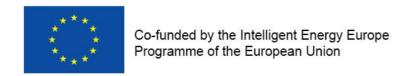


Facilitating energy storage to allow high penetration of intermittent renewable energy

D5.5 - AUSTRIA

Minutes of meetings with main decision makers and stakeholders





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The work for this report has been coordinated by EEG.

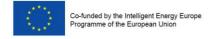
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EXECUTIVE SUMMARY

This report summarizes the outcomes of the individual meetings with decision makers and stakeholders and their associations held in Austria along the last six months of project in order to promote the actions list agreed during the Workshop developed in October 2013 and to achieve some commitments from the decision-makers regarding the support of energy storage in Austria in the corresponding regulations.



1. Individual Meetings with Decision Makers and Stakeholders

In the following, the four major events having been implemented to discuss the stoRE outcomes with the major decision makers and stakeholders in Austria are summarized:

1.1. stoRE Meeting with Head of Modelling Department of Austrian Hydro Power

On 6 December 2013 a brief bilateral meeting of stoRE partner EEG with the head (DI Dr. Wilhelm Ottendörfer) and deputy-head (DI Markus Pfleger) of the modelling department of Verbund Austrian Hydro Power, the biggest PHES utility with hydro power plants in several mid-western provinces in Austria, took place. Both of them have acknowledged the work conducted in stoRE, notably the structuring of the different types of PHES technologies, the modelling results (in particular those affecting the Austrian and German electricity system) and - most important - the recommendations to identify and overcome several non-technical barriers to further expand capacities and to implement the PHES technology (i.e. mainly the best-practises presented from the countries outside Austria). They confirmed that Verbund will confront also the policy makers in Austria, notably the regulatory authority ("E-Control") and the Ministry of Science, Research and Economy (where the federal Austrian energy agenda is allocated), in the ongoing and future discussions on PHES expansion in Austria that way that the experience summarized and synthesized in stoRE will be taken into account when amending legislation in the Austrian Electricity Act ("Elektrizitätswirtschafts- und -organisationsgesetz"), the federal framework regulation of the environmental assessment act ("Allgemeine Umweltverträglichkeitsprüfung") as well as the federal regulations in the context of the implementation of the water framework directive ("Wasser-rahmenrichtlinie").

1.2. stoRE Session embedded into the 'Austrian Energy Talks'

The 'Austrian Energy Talks' are organized by Vienna University of Technology (EEG) and the Austrian Energy Agency four times a year at the Technical Museum in Vienna. The audience includes around 150 participants across the energy industry, including important Austrian decision makers (from the utility industry) and policy makers, as well as NGOs, environmental groups and, notably, also representatives of the Austrian Climate and Energy Fund, responsible for applied non-technical energy research in Austria. On 25 November 2013 the further development of the European electricity system, notably the transmission grid and bulk energy storage, was on the agenda. In this context, also a time slot was allocated to discuss the major challenges in the context of the further development of the Austrian PHES system. EEG referred to the major outcomes of the stoRE project and the recommendations developed there. This was highly appreciated by the audience and used as a trigger for the discussions of mainly non-technical barriers and obstacles of PHES extension. The environmental impact assessment was the major controversial discussion point among the participants. The final conclusion was that this topic will be also put on the agenda of calls for the next series of the applied energy research program of the Austrian Climate and Energy Fund, called "!eMission" to invite interdisciplinary national consortium





to further elaborate on that topic in an Austrian context.

1.3. stoRE Meeting with Pumped Hydro Power Plant Department of TIWAG and Energy-Coordinator of Regional Government in Tyrol

On 12 February 2014 a bilateral meeting was organized at TU-Graz of stoRE partner EEG with the two major experts on technical and political level of the Austrian province of Tyrol, the area with the highest unexploited PHES potentials in Austria. There are ambitious plans to further increase PHES capacities of the utility TIWAG and also the political will to do so; however, there exists also significant opposition of local communities in terms of big projects. The two discussants were:

- DI Wolfgang Kofler (Head of Planning, Tiroler Wasserkraft AG),
- DI Stephan Oblasser (Energy State Secretary, Province of Tyrol)

Both discussants have been interested in the approaches in several of the European countries having been analysed in stoRE on how there the non-technical obstacles have been addressed, barriers have been analysed and how some of them have been removed. They confirmed that they will, on the one hand, take into account the outcomes of stoRE in particular in the discussions/consultations in the "citizens' forums" (e.g. town/village hall meetings with the citizens affected by PHES projects) and, on the other hand, they will take into account aspects of the environmental impact assessment applied in other countries (and documented in stoRE) – and not applied in Tyrol yet – also in further developing the corresponding regulations ("Tiroler Umweltverträglichkeitsprüfungsgesetz"). Both experts also expressed their interest in being involved in future consultations in this direction in case of a follow-up project of stoRE and/or similar activities. Not least due to the fact that they are interested in receiving inputs to the Austrian PHES policy debate coming from abroad.

1.4. stoRE Workshop embedded into the bi-annual energy conference "EnInnov2014 (13. Symposium Energieinnovation)" at TU-Graz

A stoRE workshop was embedded into the bi-annual energy conference "EnInnov2014 (13. Symposium Energieinnovation)" at TU-Graz on 13 February 2014. Representatives from major Austrian policy and decision makers have been participating to this workshop focusing on technical, economical, regulatory and societal barriers of PHES expansion in general and referring to the Austrian situation in particular. The stoRE major outcomes and recommendations have been used as an impulse to reflect the Austrian situation. A selection of the most important participants (out of 30 in total) is as follows:

- DI Gerhard Vones (Energy Department, Federal Ministry of Science, Research and Economy)
- DI Dr. Bettina Bergauer-Culver (Energy Department, Federal Ministry of Science, Research and Economy)
- Mag. (FH) Martin Graf (Director, Austrian Regulatory Authority E-Control)
- Barbara Schmid (Secretary General, oesterreichs energie)
- DI Mag. (FH) Gerhard Christiner (Director, Austrian Power Grid)
- DI Klaus Kaschnitz (Head of Renewable Department, Austrian Power Grid)
- DI Wolfgang Kofler (Head of Planning, Tiroler Wasserkraft AG)
- DI Stephan Oblasser (Energy State Secretary, Province of Tyrol)





- DI Dr. Ludwig Piskernik (Hydro Power Generation Department, Austrian Railways)
- DI Wolfgang Richter (PhD, PHES Planning Expert)
- Prof. Heinz Stigler (Prof. in Energy Economics, Graz University of Technology)
- DI Thomas Nacht (PhD, PHES Modelling Expert)
- Others

The major outcomes of this workshop are that, on the one hand, the ongoing PHES projects and the further PHES potentials are more highlighted in the next version of the APG-Masterplan-2014 and, on the other hand, more international experience in terms of mitigation of non-technical barriers of PHES expansion will be taken into account in the Austrian policy debate on PHES in general. The latter mainly has been recommended by both policy making bodies (Energy Department of the Federal Ministry of Science, Research and Economy as well as the Austrian Regulatory Authority).

2. Achievements in Austria

Based on the events presented in Section 1, the Austria actions list includes the following:

- Experience summarised and synthesised in stoRE will be taken into account when amending legislation in the Austrian Electricity Act ("Elektrizitätswirtschafts- und –organisationsgesetz"), the federal and provincial framework regulation of the environmental assessment act ("Allgemeine/Tiroler Umweltverträglichkeitsprüfung") as well as the federal regulations in the context of the implementation of the water framework directive ("Wasser-rahmenrichtlinie")
- The environmental impact assessment will be also put on the agenda of calls for the next series
 of the applied energy research program of the Austrian Climate and Energy Fund, called
 "!eMission" to invite interdisciplinary national consortium to further elaborate on that topic in an
 Austrian context.
- The experience and recommendations of stoRE project will be taken into account in the discussions/consultations in the "citizens' forums" (e.g. town/village hall meetings with the citizens affected by PHES projects).
- Triggered by the discussions of outcomes of the stoRE project, the decision and policy makers have agreed that ongoing PHES projects and the further PHES potentials are more highlighted in the next version of the APG-Masterplan-2014.
- Finally, more international experience in terms of mitigation of non-technical barriers of PHES expansion will be taken into account in the Austrian policy debate on PHES in general (confirmed by both policy making bodies, Energy Department of the Federal Ministry of Science, Research and Economy as well as the Austrian Regulatory Authority).

