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Dear Sir

**Stock taking: Towards a new Energy Strategy for Europe 2011-2020.
Response from E3G**

Please find attached a response from E3G – a not-for-profit organisation committed to working in the public interest to accelerate the global transition to sustainable development.

Our main conclusions and recommendations are:

- The period to 2020 will be a crucial foundation stage for developing Europe's energy system to 2050. The longer-term 2050 perspective must be integral to the shorter term 2011-2020 strategy.
- The transition to a low-carbon energy system presents significant economic opportunity, for growth, jobs and new products and markets. Realising these opportunities should be a key objective of the strategy alongside the more narrow evaluation of costs.
- Energy is a system, not a single sector. Opportunities for efficiency gains and carbon reduction exist at all stages of energy consumption and use. Realising these opportunities will require a holistic approach utilising a package of measures, rather than a single 'silver bullet' solution.

This response can be made public and published on your website. We look forward to participating in further discussion.

Yours faithfully,

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Stock taking document

Towards a new Energy Strategy for Europe 2011-2020

Response from E3G

Introduction

E3G welcomes the opportunity to respond to the European Commission's 'Stock taking document: Towards a new Energy Strategy for Europe 2011-2020'. E3G is an independent, not-for-profit European organisation committed to working in the public interest to accelerate the global transition to sustainable development. Recent focuses for E3G's work include roadmaps for decarbonising the EU power sector; policies and incentives for accelerating low-carbon innovation and technology deployment; EU-China cooperation; climate security; and low-carbon finance.

As recognised in the Stock Taking Document, Europe's current energy strategy is based on the overall goals of ensuring safe, secure, sustainable and affordable energy for all. We do not argue here for a radical change to these objectives: the single energy market agenda and the comprehensive climate policy package that have been pursued across Europe over the last decade set the right basic framework going forward. However there is an emerging consensus among industry, governments and regulators on the need to strengthen the European approach to energy. We welcome the Commission's recognition of the need both for better implementation of the current European Energy Strategy and for a more effective policy framework going forward. In particular we welcome the renewed emphasis in the Stock Taking Document on completing the internal energy market, achieving energy savings and promoting low-carbon innovation.

This consultation response focuses on three core considerations that need to be taken into account to achieve these aims:

1. The period to 2020 will be a crucial foundation stage for developing Europe's energy system to 2050. The longer-term 2050 perspective must be integral to the shorter term 2011-2020 strategy.

2. The transition to a low-carbon energy system presents significant economic opportunity, for growth, jobs and new products and markets. Realising these opportunities should be a key objective of the strategy alongside the more narrow evaluation of costs.
3. Energy is a system, not than a single sector. Opportunities for efficiency gains and carbon reduction exist at all stages of energy consumption and use. Realising these opportunities will require a holistic approach utilising a package of measures, rather than a single 'silver bullet' solution.

Long-term perspective

The 2011-2020 Energy Strategy needs to establish the foundations for a low-carbon, secure and affordable energy system out to 2050. Modelling work demonstrates that in order to meet the EU's target of an 80-95% reduction in greenhouse gas emissions by 2050 a complete decarbonisation of the power sector is necessary¹. This is no small challenge. While a considerable range of cost-effective options exist for decarbonising the European power sector, achieving a low-carbon power system will critically depend on commercialising low-carbon technologies (both supply side and demand side), developing an interconnected and responsive power grid, and aggressive pursuit of energy efficiency gains. However, both physical infrastructure and stable regulatory frameworks take time to develop, and investors in low-carbon energy require clear and stable policy directions. **Success in 2050 means establishing a firm trajectory within the lifetime of the proposed Energy Strategy to 2020. This includes setting out a framework for developing medium-term renewables, energy efficiency and emissions targets to 2030.**

As the Stock Taking document recognises, low-carbon innovation will be crucial for meeting both economic and climate aims. Again, a longer-term perspective is crucial. While the main technologies that will power Europe's energy system in 2050 already exist, the mainstream energy technologies of the future need to be proven at a commercial scale within the timeframe of the Energy Strategy. Export of low-carbon technologies and related services also has the potential to form a key element of

¹ See www.roadmap2050.eu.

Europe's future economic growth. We note and welcome the progress so far with the SET-Plan and the aim set out in the Stock Taking document for 'leadership in technological innovation'. **However, we would like to see a clearer indication of the level of ambition on technological innovation, particularly on the financing and outcomes from SET-Plan activity.**

Given the long lead times required to develop and build electricity transmission grids, the core elements of an interconnected and efficient European electricity network (which enables a single electricity market and creates options for low-carbon generation) must be put in place at an early stage. We agree with the Commission's assessment that "there is a need for a more strategic, coherent, and better-targeted approach to energy infrastructure in the EU." Despite the creation of ENTSO-E and the drafting of the Ten Year Network Development Plan, no single body is sufficiently empowered to give a strategic long-term European-wide direction on the future of power networks. **The Energy Strategy to 2020 should consider financing for core power infrastructure links and also governance arrangements for the future of an interconnected European power network.**

A longer term perspective will help ensure that short-term energy decisions provide good value into the future. Given the long-lived nature of power sector assets, it is likely that energy infrastructure built in 2020 will still be operating in 2050. If Europe fails to establish the framework for a decarbonised power sector, it will either fail to meet the 2050 climate targets or be forced into costly early retirement of energy assets. **Appropriate mechanisms for discouraging investment in high-carbon energy infrastructure need to be considered, to avoid stranded assets or lock-in to high-carbon technology.**

Economic opportunity of low-carbon energy

The Stock Taking Document rightly focuses on the completion of the internal energy market as a priority for 2011-2020. We welcome this focus. Questions of design, however, are crucial. Properly implemented, a single market for electricity could both

lower the cost of decarbonisation and create the opportunity for new and innovative products and services and new market entrants.

Enabling this requires moving beyond a narrow focus on improving competition between established market actors towards not only creating space for new entrants but also facilitating new energy services and products. Market power issues are of key concern here. European competition rules and powers of engagement will need to be enhanced to drive and protect the internal market. Although there are many technological solutions available today to decarbonise and upgrade energy systems, they are held back by incumbent power companies who have yet to adapt their business plans to fully embrace clean power generation. **Therefore, it is vital to ensure that barriers to entry into the power generation and energy service provision market are removed to allow new companies to enter into this field.** This would enable a rapid pace to change but also maximize consumer benefits through better services, greater choice and more reflective prices.

Energy efficiency remains a key area of untapped economic potential. Existing policies to reduce energy demand and improve supply-side efficiency are manifestly failing to meet existing policy aspirations, let alone lay the foundations for the sustained ongoing improvements that are required. This policy failure is creating a direct economic cost, foregoing the opportunities to stimulate economic recovery through creating new markets and jobs, and increasing the extent of the decarbonisation challenge that consequently needs to be delivered through other means. **A comprehensive package of measures at both European Union (EU) and Member State levels is required to remove pervasive and persistent market barriers.** We are not convinced that the mainly voluntary approach set out in the Stock Taking Document will be sufficient to achieve this.

Enabling a dynamic and efficient single market will require not only harmonised market rules but also supportive infrastructure. A liberalised market that enables power generators to access electricity markets across the EU regardless of location will require a European supergrid involving a large increase in cross border transmission capacity. The supergrid is also fundamental to making best use of Europe's energy

resources and efficiently integrating the variable output from renewables. **We strongly support the focus on ‘modern integrated grids’ as one of the priority areas for the future Strategy.**

Just as interconnected grids are essential for making existing power markets more efficient, smart grids will be essential for opening up economic opportunities around electricity distribution. A particular priority should be sparking new markets and products in energy services, including energy efficiency and dynamic demand. Smart grids can have many different functionalities, however, and there is a risk that policy or technology design may freeze out new entrants and lead to barriers to such products emerging. **The Energy Strategy should set out a clear approach to supporting new products and markets in low-carbon energy services.**

A systems approach to energy

Energy systems require long-term unambiguous regulatory frameworks that induce deployment of low-carbon technologies as well as stimulating other technological or operational solutions. Achieving a low-carbon energy system is dependent upon a whole series of operational efficiencies from the conversion of fuels into energy to the efficient end-use of this energy. Therefore a holistic systems-based energy policy is required which places equal emphasis on all stages of energy conversion and use. This means that the current EU energy policy goals must be revised to so that they encompass the requirements of the energy system. The new objective should be **to deliver clean, secure and appropriate energy services.**

Achieving these opportunities will require an enabling regulatory framework to stimulate investment. To drive change, provide a better climate for investment and clean up Europe’s energy system, multiple policies and measures at the EU and national level will be needed. **The EU ETS should not be considered the only instrument to address energy system needs to 2020.** Current carbon price levels and future projections mean that the marginal cost price signal will not be sufficient to drive investment and set up the EU for rapid transformation. Furthermore, the ability to delay investment and spend urgently needed capital on offset credits

further undermines the effectiveness of the instrument as does its generic nature which covers large industry and aviation. **Bespoke additional regulatory measures which provide greater certainty to investors and new entrants are needed to drive transformative change in the power system.**

Finally, mechanisms for financing new energy infrastructures and technologies are important to realise low-carbon economic opportunities and will need to be addressed in the Energy Strategy. **We would like to see a greater recognition of the pan-European economic opportunity of low-carbon technologies addressed through the EU budget. In addition, there must be a greater link between the revenues generated from ETS auctions and direct investment in energy systems at EU-level or in a coordinated means among Member States.**