



## **7<sup>th</sup> Workshop of the International Feed-In Cooperation** **Ljubljana 28-29 May, 2009** *Conclusions*

At the 7<sup>th</sup> workshop of the International Feed-In Cooperation 40 representatives from different Member States (MS) of the European Union (EU), the European Commission (EC), associations, and science came together in Ljubljana on the 28<sup>th</sup> and 29<sup>th</sup> of May to discuss among others aspects of the promotion of electricity from renewable energy using feed-in schemes and the national implications of the new EU Directive on the promotion of renewable energy sources (RES). From the discussions, the following main conclusions were drawn:

### ***Historic trends across Europe have shown that policy stability is key for the development of RES***

On the whole, the EU has seen a heterogeneous development of RES. While some MS have achieved high national growth rates, others have missed a successful deployment of RES. As these developments have shown, a key factor for the deployment of RES is policy stability. In this regard, MS with feed-in schemes in place have shown stronger deployment effects than MS with quota obligations. This should be taken into account when designing / adapting national support schemes under the new RES directive.

### ***The overall goal of a 20 % RES share in the final energy consumption by 2020 appears ambitious but feasible***

It is clear by now that the EU will miss its initial targets for RES in the electricity sector (RES-E) (21 %) and RES in the transport sector (RES-T) (5.75 %) in 2010. Hence, the overall RES target of 20 % in the final energy consumption by 2020 seems very

ambitious. Potential analyses for individual MS and the EU as a whole however show that the target can be achieved. What's more, past developments of RES in some EU MS have well exceeded their respective national prognoses (e.g. RES-E development in Germany as a whole, RES-E from solar PV in Spain).

***Flexibility mechanisms offer opportunities for a further and cost efficient way to deploy RES potentials across Europe and beyond***

With the introduction of flexibility mechanisms for target compliance i.e. statistical transfer, joint projects (within EU MS and between MS and third countries), and joint support schemes, the EC enables MS to deploy additional and cost efficient potentials and hence meet their national targets in time.

***In order to reach the individual MS targets, integrated approaches for the whole RES sector are needed***

While in the past, the strongest growth rates were achieved in the RES-E and RES-T sector due to the respective directives (Directive on the Promotion of Electricity produced from RES: 2001/77/EC; EU Biofuels Directive: 2003/30/EC), the new RES directive resembles an integrated approach for the whole RES sector i.e. including RES for heating and cooling (RES-H/-C). In order to implement this strategy, the new RES directive requires MS to outline their RES potentials, deployment strategies, and policies in National Renewable Energy Action Plans (NREAP). A template for these plans will be published by the EC at the end of June 2009.

***National Renewable Energy Action Plans will impose new and challenging tasks to the MS***

Among others, the template will include: sectoral targets, expected final energy consumption, sectoral trajectories, summary of national energy policy. Main difficulties for MS will arise in the estimation of the final energy consumption i.e. among others the behavior prediction of private actors.

The government of Spain has written RES action plans in the past. It will publish its 3<sup>rd</sup> action plan for RES in 2009. The key lessons it draws from past experience include:

- Necessity to put overall mandatory targets
- Necessity to put indicative sector targets to justify legislative changes / different focus
- Set-up of an online GIS database for potential tracking and mapping

In addition there are several EU-funded research projects which could support MS in mapping their RES potentials and also to try developing national energy action plans as well as future support policies. Examples from the Intelligent Energy Europe Program include:

- Renewable Energy Policy Action Paving the Way towards 2020 (REPAP 2020): <http://www.erec.org/projects/ongoing-projects/repap2020.html>
- Shaping an effective and efficient European renewable energy market (RESHAPE)
- FUTURES-E: <http://www.futures-e.org/>

***Feed-in systems for renewable heat have the potential of becoming a new policy tool for the effective and efficient deployment of RES-H/-C across Europe***

Different approaches have been used across the EU for the promotion of RES-H/-C. Among the most common are obligations and fiscal incentives in the form of investment support. Feed-in schemes in the form of bonus payments could become a new tool for the deployment of RES-H/-C. Elements of such a system (as suggested by a German project consortium) include:

- For small installations investment support per kW installed capacity or square meter solar collectors
- For large installations fixed remuneration for a certain time per kWh<sub>th</sub> (heating or cooling) produced
- Payments to the producer by the fossil fuel suppliers (polluter pays principle)
- Data is collected via energy statistics (i.e. national methodologies and default values for RES-H calculations will define the RES-H produced / eligible for remuneration)
- Grouping of consumers into pools whose bonus payments will be aggregated to reduce transaction costs

- Fuel suppliers share the costs for the RES-H installations (burden sharing)

The benefits of such a scheme include: long term support, flexibility (technology specific, etc.), high economic efficiency, inclusion of all building types, incentive rather than obligation, independence from public money (polluter pays).

The first MS to embrace a feed-in scheme for RES-H/-C is the United Kingdom (UK Renewable Heat Incentive).

***It remains uncertain if the enforcement mechanisms for the RES directive are sufficient to ensure target compliance of the MS***

The new RES directive provides each EU MS with a mandatory target for RES in 2020 and indicative interim targets. While the interim targets are non-binding, progress towards the target has to be documented. The EC claims that existing EU law shall serve as a basis for the enforcement of the final national targets in 2020. And introduction of new penalties is not deemed necessary. It remains to be seen however how costly non-compliance with the RES targets would be to MS. Hence, the effectiveness of the enforcement mechanism remains yet uncertain.

***The new feed-in systems of Slovenia will provide new incentives for PV and biomass co-firing***

The new feed-in system in Slovenia is regarded to provide strong incentives for the deployment of integrated solar PV and biomass co-firing.

***The Spanish feed-in system was adapted to control the growth of solar PV***

As of September 2008, the Spanish government has put a cap on the annual deployment of solar PV. The main reason for this was the tremendous increase in large scale solar PV capacity which reached 2.6 GW<sub>el</sub> in 2008 alone. Under the amendment, priority will now be given to built-in systems. The support will change from being merely capacity based to a category support (application types). The annual cap of around 500 MW<sub>el</sub> is offered through four calls per year on a first-come-first-served basis. The cap is increased slightly per year to allow market growth and to adapt to learning effects.

Germany employs a different approach to control the costs of promoting solar electricity: First, the degression rate of the support was increased from 5-6.5 % to 8-10 % per annum in the new EEG. In addition, the degression is further adapted to the actual annual increase in installed capacity: in case more than 1500, 1700 or 1900 MW<sub>el</sub> in PV is installed in 2009, 2010 or 2011, respectively, the rate increases by another percentage point; in case the installation rate stays below 1000, 1100 and 1200 MW<sub>el</sub> in PV installed in these years, the degression rate is lowered by one percentage point. It is aimed to control the growth rate and hence the costs with this flexible mechanism.

***The German feed-in tariff support scheme has proven to be more successful than anticipated in recent RES deployment prognosis. The current amendment (2009) is regarded to continue this strong expansion path.***

The German feed-in law has proven to be a very effective policy instrument for RES-E deployment. The share of RES-E (15 % in 2008) has grown stronger than initially assumed in different scenarios from various German institutions. The target share for RES-E in 2020 is a minimum of 30 %. For the time beyond 2020, the growth of RES should continue steadily which would result in a minimum 50 % share in 2030.

The current estimated consumer costs of RES-E are expected to be 1 € per person and year by 2016. Beyond 2016, the consumer costs are expected to decrease steadily. This takes into account that an increasing share of the RES-E will be sold on the electricity market (outside the feed-in law remuneration). The current share of RES-E outside the remuneration is about 3 % (out of 15 %) in 2008.

An amendment of the tariffs as of January 2009 was deemed necessary e.g. due to the price increases for biomass and steel, and the earlier underestimation of costs for off-shore wind and geothermal applications. Another important amendment is the increase in the degression rates for solar PV from 5-6 % to 8-10% – which will be further adapted to expansion rates. To ensure a sustainable use of biomass, a biomass sustainability ordinance will be implemented separately.

***How to proceed***

There was a common understanding among the workshop participants that the new directive on the promotion of RES defines a well-needed and ambitious framework for the further deployment of RES across the EU. Not only does it embrace an integrated approach for the whole RES sector, it also requires MS to explore and strategically develop their RES potentials and define their national policy schemes accordingly (National Renewable Energy Action Plans). The newly introduced flexibility mechanisms should ensure the deployment of the European RES potentials and that MS can reach their targets in time. They can also lead the way to a more integrated RES deployment within the EU and beyond.

The new developments regarding the National Renewable Energy Action Plans and the design and implementation of the flexibility mechanisms will be – among others – the main aspects of the next workshop of the IFIC in winter 2010, hosted by the German Ministry for the Environment.