



Stepping up but back: How EU policy reform fails to meet the needs of renewable energy actors



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ABSTRACT

The European Commission (EC) has been active in setting European policy and driving forward penetration of renewable energy (RE) across Member States (MS). Recent challenging economic conditions, increases in electricity price for most European consumers, an entrenched company oligopoly and the lightening of RE subsidies have all shifted the EC to a new realism for energy and climate policy. The 2014 EC Communication on climate and energy 2020–2030 removes MS-level RE targets in favour of a single EU-wide target (27% RE supply) and phasing out of subsidies for mature RE by 2020–2030. The purpose of this research is to determine if the recent policy moves by the EC are concomitant with what RE actors need in terms of EU policy reform. A questionnaire was implemented with expert professional energy actors across all MS of the EU in order to determine priority factors limiting RE penetration, key issues for RE in the EU and the specific policy areas which needed reform by the EC. The questionnaire was implemented just before production of the aforementioned 2014 Communication and included 108 respondents. Respondents replied to questions related to the significance RE implementation issues, impact of the economic crisis on RE implementation, need for further EU/national policy on RE. The main areas to target EC reform were identified, as well as the policy areas the most wanted by RE actors. Conclusions include (i) the lack of engagement of the sample of RE actors with EU-level policy with more of a focus on national and global agendas, (ii) a relatively coherent view in actors of the differential role of EC and MS governments and (iii) a failure in recent EC policy to deal with the most important perceived policy challenges in the RE sector, clarity and stability of subsidies and financial instruments.

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Abbreviations: CO₂, Carbon Dioxide; EU, European Union; EC, European Commission; ETS, Emissions Trading Scheme; GHG, Greenhouse Gas Emissions; MS, Member State; NREAP, National Renewable Energy Action Plan; PPC, Power Public Corporation; PV, Photovoltaics; R&D, Research & Development; RE, Renewable Energy

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1. Introduction

1.1. Introduction to the European energy policy landscape

In 2009, in order to deal with energy dependency and Kyoto targets, the European Commission (EC) proposed Directive 2009/28/EC [1]. This Directive, for the first time, set mandatory Member State (MS) targets for the supply of energy from renewable sources into the gross final consumption of energy. Targets to be achieved by 2020 included greenhouse gas (GHG) emission reductions by 20%, increase of the share of renewable energy by 20% and improvements in energy efficiency by 20%; this why it is often referred to as the 20-20-20 Directive. The main purpose of mandatory national targets was to provide certainty for investors and to encourage technological development to promote energy production from all types of renewable sources. Furthermore, the 20-20-20 Directive strove to encourage energy efficiency, the improvement of EU energy supply and the economic stimulation of a dynamic sector in which the EC wishes Europe to represent a global exemplar.

According to an EU Communication [2], the EU praises itself for having done a good job so far regarding achieving the 20-20-20 targets. EU energy and climate policies have ended in: a) decreasing GHG emissions by 2012 by 18% relative to emissions in 1990, b) increasing the share of renewable energy to 13% of final energy consumed by 2012, c) installing in Europe 44% of the world's renewable electricity (excluding hydro) by the end of 2012, d) reducing the energy intensity of the EU economy by 24% between 1995 and 2011, and e) reducing the carbon intensity of the EU economy by 28% between 1995 and 2010.

In parallel, the EU has put in place a regulatory framework with the aim to drive the creation of an open, integrated and competitive single market for energy which would promote the security of energy supplies. At a national level some MS have succeeded in achieving their national target. For example, under the legislation enforced in 2005 and implemented in 2011, Romania was able to meet its target of covering 24% of its final energy consumption from renewable sources much in advance (2013) of the 2020 deadline. Romania became an investor's "paradise", placed by an international consulting firm at number 13 on a list of 40 nations ranked by their attractiveness for investment in renewables (February 2013) [3].

1.2. Systemic European energy sector challenges

Further renewable energy penetration is becoming increasingly challenging in the EU due to global economic conditions. Since 2008, the impacts of economics have dominated the whole EU system as the economic and financial crisis has affected MS capacity and confidence to invest and risks are threatening the EU energy market as a whole. Fossil fuel prices, whilst reducing in 2015–2016, still affect the EU's trade balance; in 2012, the EU's oil

and gas import bill amounted to more than €400 billion or approximately 3.1% of the Union's GDP.

Since setting the policy landscape in 2009 renewable energy technologies have matured and costs have fallen substantially. However, the EU policy landscape has favoured mature technologies which present the lowest investment risk; this has been at the expense of emerging options which may present greater efficiency and emissions reduction gains. The lack of support for emerging technologies delays their effective demonstration and upscaling, the accumulation of highly skilled human capital in the medium-to long-term [4] and slows down achievement of energy futures. This focus on mature technologies has helped support the rapid trajectory of RE penetration in the EU. However, this rapid roll-out coupled with EU policy reform cycles poses multiple social, economic and technical challenges for the renewable energy system [5,6].

In terms of social challenges for example, consumers feel vulnerable because they are required to pay for the high cost of RE construction and the subsidies that governments have promised to investors; despite the fact that the optimal available mix of assets and suppliers was supposed to be used to deliver the most cost-efficient energy to consumers [7]. Indeed, looking at the period between 2010 and 2012, nearly every EU MS has seen an increase in electricity prices. For example, household electricity prices have increased an average of 4% per annum across the EU (from 2008 to 2012), while some MS have seen average annual increases of 9–10% (e.g. Latvia, Spain, Cyprus) [7]. Based on a model simulation with the scenario as close as possible to the EU institutional setup, the excess cost of the 20% RE target is 6% compared to a situation with no RE target [8].

Furthermore, in terms of social challenges, some EU electricity consumers feel deceived as shifts in current conditions lead governments to change ways of leading the national energy landscapes. German consumers for example, who have chosen green energy solutions, like photovoltaics for their own consumption or as an investment and who have based their decision on subsidies and financial motivation, now "get punished". Germany has imposed a new toll/tax for households that use photovoltaics for PV electricity self-consumption bigger than 10 KW installed after August 2013 [9]. In Greece, RE implementation has been inflated due to over-subsidisation, a situation that cannot be continued on a long-term basis, and concerns especially photovoltaics, as noted by the EC [10]. These differences in implementation between MS leave a fragmented EU-wide situation with the need for cohesive and supportive national policies embedded into an integrated EC RE planning system, a need apparent since before 2012 [11].

Part of the cause of the multiple challenges to further RE penetration is the failure of creation of a functioning energy market. The stated role and aspiration of EC regulatory reform laid out in the 20-20-20 Directive of 2009 was towards market liberalisation, the decrease of electricity prices and the protection of the consumer from monopolistic behaviours. In fact, this liberalisation

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