POLICY OPTIONS FOR THE HARMONISATION OF RENEWABLE ENERGY SUPPORT SCHEMES IN THE EU AFTER 2020

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(1) Overview

Directive 2009/28/EC sets a target of 20% renewable energy as share of gross final energy consumption in the EU in 2020, specifying individual targets for each Member State. As a result, a variety of support regimes for renewable energy sources (RES) have been developed in EU Member States, ranging from feed-in laws to tradable certificate schemes, and from investment grants to tax deductions.

A possible harmonisation of support policies has been under discussion among EU policy makers for years (European Commission, 2008, 2005, 2001) especially regarding renewable electricity (RES-E). Harmonisation, if understood as "the top-down implementation of common, binding provisions concerning the support of RES-E throughout the European Union" (Bergmann et al., 2008) leaves room for a number of policy alternatives. They range from completely uniform support across EU member states and technologies on one end of the spectrum to member states choosing their own policy instruments, subject to harmonised design elements, on the other end.

This paper presents an analytical framework developed in the *Beyond2020* project, financed by the European Commission under the *Intelligent Energy Europe* Programme, in order to identify and assess policy pathways concerning harmonised RES support schemes after 2020. The framework provides a structured approach to the policy debate, enabling decision makers and stakeholders to identify and justify their preferred policy pathway. The paper further uses interim modelling and qualitative analysis results to assess a selection of policy pathways in more detail, applying the multi-criteria decision support method PROMETHEE.

(2) Methods

The theoretical framework was developed by a group of experts through literature analysis and discussion rounds. It focuses on two aspects: Firstly, the policy options (or pathways) available to decision makers; and secondly, relevant and measurable criteria by which these pathways can be assessed and compared, in order for decision makers to identify their preferred option (Del Río et al., 2012a; del Río et al., 2012b).

Selected pathways are then assessed in a multi-criteria decision analysis, using the PROMETHEE method (Brans et al., 1986). Input data is collected from a variety of sources: Quantitative data on RES deployment and costs is provided by mathematical modelling. Qualitative data on legal criteria is taken from extensive legal analyses. Finally, data on the socio-political acceptability of policy pathways is gathered through semi-structured interviews with policy makers at national level. Further qualitative background information is provided from additional interviews with European stakeholders.

(3) Results

PROMETHEE I and II preliminary results for four selected policy pathways show that under the assumption of equal criteria weighting, those pathways with no or minimum harmonisation are the preferred options. A fully harmonised technology-neutral quota scheme, as well as an ETS-only scheme implying the prohibition of national RES support, fare much worse when assessed against most criteria. The ETS pathway could become the preferred pathway if the static efficiency criterion was allocated a significantly higher weight, as under this pathway the least amount of renewables is deployed, resulting in the lowest support costs. However, assuming that a renewables target will be set for 2030, the ETS pathway would not be suitable to achieve it.

Sensitivity analyses on weighting vectors confirm a robust result, as criteria weights would have to be shifted significantly in order to result in a different preference ranking of pathways.

(4) Conclusions

Preliminary modelling data, legal analysis results, and interview results for four pathways indicate that voluntary cooperation, or at most a pathway with minimum harmonisation, are clearly preferred to those pathways where Member States would lose competence to implement their own support schemes. This result is robust with regard to variations in criteria weights.

Taking the qualitative data from stakeholder interviews into account, a combination of bottom-up and top-down processes as assumed in pathways 7a and 7b seems both acceptable to many stakeholders as well as politically feasible. A likely policy outcome could be a mixture of EU-prescribed minimum design standards (top-town) and stronger voluntary cooperation and coordination between groups of Member States (bottom-up). Interviewees stress the importance of a reliable and transparent support system, which in some cases they viewed as even more important than the question on which instrument or harmonisation degree was chosen. Approaches similar to the fully harmonised technology-neutral quota system discussed in 2007-2008 and also favoured by some market-liberal stakeholders today, are unlikely to be feasible in practice for legal and political reasons.

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