



WWF

BRIEFING
PAPER

FEBRUARY
2015

The Energy Union

Ensuring a vision without blind spots

The European Commission's *Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy* is a once in a generation opportunity to ensure the EU's climate and energy policies match today's realities. This is not the moment for a re-shuffling of a well-worn deck of cards. Europe needs a strategy to re-energise our economies, to protect our fellow citizens, and to secure our environment.

This briefing highlights both concerning blind spots and features in need of greater focus in the European Commission's new climate and energy vision. WWF herein provides a 10 point plan for maximising the potential of an Energy Union.

WWF's 10 point plan for maximising the potential of an Energy Union

1. Greater focus on climate concerns
2. An 'all of the above' strategy will not deliver secure energy supplies
3. Empowering citizens means freeing production and consumption
4. Energy Union rhetoric must shape reality on reduction of energy use
5. The EU is looking forward, not back, on renewable energy costs
6. Different gas supplies must not mean more gas supplies
7. Investor confidence is not built on price signals alone
8. 'World leader in Renewables' must be linked to deployment
9. The European Semester is not a good blueprint for the Energy Union
10. The proposed 'Infrastructure Forum' should include civil society

1. Greater focus on climate concerns

The European Commission's Energy Union strategy includes the vision of "a sustainable, low-carbon and climate-friendly economy" but in practice it continues the misguided approach of relying on the EU ETS as the "cornerstone of Europe's climate policy". The EU ETS is undermined by a structural excess of pollution permits, which will not be credibly corrected by reforms currently being finalised. In order to show that the EU is serious about cutting emissions at source, it must use targeted policies. The Energy Union must therefore introduce a union-wide Emissions Performance Standard as a complement to the ETS, to cut directly emissions from the most polluting power stations.

The Energy Union strategy pays not much more than lip service to the real challenges of climate change, as underpinned by real science. There is little in the strategy to encourage Europe's citizens and businesses that future EU energy policy will ensure they can continue to live and operate in safety. Climate Protection is not a 'nice to have' add on to an energy security strategy – it is a commitment that needs to be fully expressed in the ambitions and policies of the Energy Union. It requires thinking to 2030 and beyond, recognising that the EU power sector will need to be totally decarbonised before 2050 – a timeframe barely mentioned in the Commission's communication. This is both a social and environmental imperative, since the poorest are those worst affected by the impacts of air pollution. In the EU, 18,400 premature deaths a year can be attributed to coal power plant emissions, and coal pollution related illnesses result in health costs of €15.5-43.1 billion a year.¹ Such clear problems need clear solutions and only the introduction of an Emissions Performance Standard to cut pollution from the dirtiest power plants can address this problem directly. The International Energy Agency (IEA) in its latest briefing concluded that given the low price in most current carbon pricing systems regulators should explore alternative policy options, of which the key is a fleet-wide Emissions Performance Standard.²

2. An 'all of the above' strategy will not deliver secure energy supplies

Despite having the goal of moving "away from an economy driven by fossil fuels", the Energy Union's vision is undermined by the inclusion, on the same footing as renewable energy and energy efficiency, of domestically produced conventional and non-conventional fossil fuels. Even the false comfort that can be gained from exploiting such resources is short-sighted

1 Health and Environment Alliance, 2013, The Unpaid Health Bill – How Coal power Plants Make Us Sick.
2 IEA 2014. Energy, Climate Change Environment, <http://www.iea.org/textbase/npsum/eccc2014sum.pdf>

given their significant economic, environmental and social risks. They cannot be relied upon to provide secure energy within a long-term decarbonisation vision, not least because CCS will not be able to demonstrate its ability to abate emissions at scale until it is too late to cover for its potential failure. Only renewable energy and energy efficiency have a proven record of providing sustainable, clean energy and the Energy Union strategy must do much more to reflect their importance as Europe's 'first fuels'.

Despite all countries being subject to significant energy-related risks, including price shocks, pollution impacts, rapid technological changes, and geo-political tensions, the European Union risks missing this opportunity to adequately 'stress-test' its energy systems by challenging its assumptions on future developments. A clear example is the Commission's belief that Carbon Capture and Storage (CCS) will become an important emissions abatement tool around 2030. The Energy Union Strategy makes no provision for what would have to happen if CCS technology never actually becomes commercially viable. If new fossil power is permitted in the hope that emissions will later be abated by a technology that never delivers at scale, Europe faces an un-palatable choice. We will either break our emissions reductions targets, have to very rapidly ramp up energy efficiency and renewable energy, or have to close power plants and suffer power shortages – or probably a combination of all three. This entire scenario can be avoided by lifting energy efficiency and renewable energy above all other energy sources in the Energy Union strategy. As a first step, the language around 'encouraging Member States to give energy efficiency primary consideration in their policies' must be overhauled so that the 'efficiency first' principle³ becomes a cornerstone of the Energy Union.

3. Empowering citizens means freeing production *and* consumption

The Energy Union strategy makes a welcome effort to highlight the fuller role that European Citizens can play in the Energy Union by greatly increasing our opportunity to manage our own energy use and produce our own power. However, the positive language of 'an Energy Union with citizen's at its core' must now be translated into more ambitious and concrete proposals, including through legislation on electricity security of supply, a new European electricity market design and legislative proposals, the review and possible revision of energy efficiency legislation, and a new renewable energy package. EU policy makers must coherently set out, across these laws, exactly how they will create the flexibility through which consumers can make their energy affordable by being able to manage their energy supply, as well as their demand.

The Energy Union strategy should be the occasion to empower EU citizens to participate fully in the EU energy system as it develops and reforms key parts of Union energy law. Consumers should be given the opportunity to have clear and real-time information on their energy use in order to adapt their behavior and reduce their energy consumption and bills. In addition, demand –side management options should be treated on equal footing with

³ Regulatory Assistance Project, Efficiency First: Key points for the Energy Union Communication, February 2015, <http://www.raponline.org/document/download/id/7507>

supply-side options in any reform of the EU energy markets. Furthermore, the strategy must set a stronger basis for future legislation that recognises the growing role of auto-producers in an energy system where the majority of solar PV is already installed by homeowners on their rooftops.

4. Energy Union rhetoric must shape reality on reduction of energy use

The Energy Union Framework Strategy sets the right tone by portraying energy efficiency as an energy source on its own right - in line with the International Energy Agency's view that energy efficiency is the world's "first fuel". It also includes a recommendation to Member States to give "primary consideration" to energy efficiency when adopting policies. However, this positive narrative does not seem to translate, at least for the moment, into EU actions that go beyond business-as-usual.

Despite an improved acknowledgment of the role of energy efficiency and savings in the EU energy policy, the Energy Union merely repackages policy actions and initiatives that were already in the pipeline, such as the review of the Energy Efficiency Directive or the adoption of a Heating and Cooling Strategy. Even though the Climate and Energy Commissioner has publicly supported the "Efficiency First Principle", the Communication fails to fully explain how this can be translated into legislation⁴ to ensure that investment in energy efficiency are systematically prioritised whenever they are less expensive, or deliver more value than supply side options. However, the real make or break point would be the evaluation of the energy efficiency proposals for legislation in the years to come. For example, a proposal for a 2030 energy efficiency target that is in line with President Juncker's statement that "a binding 30 % objective for energy efficiency by 2030 is to me the minimum"⁵ and a coherent and effective approach to reduce energy use in existing buildings within the revision of the EPBD, would give the impression that the narrative is starting to shape reality.

5. The EU is looking forward, not back, on renewable energy

The Energy Union strategy should not be mistakenly interpreted as the European Commission fighting the last battle on renewable energy, not the next one. The phrase "*Renewable production needs to be supported through market-based schemes that address market failures, ensure cost-effectiveness and avoid overcompensation or distortion*" should not comfort fossil fuel incumbents who think that renewable energy is too expensive. The Energy Union strategy recognises the falling costs of renewable energy and its action plan demonstrates the Commission's understanding that the main question is not how renewables can be afforded, but how their mass deployment can be properly integrated into power networks. WWF will support this work.

Each new publication of an energy-related investor report points to the medium and long-term dominance of renewable energy. The cost of power from large scale photovoltaic

4 Regulatory Assistance Project, Efficiency First: Key points for the Energy Union Communication, February 2015, <http://www.raponline.org/document/download/id/7507>

5 Jean-Claude Juncker, A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change, http://ec.europa.eu/priorities/docs/pg_en.pdf

installations in Germany fell from over 40 ct/kWh in 2005 to 9ct/kWh in 2014. Even lower prices have been reported in sunnier regions of the world, since a major share of cost components is traded on global markets.⁶ Even UBS, the world's largest private bank with assets of more than \$1.5tn, is urging their clients to "join the revolution" by investing in renewables. This institution recognizes that "power is no longer something that is exclusively produced by huge, centralised units owned by large utilities. By 2025, everybody will be able to produce and store power. And it will be green and cost competitive, i.e., not more expensive or even cheaper than buying power from utilities."⁷ Europe must plan for this future, and continue to reject the conservatism of incumbents who seek to protect outdated business models above all.

6. Different gas supplies must not mean *more* gas supplies

As long as gas supply diversification is undertaken within a vision of continuously decreasing consumption, it can be a relevant part of the Energy Union strategy and securing Europe's energy supplies. However, unless and until the European Commission clarifies how the EU can prevent such diversification from leading to greater absolute levels of energy imports, these propositions will remain part of the problem and not the solution.

European Gas demand has dropped by 9% in the last decade is expected to fall a further 11% by 2030 under the current 27% energy efficiency target.⁸ Despite this clear downward trajectory on gas, Member States have suggested €26 billion investment in gas and oil infrastructure through the Juncker Investment Plan.⁹ This plan has clearly not been climate-tested, and unless and until the Energy Union strategy clearly sets out how imports through existing supply routes could be curtailed, or new supply routes could be used at less than maximum capacity except in the event of supply disruptions elsewhere, the Union risks a massive lock-in of fossil fuel assets with clear social, environmental, and economic consequences. For WWF to have any confidence of the coherence between energy infrastructure plans and emissions reductions commitments EU policy makers need a credible plan for ensuring that Europe's overall fossil fuel import dependency does not increase, even as we get energy from different sources.

7. Investor confidence is not built on price signals alone

Rather than setting out a secure future for renewable energy and energy efficiency, the Energy Union strategy seems to expect that "investor confidence through price signals" will be sufficient. However, the EU ETS has failed to deliver the requisite stable price signal to date, and shows no signs of being able to do so in the near future. While carbon prices may

6 Current and Future Cost of Photovoltaics; Long-term Scenarios for Market Development, System Prices and LCOE of Utility-Scale PV Systems, Agora Energiewende, http://www.agora-energiewende.de/fileadmin/downloads/publikationen/Studien/PV_Cost_2050/AgoraEnergiewende_Current_and_Future_Cost_of_PV_Feb2015_web.pdf

7 The Guardian, 27th August 2014, Big power out, solar in: UBS urges investors to join renewables revolution, <http://www.theguardian.com/environment/2014/aug/27/ubs-investors-renewables-revolution>

8 E3G, Low-carbon demand and high-carbon risks in EU Investment Plan, <http://www.e3g.org/library/low-carbon-demand-and-high-carbon-risks-in-eu-investment-plan>

9 E3G, Low-carbon demand and high-carbon risks in EU Investment Plan, <http://www.e3g.org/library/low-carbon-demand-and-high-carbon-risks-in-eu-investment-plan>

work in theory, in practice a portfolio of deployment support tools is needed. The Energy Union vision should elaborate the basis on which Member States will deliver EU energy policy objectives that lack legally binding targets at national level.

While consensus in support of binding national renewable energy and energy efficiency targets in the 2030 climate and energy framework could not be found among Member States, The Energy Union must still ensure their delivery. A key report¹⁰ from Imperial College London makes clear that, while it may work in theoretic economic models, a carbon price alone is not enough to secure the delivery of renewable energy and energy efficiency in the real world. Firstly, an 'optimal' carbon price cannot be found because the impacts of climate change are difficult to properly quantify in financial terms. Secondly, even with a carbon price that favors renewables and efficiency, they continue to face higher financing costs because of uncertainties around wholesale power prices, carbon permit prices, and future political decisions on carbon tax levels. Instead, renewables investors get the confidence they need from targeted policies such as feed-in tariffs, which fix the price of the power they generate, thereby reducing risk, the cost of capital, and the cost to consumers. The Energy Union needs to reflect the reality of the scale of the challenge of transforming our energy system, and set out a convincing plan for the reliable delivery of energy efficiency and renewable energy.

8. 'World leader in Renewables' must be linked to deployment

President Juncker stated the goal of Europe being the world leader in renewable energy, but questions remain about what being a world leader means. The Energy Union strategy suggests that the Commission is focused on an EU that dominates the research and innovation of renewable energy - but much more clarity is needed on the EU taking a leading role in the actual deployment of such technologies.

The European Union is the world's largest single market with transparent rules and regulations and its 500 million consumers should be the first to benefit from the fruits of its inventors' labours and the support they receive. While the Energy Union's promotion of research and innovation is welcome, such dedicated 'market-push' policies need to be complimented by broader 'market-pull' technology deployment policies to ensure that economic benefits, particularly employment opportunities throughout the supply chain, are maximised. Europe cannot rest on its laurels when it comes to cleantech manufacturing. As the Energy Union strategy states, '[Europe] is still a leader in innovation and renewable energy, but other parts of the world are fast catching up and we have already lost ground when it comes to some clean, low carbon technologies.' Between 2008 and 2011, China overtook the EU as the number one cleantech manufacturing region in absolute terms, as China's sector grew by 30% while the EU's declined by 5%. As a result, China gained 1.7% of its GDP from cleantech, which the EU only gained 0.4% of its GDP from this important part

¹⁰ Imperial College London, On picking winners; The need for targeted support for renewable energy, ICEPT Working Paper, Centre for Energy Policy and Technology, October 2012, http://assets.wwf.org.uk/downloads/on_picking_winners_oct_2012.pdf

of the economy.¹¹ Maximising deployment within an Energy Union must be recognised as a central element of Europe's goal to lead the world in renewables.

9. The European Semester is not a good blueprint for the Energy Union

The Strategic Framework states that "there will be clear links between [the Energy Union] governance process and the European Semester...". While the paper also states that the two processes will be managed separately, any connection between the Semester and the Energy Union is very concerning, given the voluntary nature of the latter and subsequent inconsistency of its implementation. The Energy Union needs clear enforcement mechanisms to ensure that all Member States stay on a path to decarbonisation.

The very limited consideration of Governance within the Energy Union paper is of some concern, not least because the inappropriateness of the European Semester as a model for the Energy Union is clear. The implementation of the EU semester in national and EU institutions took four years. Even now, country specific recommendations (CSRs) are not being implemented at Member State level, with only about a quarter being taken up so far. Implementation is not universal either, with bigger Member States seeming to pay less attention to CSRs than their smaller neighbours. Most importantly in the context of the proposed Governance Framework for energy policies, the consequences of non-compliance with CSRs remain unclear. This lack of a clear legal obligation on Member States further reduces the onus on them to implement Semester recommendations. Instead, implementation of the CSRs depends on the uncertain effect of the desire of Member State governments wanting to avoid public blame for, and the potential economic consequences of, inaction. The divergent views of EU Member States means that the Energy Union would simply not progress under such a loose structure - greater enforceability is clearly needed.

10. The proposed 'Infrastructure Forum' should include civil society

The Energy Union strategy's proposal of an Infrastructure Forum to discuss progress on major infrastructure projects with Member States, regional cooperation groups and EU institutions is an interesting one. However, to be a tool which can contribute to the building of public support for the energy transition, it will need to include civil society representation from the start, i.e. its first meeting in late 2015.

It is well understood that a transition as large as that proposed for the EU energy system must be underpinned by broad public support. Too often, the energy transition is perceived as being imposed from above, creating social resistance generated from a lack of understanding and consultation. This new forum is an example of the kind of structures that can correct this failing by including civil society in the consideration of major infrastructure projects which will inevitably impact on communities. Harnessing public opinion in favour of the energy transition will be central to its success, and any effort to take the opportunity to involve citizens at every level of the process, such as the Infrastructure Forum, will be supported by WWF.

11 Roland Berger Strategy Consultants commissioned by WWF, Clean Economy, Living Planet – The Race to the Top of Global Clean Energy Technology Manufacturing, 2012, http://www.rolandberger.be/media/pdf/Roland_Berger_WWF_Clean_Economy_20120606.pdf

**Why we are here**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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EU Transparency Register Nr: 1414929419-24
Printed on recycled paper.

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