Briefing on the role of Renewables in the 2030 Climate and Energy Framework

February 2014

1. Introduction

This briefing aims to provide guidance on the European Commission's 2030 framework communication (White Paper) and accompanying documents. More specifically, it identifies the benefits of moving to an energy system with larger shares of renewable energies, as outlined in the Impact assessment of the 2030 white paper. It also provides an initial view of the concept of a EU-wide binding target for renewables, as proposed in the White Paper.

2. Key messages

Conclusion 1: The White Paper does not reflect the European Commission's own analysis and recommendations from the White Paper Impact Assessment, which outlines the clear benefits of setting truly binding country-specific targets for renewables.

Conclusion 2: The combination of a renewables target and ambitious energy efficiency policies, while having a very marginal impact on total energy system costs, presents significant economic, environmental and social benefits. These benefits include more jobs, reduced air pollution control costs, reduced fossil fuel import bills, reduced annual deaths associated with air pollution, increased security of supply and lower greenhouse gas emissions.

Conclusion 3: The EU-wide binding target for renewables doesn't deliver any investment certainty in the energy sector and therefore risks increasing the cost of renewable energy technologies and associated investment, such as grid expansion.

Conclusion 4: The concept of an EU-wide binding target does not provide any certainty on how the European Commission intends to make such a target legally binding to governments and who would be responsible for its (non-) compliance.

3. The disconnect between the Impact Assessment and the White Paper

The European Commission has proposed an insufficient EU 2030 renewables target of "at least 27%" and to drop binding national renewable energy targets after 2020. It has also proposed an inadequate 2030 greenhouse gas (GHG) reduction target of 40% domestic, which would inevitably hinder higher growth of renewables and energy efficiency.

These proposals are not only weak, they are also at odds with the Commission's own analysis, which supports more ambition on renewables, energy efficiency and carbon dioxide cuts. The Commission's White Paper Impact Assessment, which is far from being easily understandable, still concludes the following points[1]:

[1] See Section 6.2.1

- *A single GHG target would have the advantage of reduced complexity of the 2030 framework and would in principle allow to achieve GHG reductions cost efficiently. Nevertheless, this may risk to not sufficiently reflect the complexity of energy objectives in a 2030 perspective which in addition to environmental sustainability (including GHG reductions) are competitiveness and security of supply.*
- *Whatever the policy choice, dedicated energy efficiency and renewables policies, including in the sectors outside the ETS, will be required to transform the energy system and achieve the GHG reduction efficiently in order to address market failures, imperfect information, and investor certainty; thereby better ensuring that the necessary investment takes place.*
- *A single GHG target would in principle treat options for GHG reductions in a non-discriminatory and technology neutral way without preferential treatment of energy efficiency or renewable energy. However, higher efforts geared towards energy efficiency and renewable energy beyond what is needed to achieve a GHG target would result in higher benefits relating to e.g. improvements in fuel efficiency, security of supply, reduction of the negative trade balance for fossil fuels, environmental impacts and health. For example, a single GHG target without more ambitious RES and energy efficiency targets is expected to result in lower positive impacts on the EU's negative trade balance (net energy imports) in a 2030 perspective and beyond. It is also expected to result in lower GDP and employment compared to a Framework based on more ambitious targets for also renewables and energy efficiency. Macro-economic benefits associated with the recycling of auctioning revenues into lower labour costs would increase.*

Such conclusions should have translated into a 2030 policy framework proposal with 3 targets, not a single one. A closer look into certain aspects of the impact assessment help to identify and quantify the benefits of renewables and energy efficiency. Such benefits are presented in Annex 1 of this document.

4. The future outlook for an EU-wide target for renewables

The Commission's white paper builds on the concept of an EU-wide binding target for renewables. Such a target would be implemented through a new governance structure, requiring Member States to develop non-binding national decarbonisation roadmaps that would include, among other things, their plans for renewable energy investments. There is thus far no clarity on how enforcement of the EU-wide binding target would take place.

CAN Europe cannot see any benefit of moving to such an approach. As experience has shown with the failure of the energy efficiency target in the EU's 2020 climate & energy package, binding national targets are much more effective for achieving a desired goal.

The strongest benefit of national binding targets is the long-term investment framework and stability that it provides to both industry and investors. National binding targets result in regulatory conditions that help develop the sector, attract private and public investments and contribute to reduce the technology cost through economies of scale. Such regulatory certainty helps reduce capital costs as investment risk reduces significantly.

One of the main incentives for the European Commission to propose a 2030 framework in early 2014 was the need to provide industry with a long-term investment signal, especially in the power sector. But the current proposal lacks clarity about the long-term energy mix, limiting renewable energy's role in Europe's energy system to be limited to a mere 27%. It therefore sends the opposite signal to the renewable energy

industry, letting them know they will have to move to other markets outside the EU.

Another key challenge is the planning of the electricity grid. Long-term national targets help identify the most effective grid configurations to allow renewables to integrate into the European Energy market. The lack of such targets, or at least the lack of certainty, would result in a lower understanding of future needs, thus slowing down the integration of renewables into the system.

From a legal point of view, it is unclear how the European Commission plans to proceed with the new governance structure. It is unclear who will be liable for compliance with the binding target, or how the European Commission would intervene in case the non-binding national plans do not add up to at least 27%.

Annex 1. The benefits of a higher share of renewable energy

The following sections identify important messages from the Commission's White Paper Impact Assessment that are worth noting.

Raising renewables targets would have minimal economic impact

The EC concludes: "It is noteworthy that adding a 30% renewables target to a scenario with GHG emissions reduction of 40% if combined with ambitious energy efficiency policies has a very marginal impact on total energy system costs" (page 130 and table 14)

The system cost for a scenario with a -40% GHG target only would represent 14.57% of EU GDP in 2030. For a scenario with -30% or -35% renewables share, the total system cost would be 14.56% and 14.87% of GDP, respectively. Indeed, these figures demonstrate that the increased cost associated with an increased share of renewables would be very marginal, especially when other benefits are factored in.

A renewables target creates more jobs

The EC concludes: "*The benefits from additional RES targets in terms of local employment as well as domestic investment expenditure rather than outflows of income for fossil fuel imports have a positive growth and further employment effects with only limited additional energy system costs. In addition, there are important interactions between the two areas, with higher energy efficiency resulting in lower energy consumption, which directly impacts the share of renewables (which is measured as a percentage of final energy consumption). Strong energy efficiency measures can therefore themselves contribute to increased shares of renewables because of reduced need for additional new renewables development".* (page 75)

The European Commission has used two models in the Impact assessment to estimate job creation in 2030. The results are quite divergent, since many assumptions are being made in each case. From table 21 and 21, we can conclude that by setting a renewables target for 2030 and making more efforts into energy efficiency, net employment could increase from 300,000 to 1,250,000 jobs, as compared to the reference scenario. One of the models shows that, with a 30% renewable target, the EU would create about 550,000 more jobs than with a single GHG target (table 21).

More ambition and a renewables target lead to higher fossil fuel import savings

The addition of a renewable energy target and energy efficiency measures leads to higher fossil fuel import savings every year compared to a scenario with a single GHG target. Table 12 presents annual savings on

the order of €20bn per year (compared to the reference), depending on the scenario. More ambition on renewables and climate increases the benefits to €27 billion extra savings every year.

More ambition and a renewables target would cut pollution

A 30% renewable energy target, together with a 40% GHG target, would lead to up to €33.2 billion annual savings in pollution control costs, more than double the positive effect of a single GHG target approach. These annual savings could reach €41.5 billion with a 35% renewables target and a 45% GHG target. This scenario would also mean 455 fewer people would die each year from pollution- related causes compared to the reference.

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Climate Action Network Europe is Europe's largest coalition working on climate and energy issues. With over 120 member organisations in more than 25 European countries, CAN Europe works to prevent dangerous climate change and promote sustainable climate and energy policy in Europe.