

ROADMAP	
TITLE OF THE INITIATIVE	Communication on Energy Technologies in a future European Energy Policy
TYPE OF INITIATIVE	<input checked="" type="checkbox"/> CWP • Non-CWP • Implementing act/Delegated act
LEAD DG – RESPONSIBLE UNIT	DG ENER C2
EXPECTED DATE OF ADOPTION	Month/Year: 1 st quarter 2013
VERSION OF ROADMAP	No: 2 Last modification: Month/Year: October 2011

This indicative roadmap is provided for information purposes only and is subject to change. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content and structure.

A. Context, problem definition
<p>(i) What is the political context of the initiative?</p> <p>(ii) How does it relate to past and possible future initiatives, and to other EU policies?</p> <p>(iii) What ex-post analysis of the existing policy has been carried out and what results are relevant for this initiative?</p>
<p>i) The Communication aims to provide the energy technology policy perspective in follow-up to the Energy Roadmap 2050. Within the context of Horizon 2020 (the future EU-funding programme for research and innovation) a long-term vision on the financial and organisational framework for energy R&D priorities and the coordination across the various energy technology areas to be developed between 2014 and 2020 is needed</p> <p>The Strategic Energy Technology (SET)-Plan created the conditions to switch from a scattered, non strategic towards a more EU integrated planning approach including between EU and Member States for the development of low carbon technologies. As a result, industrial application projects have been prioritised and a collaborative work method was set up among the largest research energy centres in Europe. The SET Plan has become a key organisational and planning instrument in the development of low carbon technologies. However new impetus is needed for a truly effective energy technology policy in the EU.</p> <p>ii) The Communication will complement the Energy 2050 Roadmap and other initiatives like the Energy Infrastructure Package, Renewable Energy Strategy, Energy Efficiency legislation from a technology perspective. It will provide the framework for an EU energy technology policy which integrates and supports the EU energy, climate and innovation policies for the period after 2020.</p> <p>Based on the progress review of the implementation of the SET Plan and its technology roadmaps, it should analyse the potential, cost effectiveness and market penetration of various technologies, looking at their role in a future European energy policy up to 2050, including technologies for gas and for demand side management.</p> <p>iii). The SET-Plan includes an information and monitoring system (SETIS) which allows to constantly assess the progress of the SET-Plan. Meanwhile, all European Industrial Initiatives (EIIs) of the SET-Plan have been launched as well the programmes of the European Energy Research Alliance.</p>
<p>What are the main problems which this initiative will address?</p>
<p>Better and cheaper low carbon technologies need to be developed faster and to come to the market faster; to help reduce the cost to EU society for achieving our ambitious policy goals after 2020 and up to 2050.</p> <p>There is the need to develop a comprehensive vision for the role of the various energy technologies in the future energy supply and to assess the technologies relevant for energy distribution and consumption.</p> <p>The current picture of fragmentation and duplication of research and technology efforts is not efficient. Following on SET Plan implementation, efforts to build voluntary joint action between EU and Member States have been made but the results are not very encouraging. The very real risk for the EU is that in spite of very strong EU and national support policies and favourable financial schemes European low carbon industry will be sidelined by our global competitors in longer term. The consequences for EU growth and jobs could be severe.</p>
<p>Who will be affected by it?</p>

Energy technology equipment suppliers, energy providers, TSOs and DSOs, construction sector, urban and spatial planning.
(i) Is EU action justified on grounds of subsidiarity? (ii) Why can Member States not achieve the objectives of the proposed action sufficiently by themselves? (Necessity Test) (iii) Can the EU achieve the objectives better? (Test of EU Value Added)
i. Action to tackle climate change, security of supply, delivery of cost effective European low carbon technologies preserve the EU competitiveness in low carbon technological development. Moreover, the underlying objective of decarbonising the economy is a European issue and technology development typically happens at European scale. ii. A sub-optimal investment in low carbon technologies, limited competition, a fragmented national regulatory framework for new infrastructural development, and the inherent inertia of the energy infrastructure. Given the complexity and level of effort required individual Member States do not have the capacity to bring about the required change. Significant EU level synergies exist with regards to the co-ordination of the various support schemes and the consolidation of the currently fragmented market. iii) Only EU action and coordination will ensure the necessary cooperation and cohesion to ensure climate and energy policy goals are reached.

B. Objectives of the initiative

What are the main policy objectives?

The Communication will
<ul style="list-style-type: none"> • Identify the options for the role of energy technologies for achieving decarbonisation according to the energy 2050 vision • Develop a fully comprehensive approach complementing the Energy 2050 Roadmap to foster energy technologies development (supply and demand management) by enhancing: <ul style="list-style-type: none"> ○ market push framework by identifying solutions to bridge innovation gap in terms of sectors, governance (EU, MS, industry), and funding (Horizon 2020, regional funds etc.) based on the review and assessment of the implementation of the SET Plan ○ market pull framework - options for structural changes in the innovation chain (creating markets): eg. business models, involvement and role of various stakeholders, integration of energy supply and demand systems • Strengthen the synergies between MS and EC in the energy policy making by promoting the convergence and the cooperation between national and EU innovation programmes . (e.g. improve reporting on ongoing or future projects and programmes, strengthen European Commission and Member States research and innovation programmes)

Do the objectives imply developing EU policy in new areas?

No

C. Options

(i) What are the policy options being considered? (ii) What legislative or 'soft law' instruments could be considered? (iii) How do the options respect the proportionality principle?
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Option1 business as usual and do nothing. Continue to finance projects or programmes at EU and national level according to technology roadmaps using a bottom –up and a voluntary base. Option 2 Development of a comprehensive energy technology policy addressing policy options to overcome bottlenecks in the innovation chain, proposing a cost effective mix of various technologies and developing the appropriate setting for a sound technology component of the energy policy up to 2050. Option 3 Development of a sector by sector approach with the risk of sub optimisation.
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D. Initial assessment of impacts

What are the benefits and costs of each of the policy options?

<p>Option 1 would leave the process to subsidiarity, but would create a high risk of insufficient technological progress to achieve cost effective decarbonisation,</p> <p>Option 2 would require strong EU coordination in terms of technological choice, but could lead to effective and efficient achievement of decarbonisation and could involve consumers more strongly,</p> <p>Option 3 would require less coordination across technologies and Member States, but may not achieve an overall optimal result.</p>
<p>Could any or all of the options have significant impacts on (i) simplification, (ii) administrative burden and (iii) on relations with other countries, (iv) implementation arrangements? And (v) could any be difficult to transpose for certain Member States?</p>
<p>Options under consideration for this policy communication would not have significant impacts on any of the points above.</p>
<p>(i) Will an IA be carried out for this initiative and/or possible follow-up initiatives? (ii) When will the IA work start? (iii) When will you set up the IA Steering Group and how often will it meet? (iv) What DGs will be invited?</p>
<p>[...] No, as the Communication would propose neither new legislation nor have budgetary implications.</p>
<p>(i) Is any of options likely to have impacts on the EU budget above €5m? (ii) If so, will this IA serve also as an ex-ante evaluation, as required by the Financial regulation? If not, provide information about the timing of the ex-ante evaluation.</p>
<p>No.</p>

E. Evidence base, planning of further work and consultation
<p>(i) What information and data are already available? Will existing impact assessment and evaluation work be used? (ii) What further information needs to be gathered, how will this be done (e.g. internally or by an external contractor), and by when? (iii) What is the timing for the procurement process & the contract for any external contracts that you are planning (e.g. for analytical studies, information gathering, etc.)? (iv) Is any particular communication or information activity foreseen? If so, what, and by when?</p>
<p>(i) Latest versions of Technology Map (state of the art of technologies and prospects up to 2030) and Capacity Map (information on R&D investments in selected low carbon technologies by public and private sectors in EU) issued by the Joint Research Centre in 2011 as well as the set-up of a Monitoring System for all European Industrial Initiatives. (ii) There is still the need to develop of the methodology and to review the progress of the SET Plan implementation. Furthermore based on existing information to provide a sound assessment of market potential of low carbon technologies by 2050. (iii) Important parts of the work would be carried out by JRC during 2012. (iv) not yet.</p>
<p>Which stakeholders & experts have been or will be consulted, how, and at what stage?</p>
<p>Through the European Industrial Initiative of the SET-Plan and the various Technology Platforms, there would be consultation of the main stakeholders concerned by this initiative.</p>