2013
A Year of Success . . .
THREE DECADES OF PROGRESS

ANNUAL REPORT
KEY HYDROPOWER FACTS

Available
- Only 3 percent of the 80,000 dams in the U.S. generate electricity.
- The Department of Energy estimates that over 12,000 MW of capacity could be added to the nation’s non-powered dams.
- Over 60,000 MW of new hydropower projects are in the FERC regulatory pipeline.
- Hydropower currently supports over 300,000 American jobs annually and over 2,500 supply chain companies from coast to coast. Continued growth supports those companies and could add 1.4 million new jobs.

Reliable
- Hydropower capacity totals 100,000 MW in the U.S. and generates a majority of the nation’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 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 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.
Anniversaries present a wonderful opportunity to look back. In 2013, NHA celebrated 30 years as the hydropower industry’s representative in Washington. But, with an eye ever trained on the future, we set out to accomplish big things. And we were successful.

This past year was full of achievements for the hydropower industry. New policy promoting the industry’s growth was enacted. The media took note of hydropower’s positive contributions. Members are collaborating to improve operational excellence. And the industry continues to engage with one another all across the country. All of this was made possible by the hard work and continued efforts of the National Hydropower Association and its members.

We’re proud of our successes in 2013, and encourage you to explore them in detail in the following pages of this report.

Yet, even as we look back at 2013, 2014 presents new challenges and new opportunities. We hope you will continue to remain engaged in NHA’s work as we seek to achieve additional regulatory improvements, secure a robust business environment for all hydropower, advance new growth and development, and further hydropower’s operational excellence.

Sincerely,

Marc Gerken
President

Linda Church Ciocci
Executive Director
Maintaining and growing hydropower’s contributions to the nation’s electricity grid are central to the Association’s mission in Washington. For the past several years, NHA has pursued an aggressive policy agenda to enact regulatory improvements, extend financial incentives that foster upgrades to existing plants and development of new hydropower in the United States, and continue federal investment in hydropower technology research and development. Last year saw success and progress on many of these fronts.

Hydropower stood out in 2013 as the energy source everyone can agree on. In a Congress divided by partisan battles, NHA accomplished something no other energy trade group could: secured passage of legislation. And not just one, but two bills that promote the development of new hydropower projects: the Hydropower Regulatory Efficiency Act and the Bureau of Reclamation Small Conduit Hydropower Act. And the support was overwhelming, with both passing the Senate unanimously. These bills, which The New York Times called the “first significant energy legislation in four years,” seek to expedite the licensing of certain types of hydropower projects, including small and conduit projects, closed-loop pumped storage, and the addition of hydropower generation to the nation’s existing non-powered dams.

We also had success early on in the year in our push to continue tax incentives for hydropower. A last minute deal struck as the New Year was rung in pushed the expiration for most technologies back an additional year. The extension allowed NHA, working with a coalition of other baseload renewable resources, to secure expanded project qualifying language that ensured projects that begin construction by the end of 2013 would be eligible for incentives, even if they had not begun operations.

And though Congress was unable to reach an agreement on funding for hydropower research and development at the Department of Energy by the end of the fiscal year, the continuing resolution that ended the two-week government shutdown guaranteed the Water Power Program would continue to receive funding at the previous year’s levels.

All of these successes helped raise the profile of NHA as a leading voice in the energy debate and of hydropower as a key part of the nation’s energy portfolio.
**LEGISLATIVE TIMELINE**

**Jan. 15, 2013**  
Reps. Cathy McMorris Rodgers and Diana DeGette introduce the Hydropower Regulatory Efficiency Act (HREA)

**Feb. 4, 2013**  
House Energy Committee reports HREA to full House for consideration

**Feb. 13, 2013**  
House unanimously passes HREA; Rep. Scott Tipton and Sen. John Barrasso introduce Bureau of Reclamation Small Conduit Hydropower Development Act

**Mar. 13, 2013**  
Sens. Lisa Murkowski and Ron Wyden introduce Senate version of HREA

**Mar. 20, 2013**  
Senate Environment and Public Works Committee approves Water Resources Development Act (WRDA) with improvements for hydropower in the Army Corps process for full Senate consideration

**Mar. 25, 2013**  
House Natural Resources Committee reports Conduit bill for full House consideration

**Apr. 10, 2013**  
House passes Conduit bill with strong bipartisan support, 416-7

**May 2013**  
Senate Energy Committee unanimously reports HREA and Conduit bills to full Senate; Senate passes WRDA

**Aug. 1, 2013**  
Senate passes both HREA and Conduit bill by Unanimous Consent; Marine and Hydrokinetic Renewable Energy Act introduced

**Aug. 9, 2013**  
President Barack Obama signs both HREA and Conduit bill into public law

**Sept. 2013**  
House Transportation and Infrastructure Committee approves House version of WRDA

**Oct. 2013**  
House passes its version of WRDA; Senate and House go to conference committee to resolve differences

**REGULATORY TIMELINE**

**Jan. 17, 2013**  
FERC issues final rule in annual charges revisions for hydropower licensees

**March 2013**  
NHA comments on updated CEQ guidelines for federal investments in water resources and ASMFC American Eel Addendum

**Mar. 12, 2013**  
FERC, Coast Guard sign memorandum of understanding on hydrokinetics

**Mar. 21, 2013**  
FERC issues Declaratory Order to no longer assess land use charges for former federal lands

**June 2013**  
Comments filed on California-FERC Memorandum of Understanding for non-federal hydropower proposals; Hydropower included in President Obama’s Climate Action Plan

**Oct. 22, 2013**  
FERC holds workshop on two-year licensing process for non-powered dams and closed-loop pumped storage

**Nov. 2013**  
NHA responds to Fish and Wildlife’s proposed revisions to incidental take statements

**Nov. 21, 2013**  
NHA submits comments to FERC on the design of the two-year licensing process

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**UNPRECEDENTED MEDIA ATTENTION**

NHA started the year by undertaking a second round of research to reassess the energy policy landscape in Washington. Armed with a better understanding of the energy debate, the mindset of policy elites, and the words that work to persuade our target audiences, NHA set out to continue its role as the voice of the hydropower industry.

NHA successfully pushed the story of hydropower’s promise to the forefront of policymakers’, the media’s, and the public’s minds. A new communications plan and positive media coverage from major national outlets, including The New York Times, The Washington Post, and The Wall Street Journal, have raised the profile of hydropower as a key resource in meeting the nation’s energy, environmental, and economic goals.

“Hydropower is back.” — The Wall Street Journal


“A renewed push for hydropower.” — The Denver Post

“Congress can’t agree on most energy issues. But it loves hydropower.” — The Washington Post


“Hydro: Where the real green jobs are” — CNN Money

NHA’s Operational Excellence (OpEx) program, started in 2011, is an industry resource that includes a number of tools to benefit the industry in safety (dam, employee, and public), operations, maintenance and environmental performance aimed at reducing costs by preventing incidents and outages throughout the hydropower fleet. In 2013, OpEx made substantial progress.

To date, we have focused on building a voluntary event reporting system that will receive, distribute, catalog and archive operational excellence information and any resulting best practices and lessons learned. As the industry contends with aging assets and an aging workforce, OpEx and the event reporting system will provide a trusted and reliable database of historical and current operational issues and serve as an educational resource for future personnel.

We initiated and completed a pilot program and then opened participation to our larger membership. The response has been tremendous. We have received 26 Event Reports (ER) from 12 utilities (five from the federal sector) and one equipment supplier resulting in over 100 corrective actions, lessons learned, and best practices. The 26 ERs describe employee injuries, forced outages and equipment failures, and human performance failures under a broad spectrum of operational situations.

In the second half of 2013, OpEx received support to develop a system that will allow OpEx participants to log into an interactive and web-based portal to construct and post ERs for sharing between other participants. This support was followed by a challenge grant, matched by the industry, in order to build a new OpEx website and software solution.

In 2014 you can expect to see the new OpEx site rolled-out and demonstrated at NHA’s Annual Conference in April and other key industry events.

Attendees of the Hydraulic Power Committee’s fall meeting, hosted by Avista, got the opportunity to tour the Bureau of Reclamation’s Grand Coulee Hydroelectric Project, the nation’s largest hydropower plant.
Providing our members with indispensable opportunities to network, share best practices, and connect with their association is central to NHA’s efforts. NHA’s schedule was packed in 2013 with our annual conference, regional meetings, and participation in other events across the nation.

NHA took a big step forward to bridge the gap between projects and financing with a new addition to its events line-up—the Hydropower Finance Summit. Last June, the inaugural event brought together dozens of hydropower developers and investors in New York City to discuss the challenges and opportunities in financing hydropower projects. The meeting will become a regular feature of NHA’s calendar into the future due to its success.

The Annual Conference brought over 500 members, policymakers, regulators, and more together in the nation’s capital to celebrate NHA’s 30th anniversary. Attendees heard from congressional hydropower champions Senator Ron Wyden (D-OR) and Representative Cathy McMorris Rodgers (R-WA), and Interior Assistant Secretary Anne Castle.

All told, over 1,200 industry professionals attended six NHA meetings and events in 2013, including our finance summit, regional and committee meetings held from coast-to-coast. This is truly a testament to the vibrant, growing industry that has a long history behind it and a bright future ahead.

In order to keep members up-to-date on the Association’s work and the latest news and intelligence coming out of Washington, DC, NHA upgraded the way it communicates with members. In November, NHA rolled out two new communications tools. The first, NHA Alerts, is a streamlined, more secure communications tool that brings members the latest information on various topics, including legislative, regulatory, and public affairs. And the second, the HPC Forum, fosters collaboration between hydropower owners and operators by offering a place to ask questions and share best practices. Get engaged with both of these exciting new tools by contacting NHA staff today!

Past NHA Presidents joined conference attendees at the Newseum to celebrate NHA’s 30th Anniversary as the hydropower industry’s advocate in Washington.
**Hydropower Growth Potential by 2025**

- **Pumped Storage**, 24,000 MW
- **Wave**, 9,000 MW
- **Tidal**, 4,000 MW
- **Efficiency Improvement**, 8,900 MW
- **Non-Powered Dams**, 10,000 MW
- **Greenfield Sites**, 1,000 MW
- **Ocean Current**, 750 MW
- **Hydrokinetics**, 2,000 MW

**By the Numbers**

- Issued Preliminary Permits, 51,123 MW
- Pending Preliminary Permits, 10,808 MW
- Pending Licenses and Exemptions, 2,900 MW

**64,830 MW in FERC Pipeline**

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**NHA 2013 Events**

- **NHA Hydraulic Power Committee Fall Retreat**
  - Spokane, WA
  - September 9–11

- **NHA California Regional Meeting**
  - San Ramon, CA
  - March 3

- **HydroVision International**
  - Denver, CO
  - July 23–26

- **NHA Midwest Regional Meeting with MHUD**
  - Wisconsin Dells, WI
  - May 15–16

- **NHA Northeast Regional Meeting**
  - Northampton, MA
  - October 2–3

- **NHA Hydropower Finance Summit**
  - New York, NY
  - June 3

- **NHA Annual Conference**
  - Washington, DC
  - April 22–24

- **Sustainable Energy Coalition Congressional Renewable Energy Expo**
  - Washington, DC
  - June 12

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**NHA 2013 Events**

- **NHA Alaska Regional Meeting**
  - Girdwood, AK
  - September 26–27

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**64,830 MW in FERC Pipeline**
Federal Investments in Hydropower

- $160,000,000
- $140,000,000
- $120,000,000
- $100,000,000
- $80,000,000
- $60,000,000
- $40,000,000
- $20,000,000
- $0

2011 2012 2013

- 48C Advanced Energy Manufacturing Tax Credit
- Marine and Hydrokinetic System Performance Advancement Projects (DOE)
- Rural Energy for America Program (USDA)
- Advanced Hydropower Development (DOE)
- Section 1603 Grants
- Production Tax Credit

Hydropower Activity At FERC

- New Projects Filed
- New Licenses, Exemptions, & Capacity Amendments Issued
- New Projects Placed in Service

Department of Energy Water Power Program

- Funding Level
- $60,000,000,000
- $50,000,000,000
- $40,000,000,000
- $30,000,000,000
- $20,000,000,000
- $10,000,000,000
- $0

2006 2007 2008 2009 2010 2011 2012 2013 2014

- Marine and Hydrokinetic
- Conventional
Outlook

2014 provides the industry with a fresh set of opportunities and challenges. Momentum gained last year provides a chance to pursue additional policy initiatives and continue to tell the positive story of hydropower to politicians and the media.

NHA continues its expedited licensing initiative to identify further improvements to the regulatory environment for hydropower projects, existing and new. NHA has brought together industry members, DC policy think tanks, and environmental NGOs to identify policy proposals, such as those included in the Senate-passed version of the Water Resources Development Act to improve the Army Corps process. Securing passage of that language and developing new proposals to address delays and redundancy inherent in the hydro regulatory process will be atop NHA’s agenda next year.

The work on the enacted hydropower bills now moves into the implementation phase. NHA will work closely with federal regulators and industry to implement a two-year licensing process for hydropower projects in 2014. Already the effects of enactment have been felt in many segments of the industry. Eighteen projects have been approved under the new conduit process contained in the legislation and several states are moving forward with new legislation to support small hydropower and conduit project development.

At the end of 2013, with many of the hydropower incentives now expired, it is vital that Congress provide certainty to the industry in the form of long-term extension. A change in Senate tax leadership and improved relationships with our renewable energy allies presents us the perfect opportunity to secure long-term certainty necessary to promote hydropower development and reinvestment.

For NHA to be successful in these endeavors, the continued engagement of our members is critical. We encourage you to be involved in every facet of NHA’s work every step of the way and look forward to another year of accomplishments in 2014.
2013 AWARDS

Outstanding Stewards of America’s Waters 2013
Tacoma Power
Jordan Hydroelectric Limited Partnership
Chelan County PUD
Army Corps of Engineers
Bureau of Reclamation
Avista
New York Power Authority
PPL Holtwood

Dr. Kenneth Henwood Award
Andy Sims, Kleinschmidt Associates

NHA Past Presidents’ Legacy Scholarship
Christopher Budrow, a Clarkson University student pursuing a degree in Mechanical Engineering

2013 NHA LEADERSHIP

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Vice President
Jane Cirrincione, Northern California Power Agency
Treasurer
Kevin Frank, Voith Hydro
Secretary
Carol Goolsby, Duke Energy
Immediate Past President
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Kimberly Costner, Executive Assistant
Luciana Ciocci, Staff Assistant
Upcoming Events

NHA / MHUG Midwest Regional Meeting
May 13–14, Green Bay, WI

NHA Alaska Regional Meeting
June 11–12, Ketchikan, AK

NHA Hydropower Finance Summit
Oct 2, New York, NY

NHA Hydraulic Power Committee Fall Meeting
Oct 6–8, Holyoke, MA

. . .and more! Check out www.hydro.org/events for the latest information.