

WILL THE EU REACH ITS 2020 TARGETS FOR RENEWABLE ENERGY? A CRITICAL EVALUATION OF THE MODEL-BASED PROGRESS ASSESSMENT

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Overview

The existing EU climate and energy package sets binding targets for all Member States (MS) for the share of renewable energy in gross final energy demand in 2020. The details for applicable promotion schemes for renewable energies and market access for investments in appropriate technologies are regulated by Directive 2009/28/EC.

Examined research questions:

- What results provide scenarios created in 2012 and 2014 for the deployment of renewable energy in the light of currently implemented policy initiatives (CPI) and planned policy initiatives (PPI) to promote renewable energy in terms of an achievement of an EU wide 20% target share and on MS level of renewable energies in 2020?
- How do the short term scenarios results of the assessment in 2012 compare to the actual renewable energy deployment?

Methods

The Directive 2009/28/EC provides a reporting obligation for all MS for the first time on the 31st of December, 2011 and thereafter for every two years. The so-called progress reports have to be compiled in a uniform format including a list of policy measures concerning the conditions for investments in renewable energy. This information about currently implemented policies to promote renewable energies and on planned policy initiatives is collected for all MS. A distinction is made between the following measures:

- Political initiatives to improve the financial support framework for renewable energy.
- Measures to reduce non-economic barriers that reduce investment readiness in renewable energy.

By comparing statistical data of the current deployment of renewable energies with previously modelled scenarios, the process of evaluation of the newly implemented and planned energy policy measures should be improved. In addition, the longer-term perspectives of the modelled scenarios in 2012 (Hamelinck et al., 2012) and 2014 (Resch et al., 2014) are compared to each other in order to make critical statements on the modelling work.

Results and Conclusions

Unfortunately, as the second “RES progress report” is not yet officially published, the results of the scenarios from the evaluation of the progress reports that were issued by the MS at the end of 2011 (Hamelinck et al., 2012) are not compared with the results of the corresponding work from 2014 at this point in time. For this reason, in this section the first results of a comparison with a CPI scenario published in Resch et al. (2014) will be made. This fact will change as the second “RES progress report” is published within the next weeks. Thereafter, the CPI and CPI+PPI scenarios modelled in the “RES progress report” of 2012 (Hamelinck et al., 2012) and 2014 will be compared to each other.

If the results of the scenarios modelled in the years 2012 and 2014 are compared in terms of achievement of objectives, the results of the 2014 assessment draw a more optimistic picture. The CPI scenario from 2012 indicated a share of renewable energies of 15.5% for the EU-27 in 2020. Only 3 MS were projected to fulfil their binding targets on the share of renewable energy in the gross final energy demand in the CPI scenario. The CPI scenario from the 2014 expected a renewable share of 17.9% for the EU-27 in 2020. It was assumed that 9 MS reach their targets, while for another 4 MS the fulfilment appears at least possible.

The comparison of the developments of the included scenarios of the Green-X model with the latest developments of RES deployment in the EU and by the year 2020 will provide a contribution for a better evaluation of the relevant data and a better implementation of the assessed policies within the Green-X model.

References

DIRECTIVE 2009/28/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, of 23 April 2009, on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

Hamelinck, C., de Lovinfosse, I., Koper, M., Beestermoeller, C., Nabe, C., Kimmel, M., van den Bos, A., Yildiz, I., Hartevelde, M., Ragwitz, W., Steinhilber, S., Nysten, J., Fouquet, D., Resch, G., Liebmann, L., Ortner, A., Panzer, C., Walden, D., Diaz Chavez, R., Byers, B., Petrova, S., Kunen, E., Fischer, G. (2012), Renewable energy progress and biofuels sustainability, Ecofys: Utrecht, Niderlande

Resch, G., Liebmann, L., Ortner, A., Busch, S. (2014), 2020 RES scenarios for Europe - are Member States well on track for achieving 2020 RES targets?, Technische Universität Wien - Energy Economics Group (EEG): Wien, Österreich.