Summary Workshop 1 – Support Policies for Renewables

In line with the Energy strategy 2050, Switzerland plans to increase the share of renewable energies in order to replace the nuclear power plants. In the last decade, effective supporting schemes such as Feed-in-Tariffs have promoted a wide deployment of wind and PV energy. The support policies in neighbouring countries of Switzerland have been so successful that some of these technologies can now compete with conventional fossil power plants in some countries. However, those subsidies had also negative impacts on the functioning of the electricity market leading to negative prices. Therefore, a strong debate is now going on in Switzerland, whether dedicated support for mature renewable technologies should continue or not after 2022 and how those support policies for renewables should look like.

This workshop may analyse inter alia the following issues:

- How can support policies be justified economically and how do they contribute to the decarbonisation goal?
- In which way should/ can support policies be designed in order to be effective and efficient?
- Is technology neutrality possible and/or desirable?
- How can locational advantages or disadvantages regarding network services be included?

Around 15 people participated in this workshop, from University academics and students to industry and consulting practitioners and government representatives.
Our experts made some introductory remarks on the perspective that they bring to the issue of renewable policy support – for Jan a modelling approach to policy assessment, for Peter a focus on the legal and regulatory requirements of different policy approaches and their implications for broader energy and economic policy and legal frameworks, and for Christoph a practical project development focus based on the activities of Axpo in developing renewable projects across numerous EU countries.
An initial discussion across the participants highlighted some areas of renewable policy support that require greater attention:

- what the prospects are for effective carbon pricing schemes to internalise present environmental externalities (better termed subsidies) within electricity markets; a key determinant of what future renewable policy needs might be
- issues of the social accpteance of different renewable energy technologies in particular contexts and at different scales
- the political realities of different policy options and their consequent impact on measure selection and settings
- How can support policies be justified economically and how do they contribute to the decarbonisation goal?

Our experts made some introductory remarks, noting that the renewable energy policy space is shaped by the failure of jurisdictions to introduce effective carbon pricing schemes, that Swiss policy efforts must first 'do no harm' given that the electricity industry is currently performing well in terms of security, affordability and environmental performance, and that renewables have clearly proven the most cost effectives politically feasible approach for significant economic transition, with small scale distributed applications being increasingly commercially attractive without explicit policy support.
Discussion across the working group highlighted that renewable energy targets set by jurisdictions in some ways negate this question of economically justifying the use of renewable policies, that the effectiveness of such policies relies on electricity market design settings including not just new investment but also exit.
In conclusion, there was general consensus that policy support for renewables is justified as even though costs are falling, integration challenges and costs will climb as penetrations grow. A key issue is that of electricity market design – clearly, a market that prices externalities requires less or perhaps even no renewable policy support, while market designs that actively impede renewables increases the need. Furthermore, it is still important to be discussing the transition to less or even no specific renewable policy support as renewable penetrations climb and electricity market designs adapt.

- In which way should/ can support policies be designed in order to be effective and efficient?

The expert panel highlighted issues including effectiveness versus efficiency – policies that ensure action may well involve higher returns to participants, the importance of the broader context within which policy is determined including possible restrictions on policy choices due to jurisdictional law, and the question of how effective and efficient electricity market arrangements are.
The discussion focussed on questions including the importance of policy transition as technologies mature and markets evolve, questions regarding the operation of auctions due to our still limited understanding of how they impact on deployment over the longer term, distributional issues and the need for speed. A particular point was that policy assessment needed to include their robustness in making their way through the political process. In conclusion, great care needs to be taken when assessing policies as the experiences of some jurisdictions may not carry over to others, and the details as well as broader context matter. Of key importance is the ability to transition both policy instruments, and the chosen mechanisms themselves, as the context evolves.

- Is technology neutrality possible and/or desirable?

The expert panel and session participants all questioned the concept of technology neutrality itself – what does it mean in the context of existing markets and policies that have inherent biases for or against particular technologies. Individual policies can be technology neutral to some extent, but not the broader context within which these policies operate.

- How can locational advantages or disadvantages regarding network services be included?

The expert panel and workshop participants saw this as a much wider issue than just network services – how can renewables policy instruments better reflect the different temporal, locational variability, uncertainty, ancillary services needs and other relevant 'value' factors of different renewable technologies and particular projects. While the use of green certificate or feed-in premiums can mean that renewable project developers see energy market signals regarding these factors, existing electricity market designs do not generally do a good job of correctly valuing them. There are also options with other policies such as auctions to build such 'value' measures into the scheme (eg. factors that adjust tenders according to the proposed location, temporally sculpted tariffs etc). Clearly this becomes more important as renewable penetrations grow, particularly renewables that pose some challenges in terms of variability, uncertainty, and technical capability to provide ancillary services.