



National Hydropower Association (NHA) 2017-2021 Strategic Plan

**NHA Board of Directors
Approved November 10, 2016**

Vision and Mission

Vision: **Double the contribution of Hydropower - America's first, largest, most flexible renewable energy resource – to drive economic development and help achieve a sustainable and secure clean energy future.**

Mission: **Champion the resurgence of Hydropower, in all of its forms, as America's premier carbon-free renewable energy resource. Focus on growth, technological advancement, operational excellence, streamlined licensing, environmental stewardship, improved value recognition, and enhanced general awareness through collaboration, education and outreach.**

America can double its hydroelectric power generation capacity to 192,000 megawatts (MWs) – by preserving and enhancing the existing system and through new development. In doing so, the U.S. hydropower industry will provide significant economic opportunities to localities across the nation, including hundreds of thousands of new jobs. The growth envisioned within the Department of Energy's 2016 Hydropower Vision Report, which found that U.S. hydropower could grow from 101,000 MW to nearly 150,000 MW by 2050, is the first step in achieving NHA's vision.

This growth can be achieved through: efficiency improvements to existing hydropower facilities; adding hydropower to existing non-power dams and canals; development of new stream reaches; deploying new hydropower generating technologies, such as marine energy and hydrokinetics; and expanding pumped hydropower storage for grid reliability.

Today, hydropower is America's largest renewable carbon-free electric resource. The existing hydropower system represents 6 percent of our national electricity production – almost twice the production of all other renewables combined -- and avoids approximately 200 million metric tons of carbon emissions per year.

Yet, tremendous untapped potential remains – just 3 percent of our country's 80,000 existing dams are utilized to generate electricity. Many of these non-power dams, as well as existing hydropower projects, can be modernized with new and more efficient generating capabilities that can also increase environmental protections. In addition, emerging hydropower technologies – such as in-stream hydrokinetic, tidal, ocean and wave energy – are just beginning to be utilized. There are

significant, untapped marine energy resources that could greatly assist in the goal of doubling the contribution of hydropower.

Economic conditions and social priorities will continue to change over time, but America has an urgent need for new jobs and new sources of sustainable carbon-free energy – and hydropower can deliver both on a significant scale. Hydropower is a proven energy technology that is **available**, **reliable**, **affordable** and **sustainable**. To help our nation tap into this tremendous growth potential, the National Hydropower Association (NHA) adopts the following 2017-2021 Strategic Plan.

Description of Strategic Goals and Key Strategic Actions

NHA will achieve its Vision and Mission by focusing on the four Strategic Goals described below. Strategic Actions to achieve each goal are described in both short-term (1-2 years) and long-term (3-5 years) timelines. The NHA Board of Directors provides overall policy direction. The Chairs of NHA's Committees, Councils, and Task Forces will champion implementation of these Strategic Actions under the direction of the NHA Board of Directors and in coordination with NHA staff. The focus will be on Priority Actions identified by the Board.

Indicators of Success

The NHA Board of Directors has also identified the following indicators of success in achieving our Vision and carrying out our Mission.

- Hydropower is widely recognized as a leading clean and renewable electricity resource in America, with much more to offer in the future.
- NHA has a clear, unified and powerful voice in all clean and renewable energy forums.
- NHA is recognized as a premier trade organization that is the voice for all forms of waterpower.
- Hydropower permitting and licensing processes are smarter, more timely and more efficient, with more certain and predictable outcomes.
- Financial incentives are available for all hydropower resources and technologies, including pumped storage, and are on par with other renewables.
- A broad group of public opinion leaders support NHA's Vision.
- NHA members highly value the Association's work as recognized through growing and sustained membership.
- NHA members actively participate in NHA's Operational Excellence (OpEx) program toward achieving operational excellence in all aspects of their operations.
- Progress in the implementation of the action items in the Department of Energy's Hydropower Vision Report.

- Growth in the number and capacity of hydropower projects being planned, constructed and operated, and track against 2010 level to measure progress toward our goal of doubling hydropower capacity.

Where possible, the NHA Board of Directors intends to develop quantitative indicators of success/tools for measuring success such as MWs under construction and installed, additional MWs produced, jobs created, and facility life extensions achieved.

2017-2021 Strategic Plan

NHA Board of Directors
Approved November 10, 2016

Vision and Mission

Vision: Double the contribution of Hydropower - America's first, largest, most flexible renewable energy resource – to drive economic development and help achieve a sustainable and secure clean energy future.

Mission: Champion the resurgence of Hydropower, in all of its forms, as America's premier carbon-free renewable energy resource. Focus on growth, technological advancement, operational excellence, streamlined licensing, environmental stewardship, improved value recognition, and enhanced general awareness through collaboration, education and outreach.

America can double its hydroelectric power generation capacity to 192,000 megawatts (MWs) – by preserving and enhancing the existing system and through new development. In doing so, the U.S. hydropower industry will provide significant economic opportunities to localities across the nation, including hundreds of thousands of new jobs. According to the Department of Energy's 2016 Hydropower Vision Report, U.S. hydropower could grow from 101,000 MW to nearly 150,000 MW by 2050. This growth would be the first step in achieving the NHA vision.

This growth can be achieved through: efficiency improvements to existing hydropower facilities; adding hydropower to existing non-power dams and canals; development of new stream reaches; deploying new hydropower generating technologies, such as marine energy and hydrokinetics; and expanding pumped hydropower storage for grid reliability.

Today, hydropower is America's largest renewable carbon-free electric resource. The existing hydropower system represents 6 percent of our national electricity production – almost twice the production of all other renewables combined -- and avoids approximately 200 million metric tons of carbon emissions per year.

Yet, tremendous untapped potential remains – just 3 percent of our country's 80,000 existing dams are utilized to generate electricity. Many of these non-power dams, as well as existing hydropower projects, can be modernized with new and more efficient generating capabilities that can also increase environmental protections. In addition, emerging hydropower technologies – such as in-stream hydrokinetic, tidal, ocean and wave energy – are just beginning to be utilized. There are significant, untapped marine energy resources that could greatly assist in the goal of doubling the contribution of hydropower.

Economic conditions and social priorities will continue to change over time, but America has an urgent need for new jobs and new sources of sustainable carbon-free energy – and hydropower can deliver both on a significant scale. Hydropower is a proven energy technology that is **available, reliable, affordable** and **sustainable**. To help our nation tap into this tremendous growth potential, the National Hydropower Association (NHA) adopts the following 2017-2021 Strategic Plan.

Description of Strategic Goals and Key Strategic Actions

NHA will achieve its Vision and Mission by focusing on the four Strategic Goals described below. Strategic Actions to achieve each goal are described in both short-term (1-2 years) and long-term (3-5 years) timelines. The NHA Board of Directors provides overall policy direction. The Chairs of NHA's Committees, Councils, and Task Forces will champion implementation of these Strategic Actions under the direction of the NHA Board of Directors and in coordination with NHA staff. The focus will be on Priority Actions identified by the Board.

Indicators of Success

The NHA Board of Directors has also identified the following indicators of success in achieving our Vision and carrying out our Mission.

- Hydropower is widely recognized as a leading clean and renewable electricity resource in America, with much more to offer in the future.
- NHA has a clear, unified and powerful voice in all clean and renewable energy forums.
- NHA is recognized as a premier trade organization that is the voice for all forms of waterpower.
- Hydropower permitting and licensing processes are smarter, more timely and more efficient, with more certain and predictable outcomes.
- Financial incentives are available for all hydropower resources and technologies, including pumped storage, and are on par with other renewables.
- A broad group of public opinion leaders support NHA's Vision.
- NHA members highly value the Association's work as recognized through growing and sustained membership.
- NHA members actively participate in NHA's Operational Excellence (OpEx) program toward achieving operational excellence in all aspects of their operations.
- Progress in the implementation of the action items in the Department of Energy's Hydropower Vision Report.
- Growth in the number and capacity of hydropower projects being planned, constructed and operated and track against 2010 levels to measure progress towards the goal of doubling hydropower capacity.

Where possible, the NHA Board of Directors intends to develop quantitative indicators of success/tools for measuring success such as MWs under construction and installed, additional MWs produced, jobs created, and facility life extensions achieved.

Strategic Goal 1: Drive legislative and regulatory policies that improve the efficiency and certainty of Hydropower licensing/permitting processes, enhance Hydropower’s economic viability, and expand Hydropower’s clean energy role.

<u>Champion</u>	<u>Status</u>	<u>Strategic Actions/Short-Term (1-2 years)</u>
Legislative and Regulatory Affairs/Staff		1. Secure enactment of legislative and associated regulatory changes that improve the efficiency and certainty of hydropower licensing/permitting.
Legislative and Regulatory Affairs/Staff		2. Develop and begin implementation of a strategy focused on modernizing the hydropower licensing/relicensing process from an administrative-focused perspective.
Legislative Affairs/Staff		3. Secure continued favorable tax treatment and incentives for new and incremental hydro generation at new and existing facilities (e.g. PTC/ITC extension, CREBs, and tax exempt financing) and/or ensure equal consideration for hydro and marine technologies as other generation technologies.
Legislative Affairs/Regulatory Affairs/ CEO/Staff		4. Conduct outreach with a new Administration and Members of 115 th Congress to promote policymaker support for NHA priorities. Improve and enhance NHA’s relationships, where necessary, with resource agencies and NGO’s.
Hydropower Value Recognition Task CEO Council/All Committees/Staff		5. Recruit appropriate members to the Hydro Valuation Task Force for two distinct subgroups; environmental markets and power (energy and capacity) markets. The Environmental market subgroup will: 1) Identify topics and make recommendations to the Board on environmental market policy intervention in focused states/regions; and 2) develop the scope of a study commissioned to assess market discrimination against hydropower, with a focus on quantifying lost opportunities. The power market subgroup will: 1) identify topics and make recommendations to the Board on power market value recognition and coordinate knowledge-sharing among members; and 2) work

with the DOE to commission a study to identify and provide recommendations to address power market value gaps for hydropower in different markets.

All Committees and Councils/Staff

6. Utilize and leverage the Department of Energy’s new Hydropower Vision Report to support new energy policies that recognize and support hydropower by informing policymakers and the public regarding the benefits of the existing hydropower system and future growth.

Legislative Affairs, Regulatory Affairs and Small Hydropower Council/Staff

7. Continue to pursue improvements to the U.S. Army Corps of Engineers’ review and approval of non-federal hydropower proposals on Corps infrastructure.

Regulatory Affairs/Staff

8. Where appropriate, coordinate with representative state organizations, the EPA, and regional organizations to promote hydropower as state implementation plans are developed to implement the Clean Power Plan should it withstand the ongoing legal challenge.

Legislative Affairs Staff/R&D/Marine Energy Council

9. Secure continued robust appropriations funding for the DOE waterpower and marine R&D program and federal owners’ hydropower O&M budgets.

Champion

Status

Strategic Actions/Long-Term (3-5 years)

Legislative and Regulatory Affairs/Staff

1. Secure legislative and regulatory policy changes to modernize and streamline the hydropower licensing process.

Hydropower Value Recognition Task Force/CEO Council/All Committees/Staff

2. Promote and secure market policy changes based on the recommendations from the environmental and power market subgroups of the Hydropower Value Recognition Task Force, as approved by the Board. Otherwise, provide facilitation and coordination role for NHA members on these issues regionally.

Legislative Affairs/
Staff

3. Promote hydropower as both a renewable and clean energy resource in future climate/carbon reduction/clean energy initiatives from the Administration and Congress

Regulatory Affairs/
New R&D
Group/staff

4. When appropriate, advocate for follow-on updates and new research related to the Hydropower Vision Report with specific attention to implementation of the Vision roadmap.

Strategic Goal 2: Strengthen the positive opinion of Hydropower among policy makers, opinion leaders and the public.

Champion

Status

Strategic Actions/Short-Term (1-2 years)

Public Affairs/
Staff

1. Strengthen and enhance opportunistic, targeted messaging towards decision-makers and opinion leaders in support of NHA's policy goals

Public Affairs/
Staff

2. Continue to deploy a politically savvy messaging campaign; including appropriate platforms (e.g. website). Target specific audiences for garnering recognition of hydropower's value, as a job creating, proven, carbon-free and renewable energy solution as well as all ancillary benefits (including recreational, environmental, flood control, and water supply benefits).

Public Affairs/Staff

3. Implement communications strategies for the Department of Energy's Hydropower Vision that supports and leverages messaging, and encourages industry involvement.

Regional
Committee/Public
Affairs/Staff

4. Implement a messaging strategy outside the beltway through improved alignment with regional and national associations, members, and stakeholders. Strengthen NHA's relationship with regional hydropower organizations and stakeholders.

Public Affairs/Marine
Energy Council/
Staff

5. Develop media and messaging campaign to promote MHK and other innovative technologies and support appropriations and policy initiatives

Strategic Actions/ Long Term (2-5 Years)

Public Affairs/
Task Force on Value
Recognition of
Hydropower/Staff

1. Work closely with Value Recognition Task Force to develop communication strategies to support efforts to enhance value (e.g. use results of value gap study).

Public and Regulatory
Affairs/Small Hydro
Council/
Staff

2. Continue to develop messages and supporting material that supports NHA's regulatory affairs agenda in modernizing the licensing and relicensing processes, preserving the value of the existing system and supporting new development.

Strategic Goal 3: Achieve a strong, healthy, effective and growing National Hydropower Association.

<u>\Champion</u>	<u>Status</u>	<u>Strategic Actions/Short-Term (1-2 years)</u>
Board/Staff		<ol style="list-style-type: none">1. Annually identify Priority Actions (Operating Plan) to focus staff, Committees and Councils. Make sure these actions are funded.
Revenue		<ol style="list-style-type: none">2. Develop and track, new opportunities for non-dues revenues. This includes developing a strategy to reach out to non-traditional parties to build on our revenue base.
Executive Committee		<ol style="list-style-type: none">3. Reinvigorate committee structure and leverage member resources to enable NHA staff to do more with greater coordination, effectiveness and efficiency (e.g. support getting NHA members more engaged in the goals and work of the Committees). Establish a strategy, criteria and communication for the selection of committee leadership to promote greater membership engagement and to increase committee/council effectiveness. Develop metrics to determine effectiveness of the councils/ committees.

<u>Champion</u>	<u>Status</u>	<u>Strategic Actions/Long-Term (3-5 years)</u>
Revenue		1. Search for revenue opportunities to increase resources necessary to achieve the association’s goals.
Board		2. Maintain a balanced budget.
Board		3. Continue to monitor and advance NHA’s policy on reserves.

Strategic Goal 4: Meet member needs toward achieving strong, healthy and successful Hydropower programs.

<u>Champion</u>	<u>Status</u>	<u>Strategic Actions/Short-Term (1-2 years)</u>
HPC/Staff		1. Implement the OpEx operational plan (developed in 2016) to capitalize on the collective knowledge of hydropower professionals to make the Op Ex program the “Go to Resource” for the hydro industry for information on hydro operations, maintenance, dam safety, environmental and personnel safety. The plan includes continued expansion of Federal engagement, clear definition of the target audience, and web-site management strategy.
HPC/Staff		2. Demonstrate value of the Op Ex program through by expanding its utilization throughout the membership by sharing program results, such as analysis of Event Reports, best practices and lessons learned, and increasing use of the real-time discussion board. Continue to report on the number of Op Ex reports filed per year and hits to the website. Feedback on the program will be solicited through various member outreach forums.
HPC/Staff/Marine Energy Council		3. Expand delivery of NHA-sponsored workshops and webinars via partnering with individual member companies. Content may include technical and administrative topics.

HPC/Staff/Marine
Energy Council

4. Establish the NHA Water Innovation Council to devise and lead a research and innovation agenda for both conventional and MHK technologies. Identify where technological advances can bring the greatest benefits to the industry in terms of advancement of the existing fleet, growth and sustainability. Coordinate resources, prioritize R&D needs, develop an advocacy plan and gain funding.

Champion

Status

Strategic Actions/Long-Term (3-5 years)

HPC/Staff

1. Partner with member companies, organizations and institutions focused to provide training, technical and professional, for hydropower's current and future workforce.

Staff

2. Continue to work with other organizations to provide NHA member discounts for publications, registrations, etc.

HPC/Staff/
Regulatory Affairs

3. Begin to explore and/or develop a plan to populate a searchable best practices library for issues related to regulatory compliance, such as dissolved oxygen.

APPROVED: November 10, 2016

2017 Priority Actions/Operating Plan to Implement the Strategic Plan

The Board affirms NHA's commitment to its 2017-2021 Strategic Plan, which includes the following four Strategic Goals:

1. Drive legislative and regulatory policies that improve the efficiency and certainty of Hydropower licensing/permitting processes, enhance Hydropower's economic viability, and expand Hydropower's clean energy role
2. Strengthen the positive opinion of Hydropower among policy makers, opinion leaders and the public
3. Achieve a strong, healthy, effective and growing National Hydropower Association
4. Meet member needs toward achieving strong, healthy and successful member Hydropower programs

Priority Actions

The Board's 2017-2018 Priority Actions for NHA in support of achieving NHA's Strategic Goals are to:

Priority Action 1: Upon conclusion of 114th Congress and the Relicensing Summit, evaluate status of priority licensing improvement measures, and develop and implement a plan for securing priority measures through regulatory and/or legislative action. [Supports Strategic Goal 1]

Priority Action 2: Secure continued favorable tax treatment and incentives for new and incremental hydropower generation (e.g. PTC/ITC extension, CREBs, and tax exempt financing) and ensure equal consideration for hydro and marine technologies as other generation technologies. [Supports Strategic Goal 1]

Priority Action 3: Build, strengthen and deploy a politically savvy messaging campaign including new web platform with increased OpEx integration; target specific audiences for garnering recognition of hydropower's value, clean energy attributes environmental and other benefits, as a job creating, proven, carbon-free and renewable energy solution. Continue to support the rollout of the DOE Hydropower Vision Report. [Supports Strategic Goals 1, 2 and 4]

Priority Action 4: Create a platform to bring the industry together and commission studies to identify primary barriers or issues that preclude value recognition of hydropower's attributes in environmental and organized energy markets to encourage a unified voice on issues of common interest. [Supports Strategic Goal 1, 2 and 4]

Priority Action 5: Develop and utilize an implementation plan, with goals and tracking, to increase both dues and non-dues revenues. Target 2 or 3 new opportunities to reach out to non-traditional members. Track member consolidations and develop a strategy to recapture income loss. [Supports Strategic Goal 3]

Priority Action 6: Implement the operational plan (developed in 2016) for the Op Ex program, including increasing engagement of Federal hydro operators for event reporting and best practices, developing and delivering regular communication to users, solidifying Op Ex's place

as the go - to resource for the hydro industry on issues including operations, maintenance, dam safety, environmental, and personnel safety. [Supports Strategic Goal 4]

Priority Action 7: Devise a plan for the establishment of an NHA Water Innovation Council. Such plan should include a charter, a board member as the Council leader, identification of industry R&D needs through the polling of industry, comparing polling results with those of prior R&D surveys, and also include needs identified by the Marine Energy Council and the DOE Hydropower Vision Report. The Council will also develop a program of prioritized needs for DOE funding by summer 2017 and hold an R&D Summit that leverages existing industry, university and agency R&D experience and programs. [Supports Strategic Goal 1 and 4]

Priority Action 8: Develop a management and monitoring structure relative to the implementation of the DOE Hydropower Vision Roadmap. Such structure should include industry representation and a plan for monitoring the implementation of the Roadmap's five areas of focus, and ensure coordination with the NHA board and staff, the DOE, and other existing NHA assets. [Supports Strategic Goal 1 and 4]

The Board believes these Priority Actions are the critical short-term actions which must be taken to achieve the goals of the Strategic Plan. The Board recognizes that in addition to these Priority Actions, NHA performs a variety of other functions and services which also contribute to achieving the goals of the Strategic Plan. The Board directs the Executive Director, and intends its Committees and Councils, to view these Priority Actions as the primary, but not exclusive focus of the organization during 2017.

Implementation

The Board directs staff to implement the Strategic Plan with a particular focus on the Priority Actions and to report on the status of implementation at each Board meeting.