any reference to hydropower potential in Alaska.

- A graphic depiction of the “all of the above” energy strategy—prominently displayed on the White House’s American Energy Security website—noticeably excludes hydropower. [https://www.whitehouse.gov/energy/securing-american-energy](https://www.whitehouse.gov/energy/securing-american-energy). While this omission has no substantive effect, the messaging is critically important.

<p>| <strong>Proposed Actions</strong> | To elevate hydropower’s role as a significant contributor in an “all of the above” energy policy, and an essential renewable resource in meeting the |</p>
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<tr>
<th>Under Existing Law</th>
<th>President’s CAP, the President should:</th>
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<td>1. Issue a Presidential Memorandum/Directive/Executive Order establishing that hydropower, in all its forms, is an energy priority and compatible with agency missions, and a renewable energy resource for purposes of meeting climate goals.</td>
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<td>2. Direct all federal departments, agencies and bureaus with responsibilities for the approval of any aspect of hydropower to review, update, and supplement agency guidance documents, handbooks, and resource plans to reflect the President’s declaration that hydropower is a priority.</td>
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<td>3. Amend the definition of renewable energy under Executive Order No. 13,693 and across all federal departments, agencies and bureaus to establish that hydropower, in all its forms, is a renewable energy resource and eligible for procurement in meeting CAP and other renewable energy goals.</td>
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<td>4. Direct the Departments of Defense and Interior to amend the 2012 Renewable Energy and Renewable Energy Partnership Plan between the Departments of Interior and Defense to include hydropower, in all its forms, as an eligible renewable energy resource.</td>
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<td>5. Direct the Bureau of Land Management to amend its final rule on the Segregation of Lands–Renewable Energy to include hydropower and pumped storage projects in the new decision making process on rights of way.</td>
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<td>6. Direct all federal departments, agencies and bureaus to include hydropower in all publications describing the President’s “all of the above” energy strategy.</td>
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| Bureau of Land Management Final Rule on the Segregation of Lands–


