



29 - 30 January 2019

ENSE 3 - Grenoble

<http://www.shf-hydro.org/225-1-manifestations-16.html>

Program (13012019)

226th Session of Scientific and Technical Committee of SHF

January 29th

8:30 Welcome

9:00 Opening Speech

9:30 General Keynotes

9:30 Goals of Hydropower R&I funding: the European viewpoint, Thomas SCHLEKER, Policy Officer Renewable energy sources, European Commission / DG Research & Innovation (*Belgium*)

10:00 Providing flexibility: the role of Hydropower in tomorrow's power systems, Jean-Charles GALLAND, SER, (*France*)

10:30 Coffee Break

SESSION 1 - Part 1: The role of Hydropower in the French and European electric systems, in the perspective of transition of energy models: panorama and case studies

Session chair: Jean-Daniel Mattei (EDF)

10:50 **KEYNOTE:** Which are the hydropower services to the power system in taking into account the topics of storage and interconnection? Oivind JOHANSEN, Ministry of Petroleum & Energy, (*Norway*)

11:20 SOFLEX'HY: EDF hydro-PV-Batteries virtual power plant demonstrator, Laure DELALUQUE, J.F. Balmitgere, P. Sautel, EDF, (*France*)

11:40 HYDROPOWER - EUROPE, Jean-Jacques FRY, M .Morris, A. Schleiss, A. Granados, EDF, SAMUIFRANCE, UPM (*France, Switzerland & Spain*)

12:00 Potential increase in energy storage capacity in the Swiss Alps to support the massive development of renewables: Case study of the Grande Dixence hydropower scheme, B. MONAY, A.J. Schleiss, P. Manso, J. Dujardin, STUCKY, EPFL, *(Switzerland)*

12:20 Stands & short presentations

12:50 Lunch

SESSION 1 - Part 2: The role of Hydropower in the French and European electric systems, in the perspective of transition of energy models: panorama and case studies

Session chair: Aziz Ouabli (CNR)

14:00 **KEYNOTE:** Digital Turbine Disruption: Model Testing beyond the International Standards, François AVELLAN, EPFL, *(Switzerland)*

14:30 What will be the role of Hydropower, batteries and demand response in future power system? Tatu KULLA, Fortum Power and Heat Oy, *(Finland)*

14:50 Hydropower in Europe in 2050, Specific cases of France, Germany and Norway, François LEMPERIERE, HYDROCOOP, *(France)*

15:10 Performance of a run-of-the-river Hydropower plant on the futuristic front, Epari PARTO, C. De Michele, Politecnico di Milano, *(Italy)*

15:30 Potential for Hydropower storage schemes in the Swiss periglacial environment, Robert BOES, D. Ehrbar, L. Schmocker, VAW - ETHZ, Basler & Hofmann *(Switzerland)*

15:50 Present and Future for Hydropower in Romania, Bogdan POPA, F. Popa, University Politehnica of Bucharest, University Valahia of Targoviste, *(Romania)*

16:10 Students projects

16:50 Coffee Break

SESSION 2 - Part 1: Hydropower, an energy for the future: innovations ...

Session chair: Anton Schleiss (EPFL)

17:10 **KEYNOTE:** "New vision on Tidal Range power: development of multi-purpose projects for coastal territories - "a white paper from SHF national working group", Denis AELBRECHT, EDF, *(France)*

17:40 Transportation of spawners more effective than multiple fish passage facilities in the river KLARÄLVEN, Marco BLIXT, J. Norrgård, Fortum Sverige AB, *(Sweden)*

18:00 Fish pass design on the Mekong river- Challenges and lessons learned from XAYABURI HPP, Guillaume MORIER-GENOUD, POYRY, M. Raeder, Tobias S. Coe, Fishtek Consulting Ltd., *(Switzerland & UK)*

18:20 Shaping the future of Hydro: achievements and commitments of EDF Hydro Engineering Center in R&D and innovations, Denis AELBRECHT, J.C. Rigaut, EDF CIH, *(France)*

18:40 A new way to produce HYDROPOWER? Pierre KRAEMER, KINDH *(France)*

19:00 Remise du Grand Prix Hydrotechnique à Anton Schleiss, EPFL *(Switzerland)*
COCKTAIL

January 30th

SESSION 2 - Part 2: Hydropower, an energy for the future: innovations ...

Session chair: Farid Mazzouji (GE Hydro Power)

8:30 **KEYNOTE:** Latest state of the art in hydropower technology, maintenance & rehabilitation (strategies), Mario BACHHIESL, VGB, head of Ren. Energy Department (*Germany*)

9:00 Comprehensive diagnosis of long linear embankment hydraulic structures without emptying, Jean-Robert COURIVAUD, B. Dumas, C. Bilger, EDF, DREAL, BETCGB, (*France*)

9:20 River Hydrokinetic turbines farm demonstrator for green energy production on the Rhône river, Ahmed KHALADI, F. Pressiat, N. Perez, E. Dubost, J.F. Simon, T. Jaquier, CNR, Hydroquest (*France*)

9:40 The EU-H2020 Fithydro project on fishfriendly innovative technologies in Hydropower, Peter RUTSCHMANN, H. A. El Wafa, K.Schwarzwalder, TUM, NTNU, (*Germany & Norway*)

10:00 Downstream fish passage technologies for small-to-medium Hydropower plants: **part 1**, Laurent DAVID, F. Lemkecher, L. Chatellier, D. Courret, A. Doessegger, CNRS, Poitiers University, AFB-IMFT, Limmatkraftwerke AG (*France & Switzerland*)

10:20 Downstream Fish passage technologies for medium-to large Hydropower plants: **part 2**, Ismail ALBAYRAK, C.R. Kriewitz, A. Doessagger, R. Boes, ETH Zurich, BKW, (*Switzerland*)

10:40 Coffee Break

SESSION 2 - Part 3: Hydropower, an energy for the future: innovations ...

Session chair: Julie Charmasson (SINTEF)

11:00 The TUM shaft power plant - an innovative concept for efficient and ecological hydropower, Franz GEIGER, A. Stepp, M. Cuchet, P. Rutschmann, TUM, Eco Hydraulic Consulting, (*Germany*)

11:20 Laser floating PV: EDF to build France first floating solar power plant in major commitment to Solar/Hydro cooperation, Lucie POUGET, A. Grenier, C. Spitzhorn, EDF - EDF en, (*France*)

11:40 Seawater Pumped Storage: BRIEF TECHNOLOGY OVERVIEW, Carmelo GRIMALDI, O. Crepon, S. Citteiro, SETEC (*France*)

12:00 Solar-Hydro: A hydropower storage solution for solar energy with competitive cost, Marine BERNICOT, L. Deroo, D. Abbas, ISL INGENIERIE (*France*)

12:20 : The GE Fish Friendly Turbine Assessment, A. BOMBENGER, L. Bornard, K. Toussaint, F. Loiseau, General Electric Hydro (*France*)

12:40 Lunch

SESSION 3: Hydropower and society: integration of hydro projects in territories; multipurpose reservoirs; sociology of Hydropower

Session chair: Nicolas Flechon (GEG ENER)

14:00 **KEYNOTE:** Marie-Noëlle BATTISTEL, Deputy of Isère, (*France*)

14:30 La Coche, an EDF Hydropower project in the heart of the territory, Dorothée MANIÈRE, K. Guedenay, E. Mordefroid, EDF, (*France*)

14:50 "Developing a Hydropeaking tool for Hydropeaking impact assessment", Julie CHARMASSON, A. Harby, SINTEF, (*Norway*)

15:10 Environmental adaptation of Swedish Hydropower: Experiences so far, P. NORDLUND, M. Hillström, C. Perchat, STATKRAFT, (*Sweden & France*)

15:30 Towards improving the performance of Water-Energy systems by integrating large-scale climate services indication, Anthony LEMOINE, M.H. Ramos, IRSTEA UR HYCAR, (*France*)

15:50 Challenges of Hydropower production facing multi-use and climate change: toward new water management practice? Alain DOMENGET, G. Beaufaron, C. Granier, D. Manière, A. Tabourdeau, EDF, EIFER (*France & Germany*)

16:10 Management of the multipurpose reservoirs of the Senegal river in the context of climate change, Stéphanie DISS, Jean-Luc Rahuel, M. Diakhate, V. Faye Komaclo, ARTELIA, (*France*)

16:30 End of the conference

HydroES 2019

What future for Hydropower in France & in Europe?

ENSE³ Grenoble, 29-30 janvier 2019

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