

Fall 2017 WORKSHOP – Hydro Productivity Committee

September 17- 20, 2017

Portland, Oregon

Monday, September 18, 2017

8:00 a.m. – 9:30 a.m. General Session: Executive Welcome & Keynote Speaker

9:30 a.m. – 10:00 a.m. Break

10:00 a.m. – 10:45 a.m. HP-01: Introductions and Business Updates/Address from HPC Chairman

Chris Utracki, Ontario Power Generation, Hydro Productivity Committee Chair

Introductory session will give new members the opportunity to introduce themselves and their companies, as well as for all members to share any business updates and “headline news” happening at their companies.

New Member Overview – Meridian Energy

Richard Griffiths, Meridian Energy

An overview of Meridian Energy’s company and in particular its hydropower fleet will be provided. The company’s background, structure, leadership and culture will be covered.

10:45 a.m. – 11:15 a.m. HP-02: Top performance Analysis, Methodology and Results

Patrick O’Connor, Oak Ridge National Lab; John Schuknecht, Pacific Gas & Electric

During this session, we will examine key findings from the 2016 data cycle and reflect on changes in the business environment. This session is also intended to signal new issues and needs for the Committee to focus on in the upcoming year.

11:15 a.m. – 12:00 p.m. HP-03: 2016 Top Performers – Analysis and Results including Long Term Leaders

Selected Top Performers

During this session, the top performing companies in key cost and reliability metrics will share with the Committee what they are doing at their plant(s) to achieve leading performance. Please be prepared to ask questions!

12:00 p.m. – 1:00 p.m. Lunch Break

1:00 p.m. – 2:00 p.m. HP-04: 2016 Top Performers – Analysis and Results including Long Term Leaders – Continuation

Selected Top Performers

This is a continuation of HP-03 session after the break.

2:00 p.m. – 2:45 p.m. HP-05: How do utilities determine the value of lost generation?

Gordon Ashby, Bonneville Power Administration, Alex Mosely, Tennessee Valley Authority, Chris Utracki, Ontario Power Generation, Ruben Soto, Southern California Edison

During the last two decades, power generation landscape has been gradually shifting from the cost-of-service to more market driven. As the result, traditional (generating unit) equivalent availability measure (EAF), successfully used for many years as the key index in a steady, vertically integrated industry, is no longer sufficient for measuring commercial success. To fill the gap, variations of the measures that incorporate \$ per MWh or similar financial indicators, are being introduced. The exact methodology depends on the revenue mechanism utility operates under as well as the utility's desire to balance computational effectiveness with accuracy. The utility representatives will provide their company's approaches to determining this value.

2:45 p.m. – 3:15 p.m. Break

3:15 p.m. – 4:15 p.m. HP-06: Commercial Availability – Joint Session with Fossil Committee

The HPC will join the Fossil Committee to share and learn about Commercial Availability and its use as a management tool in the power generation industry.

4:15 p.m. – 4:45 p.m. HP-07: US Army Corps of Engineers - Hydropower Modernization Initiative (HMI) Model update

Michael Killbride, United States Army Corps of Engineers

This is an update of the USACE's HMI program will be provided.

Tuesday, September 19, 2017

8:00 a.m. – 9:00 a.m. HP-08: Benchmarks - What do you use / find most useful / what are the results or how do you communicate the value of benchmarking?

Anna De Cata, Enel Green Power; John Schuknecht, Pacific Gas & Electric; Melissa Napton, Southern California Edison

Utilities expend resources to participate in a benchmarking program. During this session utility representatives will provide insight into the value they receive and how the results are utilized in their business.

9:00 a.m. – 9:45 a.m. HP-09: Benchmarks - Outage Performance – Process and Metrics

Patrice Blais, Hydro Quebec; Ruben Soto, Southern California Edison

Planned unit outages require significant labor and implementation time, investment of O&M and capital funds. Utilities use various metrics to manage this investment and the results. Two examples will be presented during this session by member representatives.

9:45 a.m. – 10:15 a.m. Break

10:15 a.m. – 11:00 a.m. HP-10: Meridian Energy's Asset Management Program – What does it take to have an effective Asset Management function?

Richard Griffiths, Meridian Energy

Meridian Energy (ME) has a comprehensive Total Asset Management (AM) program within its hydropower fleet. In this overview of the AM program, ME's approach, execution, performance monitoring and measuring success will be discussed. Mr. Griffiths will also discuss the benefits of utilizing ISO 55000 as a basis of the program.

11:00 a.m. – 12:00 p.m. HP-11: Hydro Plant Inflow Forecasting; Methodologies and Software

Brennan Smith, ORNL; Ann McManamon, BPA

The ability to forecast water inflows is the major factor allowing optimization of outage plans and minimization of lost opportunities. Dr. Brennan Smith will discuss general framework of such evaluations including economic environments and other factors influencing results as well as sensitivities of the results to normally observed variations of input variables. Ms. Ann McManamon will draw on her experience as a BPA hydrologist to discuss the effectiveness of various tools she uses in her work. Ms. Mcmanamon is also a Vice Chair of CEATI's HOPIG and she is well familiar with the reports and products available through CEATI's membership.

12:00 p.m. – 1:00 p.m. Lunch

1:00 p.m. – 1:45 p.m. HP-12: Meridian Energy’s Lockout and Tagging - Work Control Procedures

Richard Griffiths, Meridian Energy

The Work Control Procedure used in Meridian Energy generating facilities to protect workers from hazardous energy sources will be discussed. The topics that will be covered are: Background to the incidents which triggered a review, the approach taken, key parts of the procedures, the communication with the wider industry, the benefits provided and the industry response.

1:45 p.m. – 2:45 p.m. HP-13: Decommissioning of Hydro Facilities due to relicensing costs or other reasons

Wayne Allen, Southern California Edison; Clark Bishop, United States Bureau of Reclamation; Stephanie Maggard, Pacific Gas & Electric

Current FERC relicensing processes are very expensive, resource intensive and time consuming. This puts a particular economic burden on smaller hydro projects. Currently, the alternatives to relicensing are exemption and surrender. Exemption is available only to small projects that propose an increase in capacity, and requires acceptance of FWS conditions, with no FERC balancing or evaluation. There is no streamline approach to exemption, and the exemption process may cost as much as the relicensing process. The surrender/decommissioning process is difficult and may be equally expensive, depending on decommissioning requirements. Scope of required mitigation for surrender/decommissioning is unknown when decision needs to be made on whether to relicense. Further, surrender of license means that there is no opportunity for a licensee to recoup the cost of surrender through generation.

This session will provide the utility’s perspective on the issue and their process for coming to a decision on the future of smaller capacity hydropower projects.

2:45 p.m. – 3:15 p.m. Break

3:15 p.m. – 4:00 p.m. HP-14: Generation Schedule next day/next week

Alex Mosely, Tennessee Valley Authority

Mr. Mosely will discuss TVA’s process for developing the next day’s power generation schedule incorporating the other water commitments such as water supply, recreation and navigation. The seven (??) forecast process will also be presented.

4:00 p.m. – 4:30 p.m. HP-15: ORNL Proposed Projects for FY 2018 of Interest to the HPC

Brennan Smith, Oak Ridge National Laboratory

In FY 2018, ORNL has several ‘Hydro Power Fleet Intelligence’ projects planned which may be of interest to HPC members. An overview of these projects and the ways HPC members could become involved will be discussed.

Wednesday, September 20, 2017

8:00 a.m. – 8:20 p.m. HP-16: HydroAMP Update

Gordon Ashby, Bonneville Power Administration

HydroAMP is a program in which condition assessments are captured for major hydroelectric generation equipment. It is an industry wide effort and provides a common set of definitions to rate and document the equipment's condition between generating facilities to improve asset management and investment decisions. This update will provide the present status of the program and future revisions.

8:20 a.m. – 8:35 a.m. HP-17: EUCG – HPC Data Review Follow-Up

Matt Dau, Bonneville Power Administration

The HPC conducted its annual data review in July and the status of the action items will be reviewed.

8:35 a.m. – 9:15 a.m. HP-18: EUCG – Staffing and Safety Surveys Results

Jim Miller, Oak Ridge National Laboratory

The EUCG – HPC in cooperation with the National Hydropower Association's Hydraulic Power Committee conducted a survey of safety performance in their member company's Hydro Business Unit (HBU) for 2016. The EUCG-HPC has just completed a HBU staffing survey among its members. The results of both surveys will be discussed.

9:15 a.m. – 9:45 a.m. HP-19: HPC 2018 Spring Agenda Planning

Chris Utracki, Ontario Power Generation

During this session we will develop the initial agenda for the spring 2018 HPC meeting. Please come prepared to suggest topics that you would like discussed or where you have something to share with the rest of the committee.

9:45 a.m. – 10:15 a.m. Break

10:15 a.m. – 11:00 a.m. HP-20: HPC Business Report

Chris Utracki, Ontario Power Generation, HPC Chairman

During this session we will discuss Committee's business matters.

11:00 a.m. - 12:00 a.m. HP-21: HPC Roundtable & Action Item Review

Chris Utracki, Ontario Power Generation, HPC Chairman; Committee

During this time in the agenda, HPC members will be afforded the opportunity share their feedback on the workshop. Also, any action items taken during the workshop will be reviewed with the responsible committee member noted and due dates.

12:00 p.m. - 1:00pm HP-22: HPC Leadership Meeting (Working Lunch)

Chris Utracki, Ontario Power Generation, HPC Chairman; Committee

The HPC leadership utilizes this opportunity to discuss HPC matters and is open to all members.