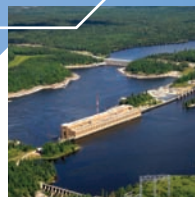


# REPORT OF ACTIVITIES

2012-2013



Canadian Hydropower  
Association  
Association canadienne  
de l'hydroélectricité

## VISION AND MISSION STATEMENTS

# Hydropower leads the way for reliable, renewable, clean energy.

We, the Canadian hydropower industry, promote the technical, economic, social and environmental advantages of hydropower. We advocate the responsible development and use of hydropower to meet present and future electricity needs in a sustainable manner.



# MESSAGE FROM THE CHAIR OF THE BOARD

**2**012 and 2013 have been productive and positive for the Canadian Hydropower Association (CHA) and our industry. The CHA continues to intensify and broaden our activities as we enter a new era of growth for hydro across Canada. This new era offers us an enhanced opportunity to increase awareness and understanding on how important Canadian hydropower is to meeting North America's future energy challenges.

I wish to extend my thanks to my fellow Board members, the CHA staff and the wider membership for their support and input into a wide range of regulatory, advocacy and research efforts. Together, we have coordinated and initiated new messaging and outreach to promote hydropower among multiple stakeholders in 2012 and 2013. Furthermore, we have re-evaluated the CHA's direction through a review of our strategic plan where we refined our approach to participating in federal regulatory improvement, advocating hydropower throughout Canada, serving our members and continuing our outreach to federal US audiences.

We continue to have the positive attention and support of important decision makers in Ottawa. We have been involved in consultations over regulatory reform under *Bill C-38, Jobs, Growth and Long-term Prosperity Act* and *Bill C-45 Jobs and Growth Act, 2012*. We were one of the first industry group asked by the government to testify at the public committee meetings on the 2012 changes to the Canadian Environmental Assessment Act, The Species at Risk Act and the Fisheries Act. As the all-important regulations for these key pieces of legislation are developed in 2013, the CHA is at the table. We are confident our voice will be heard and respected during the development of the Canadian Environmental Assessment Act and Fisheries Act regulations just as it was during the development of the legislation. CHA is continuing to actively pursue enhancements to make the Species at Risk Act more workable for the hydropower industry.

Our voice is also being heard south of the border, in what continues to be an important market for Canadian hydropower exports. We have developed strong relationships with the Canadian Embassy and key provincial representatives in Washington DC where we work together to ensure Canadian hydropower is recognized as a positive solution for the clean energy needs of the United States. Our strong working relationship with our US counterpart, the National Hydropower Association, has also been greatly beneficial as we seek to deliver our message. An example of our broad cooperation and communication success could be seen in the recent Woodrow Wilson Center event entitled: *How Canada-U.S. Hydroelectric Partnerships Reinforce America's Clean Energy Economy*. This was a standing room only event where people sat in the halls to hear about clean and renewable Canadian hydropower and the positive solutions it delivers to North America.

At home, the CHA has expanded its outreach as well. In October, CHA President Jacob Irving was offered the opportunity to present to the Alberta Legislature's Standing Committee on Resource Stewardship where he noted that Alberta has approximately 11,000 MW of undeveloped hydropower technical potential. An all-party report followed entitled: *Review of the Potential for Expanded Hydroelectric Energy Production in Northern Alberta* which unanimously recommended that Alberta's hydropower capacity be examined and expanded in the province.

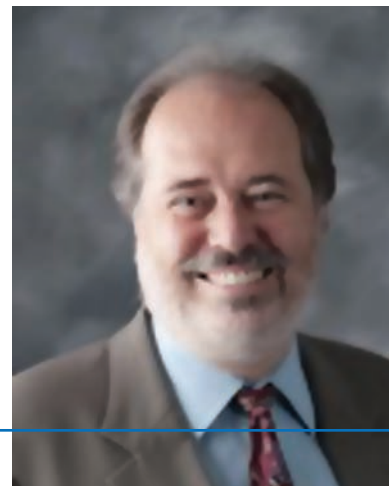
Covering all these developments has been made easier and more accessible through the redevelopment of the CHA website. Moving more in line with social media and blogging, the site integrates a twitter feed (@CanadaHydro) and provides members and the public with more real time information updates. Newer improvements include the integration of a Newsfeed that provides hydro related and other energy news. The site should continue to grow in support of the members and provide a portal for messaging on hydro, news updates and information regarding progress on the development of regulations and legislation related to hydro.

Moving forward, the CHA will continue to monitor the policy development for the Canadian Environmental Assessment Act 2012, regulation reform of the Fisheries Act, and advocate necessary changes to the Species at Risk Act. Continuing in to 2013 and 2014, regulatory reform based on certainty and efficiency will continue to remain the CHA's top priority. We also continue to monitor and evaluate clean energy and carbon strategies across North America. For this, we continue to depend on the comprehensive, efficient and timely work of our members through our Working Groups.

On a personal note, I consider it my privilege to have worked with CHA members on the interests of Canadian hydropower, supported by a dedicated Board, productive Working Groups and an energetic staff.



Eduard Wojczynski,  
Division Manager, Projects Portfolio  
Management Division, Manitoba Hydro



# MESSAGE FROM THE PRESIDENT

## PUBLIC POLICY, REGULATORY REVIEWS AND LEGISLATIVE CHANGE

**T**he CHA Board, our Working Groups and our members have been busy through our association over 2012 and 2013, working on the massive legislative and regulatory changes brought by Bill C-38 and Bill C-45. Under this legislation, significant changes were brought to the Canadian Environmental Assessment Act 2012 (CEAA 2012), the Fisheries Act and the Species at Risk Act (SARA): the three top areas of federal interest for the Canadian hydropower industry.

The CHA's voice was clearly heard and much of the change that occurred directly reflected positions we've developed and communicated for many years. It was a great success on the legislative front and this year, our members continue to work just as strongly on the development of the all-important regulations under each piece of legislation.

All of this was in addition to our ongoing mandate to communicate the social, environmental and economic benefits of clean, renewable and reliable Canadian hydropower. Through various media, speaking engagements and high level government meetings, we've continued to remind Canadians that hydropower represents over 60% of our electricity supply and that even as the world's third largest hydropower producer, Canada could still more than double our existing generation capacity.

We've also broadened our message and begun delivering the Canadian hydropower story to our neighbours to the south. In the United States, we have communicated Canadian hydropower as a solution to North America's desire for affordable, secure, clean energy.

Notably, I was privileged to be an opening speaker at the HydroVision International 2012 conference in Louisville, Kentucky where I delivered a message based on the idea of hydropower as a North American resource. I have been asked to help open this year's conference in Denver as well and look forward to reinforcing that message.

Our messaging continues to center on the following:

- Advocating more efficient regulatory policies that speed the development of clean, renewable hydropower without reducing environmental protection;
- Promoting strong Canadian and North American climate policy that recognizes hydropower's benefits, such as a price on carbon



Jacob Irving, President,  
Canadian Hydropower Association



## Thanks Ed!

On behalf of the CHA, I would like to acknowledge the incomparable work of our Board Chair, Ed Wojczynski. As of May 2013, Ed will be named one of the Top 10 Makers and Shakers by the International Waterpower and Dam Construction Magazine. At Manitoba Hydro, Ed remains a key proponent for their new Wuskwatim project and proposed Conawapa and Keeyask projects. He has personally helped Manitoba Hydro grow as a utility and as member of the Canadian Hydropower Association. We thank Ed for his leadership and guidance as we enter a new era. His experience, dedication, enthusiasm and disarming diplomatic approach help advance the cause for hydropower in Canada in immeasurable ways.

# ENVIRONMENTAL REGULATION: MOVING FORWARD

Currently, the CHA is commenting on the new regulations being developed for CEAA 2012 and the Fisheries Act, resulting from Bill C-38 and Bill C-45. While we were pleased to see longer permits accorded under the Species at Risk Act, we continue to promote additional legislative changes that would help link our industry's stewardship activities with our compliance under the Act. We continue to support efforts by the Government of Canada to modernize and streamline important federal regulations that govern hydropower, while maintaining strong environmental performance. We also continue to monitor the development of emissions regulations in North America, and maintain that a price on carbon is essential for the development of a clean energy future in Canada and the United States, with hydropower serving as a backbone.

## CANADIAN ENVIRONMENTAL ASSESSMENT ACT 2012 (CEAA 2012)

The Canadian Environmental Assessment Act (CEAA) was reviewed and rewritten under the budget Bill C-38, *Jobs, Growth and Long-term Prosperity Act* in early 2012. Many of the substantial changes that the CHA recommended were taken into consideration in the review. Key changes made in the new Act *CEAA 2012*, include provisions to allow delegating environmental assessment to provinces, functional timelines and greater overall certainty. Also, the majority of small Canadian hydro projects (less than 200 MW) are now exempt from a federal environmental assessment. In conjunction with the passing of Bill C-38, the CHA issued a supportive press release on March 30, 2012 and attended a subsequent announcement by the Minister of Natural Resources outlining details of the reforms to *CEAA* in support of the government's *Responsible Resource Development* agenda.

## FISHERIES ACT

In May 2012, the CHA congratulated the government on changes made in Bill C-38, and advised the Department of Fisheries and Oceans on suggested changes to be made to the *Fisheries Act*. Problematic obstruction provisions under the new Act were illustrated to the Minister, his staff, senior department officials and also to the Senate and House of Commons Committees charged with studying the Bill. Our recommendations were heard and were largely addressed through amendments under the subsequent Bill C-45.

Authorization processes have been streamlined and the conditions for these same authorizations now are now potentially more flexible. Overall, the revisions to the Act seek more clearly to protect fisheries as opposed to individual fish. Crucially, the definitions of fish habitat and what constitutes a fishery are being addressed.

## SPECIES AT RISK ACT (SARA)

The issues of permitting and compliance under SARA remain a concern to the CHA and its members. With members of the SARA working group and the CHA board, we have made regular representations to the Ministry of the Environment on these matters. The CHA and the Canadian Electricity Association (CEA) continue to collaborate to advocate linking stewardship and compliance and having socioeconomic factors better considered in the application of the Act.





# CANADIAN HYDROPOWER RENAISSANCE

In 2012, according to *ReNew Magazine*, 4 of the top 5 infrastructure developments in Canada were hydropower construction projects, totalling \$25.6 billion. There are numerous transmission, expansion and optimisation projects related to these hydropower generation projects that offer additional significant value to the Canadian Economy. As outlined in the 2011 CHA study: *Job Creation and Economic Development Opportunities in the Canadian Hydropower Market*, hydropower development presents Canada with a potential \$127 billion in investment and a million new jobs over the next 20 years. This is based on a projection of 158 projects representing approximately 29,000 MW of new hydropower generation potential spread across Canada, from coast to coast to coast.

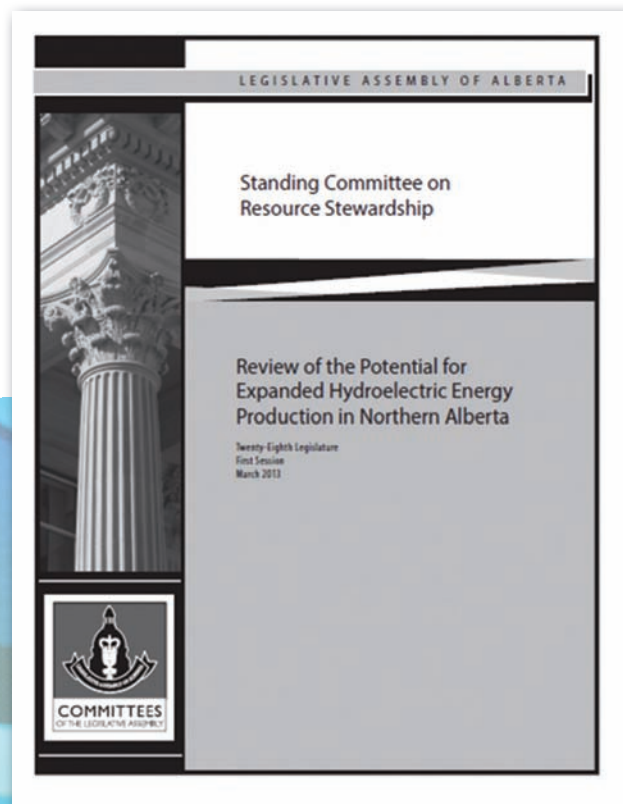
Since our last annual report, as President, I've had the pleasure to deliver our association's key messages through more than a dozen different presentation opportunities. The following is a sample of these engagements:

- The Canadian Water Summit panel: *Innovating Up and Down Stream - Smarter Water Use in Energy Production*

*Jacob Irving speaks at AIEQ Luncheon Address  
"Hydropower An Agent for Canada's Development  
in the 21<sup>st</sup> Century."*

- HydroVision International 2012 Opening Address and Panel: *Exploring Regulatory Policy Throughout the World*
- Ontario Waterpower Association's Power of Water Conference Panel: *The Social and Economic Benefits of Waterpower*
- Electric Mobility Canada's EV 2012 Conference Panel: *EVs for Canada – We Have the Tools*
- Testified at the *Alberta Legislative Assembly Standing Committee on Resource Stewardship*
- Association de l'industrie électrique du Québec Luncheon Address : *Hydropower, An Agent for Canada's Development in the 21<sup>st</sup> Century*
- 44<sup>th</sup> Annual H.G. Acres Seminar Keynote Address

*Alberta's Review of the Potential for Expanded Hydroelectric Energy Production in Northern Alberta*



# THE POWER OF ELECTRIC VEHICLES

An evolving and increasingly interesting part of our message focuses on the potential role for hydropower in electrifying plug-in light duty electric vehicles. Since hydropower produces no air pollution and offers close to zero greenhouse gas emissions, it provides an ideal solution for cleaning up the way we drive. With this in mind, the CHA released a study at Electric Mobility Canada's *EV 2012 Conference* last year that provided some new and interesting perspectives on Canadian hydropower and electric cars. We presented a scenario where we theoretically dedicated undeveloped Canadian hydropower directly to powering current light duty vehicle fleets (assuming these fleets were entirely plug-in electric). Here are some of the key findings we presented:

- Publicly announced Canadian hydropower projects combined with hydropower projects currently under construction, would be more than enough to power the entire existing Canadian light duty vehicle fleet, if it was plug-in electric.
- Each province (with the Maritimes combined) has enough undeveloped hydropower to power their own current light duty vehicle fleets if they were plug-in electric.
- Half of Canada's undeveloped hydropower potential could fuel all current Canadian light duty vehicles and approximately twenty five percent of the United States' current light duty vehicle fleet if both fleets were plug-in electric.
- If all Canadian light duty vehicles were powered by hydro, Canada would reduce its greenhouse gas emissions by approximately 70 million tonnes per year

## 2012 CHA FORUM

The 2012 CHA Forum on Hydropower entitled *New Directions in Working Collaboratively* was a well-attended success. Focusing on the challenges for new developments, the new regulatory regime and partnerships with aboriginal communities, forum participants took in a broad and informative program. The Forum experienced a sizeable turnout from hydropower professionals and for the first time, a contingent of internship students from our member companies attended.

Student participation was a welcome addition to the Forum. Building on our world renowned experience, the Canadian hydropower industry is looking forward to a renewed, energetic and engaged workforce. The students were strongly interested in the environmental and social issues associated with hydropower development that our Forum explores.



*Canadian hydropower has the theoretical potential to power all of Canada's light duty vehicle fleet, if it was plug-in-electric.*

I have learned that a significant portion of the hydropower industry is dedicated to studying and designing measures to protect the people impacted by project development, the environment and the interests of stakeholders. From this forum I have taken a high level of comfort that hydropower is being developed in a responsible, sustainable manner and that the development of hydropower benefits everyone.

Mathew Spendiff, Mechanical Engineering Intern, Peter Kiewit Infrastructure Co. & University of Calgary, 2012 Forum Participant

# CHA WORKING GROUPS, PROVIDING SUPPORT FOR THE HYDROPOWER INDUSTRY IN CANADA

## ABORIGINAL RELATIONS WORKING GROUP

Members continued to share best practices and approaches regarding positive engagement with aboriginal communities.

## CLEAN ENERGY POLICY WORKING GROUP

The working group kept very busy in 2012 and into 2013, monitoring potential changes to the ECOLOGO environmental certification process while following greenhouse gas policy initiatives. The group leads the CHA's new outreach efforts to the United States and maintains important working relationships with environmental groups and other key stakeholders.

## COMMERCIAL ACTIVITIES WORKING GROUP

The working group continued to evaluate research opportunities for messaging related to the economic benefits of hydropower in 2012, following the success of the 2011 report: *Job Creation and Economic Development Opportunities in the Canadian Hydropower Market*.

## FISHERIES ACT WORKING GROUP

The working group was kept busy in 2012 with the passage of Bills C-38 and C-45, which introduced legislative changes to the *Fisheries Act*. They will remain busy in 2013 interpreting and commenting on the new regulations related to this new legislation. The group also continues to provide appropriate input into the Natural Sciences and Engineering Research Council of Canada (NSERC) HydroNet initiative, which applies scientific study to fisheries in relationship to hydropower projects.

## PUBLIC RELATIONS WORKING GROUP

The working group has continued in its role supporting the other CHA working groups in developing key messages, website content, position papers and assisting with media outreach.

## REGULATORY PROCESSES WORKING GROUP

The main focus of the group has been the major revisions to the Canadian Environmental Assessment Act resulting in the new Act: *CEAA 2012*. The working group has maintained a strong working relationship with its counterpart at the Canadian Electricity Association (CEA) and continues to monitor regulatory change, providing comment to various government departments, such as Environment Canada, the Canadian Environmental Assessment Agency and the Major Projects Management Office (MPMO).

## SPECIES AT RISK ACT WORKING GROUP

The group continues to coordinate with the Canadian Electricity Association on the Species at Risk Act (SARA). Together, they remain focused on permitting issues while encouraging legislative change that might positively link the hydropower industry's stewardship initiatives to compliance under the Act. Improved socio-economic consideration under the Act is also an important area of advocacy for the group.





# CHA BOARD OF DIRECTORS

## CHAIR

**Eduard Wojczynski**

Division Manager - Power Projects Development  
Manitoba Hydro

## VICE-CHAIRS

**Chantal Guimont**

Manager – Strategic Planning and Institutional Affairs  
Hydro-Québec

**Benoît Pepin**

Director, Energy – North America  
Rio Tinto Alcan

## SECRETARY

**Claude Lambert**

Vice-President and General Manager Hydro North America  
Alstom Power & Transport Canada Inc.

## TREASURER

**Gaëtan Thibault**

Vice President Hydropower – Energy – North America  
AECOM

## DIRECTORS

**Edie Thome**

Director, Environmental Risk Management  
BC Hydro

**Doyle Sam**

Vice President, Engineering & Generation  
Fortis BC – Electricity

**Gilbert Bennett**

Vice-President Production  
NALCOR Energy

**Llewellyn C. Matthews**

Director, Environment  
Columbia Power Corporation

**Keith Pomeroy**

Vice-President, Marketing and Sales  
Andritz Hydro Canada Inc.

**Mike Martelli**

Project Executive Business Transformation  
Ontario Power Generation

**Denys Turcotte**

President and CEO  
Voith Hydro Inc.

**Paul Wearmouth**

Hydro Area Sponsor  
Peter Kiewit Infrastructure Co.

**Colin Clark**

Executive Vice President and Chief Technical Officer  
Brookfield Renewable Energy Group Inc.



# CHA WORKING GROUPS

## ABORIGINAL RELATIONS WORKING GROUP

### Chair:

Lyle Viereck, BC Hydro

### Members:

Ruth Kristjanson, Manitoba Hydro  
Elissa Neville, Manitoba Hydro  
Mathieu Boucher, Hydro-Quebec  
Wayne Chamberlain, Newfoundland &  
Labrador Hydro  
Joe Heil, Ontario Power Generation  
Mike Martelli, Ontario Power Generation

## CLEAN ENERGY POLICY WORKING GROUP

### Chair:

Bill Hamlin, Manitoba Hydro

### Members:

Pierre Lundahl, CHA  
Brenda Goehring, BC Hydro  
Llewellyn Matthews, Columbia Power  
Nathalie Noel, Hydro Québec  
Ann James, Nalcor Energy  
Tammy Wong, OPG  
Alain Tremblay, Hydro-Quebec  
Kristel Arnold, Manitoba Hydro  
Jane McDonald, Manitoba Hydro  
Rick Boguski, ATCO Power  
Henri Jarque, Hydro-Quebec

## COMMERCIAL ACTIVITIES WORKING GROUP

### Chair:

Benoit Pepin, RioTinto Alcan

### Members:

Christophe Rigny, SNC Lavalin  
Keith Pomeroy, Andritz Hydro  
Mark Barrington, AFI Hydro  
Jane McDonald, Manitoba Hydro

## FISHERIES ACT WORKING GROUP

### Chair:

Gary Swanson, Manitoba Hydro

### Members:

Dan Gibson, Ontario Power Generation  
Nathalie Noël, Hydro-Quebec  
B. Sellars, Nalcor Energy  
Gilles Bérubé, Hydro-Quebec  
Jean-Christophe Guay, Hydro-Quebec  
Gary Murray, Newfoundland Power  
Krista Watts, Columbia Power Corporation  
Paul O'Leary, Newfoundland Power  
Patrice Rother, BC Hydro  
David McGrath, CHA Consultant  
Pierre Lundahl, CHA Consultant

## PUBLIC AFFAIRS WORKING GROUP

### Chair:

Jacob Irving, CHA President

### Members:

Audrey Repin, Columbia Power Corporation  
(Co-Chair Hydrocaucus)  
Gaetan Thibault, AECOM  
Glenn Schneider, Manitoba Hydro  
Janelle Bates, Ontario Waterpower  
Association  
Henri Jarque, Hydro-Quebec  
Steve Vanagas, BC Hydro  
Rick Boguski, ATCO Power Group

## REGULATORY PROCESS WORKING GROUP

### Chair:

Greg Scarborough, BC Hydro

### Members:

Bonny Campbell, BC Hydro  
Llewellyn Matthews, Columbia Power  
Corporation  
Natalie Noël, Hydro-Quebec  
Anne-Marie Parent, Hydro-Quebec  
Brent Sellars, Nalcor Energy  
Ryan Kustra, Manitoba Hydro  
Bob Bettner, Manitoba Hydro  
Susan A. Rapin, Ontario Power Generation  
Pierre Lundahl, CHA Consultant

## SPECIES AT RISK WORKING GROUP

### Chair:

Llewellyn Matthews, Columbia Power  
Corporation

### Vice-Chair:

Shelly Matkowski, Manitoba Hydro

### Members:

Ed Wojczynski, Manitoba Hydro  
Susan Rapin, Ontario Power Generation  
Dan Gibson, Ontario Power Generation  
Patrice Rother, BC Hydro  
Henri Jarque, Hydro-Quebec  
Annie Tremblay, Hydro-Quebec  
Brent Sellars, Nalcor Energy