EU Climate Policy after Paris

POLIMP Synthesis Paper

April 2016

Noriko Fujiwara (CEPS) and Erwin Hofman (JIN)[1]

[1] For further questions, please contact noriko.fujiwara@ceps.eu and erwin@jin.ngo. We gratefully acknowledge contributions from Aleksander Szpor (IBS), Andreas Tuerk (UniGraz) and Charikleia Karakosta (UPRC) to the key findings and messages, a paper prepared for the 4th POLIMP stakeholder workshop in Berlin in September 2015. This Synthesis paper builds on the workshop paper and includes update on the EU policy context since then.

1 Introduction

In October 2014 the EU agreed its climate and energy policy framework for 2030, whereby it pledged to reduce greenhouse gas (GHG) emissions from 1990 levels by at least 40% by 2030. The Emissions Trading System (ETS) sectors will have to reduce GHG emissions accordingly, by 43% by 2030, from 2005 levels. Another target was agreed as part of the framework: renewable energy should reach at least 27% of final energy consumption in the EU as a whole by 2030.

The priorities set by the POLIMP project on emissions trading and financing renewable energy are particularly pertinent to the current EU policy debate, which was re-energised by the adoption of the Paris Agreement in December 2015. This paper consists of three thematic sections, which summarise and synthesise the key findings of the project.

Following the EU review of the ETS design features, section 2 discusses European stakeholders' views of the system, its effectiveness, and possible reforms. To increase the renewables share, section 3 focuses on the financing of renewable energy for Europe. Section 4 discusses resistance to or delay in project implementation due to a lack of awareness of low-carbon technologies.

2 COP21 outcome for Europe: policy implications

The Paris Agreement has been hailed as a global and universal agreement that is applicable to all Parties, adopted by 196 Parties. The successful adoption of the Paris Agreement (PA) and the related COP Decision has increased optimism for EU policymakers and stakeholders[2] to implement an ambitious climate policy on a global scale, in coordination with other major emitter countries and in support of countries that are most vulnerable to the adverse impacts of the climate change. This optimism stems from the PA setting long-term goals i) to keep the global temperature rise *well below 2 degrees Celsius* and to drive efforts to limit it even further to 1.5 degrees Celsius and ii) to reach a global peaking of greenhouse gas emissions as soon as possible, and to undertake rapid reductions thereafter iii) so as to achieve *a balance between anthropogenic emissions by sources and removals by sinks* of greenhouse gases in 2050-2100. To achieve these goals, Parties agreed on a five-year cycle of proposing and renewing nationally determined contributions (NDCs) followed by a review process called a 'Global Stocktake' and an enhanced transparency framework.

This requires the EU to **complete and strengthen the 2030 energy and climate framework** by legislative processes. The policy agenda relevant for the NDC implementation includes a proposal for the reform of the EU emissions trading system (EU ETS) under review by the Council and the European Parliament, proposals for the Effort Sharing Decision (ESD) to cover non-ETS sectors and integration of the Land Use, Land Use Change and Forestry (LULUCF) sector into the GHG emission reduction target, all of which are expected to materialize in the first half of 2016. Other legislative initiatives to implement the 2030 energy and climate framework, such as the Energy Efficiency Directive and the Renewable Energy Directive, are also expected later in 2016 and 2017. Moreover, **the PA re-opened a debate on the level of ambition: at least 40% emission reductions by**

[2] Experts participating in POLIMP survey were highly optimistic about the economic impact of EU climate policy and showed much confidence in its long-term goals, see: Ecologic Institute, "Evaluating the Paris Agreement", POLIMP Expert Response Survey Series, Survey No. 5, February 2016.

2030[3] **in relation to the long-term goals, and stressed the need for confidence to invest in transformative technologies that could enable net zero-emissions.** The former at least prompts a call to clarify the EU process for a review to be aligned with the UNFCCC review of NDCs in 2025. The latter, decisions over investment in transformative technologies, would depend not only on policy choice but also on public acceptance at local and project levels.

3 European stakeholders' perspectives on the EU ETS

The EU ETS suffered a historically low price level of allowances (€5.27 as of 8 April 2016),[4] even after the PA sent a clear signal to carbon markets worldwide. At least the agreement increased predictability about policy and regulatory frameworks in major emitting countries. On the other hand, market participants are increasingly concerned to ensure a level playing field for the conditions under which Parties design and implement national actions domestically.

One of the main causes of the low allowance price is over-supply of ETS allowances in Phase II (2008-12) resulting from poor economic performance of the EU economy during the financial crisis and a subsequent fall in energy-related emissions from the ETS sector, further undermined by the import of international credits. It will take time to mitigate the impacts of accumulated over-supply in Phase III (2013-20) and beyond.

To address the over-supply and to improve the system's performance, the EU adopted a decision on the establishment and operation of the Market Stability Reserve (MSR) (EU 2015). Prior to this decision, stakeholders in five EU member states (Poland, Greece, Austria, Hungary and the Netherlands) participated in the POLIMP dialogue, focusing on the EU ETS. The outcome of this dialogue highlights the diversity of views across sectors and countries on salient aspects of the EU ETS, including the consequences of the 2008 economic crisis. In general, EU stakeholders support the continuation of the EU ETS as the main climate policy instrument. However, while certain stakeholder groups supported reforms such as the MSR to address the market imbalance, others opposed the reserve, considering it to be a market intervention. The greatest challenge is to **strike a balance between the expectation that the ETS will provide incentives for investments in low-carbon technologies and innovation** on the one hand, **and the need to address concerns about the competitiveness of energy-intensive industry and the risk of carbon leakage in global markets** on the other (Fujiwara et al. 2015).

The ETS reform proposal (European Commission, 2015), which is subject to a decision in the first half of 2016, centres on this challenge: how to design innovation and modernisation funds and earmark auctioning revenues that could be used to compensate indirect costs and support investment in low-carbon technologies and innovation.[5]

---

[3] EEA (2015) projects that planned measures as of 2015 will only bring EU emissions between 27% and 30% below 1990 levels by 2030. However, this figure does not take into account new policy proposals being discussed in the EU (e.g. the ETS reform, the Effort Sharing Decision, measures to enhance energy efficiency, and measures in the transport sector, LULUCF). In other words, delivering at least 40% reductions will depend on the adoption of these new measures.

[4] See https://www.eex.com/en/. This is considered well below the €20 euros or so required to push coal-fired generators out in favour of gas. M. Liebreich, "'Europe at a clean energy crossroads", *Bloomberg New Energy Finance*, 22 March 2016.

[5] For the stakeholders' perspective see, for example, the IETA position paper, IETA's views on the European Commission's revision of the EU ETS Directive for the post-2020 period.

4 Financing renewable energy for Europe

The EEA reports that the EU-wide share of renewable energy in final EU energy use increased from 14.3% in 2012 to 16.0% in 2014, with member states ranging from over 30% of gross final energy consumption in countries such as Finland, Latvia and Sweden, to less than 5% in Luxembourg (3.6%), Malta (3.8%) and the Netherlands (4.5%) (EEA, 2016). The growth in the consumption of renewable energy after 2005 helped the EU to achieve an estimated gross reduction of CO_2 emissions of 380 Mt in 2014 (EEA, 2016). An increasing share of renewable energy could further contribute to the EU GHG emission reductions up to 2030.[6] One major challenge would be to increase research and development (R&D) spending for renewable energy.

The financial and economic crisis of 2008 was a huge setback for the renewable energy industry. The fiscal crisis led to a massive reduction in renewable energy investment in Europe since its peak in 2011. According to *Bloomberg New Energy Finance*, European investment in clean energy dropped by more than a half to $58.5 billion in 2015, just 18% of the global total (figures excluding large hydro projects), marking the lowest level since 2006.[7] Most EU member states affected by the crisis introduced austerity measures, followed by a substantial weakening of renewables support measures. In addition, *ex post* changes to feed-in premium and tariff schemes have led to reduced market confidence and decreasing private investments. Furthermore, since 2009 the economic crisis has built up an over-supply of ETS allowances, weakening the price incentive. Consequently, the EU ETS provided a much lower incentive for renewable energy than support measures directly targeting renewable energy.

The rollback of member states' support measures and subsequent fall in European investment take place when the costs of relatively mature renewable energy technologies such as solar PV and wind fall to the extent that they can be competitive without subsidies.[8] The Paris Agreement gave a strong push to demand for renewable energy in developing countries. Out of 189 INDCs submitted, 40% of submissions target increased renewables deployment.[9]

Under these circumstances, several challenges have to be overcome before a wider adoption of renewable support measures by different EU member states. The **implementation of cost-effective renewable energy policies** requires the involvement of stakeholders in the decision-making process to modify support measures. The lack of a level playing field for renewable energy compared to conventional energy technologies calls for **novel mechanisms allowing risk alleviation and incentivising the influx of new sources of financing**. **Coordination between member states and the use of member states' cooperation mechanisms** could be improved under the new 2030 target (Michaelowa & Tuerk, 2014).

[6] Three-quarters of RE contributions to GHG emission reductions have taken place in energy-intensive industrial sectors covered by the EU ETS, see EEA 2016. See the above IETA position paper, which addresses overlapping policies.

[7] M. Liebreich, "'Europe at a clean energy crossroads", op.cit.

[8] Ibid.

[9] IEA, World Energy Outlook Factsheet, 2015 (www.worldenergyoutlook.org/media/weowebsite/2015/WEO2015_Factsheets.pdf).

5 Public acceptance of low-carbon technologies and measures

A lack of public acceptance may delay or halt the exploitation of these opportunities. Public participation processes in the EU's environmental plans and programmes are ensured by Directive 2003/35/EC, which has been transposed into national legislation by all member states. On a higher level, strategic environmental assessments (SEA) can work to establish enabling conditions, including public acceptance for the development of climate-friendly technologies. This is in line with the European Commission's SEA Directive (2001/42/EC), which aims to "provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development" (European Union 2001). Empirical evidence shows that climate-friendly projects, such as those for renewable energy, continue to face significant resistance, however. Although the majority of the public supports renewable energy in general, individual projects are opposed, for several reasons. Five elements are identified as determinants of the level of public acceptance: **public awareness of climate change and knowledge of clean technologies; fairness of the decision-making process; the overall evaluation of costs, risks and benefits; the local context; and trust in decision-makers and other relevant stakeholders**. A clear strategy should be used to gain public acceptance of clean technologies and avoid (large-scale) public resistance. This applies both to the level of individual projects, and to higher policy-making levels, where awareness and fairness, in particular, should be taken into account (Hofman & van der Gaast, 2014).

6 Synthesis: low carbon technology support in Europe

There are three major challenges to accelerating the deployment of low-carbon technologies to help the EU achieve its 2030 GHG emission reduction targets.

- The first challenge is **how to enhance incentives for private investments across support measures and instruments**: for example, the EU ETS carbon price versus that of feed-in tariffs.

- The second challenge is **how to manage and reduce economic risks, in particular those of financing both mature and less developed technologies, and to increase the cost-effectiveness of renewable energy financing and support measures**.

- The third challenge is **how to manage social risks of resistance to low-carbon technologies that would have a direct impact on the local environment, and associated policies at the national level**.

These challenges require **an integrated approach to low carbon technology support, combining i) incentives for investments in technology research, development and deployment and ii) mechanisms for risk management and reduction**. Such an approach also requires engaging all relevant stakeholders, including citizens, local NGOs, institutional investors, and technology providers, among others, and ensuring a transparent and open consultation process.

References

European Commission (2015, Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC to enhance cost-effective emission reductions and low- carbon investments, Brussels, COM(2015) 337 final, 15 July.

European Environment Agency (2015), *Trends and projections in Europe 2015 Tracking progress towards Europe's climate and energy targets*, EEA Report No. 4/2015.

European Environment Agency (2016), *Renewable energy in Europe 2016 Recent growth and knock-on effects,* EEA Report No. 4/2016.

European Union (2001), DIRECTIVE 2001/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, Official Journal of the European Union, L197/30-35, 21 July.

European Union (2015), DECISION (EU) 2015/1814 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 October 2015 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and amending Directive 2003/87/EC, Official Journal of the European Union, L264/1-5, 9 October.

Fujiwara, N., C. Karakosta, A. Szpor, A. Tuerk and E. Hofman (2015), "European Stakeholders: Perspectives on the EU ETS", POLIMP Policy Brief No. 3, April (www.polimp.eu/images/3rd_Policy_Brief_European_stakeholders_perspectives_on_the_EU_ETS.pdf).

Hofman, E. and W. van der Gaast (2014), "Acceleration of clean technology deployment within the EU: The role of social acceptance", POLIMP Policy Brief No. 1, June (www.polimp.eu/images/1st%20Policy%20Brief/POLIMP_1st_Policy_Brief_final-_Public_Acceptance_-_June_2014.pdf).

Michaelowa, A. and A. Tuerk (2014), "Financing Renewable Energy for Europe: The way forward", POLIMP Policy Brief No. 2, December (www.polimp.eu/images/2nd_Policy_Brief_on_Financing_Renewable_Energy_for_Europe.pdf).