

Document officer: JSM  
Secretary: KEG/CSJ  
Case no.: s2016-867  
Document no.: d2016-17637-13.0  
2. December 2016

## Winter package - Top 5 most important Generation (Renewable) issues

The promotion of renewable energy in the EU is enshrined in article 194 of the Treaty:

*"...Union policy on energy shall aim, in a spirit of solidarity between Member States, to:  
...promote... the development of new and renewable forms of energy; ...*

Concretely this is done through a variety of measures, most notably the Renewable Energy Directive<sup>1</sup>. State aid guidelines<sup>2</sup> also constitute an important element by providing a framework for national measures to support renewable energy. The EU emissions trading system has had little (if any) impact on investments in renewable energy, with a CO2 price well below €10 since the early 2010s.

In October 2014 The European Council established that renewable energy should make up at least 27 % of final energy consumption in 2030. The Danish Energy Association finds this target not to be sufficiently ambitious. This is just one of the issues the European Commission seeks to address in its recently proposed reform of the renewable energy directive.

This document provides a short summary of the top 5 most important initiatives in the field of renewable energy in the winter package and the views of the Danish Energy Association on these initiatives.

### 1. Principles for the allocation of state aid<sup>3</sup>

Long term stability and predictability is key for investors in the energy sector. This is not least true for investors in renewable energy sources.

In the electricity sector, non-combustible renewables, such as wind and solar PV, often operate in markets with low wholesale prices. Furthermore, the electricity price varies and price formations may change due to future reforms of the market design. Also, technology costs and changes in the ETS price, could impact electricity prices in the 2020-2030 period.

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<sup>1</sup> [Directive 2009/28](#) on the promotion of the use of energy from renewable sources.

<sup>2</sup> [2014/C 200/01](#) Guidelines on State Aid for environmental protection and energy 2014-2020

<sup>3</sup> RES Directive – article 4

The Danish Energy Association therefore supports provisions to clearly outline the long term ground rules for state aid in the Renewable Energy Directive.

As long as wholesale electricity prices do not give incentives to investments in clean energy capacity in the electricity sector, subsidies are needed to secure stable energy supply and progress towards decarbonisation. This is likely to be the case after 2020 as well.

Renewables support should be as cost effective as possible to maintain public support. Subsidies for renewables should be based on the following criteria:

- Competition: Subsidies need to be allocated via a competitive process that enables technologies to lower their costs over time
- Potential for cost reduction: subsidies should be allocated to technologies which within a reasonable amount of time can demonstrate a significant potential for cost reduction per MWh produced
- Broad technology mix: Member States should have the flexibility to allocate specific subsidies for technologies deemed vital to achieve diversification in the energy system and technologies which have a significant potential in the long term.
- Support should not be granted during negative price hours and should limit production when the market situation does not warrant it.
- Renewables, prosumers and demand response management should be integrated into the wholesale market and be subject to the same rules, responsibilities and benefits as conventional energy.
- Planning and administrative procedures should be harmonized across energy sources and carriers, and ideally across Europe.

## **2. Opening of support schemes<sup>4</sup>**

Deploying renewable capacity where conditions are best rather than where support is highest is a sound principle. One way of – at least partly – achieving this objective, is by partly opening up national support schemes to deployment in other member states. Such a measure should lead to a convergence of subsidy levels over time.

If deployment of renewable energy depends more on technology costs and less on differing subsidy levels, this should lead to a more cost efficient build out. At the same time, opening up of support schemes will result in subsidies paid by one member state to finance build out of capacity in another member state. This is likely to be met with some political and popular resistance.

The Danish Energy Association believes that a partial opening of support schemes could become a valuable measure in further driving down costs of renewable energy. However, it is essential that this is done in small steps to not risk the support for renewable build out from member states, who may have a legitimate scepticism towards directly funding projects in other member states. Also essential is to ensure that the implementation of such openings does not lead to increased costs. Finally, attention should be paid to the risk of renewable deployment happening in areas with good regulatory, rather than good resource conditions. Thus, finding the right design and pace for the implementation of this measure will be crucial.

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<sup>4</sup> RES Directive - article 5

### 3. Sustainability criteria for biomass<sup>5</sup>

Biomass is an excellent renewable alternative to conventional fossil fuel-based power plants. Power plants using biomass are a necessary supplement to other renewable sources, as they can produce electricity and heat when the sun and wind cannot. In all projections for increases in renewable energy generation, biomass plays a significant role.

The Danish Energy Association believes that as the use of biomass in the energy sector increases, so does the need for a European binding framework to ensure sustainable practices and a level playing field. It would be wise to build on the schemes already existing in some member states.

Future subsidies to biomass-based electricity generation should be based on compliance with European sustainability criteria.

### 4. Renewables in heating and transport<sup>6</sup>

The heating sector represents 50 % of energy consumption in the EU and 75 % of primary energy supply for heating comes from fossil fuels. Nearly all fuels used in transport are fossil fuels as well. In other words a significant potential for reducing both the EU's carbon intensity and import bill exists in the heating and transport sectors.

The Danish Energy Association supports the ambition to increase the share of renewables in the heating and transport sectors. However, the proposal in its current form should be improved.

Firstly, a stronger emphasis on the integration between renewable electricity and heating and transport (e.g. in the form of heat pumps and electric vehicles) should be pursued as a particularly relevant measure. Electricity generation is already on the path toward decarbonisation in several member states, and the heating and transport sectors can add flexibility on the demand side if heat pumps and electric vehicles were to be rolled out - in the case of heat pumps both individually and in connection with district heating plants. The Directive lacks a clear focus on electrification when it comes to heating, cooling and transport, ignoring that electricity from low or no carbon sources is the energy carrier of the future.

Secondly, fulfilling the renewable energy target should not be measured on a year to year basis, but rather every 5 – or even every 10 years. Switching the energy content in for instance heating supply often requires significant changes to production assets and for each supplier to do this will require significant investments. Likewise in the transport sector, where car ownership typically lasts many years, changing towards more electric vehicles is a process that takes time. Therefore, more flexibility in the target achievement should be ensured.

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<sup>5</sup> RES Directive - articles 26-30

<sup>6</sup> RES Directive - articles 23-25

## 5. Special conditions for self-consumers<sup>7</sup>

On-site generation of renewable electricity will play a significant role in the long term ambition of decarbonising the European economy. Already now, solar PV panels are becoming very competitive especially in the Southern part of Europe.

As electricity supply shifts from centralised power plants to decentralised small scale assets, regulation needs to change as well.

The Danish Energy Association finds it particularly important that a more decentralised electricity system is accompanied by revisiting the remuneration structure for distribution system operators (DSOs). The time where distribution grids formed a one way street from the transformer station to the consumer is over. As increasing shares of renewable energy are connected at distribution level, the distribution system operators will become a central part of the “nervous system” of the electricity sector. This requires new and innovative solutions, which should be reflected in the way DSOs are remunerated. Specifically, a shift from purely volume-based remuneration to one based more on capacity is needed.

Also renewables, prosumers and demand response management should be integrated into the wholesale market. Remuneration for electricity and services should reflect the wholesale market value of electricity and all actors should be subject to the same rules, responsibilities and benefits as conventional energy actors.

Finally, planning and administrative procedures should also be harmonized across energy sources and carriers, and ideally across Europe. The Danish Energy Association welcomes the directive’s intent to ease some of the administrative processes related to renewable energy deployment.

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<sup>7</sup> RES Directive – article 21-22