The climate in Washington is much different than it was just last year; a new Congress has brought new priorities to our national energy agenda. In response, your National Hydropower Association has prepared and implemented a strategic plan that not only addresses these changes, but also takes into account the evolving needs of NHA’s diverse membership. Most important of all, we’re seeing results:

- Legislation is advancing in both houses of Congress to position hydropower as an engine of America’s economic recovery;
- Secured the largest federal appropriation ever for hydropower research and development;
- Strengthened our relationships with, and support from, federal agencies, Congress, and the NGO community;
- Increased recognition of hydropower’s value and growth potential from national media, Congress, the Administration, third party groups and the public;
- Greater value for NHA membership through technical workshops, regional meetings, improved communications tools, and NHA’s new operational excellence goal.

This is just a sampling of what we have achieved in 2011. The details are contained within the pages of this report. In it you will see how much we have achieved and the track we are on to successfully advance America’s premier renewable electricity resource.

We feel honored to lead such a successful organization with a dedicated membership focused on excellence. As we strive to pass supportive legislation through Congress, secure investment in hydropower research and development, and foster open dialogue between industry members and federal agencies we look to continued member participation to meet those goals in 2012.

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KEY FACTS ABOUT HYDROPOWER

**Available**
- Only 3 percent of the 80,000 dams in the U.S. generate electricity.
- Estimates indicate that hydropower can more than double capacity by 2030; nearly 60,000 MW without the need for new dams.
- Over 80,000 MW of new hydropower projects are in the FERC permitting pipeline.
- The industry currently supports over 300,000 American jobs annually and continued growth in the sector could support over 1.4 million new jobs throughout the country.

**Reliable**
- Over 96,000 MW of installed capacity in the United States, composing two-thirds of all U.S. renewable generation.
- Hydropower provides over 30 million American homes with affordable power each year.
- A flexible resource, hydropower is well-suited to meet changing electricity demands.
- Pumped storage hydropower provides a reliable solution for energy storage and grid integration of variable renewable resources like wind and solar.

**Affordable**
- Compared to all other sources of electricity, hydropower has the lowest cost per kilowatt hour.
- States that get the majority of their electricity from hydropower like Idaho, Washington, and Oregon on average have energy bills that are lower than the rest of the country.
- Relying only on the power of moving water, hydropower prices are not dependent on unpredictable changes in fuel costs.

**Sustainable**
- Hydro avoids up to 225 million metric tons of CO₂ emissions annually—that’s like taking 42 million cars off the road!
- Satellite imagery shows that the Pacific Northwest, home to the most hydropower in the United States, is an island of low carbon emissions.
- Hundreds of millions of dollars are invested each year in environmental enhancements at hydro facilities.
- Industry is constantly innovating and investing in research and development to improve fish passage and ensure greater water quality with enhanced technology.

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LETTER FROM THE PRESIDENT & EXECUTIVE DIRECTOR

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THE INDUSTRY’S NATIONAL ADVOCATE

Hydropower is affordable, reliable, available, and sustainable. That is the message NHA brought to the historically large congressional freshmen class sworn-in in January. Throughout 2011 the Association laid the groundwork to advance hydropower policy during a time of divided government and tight budgetary constraints.

At the beginning of the year, President Barack Obama used his State of the Union address to articulate a new vision for America’s energy future: meeting 80 percent of the nation’s electricity needs from clean energy sources. Already the nation’s top producing clean and renewable electric resource, NHA announced that hydropower could meet 20 percent of that goal with supportive policies and incentives in place.

Since then, we have dedicated every minute to providing an already robust industry with the tools it needs to continue as a bright spot in these economically uncertain times.

Working with federal policymakers in both Congress and the Executive branch, NHA has set out to improve regulations, expand and extend incentives, and secure investment in innovative research and development.

Shortening the licensing timeline for hydropower projects would make our growing industry grow even faster. Hydropower’s long development timeframes make it challenging for developers to secure financing and qualify for incentives. Working closely with the office of Sen. Lisa Murkowski (R-AK), NHA secured the introduction of the bipartisan Hydropower Improvement Act, which would examine a two-year licensing process for certain types of hydropower projects. Then-NHA President Andrew Mauro testified before the Senate Energy Committee in support of the bill; it received bipartisan approval within two months. By the end of the year, Reps. Cathy McMorris Rodgers (R-WA) and Diana DeGette (D-CO) introduced companion legislation in the House of Representatives.

The value of federal incentives to the growth of hydropower cannot be underestimated—programs like the production tax credit (PTC), investment tax credit, Section 1603 grants and Clean Renewable Energy Bonds. Since 2005, FERC certified 83 hydropower projects in 23 states for the PTC, which resulted in an average generation increase of approximately 11 percent, about enough energy to power over 87,000 homes annually. Ensuring that these incentives remain available to the industry is a top priority. NHA has collaborated with congressional offices and other renewable trade associations to introduce legislation to extend the production tax credit, establish parity for conventional and marine and hydrokinetic technologies, and provide tax incentives to pumped storage facilities and renewable energy manufacturers who fabricate equipment in the United States.

A strong Water Power Program at the Department of Energy is essential to improve the efficiency and environmental performance of conventional technologies as well as bring nascent technologies to market readiness. Joined by the Ocean Renewable Energy Coalition and the environmental advocacy group The Nature Conservancy, the Association advocated for $100 million in funding for hydropower research and development, divided equally between conventional and new technologies. This funding promotes hydropower projects throughout the country, including the 11 projects that received $17 million in awards from the Departments of Energy and Interior in September to advance hydropower technologies.

Working with our member companies, NHA led a lobbying campaign to demonstrate the importance of hydropower R&D to Congressional appropriators in the latter half of the year when it appeared that funding was in jeopardy. Due to our efforts, $59 million was appropriated, making hydropower the only renewable electricity program at DOE to get an increase in funding: up 50 percent from the previous year and more than 20 percent over what the president had requested.

NHA has been working to demonstrate to Congress the full reach of the hydro industry.

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The Industry’s National Voice

Over the past year, NHA has strived to provide new substance and style while acting as the industry’s unified voice before media and the public. From a new set of messages and a re-launched digital presence to growing our list of allies, NHA is at the forefront of strategic communications. We could not be more pleased with the results.

The year kicked off with the launch of the completely redesigned NHA website www.hydro.org. Countless hours were poured into the effort and the final product has made it easier to navigate, easier to find important information, and easier on the eyes.

In conjunction with the new website, NHA has taken its messages to the social media world, establishing a Facebook page and Twitter feed. These key resources allow us and our members to connect with media, opinion leaders, and policymakers. Make sure to “Like” and “Follow” us!

Our messages are now appearing in an ever-growing list of major media publications. NHA continuously works with reporters to provide the industry’s perspective and shape national and regional stories. NHA has worked with or appeared in AOL Energy, The Hill Street Journal, The Washington Post, The Boston Globe, POLITICO, Fox News, and others. In addition to national outlets, NHA responded to dozens of inquiries from trade and local media.

Not just NHA benefits from the increased exposure of hydropower and our new communications tools. We are constantly referring journalists to our member companies with compelling stories to tell and highlighting case studies on the front page of our website. From Puget Sound Energy’s record salmon returns in the Baker River to the new development work of Hydro Green Energy, we are able to demonstrate the range of activities the hydropower industry is involved in while bolstering our members’ profiles.

Establishing relationships with external groups is key to building support among both the public and policy elite. This year, we’ve ramped up our third party outreach and brought hydropower’s message to both the domestic and international front. NHA met with DC policy think tanks Center for American Progress, Earth Policy Institute, National Governors’ Association, and international delegations from Norway, Azerbaijan, Nepal, China, Canada, and Bosnia and Herzegovina. And of course, we have continued joint action on key initiatives with other renewable energy organizations including the American Wind Energy Association, Solar Energy Industries Association, Geothermal Energy Association, Biomass Power Association, Business Council for Sustainable Energy, and the Sustainable Energy Coalition, to name a few.

As we head into 2012, we look forward to talking about the full value chain of the hydropower industry. It is so much more than water through a turbine. It is also a source of jobs and economic vitality: the industry directly employs approximately 300,000 workers and, beyond that, thousands more benefit indirectly from the construction and operation of hydropower facilities. The industry is not made up of just generators, large manufacturers, and engineering, legal and environmental consultants, it also includes local construction workers, hardware and materials companies, and many others who have a stake in the continued growth of this important energy source. With this in mind, NHA has been working to demonstrate to Congress the full reach of the hydropower industry. Look for the launch of this story in early 2012.
THE INDUSTRY’S NATIONAL FORUM

Bringing the hydropower industry together enables it to better itself through cooperative information sharing. NHA sees this as central to its mission and provides various opportunities and channels for members and industry to meet, network, and share their own unique perspective.

This year, NHA launched an operational excellence goal to provide hydropower owners and operators a resource to address and solve mutual industry issues. As the first step to meeting this goal, NHA established the Hydro Industry Forum, a new-and-improved member communications platform which hosts a searchable multi-year archive of conversations on operations and maintenance best practices, regulatory compliance, and more.

Building on the success of previous years, we continued to implement our regional meeting program. These meetings offer a chance for hydropower professionals to explore regionally unique issues and business opportunities in hydropower. This year, NHA held its most successful regional meeting to date in Girdwood, Alaska, where the nearly 200 attendees were joined by Gov. Sean Parnell and United States Senators Lisa Murkowski and Mark Begich.

In addition to regional meetings, NHA has held meetings all over (and outside) the country. Our annual conference in DC garnered record attendance and brought the industry together with NHA as well as regulators, policymakers, and media to discuss the challenges and opportunities faced and to chart a path forward for hydropower. Manitoba Hydro hosted our fall Hydraulic Power Committee meeting providing a chance to exchange operations and maintenance experiences and tour our host’s hydropower facilities, and hydro executives were brought together in Arizona and California at meetings of NHA’s CEO Council, to name a few. With each meeting, we’ve further strengthened the bonds of the industry.

NHA 2011 Events & Activities

BY THE NUMBERS . . .

Hydropower Activities at FERC

Department of Energy Water Power Program

NHA Alaska Regional Meeting August 30–31
Girdwood, Alaska

Hydraulic Power Committee Fall Meeting
September 12–14
Winnipeg, Manitoba

NHA Annual Conference April 4–6
Washington, DC

Sustainable Energy Coalition House Renewable Energy Expo June 16
Washington, DC

NHA / COSHA Southwest Regional Meeting and Small Hydro Workshop June 14–15
Denver, CO

NHA / HUG Midwest Regional Meeting May 18
Minneapolis, MN

HydroVision International July 19–21
Sacramento, CA

NHA Pumped Storage Workshop October 3
Bellevue, WA

NHA / NWHA Joint Regional Meeting October 4
Bellevue, WA

Advanced Hydropower Management (DOE), $18,070,579.00

Fiscal Year

2006 2007 2008 2009 2010 2011 2012

Funding Level (in dollars)

Marine and Hydrokinetic

Conventional

10,000,000

20,000,000

30,000,000

40,000,000

50,000,000

60,000,000

Production Tax Credit, $1,241,068.51

Section 1603 Grants, $16,970,575.00

Rural Energy for America Program (USDA), $9,054,323.00

DOE Funding

51,241,068.51

$18,070,579.00

$9,054,323.00

$16,970,575.00

Funding Permits and Exemptions, 3,209 MW

Pending Licenses, Exemptions, & Capacity Amendments Issued

Projects Placed in Service

Projects Filed

Issued Preliminary Permits, 44,404 MW

Pending Preliminary Permits, 37,875 MW

National Hydropower Association | 2011 Annual Report

Hydropower Incentives, 2011

National Hydropower Association | 2011 Annual Report
OUTLOOK

With the groundwork we’ve laid over the past year, hydropower is poised for major policy accomplishments in the near term and extraordinary growth in the long run. Over the next year, NHA, working closely with its membership, will continue to advocate for the policies that promise to not only grow the industry, but bring local economic and clean energy benefits to millions of Americans.

We are also set to meet the regulatory needs of our membership. By providing appropriate resources to our regulatory affairs program, NHA has made it our goal to build and strengthen our relationships with government agencies and continue to find common ground with the NGO community. With over 50 projects currently seeking relicensing from FERC, NHA has positioned itself to be an invaluable resource to our members in the coming months.

Beyond that, it is our priority to tell the story of our members to a broader audience. Through our public affairs outreach, Outstanding Stewards of America’s Waters Awards, and our digital media, we want to amplify the great work our member companies do each year that truly makes hydropower the nation’s premier renewable energy resource.

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