10 February 2016

# Danish response to the public consultation on a new Renewable Energy Directive for the period after 2020

In October 2014, the European Council agreed on a binding target of at least 27 % share of renewable energy consumed in the EU in 2030. The 2030 renewable energy target is binding at the EU level and will not be translated into nationally binding targets.

In a policy framework without nationally binding targets it is important that the new Renewable Energy Directive (RED) ensures sufficient deployment of renewable energy in the EU by 2030 in a cost-effective way. In this regard, the new governance system for the Energy Union will have an important role in monitoring the collective progress made by the EU Member States. In parallel with the revision of the RED focus should be on developing a well-functioning internal market, which as a side effect has a positive impact on the integration of renewable energy. At present ineffective market rules and insufficient grid development are hindering cost-effective deployment of cleaner energy production.

Denmark finds that the new RED for the period after 2020 should:

- Deliver a reliable policy framework with EU instruments which will ensure cost effective target achievement with the aim of providing predictability for investors
- Provide incentives for regional coordination on renewable energy projects, bearing in mind that decisions on if, how, and to what extent national support schemes should apply to renewable energy produced in other member states remain at Member State-level
- Give incentives for renewable energy deployment in all relevant sectors, i.e. electricity, gas, transport, heating and cooling

Furthermore, a new RED will also play an important role in meeting the EU target of at least 40 % domestic reduction in greenhouse gas emissions in 2030.

In the following, specific Danish comments are provided to the five sections of the Commission's consultation:

## 1) General approach

The current RED has been successful in helping to achieve the EU renewable energy objectives. As stated in the recent State of the Energy Union communication, the EU is collectively on track to meet its target of 20% final energy consumption from renewable sources by 2020. The shift to a common EU target without national targets for renewables in the period after 2020 calls for a new renewable energy policy approach with closer coordination between Member States and a more active role played by the European Commission.

An important means to achieve the 2030 target for renewable energy is to make sure that support schemes are well-functioning and contribute to a high degree of predictability for investors. A new RED should incentivise regional cooperation on deployment of renewable energy among Member States. However, it

should still be a national competence to determine if, how, and to what extent national support schemes should apply to renewable energy produced in other Member States. Over time, investments in renewables should ideally become increasingly market driven and less reliant on support.

The Danish government points to three elements of the general approach which need close attention:

*Certainty of target achievement*

In 2030, the EU target for renewable energy must be achieved collectively by EU Member States. To ensure that the binding target of at least 27 % renewable energy at EU-level is reached, the Commission should take action if the EU development falls behind a predefined renewable energy trajectory. To this effect, the RED should include cost-effective and market based European instruments to ensure target fulfillment.

One instrument could be cross border tenders for renewable energy projects that will be introduced if there is a gap. It will be important to design the instrument for target achievement very carefully having in mind the effects on the levels of ambition of the individual Member States. In this respect, the RED should also have incentives to avoid a gap towards the EU renewables target.

The 2030 target is set at EU level. In this context, the new RED should recognize early efforts made by Member States as contributions to the EU target. Furthermore, the RED should encourage deployment of renewable energy where the natural endowments are most favorable.

*Reliability of the policy framework*

A new RED should provide reliability and predictability for investors in renewable energy. To this end, there is a need for policy stability and a high degree of transparency that can ensure a timely delivery of the EU's binding 2030 renewables target. Strategic and long term planning carried out in the context of the Energy Union governance system should contribute to the necessary policy stability and reliability. By minimizing policy uncertainties, the costs of financing renewable projects will be reduced. This will in turn reduce the need for support for renewable energy and thereby lower the costs of target fulfillment.

The RED should supplement the Energy Union governance system by introducing measures that will incentivise renewable energy deployment in a cost-effective way.

*Enhancement of regional coordination*

National energy systems in Europe are increasingly becoming interconnected; hence the notion of autonomous energy systems and energy mixes does not reflect that energy production in one Member State has an impact on the energy systems of neighboring countries. Denmark e.g. has no hydro-based energy production but exchange with surrounding countries lead to a high amount of hydro-based electricity in the Danish electricity grid. In this context, further cooperation on deployment of renewable energy is a logical extension and element of a common internal energy market. Moreover, coordination of support schemes and coordination on renewable energy deployment at regional or EU level should lead to economic benefits and less distortions in the electricity market.

The current cooperation mechanisms of the RED have only been used to a limited extent partly due to high administrative burdens, but also because of the political disinterest in granting nationally financed subsidies

to projects in other Member States. The new RED could contribute to reduction of costs of renewable energy through promoting and facilitating a larger degree of European and regional coordination between Member States, bearing in mind it should be optional for the Member States to engage in specific coordination of renewable energy projects.

Regional coordination of renewable energy policies should be based on enhanced dialogue in regional fora and with neighboring countries through the Energy Union governance system. Specifically, the RED could support further coordination on tenders and support and could encourage cooperation on renewable energy projects e.g. through a mechanism similar to the Projects of Common Interests. In this process, the Commission has a key role as an active facilitator by pointing towards economic benefits of cooperation.

The State Aid Guidelines is already contributing to convergence of renewable energy support schemes and the first pilot projects on cross border tenders are about to take off (e.g. the 2016 German-Danish PV tender). It is important that the new State Aid Guidelines for the period after 2020 are in accordance with a new RED and other directives that have been negotiated and decided by the European Council and the European Parliament.

## 2) Empowering consumers

*Cost-effective deployment of renewable energy*

It is a key priority for the Danish government that the transition to an energy system based on renewable energy is cost-effective. In this context, the market should be able to determine the appropriate price of energy including the price of energy produced locally. Large scale collective energy supply systems are often more cost-effective than individual small scale renewable energy technologies operated by consumers. This is the case both in the electricity system and in district heating. Energy produced locally by consumers must be fairly valued but should not be over incentivized to the detriment of more cost-effective alternatives. National differences with regard to geographical and energy system conditions makes a “one size fits all”-approach less desirable.

*Allow consumers to act*

Consumers should be empowered in the sense that they have the possibility to act and the right incentives to do so. Consumers should have the possibility to produce and store their own renewable heat and electricity and participate in all relevant markets through aggregators. In this context, the RED can continue to require grid access for all renewable energy installations at reasonable terms, but should not regulate the specific terms. Easy access to information about qualified installers of renewable heating systems could be a way to improve expertise within different heating technologies.

*Network tariffs*

It follows from recital 36 of directive 2009/72/EC concerning common rules for the internal market in electricity that *“National regulatory authorities should be able to fix or approve tariffs, or the methodologies underlying the calculation of the tariffs, on the basis of a proposal by the transmission system operator or distribution system operator(s), or on the basis of a proposal agreed between those operator(s) and the*

*users of the network. In carrying out those tasks, national regulatory authorities should ensure that transmission and distribution tariffs are non-discriminatory and cost-reflective, and should take account of the long-term, marginal, avoided network costs from distributed generation and demand-side management measures".* To avoid overlapping legislation, network tariffs should not be regulated in the RED but should continue to be regulated as part of the internal market in electricity.

## 3) Decarbonizing the heating and cooling sector

Denmark considers an efficient heating and cooling sector as a key instrument in reaching the EU climate and energy goals in 2030 as set by the European Council in October 2014 and thereby it should be an important priority in the period after 2020. However, in order to reduce the risk of sub-optimisation, consistency between the different directives such as the Energy Efficiency Directive (EED), Energy Performance of Buildings Directive, and the RED have to be ensured. Furthermore, the ongoing work with the EU strategy for Heating and Cooling as well as the national comprehensive assessments according to article 14.1 in the EED, which each member state performed and notified to the Commission by 31 December 2015, should be taken into account when the RED is reviewed. In order to reap the potential benefits of the heating and cooling sector, Denmark suggests a focus on the following elements:

*Development of district heating, district cooling and combined heat and power (CHP)*

The deployment of district heating and use of CHP has provided vast efficiency gains in the heating sector in several EU Member States due to economies of scale and cost-effective use of heat from the production of electricity (CHP). These experiences could be of relevance with regard to promoting an efficient heating sector in more Member States in the EU. To achieve a successful and cost-effective implementation of district heating, the RED could benefit from focusing on national, regional and local policy development and heat planning, which is required in order to promote district heating, where it is beneficial. Furthermore, a more system oriented and holistic approach should be enhanced in order to utilise the synergies which are to be achieved by integrating the different energy sectors.

*Further deployment and integration of renewable energy in district heating and CHP plants*

Today, the main renewable fuel used for district heating and cooling is biomass. In the future, utilisation of waste heat from industries and electricity production should be promoted, alongside other heat sources and new technologies based on renewable energy such as large heat pumps, large scale solar heating and better thermal storage.

Member states face a range of different challenges and opportunities due to differences in climate conditions, natural resources, existing technical solutions, maintenance standard, financial conditions and regulatory traditions. Hence, the new RED should acknowledge that a "one size fits all" approach is not desirable.

*Energy performance of buildings*

The Danish government has as its long term goal to become independent from fossil fuels by 2050, producing sufficient renewable energy to cover the total Danish energy consumption. Energy for heating, cooling

and hot water in buildings will be based almost entirely on renewable energy by 2050. In order to ensure cost-effective deployment of renewable energy in the energy system, individual or small scale renewable energy installations should not be over-incentivized or favored to the detriment of alternative and potentially more cost effective large scale measures in the collective energy systems.

An expansion of the nearly zero energy in buildings (NZEB) regime to include mandatory requirements regarding heating/cooling/hot water as suggested in the consultation document could imply favoring individual renewable energy equipment and small scale renewable energy without taking cost-effectiveness into consideration. Flexibility should be allowed based on the level of inclusion of renewable energy in the energy systems of the individual member states to accommodate a cost effective transition to renewable energy.

## 4) Adapting the market design and removing barriers

A key priority is to develop a well-functioning internal market, where all technologies have equal conditions for participating in the market. A well-functioning market will ensure a cost-effective integration of renewable energy. A well-functioning market fit for the integration of renewable energy requires efficient markets and free flow across borders. It is essential that the market design is regulated through the network codes and upcoming market design initiatives and not through the RED. However, it is important that initiatives in the RED (e.g. regional cooperation on joint renewable energy projects) consider possible effects on the market.

*Efficient markets*

Harmonisation and coupling of intraday and balancing markets are essential in a European energy system moving towards increased renewable energy generation. The Nordic region can provide valuable experiences on harmonization of short term markets. Key to the integration of renewable energy is shorter trading intervals and lower threshold for bid sizes. Furthermore, it is important that consumers are able to participate actively in the markets through demand response. It should be a requirement to implement time-of-use retail prices, when smart meters are installed.

In general, the same market rules should apply to all market participants. Dispatch according to merit order is sufficient to ensure economic optimal production. Priority dispatch for renewable generation as well as other generation technologies is unnecessary and inefficient in a well-functioning internal market with increasing renewable energy. Incentives for renewables should be based on direct support or carbon pricing and not through priority dispatch. Furthermore, the same balancing responsibilities should apply to all generators.

*Free flow across borders*

Insufficient transmission capacity both across and within borders must be addressed in order to reap the full benefits of an internal market for energy. Establishing grids optimised for trade across borders requires the inclusion of a regional perspective in investment decision making. It is important to ensure that cross border trade of electricity is not restricted, including in times where the system is under pressure.

*One stop shop for large tenders*

Member states should be encouraged to remove administrative barriers to renewable energy deployment. Administrative barriers could be removed by creating one stop shops. A one stop shop combined with a competitive dialogue can be a means to drive down cost for large renewable energy projects e.g. offshore wind farms. The one stop shop creates an environment where one agency may engage in non-conflictual and pragmatic negotiations and dialogues with other agencies in the same country to formulate a set of clear and cost-effective requirements in the licenses that must be issued. The competitive dialogue provides a platform where companies participating in the tender can suggest measures that may help reduce overall cost. However, this model is only applicable to large complex tenders where a competitive dialogue is feasible.

*Cross-sectoral integration*

A cost-effective deployment of renewable energy requires a stronger focus on synergies in the energy system. Integration of energy sectors could in particular increase the value of electricity based on renewable energy.

## 5) Increase the renewable energy use in the transport sector

As pointed out in the Commission consultation document, a significant contribution from renewable transport fuels will be required to meet the overall EU 2030 decarbonisation targets.

To this end, biofuels will still play a significant role, even if from a sustainability point of view priority should be given to advanced biofuels based on for instance residues and waste. Electrification of the transport sector gives multiple benefits, allowing the uptake of electricity that is increasingly produced on renewables, and at the same time delivering energy systems services and higher energy efficiency.

It should be borne in mind, that the uptake of renewable energy in transport will not only contribute to achieving the decarbonisation targets, but will also increase security of supply and help reduce oil dependency.

*The need for a post-2020 regulatory framework at the EU-level*

The uptake of renewable energy in transport does not happen automatically. The most important barrier is the cost barrier facing the deployment of new transport technologies. However there is clearly a potential for bringing down the costs of using renewable fuels in the transport sector to the same – or in some cases even lower – level as the cost of using fossil fuels, if the production of advanced biofuels, electric vehicles, batteries etc. are scaled up. This in its turn requires a stable, regulatory framework which helps bring about demand and gives certainty to investors, and which goes beyond 2020.

The strongest and most cost-effective instruments in such a framework will be those that work at the EU-level, and which are specifically targeted at the transport sector. Measures taken at the EU-level will influence a large market and therefore will be able to attract investors and to promote competition, technological development, and economy of scale. They will ensure a common approach on ways to deal with the

transport sector among Member States and will not distort competition. Measures targeted specifically at the transport sector will make it more likely that the uptake of renewables in that sector will be sufficient for the EU to reach the overall 2030 targets.

*Suggestions for specific measures*

Possible measures to ensure the uptake of renewables in transport could be to introduce obligations on certain market players at the EU-level, and in doing so give priority to renewables with a high potential for emission reductions and fossil fuel replacement, such as advanced biofuels and renewable electricity. Alternative measures such as renewable energy targets at the EU-level could also be analysed as part of an impact assessment.

Whatever measures are introduced, they should promote the uptake of advanced biofuels. A sub target was introduced in the RED with the amendment of the Directive in 2015, and a sub target or an equally efficient measure is necessary also after 2020 to give sufficient predictability for investors. It is also important that the measures promote electrification of transport to the same degree as they promote other types of renewable energy.

In parallel to measures in the RED, other means of promoting the consumption of sustainable renewable fuels in the EU transport sector and increasing the uptake of electric vehicles should be used. For instance, easy access to alternative fuel infrastructure is important, and the directive on energy infrastructure should be strengthened.

Targeted financial support for deployment of innovative low carbon technologies could be useful for instance in relation to heavy duty transport.

The legislation on CO2 emission standards for vehicles including super credits for electric vehicles (EV's) has been efficient not only in increasing energy efficiency for passenger cars but also in promoting EV's, and the Danish government proposes to strengthen this regulation and to extend it to cover also heavy duty vehicles.