



INTERNATIONAL ENERGY AGENCY

**IMPLEMENTING AGREEMENT FOR
HYDROPOWER TECHNOLOGIES AND
PROGRAMMES**



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR RESEARCH & INNOVATION

Directorate G - Energy
Renewable energy sources

Hydropower and Fish
IEA Hydro Annex XIII– European Commission DG RTD
Joint Workshop
Research and Innovation in the context of European Policy
Framework Implementation

Brussels 29th-31st of May 2017

DRAFT AGENDA

Monday 29th of May

Welcome introduction

- European Commission
- Operating Agent IEA Hydro Annex XIII Hydropower and Fish

Session 1 - The EU Water Framework Directive- the Legislative Context

- The WFD
- Regulations relevant for hydropower versus fish
- The Energy and Climate Package and the RED, Natura 2000 Habitate Directive

Session 2 - The EU Water Framework Directive -National legislations and implementation

- Guiding tools (national/international),
- Hydropower producers
- Non-EU showcases (e.g. Switzerland, USA, Turkey)

Contacts

IEA Hydro: Dr Hans-Petter Fjeldstad, Operating agent for IEA Hydro Annex XIII; Research scientist Water resources, SINTEF Energy; Hans-Petter.Fjeldstad@sintef.no

European Commission: Dr Thomas Schleker, Policy Officer, DG Research & Innovation, G3 Renewable Energy Sources; Thomas.Schleker@ec.europa.eu

Session 3 - Hydropower and Fish in the context of Research and Innovation

- Horizon 2020 WP on Hydropower in the context of Energy Union, SET-Plan and ACEI
- Hydropower and Fish in the context of environmental H2020 research:

Main focus topics: *Hydropower and Fish technology, Fish habitats, river connectivity and holistic river management, including hydropowering and minimum flow management*

Evening: We meet for unofficial dinner

Tuesday 30th of May

Session 4 - Hydropower, Fish Technology

- Fish friendly turbines
- Monitoring systems and verification of fish pass efficiency
- Fish pass systems, up- and downstream migration,
- Technology implementation

Possible project presentations:

Fish friendly turbines in the context of the *Hyperbole* project (*tbc*)

Fish passage: Integrated solutions *FIT-Hydro*(*tbc*)

Session 5 - Fish habitat in regulated rivers

- Habitat restoration and
- Dam structures, bypasses or removal
- Retrofitting of migration facilities

Possible project presentations:

BioFresh project (*tbc*)

Session 6 - Migration River connectivity

- Multy species fish passes
- Two-way fishway solutions
- Up- and downstream passage facilities
- Holistic river management

Target species: *Salmonids, Eel, Sturgeon etc.*

Possible project presentations:

AMBER(*tbc*)

Session 7 - Energy and ecology

- Mitigating environmental design in regulated rivers
e.g. Austria, Rhine, Mandal (Norway)

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- Hydropeaking
- Towards environmentally friendly hydropower
- Water flow optimisation, Ecological minimum flows

Round-table

Open questions to Research and Innovation in the context of implementation of the WFD

Participants from Policy, Research, Management Planning Authorities, and Hydropower Component Producers and Hydropower Operators

- *E.g. IEA, European Commission, National Authority, Eurelectric or Operator, ICPDR or IKSR, FIT-Hydro(tbc)*

Wrap-up and conclusions

Wednesday 31st of May

Field visit tour. Site to be confirmed

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