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Norwegian preliminary views on the development of a comprehensive, integrated Research, Innovation and Competitiveness Strategy for the Energy Union

1. Introduction

Reference is made to the Commission's consultation on the development of a comprehensive research, innovation and competitiveness strategy for the Energy Union, as the fifth pillar of the Energy Union Communication.

Norway welcomes the opportunity to express preliminary views on the development of a strategy that will help to achieve also the four first dimensions of the Energy Union; decarbonisation, energy efficiency, energy security and a fully integrated internal energy market. The strategy will set the framework for the last work programme of the energy part of the Horizon 2020 as well as for the next framework programme (post H2020).

This paper complements the response to the Commission's consultation questionnaire submitted by Energy21, a strategic energy research and innovation advisory body established by the Norwegian Ministry of Petroleum and Energy.

Based on the EEA Agreement, Norway is part of the internal energy market, although not directly part of the EU 2030 climate and energy framework. However, being one of the main suppliers of energy to the EU, we wish to be an active partner in the formulation of future climate and energy policies in Europe. In this respect, development of a comprehensive energy research, innovation and competitiveness strategy is key if we are to succeed in tackling the technical, economic and societal challenges that are facing our energy future. Norway very much likes to be part of the formation of this strategy.

Norway has on several occasions given its support to the Energy Union initiative, finding the comprehensive and broad approach suggested by the Commission to be most appropriate. We appreciate the strong emphasis on efficient energy markets, with adequate infrastructure and an effective legislative framework. These are preconditions for improving the security of supply and advance the transition to a low emission economy in Europe. However, a stronger focus on research and innovation is also essential to reduce costs and bring to the market innovative technologies needed to reach this goal and to meet the objectives of the Paris agreement. Research and innovation will stimulate investments, improve European competitiveness, and create growth and jobs.

2. Main message on an integrated energy research, innovation and competitiveness strategy

Europe is currently facing a range of challenges in the energy and transport sectors. These challenges require a response from research and innovation, and the EU strategy will have to address this. This includes technical, economic, societal, consumer oriented, and environmental and climate focused challenges. In addition to responding to these challenges, the emphasis of jobs and growth, competitiveness and strengthening of the industrial base and level of knowledge in the research society should be taken into account.

A strategy should focus on European Added Value through investment in research, demonstration and innovation in efficient and climate friendly energy technologies. It should be closely aligned with national strategies and activities, specifically through joint programming. The strategy must contribute to effective and efficient use of public funding, at both European and national level.

Research and innovation will have to be designed to facilitate basic research and applied research, giving the basis for, or leading to, practical commercial application. For the research, innovation and competitiveness strategy, we would stress the importance of a sufficient focus on research activities in the framework programme. Norway is concerned that industry driven initiatives may be at the expense of innovative and curiosity-driven research. There is a fine balance between the need for research and innovation and their focus toward the market. So far, in the energy part of Horizon 2020, approximately 50 % of the funding goes to demonstration projects. It is important that the industry is heavily involved in EU funded projects and that support is given also to projects demonstrating new technologies into a market. However, Norway would like to see a larger portion of the EU funding going to projects with lower TRL (RIA projects – research and innovation actions). So far, less than 26 % of the funding in the energy part of Horizon 2020 is used for RIA projects.

Having said that, it is important that the integrated Strategic Energy Technology Plan, together with the Strategic Transport Research and Innovation Agenda and the Global Technology and Innovation Leadership Initiative, form the basis of the energy research, innovation and competitiveness strategy. The SET Plan actions and the public-private initiatives derived from the SET Plan are important catalysts for industry participation and industry interests in the follow-up of the strategy. In the end, support for demonstration and introduction of new energy technologies into the market is vital to succeed with implementation and widespread use of the technologies.

The SET Plan has become an important part of the European innovation system. Norway actively supports efforts and objectives of the SET Plan and is heavily involved in a number of its activities. Norway shares most of the top priorities in the SET Plan. They are well in line with our national energy research and innovation strategy.

It is important to ensure that the research, innovation and competitiveness strategy for the Energy Union is targeted effectively at key technologies in line with the SET Plan. Priorities should include more energy efficient technologies, competitive low-carbon energy technologies, and technologies for smarter and more sustainable cities. It is our view that a broad range of technologies may contribute to a low emission economy, and it will be important to let these technologies compete in the market if we are to reduce emissions at the lowest cost. However, further measures are necessary to support low emission technologies that are immature.

As fossil fuels will continue to be used in Europe's power generation as well as in other industrial processes for decades to come, development and widespread implementation of CCS technologies is crucial and is needed to simultaneously meet the goals of increased energy security and reduced emissions in Europe. It is vital to establish demonstration projects to prove CCS technologies' viability and to contribute to reducing costs. CCS should therefore have a prominent role in the strategy to enable commercial development of CCS, both for the power sector and the industry.