



E3G

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Lower Costs, More Competitiveness and Reduced Climate Risk

Practical Proposals to Improve the Impact of the EU 2030 Energy and Climate Package

Summary

- > The Commission's 2030 energy and climate package does not set out a credible framework for driving investment into a low cost, low-carbon, secure and competitive European energy system. The package fails to protect consumers and small businesses from volatile global energy markets, undermines investment in European clean technology manufacturing supply-chains and provides no practical support to European countries hardest hit by the financial crisis.
- > The proposed 40% domestic GHG target is at the lowest end of the reduction range previously agreed by the European Council, and is not the most cost-effective GHG reduction trajectory. If unchanged it would damage the EU's influence in international climate negotiations, increasing the risks of serious climate change damage to European citizens and businesses.
- > The March Council should improve the cost-effectiveness, impact and fairness of the package by agreeing conclusions for further practical action in five areas:
 - **Reforms to lower costs for all:** Task the Commission to develop proposals for reforms which could lower costs to business and consumers by €1.5 - €2.5 trillion to 2030, including: new EU infrastructure goals and market integration rules; strong energy efficiency goals and measures; and enhanced financial support – especially for energy efficiency in crisis-hit countries.
 - **Increase EU's GHG reduction offer for Paris 2015:** Agree that in February 2015 the EU will consider going beyond the -40% GHG domestic target when putting forward its commitments for the 2015 Paris talks. This offer should be based on a review of the EU low-carbon roadmap using up-to-date climate risk estimates and mitigation cost modelling.
 - **More certainty for clean energy manufacturing:** Provide stronger signals for continued investment in EU supply chains in clean energy and advanced

infrastructure by agreeing to develop a nationally-binding framework in which Member States can commit to either renewable energy or power sector decarbonisation targets for 2030.

- **Fair incentives for competitiveness:** Capitalise on the opportunity that the shift to a capital-intensive, low carbon economy gives to grow EU manufacturing. Drive improved competitiveness and innovation in energy intensive industries through more targeted incentives, and remove broad exemptions that raise costs and destroy jobs in other sectors.
- **Better governance:** Give more investor certainty and transparent analytical foundations for EU climate policy by asking the Commission to prepare legislation for a “Climate Act for Europe” including the establishment of a European Climate Change Committee.

1. Introduction

The Commission’s White Paper on the 2030 energy and climate package does not set out a credible framework to incentivise investors to build a low cost, low-carbon, secure and competitive European energy system for 2030.

The weak energy efficiency proposal, lack of concrete measures to integrate European markets, and over-generous subsidies for energy intensive industries, will increase energy costs to consumers and small businesses. Inadequate targets on GHG reduction, renewables and efficiency undermine European export leadership in clean technology by reducing home market demand base. The absence of specific proposals on financing support and energy infrastructure provides no assistance to the European countries hardest hit by the global financial crisis, and fails to ensure that all Member States benefit from market integration and cost-effective energy efficiency opportunities.

The 40% domestic GHG reduction goal is not the most cost-effective trajectory for the EU to meet the Council target range of 80-95% GHG reductions by 2050. The lack of consistency between the -40% target and the EU’s long-held goal of keeping global temperatures below 2C, will weaken Europe’s diplomatic influence in the global climate negotiations. Moving back from a “science-based” position will reduce the EU’s ability to catalysis a strong “climate ambition coalition” among middle income, developing and vulnerable countries. By reducing European influence, the package will increase the likely level of climate risk that European businesses and citizens will face in the future. This will result in the need for higher public investments in climate adaptation measures that Member States will need to make in the coming decade.

The European Council in March 2014 represents an opportunity to improve the cost-effectiveness and climate change impact of the package, and initiate action on the most important structural economic reforms needed to ensure efficient and effective European energy markets in the future.

2. Priority Areas to Strengthen the EU 2030 Package

The European Commission's analysis around the 2030 White Paper identified many critical challenges to delivery of a clean, secure, fair and competitive energy system. However, many of these issues have not been effectively addressed in the proposed package, notably:

- > The macro-economic damage caused from continued exposure to volatile fossil fuel markets, negative impacts on poorer consumers and SMEs, and rising oil and gas import costs.¹ These could be dramatically reduced by stronger action to deliver the €1 -2 trillion in cost-effective energy efficiency savings which are estimated to be available from 2020-30².
- > Potential cost savings of more than €425bn to 2030 from deeper EU energy market integration driven by regulatory reforms³, and stronger and smarter European power grids.⁴ These savings would particularly benefit those countries currently under-connected to European markets.
- > The collapse of traditional financing sources for energy infrastructure, and constraints on public sector financing, particularly in countries worst hit by the global financial crisis.
- > Sustaining and increasing the competitive advantage which European energy intensive industry has achieved in unit energy costs and market share, thanks to high levels of energy efficiency.⁵

For many Member States the proposed package on GHG reduction and renewable energy targets fell below their minimum criteria for success. A 40% domestic GHG reduction level is publically noted as an 'at least' floor by UK, Germany, France and Italy. Many countries wished to see nationally binding renewable energy targets. Only Poland, Romania, Czech Republic and Slovakia have publically signalled discomfort with the proposal for immediate agreement on a domestic 40% goal.

Independent analysis using a wide range of models suggests that a 40% reduction by 2030 is not a cost-effective trajectory to achieve 80% reductions by 2050, let alone the higher end of the range agreed by the European Council (95%)⁶. These models suggest that reductions of between 45-50% would be needed by 2030 in order to avoid unnecessary costs from stranded high-carbon assets. This is unsurprising. The Commission proposal implies that the

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¹ http://www.e3g.org/docs/E3G_Public_support%2C_competitiveness_and_growth-Why_energy_efficiency_is_a_key_component_for_making_the_2030_package_work.pdf

² Estimates of savings from cost-effective energy efficiency vary due to future fossil fuel price assumptions and technical modelling differences. Estimate of €200bn net savings per annum to 2030 are from <http://www.ecofys.com/files/files/foe-ecofys-2013-saving-energy-2020-and-beyond.pdf>; Estimates of over €100bn net savings per annum from http://www.isi.fraunhofer.de/isi-media/docs/e/de/publikationen/BMU_Policy_Paper_20121022.pdf

³ The outline of a comprehensive market reform package can be found at <http://www.roadmap2050.eu/attachments/files/Fromroadmapstoreality%28web%29.pdf>

⁴ http://www.e3g.org/docs/E3G_2030_infrastructure_briefing_September_2013.pdf

⁵ http://ec.europa.eu/energy/doc/2030/20140122_communication_energy_prices.pdf

⁶ http://www.pik-potsdam.de/members/knopf/publications/Knopf_EMF28_overview_final.pdf

EU will take 40 years to cut the first 40% of EU emissions, while cutting an additional 40% in just 20 years. Delaying action now means more expensive and faster emission cuts in the future, and the premature retirement of high carbon capital. One reason for these problems is that the PRIMES model used by the Commission to develop the 2050 Roadmaps systematically underestimates cost-effective energy efficiency potential⁷ and uses far higher estimates of future renewable energy costs than are seen in actual markets today.

Disputes over the analysis underpinning the EU Roadmaps suggests that future EU policy should be based on a wider and more transparent information base which is fully available to Commission, Parliament and Member States. This could be achieved through establishing an independent European Climate Change Commission; perhaps based in the European Environment Agency or JREC.

International reaction to the proposed target has ranged from seeing 40% as a “good start”, to it representing a retreat from European leadership in international climate politics⁸. In the absence of further signals that 40% represents the minimum level of European emissions reductions, this package will reduce Europe’s influence in helping to build the type of strong and diverse coalition of countries which produced the breakthrough 2011 Durban Platform agreement to negotiate a globally binding climate treaty.

Clean energy investors have stated that the proposed EU-wide RES target is too low and too legally weak to give confidence for companies to develop supply chains or invest in critical grid infrastructure.⁹ Many countries would have supported strong national renewable energy targets, but objections from the UK, Poland and Czech Republic on grounds of technology-neutrality and subsidiarity prevented consensus. The proposed EU 2030 renewables target is unlikely to have a material impact on investor certainty, because the 27% goal is likely to be exceeded in aggregate by projected national renewable energy use. Even the UK will have a higher share of renewables in 2030 than implied by national shares of the proposed 2030 EU target.¹⁰ In the absence of such strong signals, world-leading European technology companies are likely to place new production facilities in faster growing clean energy markets in Asia and the Americas.¹¹

To give added value for European supply chain and infrastructure investors, and facilitate cross-border planning and transparency, the Council should agree a flexible European framework which aggregates, and ensures delivery of, planned renewable energy investment in Member States. The benefits of such a nationally-binding framework could be made compatible with wishes of some Member States for “technology-neutrality” by

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⁷ http://www.isi.fraunhofer.de/isi-media/docs/e/de/publikationen/BMU_Policy_Paper_20121022.pdf

⁸ http://www.e3g.org/docs/Reaction_to_Commission_White_Paper.pdf

⁹ Statement of 90 European Companies arguing for binding renewables targets <http://europebusinessday.eu/statement/>; HSBC Private Client report on investor incentives from 2030 package “Doing the Climate Foxtrot” February 2014 - press report <http://reneweconomy.com.au/2014/eu-low-on-climate-ambition-disappoints-on-renewables-hsbc-30537>

¹⁰ <http://www.greenalliance.org.uk/uploadedFiles/Publications/reports/EU%20renewable%20energy%20target.pdf>

¹¹ <http://climatestrategies.org/research/our-reports/category/73/382.html#EU2030>

allowing them the choice of setting a power sector decarbonisation target – including an estimate of renewable energy use - rather than a renewable energy goal.

Investor certainty would also be improved by placing governance arrangements for implementing climate change and energy goals on a firmer legislative basis. The Council should consider developing a “Climate Change Act for Europe” which would provide a clearer and more reliable system of governance than that proposed in the White Paper¹².

European energy intensive sectors such as steel, glass, copper and cement will see large increases in demand as the EU moves to a low carbon economy. European energy intensive industry has also preserved its energy cost competitiveness through high levels of efficiency, and this approach should be further supported. If addressed comprehensively the climate and energy package represents a strong opportunity for growing the share of EU manufacturing. The White Paper does not address this opportunity forcefully enough. It is unclear on proposed changes to current industry exemptions from ETS auctioning, but implies that they could be extended to 2030 and combined with further public support to energy intensive sectors in the form of transition and RD&D grants.

The Council should provide a much clearer signal of the direction of future industrial policy. This should preserve EU competitiveness by focusing on making European companies the most energy efficient in the world. The scope of ETS exemptions must also be limited to avoid negative impacts of higher costs on other more productive sectors¹³. Exemptions from carbon price signals should be more targeted and firmly tied to binding requirements to improve efficiency. Additional support from “NER” type mechanisms and EU RD&D grants should be focused on transformational shifts in carbon intensity. This should include faster development of CCS and incentives for radical resource efficiency, substitution and innovation down supply chains in construction, infrastructure and consumer product markets. These principles and objectives should also be incorporated in the State Aid guidelines¹⁴.

At the March European Council meeting, Member States should grasp the opportunities outlined above by agreeing to Council Conclusions in five key areas:

- > **Reforms to lower costs for all:** Task the Commission to develop stronger proposals for reforms which would lower costs to business and consumers by €1.5-€2.5 trillion to 2030, including:
 - A stronger package of energy efficiency targets, measures and market reforms to 2030 to be developed as part of the review of the Energy Efficiency Directive in 2014.

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¹² <http://www.clientearth.org/201401232431/news/press-releases/eus-model-for-2030-climate-governance-is-flawed-and-should-learn-from-uk-climate-change-act-2431>

¹³ <http://www.bruegel.org/nc/blog/detail/article/1235-what-should-europe-do-about-high-energy-prices/>

¹⁴ <http://www.e3g.org/news/media-room/the-role-of-state-aid-in-creating-a-green-economy>

- Rules for enhanced market integration and an EU infrastructure goal covering interconnection, smart grids and storage, delivered through stronger regional cooperation mechanisms.
 - Stronger and more innovative financial support to help leverage private sector resources into clean energy investment, with a focus on crisis-hit countries and energy efficiency.
- > **Increase the EU's GHG offer for Paris 2015:** Agree that in February 2015 the EU will consider going beyond the -40% GHG domestic target when putting forward its commitments for the 2015 Paris talks. This offer should be based on a review of the EU low-carbon roadmap based on up-to-date climate risk estimates and mitigation cost modelling.
- > **More certainty for clean energy manufacturing:** Provide stronger signals for continued investment in EU supply chains in clean energy and advanced infrastructure. Agree to develop a nationally-binding framework in which Member States can commit to either renewable energy or power sector decarbonisation targets for 2030.
- > **Fair incentives for competitiveness:** Drive improved competitiveness, innovation and production investment in energy intensive industries through a targeted set of incentives linked to improve energy efficiency and carbon reduction performance (a “something for something” deal). Reform and limit existing broad sectoral exemptions from carbon price signals which raise costs and risk destroying jobs in other more productive sectors.
- > **Better governance:** Provide greater certainty and transparency over EU climate action by tasking the Commission to prepare legislation for a “Climate Change Act for Europe” which would lay down a clear legal framework for governance for the 2030 package. This should include the statutory establishment of a European Climate Change Committee, tasked with advising the Council, Parliament and Commission on climate risk management, the consistency of European policies with agreed goals, and progress in delivering climate change budgets and measures.

Stronger proposals in these areas would lower costs to consumers and businesses, provide greater certainty for forward investment, support the continued growth of world-leading European manufacturing, and spread the benefits and costs of energy and climate action more fairly across the European Union.

By underpinning and potentially raising European ambition on GHG reduction it will also lay the foundation for greater European influence in international climate negotiations, and improve the chances of limiting costly and dangerous future climate risks to European citizens and businesses.

The sections below give suggested text for Council Conclusions. Key text for agreement is given in bold, and explanatory and contextual drafting is also included for completeness.

3. Reforms to lower costs for all - proposals for March 2014 Council

3.1 Strengthening Action on Energy Efficiency

“Improving the efficient use of energy in the EU is at the core of the EU2020 agenda and should continue as a priority beyond 2020. Cost-effective improvements in energy efficiency have the potential to save businesses and consumers €100-200bn per year from 2020, and to reduce European energy import bills. Energy efficiency forms a core pillar of long-term European economic competitiveness, and has the potential to generate good jobs across Europe.

Energy efficiency levels differ markedly across Member States, and form a major barrier to internal market integration, economic and regulatory convergence. The most important solutions to delivering cost-effective energy efficiency lie in reforms of market, regulatory and financial systems at Member State level, and in the creation of strong European single market in energy efficiency goods and services.

Requests the Commission, based on the outcome of the Review of the Energy Efficiency Directive in 2014, to bring forward legislative proposals for binding energy efficiency goals for 2017-2030. These proposals should be supplemented by a broad range of supporting internal market and economic reforms that will create the conditions to fully realise the potential for cost-effective energy efficiency in the EU from 2017-2030, with the aim of the EU becoming the most efficient user of energy globally. These proposals should consider, inter alia, national institutional reforms for energy efficiency delivery, economic reforms to remove price and regulatory distortions, market reforms to encourage new entrants and cross-border trade in services, and financial reforms to remove barriers to appropriately-priced finance.”

3.2 Energy Market Integration and Infrastructure

“Accelerating the integration of the internal energy market and development of physical interconnection is essential for cost-effective implementation of the 2030 climate and energy framework. The current target for Member States to achieve physical interconnection capacity equivalent to 10% of national installed production capacity, agreed in 2002, should be updated to reflect the expected increase in renewable energy deployment and deliver benefits from increased cross-border trading, made possible by the completion of the internal energy market. **Invites the Commission to bring forward proposals to the Council by March 2015 for additional reforms to the internal market to facilitate cross-border trade, market efficiency and flexibility, including an updated target for cross-border interconnection and proposals for a binding mechanism for implementing the new objective. ENTSO-E is requested to incorporate the updated target into its 2016 Ten Year Network Development Plan.**

Regional approaches can play an important role in contributing to further market integration while reflecting national and regional specificities. **Existing initiatives such as the Baltic Energy Market Integration Plan, the North Seas Countries Offshore Grid Initiative and the 5 Market Coupling initiative have demonstrated the value of regional cooperation for improving energy security and facilitating trade. This cooperation should be further deepened in the context of achieving the 2030 climate and energy objectives. The electricity regional groups established under the TEN-E regulation are requested to publish Regional Energy Security and Market Integration Plans by the end of 2016.** The plans should incorporate, inter alia: regional grid priorities including contribution to the European-wide interconnection target; a common assessment of regional generation capacity adequacy and flexibility resources, including a dedicated assessment of the potential for increased participation of the demand-side in the regional and national markets; a common assessment of regional renewable energy potential and arrangements for cross-border renewables trading; and coordinated arrangements for access to national capacity markets where applicable.

The Commission is invited to bring forward proposals to the Council by March 2015 for a common template for regional infrastructure plans and for governance mechanisms to ensure the regional plans are in line with agreed European priorities. The Commission is also invited to review ACER and ENTSO-E competencies with regards to facilitating the delivery of the regional plans.”

3.3 Financing

General low-carbon finance

“Despite improvements in the European growth outlook in the second half of 2013, investment in the EU is still more than 50% below pre-crisis levels, youth employment is unacceptably high and economic convergence levels between some Members States is now at 1995 levels. In response to the financial crisis, the European Investment Bank received additional capital of EUR 10bn, enabling it to increase its lending to EUR 60bn over 3 years.

Moving to a low-carbon economy requires increased levels of up-front investment over business-as-usual levels. The consequences of the financial crisis continue to suppress private sector bank lending in the European economy, particularly to long-lived infrastructure. **Decides to consider by June 2014 the allocation of a further round of EIB capitalisation of EUR 10bn to support Member States in delivering their climate change and energy commitments. Asks the European Commission and EIB to work with national public banking institutions to increase direct lending and implement new financial instruments to leverage European Structural Funds to better support investment in the energy efficiency and the low-carbon economy.”**

Energy efficiency finance

“Access to financing is currently a major barrier to the delivery of cost-effective energy efficiency, particularly for countries significantly impacted by the financial crisis.

The Council asks the European Commission to bring forward proposals before the end of August 2014 setting out the institutional, accounting and regulatory reforms needed at national and EU levels to unlock energy efficiency financing at scale across the EU economy. These proposals should draw upon, inter alia, the work of the Energy Efficiency Finance Working Group, the EIB and experience of different Member State financing schemes. Further, the Council requests that the European Investment Bank, in the context of this work, bring forward proposals by the end of August 2014 for the additional potential for enhancing its financial instruments for energy efficiency, including the expansion of the existing DEEP Green Initiative and also the potential for new instruments, to leverage increasing amounts of private capital into this sector.”

4. Increase GHG reduction offer for Paris 2015 - proposals for March 2014 Council Text

“A domestic target of -40% GHG reductions by 2030 from 1990 represents the minimum level considered consistent in the EU Low-carbon Roadmap with cost-effective achievement of the Council’s goal of 80% GHG reductions by 2050. Agrees that this target should form the initial basis of European domestic climate change action to 2030. Agrees, by at the latest February 2015, to consider higher reduction targets, including the use of international offsetting, in the context of the global climate change negotiations towards the COP 21 to be held in Paris December 2015.

Since the EU low-carbon roadmap analysis was undertaken, global oil prices have risen, clean energy costs fallen, and climate impacts increased much more dramatically than expected. Requests that the European Commission inform the Council discussions in February 2015 by preparing a detailed analysis of options for the GHG reduction commitment the EU should put forward in the international climate change negotiations, including re-assessment of cost-effective pathways domestic reductions, based on the most recent climate science, assessment of climate risks to the EU and up-to-date economic and technology cost assessments.”

5. More certainty for clean energy manufacturing - proposals for March 2014 Council Text

“Clean energy manufacturing is a key component of the EU’s industrial renaissance. European clean energy companies are leaders in global export markets and carry out a disproportionate amount of their manufacturing in Europe. There is a need to give forward certainty of strong EU market growth in order to incentivise continued investment in domestic manufacturing facilities. The Commission’s proposal of a 27% EU-wide renewable energy target represents a no-regrets floor for renewable energy development and would imply a slowing of renewable energy growth rates inside the EU from 2020.

Agrees to provide stronger incentives for increased European investment in clean energy and advanced infrastructure supply chains by adopting a nationally-binding framework in which Member States can commit either to renewable energy or to power sector decarbonisation targets for the period 2020 to 2030. Requests the Commission to develop options for the implementation of such a framework which are consistent with preserving Member States' right to determine the general structure of its energy supply, and gives adequate flexibility to risk-manage the cost and security of their power sector decarbonisation pathway."

6. Fair incentives for competitiveness - proposals for March 2014

Council Text

"Energy efficiency improvements have been central to ensuring that EU energy intensive industry has remained competitive in the face of rising energy price differentials with some major economies. Despite this, there is still significant scope for energy intensive companies across Europe to reach global best practice levels of efficiency. The demand for energy intensive products will grow due to Europe's shift to a capital-intensive low-carbon economy, and this represents a significant opportunity to meet Europe's objectives to increase the economic share of manufacturing industry. Continued broad exemptions from carbon pricing and other environmental costs undermine incentives for improved efficiency, distort market signals and raise costs on other productive sectors. As such they should be considered as a temporary relief measure. Many energy intensive and process industries will need to capture CO₂ in order to meet deeper emissions reductions, and the accelerated deployment of CCS on industry provides a valuable job retention strategy for Europe.

Maintaining competitiveness in energy intensive manufacturing requires European companies to become the most efficient in the world. This will require targeted incentives for companies to innovate new products, processes and services. Requests the Commission to bring forward, by no later than September 2014, proposals for measures that will incentivise energy intensive sectors and related product markets to invest in further efficiency gains and develop innovative solutions to reducing production, product and service energy and carbon intensity. These proposals should, inter alia, cover incentive-based allocation mechanisms for ETS permits, NER-type innovation funds, public procurement, regulation and fiscal incentives.

Additionally requests the Commission to put forward proposals for a 2030 milestone for the development of CO₂ infrastructure and the deployment of carbon capture and storage technology, particularly with a view to its use in energy intensive and process industries, together with analysis of financial incentives that can accelerate its deployment in the period to 2030."

7. Better governance - proposals for March 2014 Council Text

“To maintain investor certainty it is vital that European climate policy provides clear and credible long term signals, and is based on timely and authoritative information. The EU must also continue taking a science and evidence-based position in defining its climate change goals and positions in international climate negotiations. The enduring and different competencies of Member States, European Council, European Commission and European Parliament in developing and implementing policy in this area emphasise the importance of having a common, public and authoritative information base to ensure timely and efficient policy making.

Requests the European Commission to develop legislative proposals to provide a statutory basis for the EU’s long term climate action and set clear medium term GHG budgets. This proposal should include, inter alia, measures to establish a European Climate Change Committee as an independent advisor to the Commission, Council and Parliament on climate change risks, adaptation, mitigation trajectories and progress against agreed goals. The proposal should include a plan for financing this body from inside the current budgets and structures of relevant European institutions.”