# Renewable Energy Strategy

## IDENTIFICATION

1. Please enter your name and, where relevant, the name of the organisation you represent. Please include also an e-mail address for contact purposes for use only if we need clarification about your responses.

Gunnar Boye Olesen on behalf of International Network for Sustainable Energy - Europe

2. Are you responding to this questionnaire on behalf of /as:

   NGO

2.1. Is your organisation registered to the "Register of Interest representatives"?

   Yes

3. Please indicate your country

   European organisation

4. How would you prefer your contribution to be published on the Commission website, if at all?

   Under the name indicated (I consent to publication of all information in my contribution and I declare that none of it is under copyright restrictions that prevent publication)

## A. GENERAL POLICY APPROACH

A.1. Is there a role for new targets for renewable energy sources post-2020 assuming that any targets must be consistent with climate mitigation and energy efficiency policies and targets as is currently the case with the 20/20/20 targets in the Europe 2020 strategy?

   Yes, a mandatory target at EU level is appropriate

A.1.1. Please explain the reasons for your answer (such as the scope and contribution from GHG targets/ETS, the need to address other environmental, security of supply or technological development benefits)

   The experience from the RE-target of 20% for 2020 is good, and in our opinion a better and more successfully than with the renewable electricity target for 2010 that missed the other sectors or with the renewable in transport targets for 2010 and 2020 that do not give the countries the flexibility to choose the most sustainable development. Non-binding targets, as the target for co-generation, have shown the weakness of the approach of non-legally binding targets.

A.2. Are other policy elements necessary to promote renewable energy post-2020, such as:

   Abolition of support mechanism or subsidies to other energy sources
   Better financing possibilities
   Continue to ensure sustainability and scalability
   Other (please specify)

Please specify which other policy elements?

After 2020 the large share of renewable energy will require continued public support which is best realised with public participation in the expansion of renewable energy, e.g. with broad ownership and with public participation in planning. Also integration of large shares of renewable energy will require substantial attention after 2020.

## B. FINANCIAL SUPPORT

B.1. Do you consider that financial support will continue to be necessary to support renewables post 2020 given their expected greater penetration?

   For selected technologies/circumstances/markets (please specify)

Please specify which technologies/circumstances/markets

Emerging technologies will still need direct support, such as wave power. Expensive technologies such as solar PV will probably also need support mechanism post 2020, but with the rapid decrease of PV prices in recent years, it might not be the case for PV anymore by 2020. For other technologies (such as biomass, windpower, solar heating), a fair treatment is important including integration of environmental costs in prices. There might be need for additional support for integration into grids. The basis for this answer is that there is a fair pricing of energy where the external cost of fossil fuel and nuclear energy is included in the price. Currently this is held back a number of factors, including in some countries the significant lobby of the fossil fuel and nuclear sectors.

B.2. If renewable energy sources require support post-2020, how do you think this can best be achieved with a view to achieving a cost-effective deployment?

   Phase out support schemes over time (please specify for which technologies if applicable)
Please specify for which technologies (if applicable) to phase out support schemes over time

With integration of environmental costs into energy costs and increasing fossil fuel prices, the need for support for renewable energy will diminish. It will not disappear until 2020 as some renewable technologies will not have reached market prices by then, because of geographical differences (e.g. solar have higher yields in Southern Europe than in Northern Europe, but we should still promote solar in Northern Europe), and because EU countries are not all likely to integrate environmental costs in ways that facilitate investments in renewable energy (EU-ETS is a good example of a scheme that does not support renewable energy because of fluctuating and low prices for emissions).

B.3. Do you think it would be useful to develop common approaches as regards Member States’ financial support for renewables? Yes, with benchmark values for support level per technology per Member State

B.4. Should the structure of financial support be gradually aligned EU-wide? No

B.5. With regard to questions B.3. and B.4. please specify if you see a difference between the different sectors (electricity, heating and cooling, transport).

Transport is different as the most energy efficient way of changing transport to electricity is via electricity and bicycling. This is partly reflected in the EU transport white paper from 2011, where phase-out of traditional cars until 2050 is proposed for cities. Support mechanisms for renewable energy in transport should then in practice be support for conversions away from combustion engines in transport, in which case benchmarking of support levels might not be meaningful.

B.6. How do you see the relation between support schemes for renewable energy and the requirements of the internal electricity market for the period after 2020 against the background of a rising share of renewables? Member States need to be able to continue to operate support schemes on a national level and retain control over who benefits from national schemes.

B.7. Do national support schemes and differences between such schemes distort competition? Yes, all support schemes distort competition to a similar extent

C. ADMINISTRATIVE PROCEDURES

C.1. Which of the following issues relating to administrative procedures, information and training do you consider acting as a serious impediment to further growth of renewables following Member States’ implementation of the provisions of the Directive?

Length and complexity of administrative procedures relating to authorisation/certification/licensing
Lack of information on support schemes or other
Lack of credible and certified training and qualification

C.1.1. Please provide explanations and specific examples where available

In some EU countries small renewable energy plants are faced with same procedures as large power plants, this holds back the development. There is a general lack of credible, independent information for small investors (households and SMEs) that can benefit from small renewables installed locally (solar, heat pumps, small biomass) In many EU-countries the available training courses are too few to cover the raising demand for qualified installers etc. Other: In some EU countries is a lack of funding, not the least for public buildings and common solutions with district heating.

C.2. Which policy response to the problems identified above do you consider appropriate?

Strengthen rules to intrude more directly into Member States procedures in terms of roles of different actors (e.g. one-stop-shop), maximum time-frame or other

D. GRID INTEGRATION OF ELECTRICITY FROM RENEWABLE ENERGY SOURCES

D.1. Do you consider that any of the following national rules and framework conditions will still create obstacles to renewable energy production after 2020?

Grid connection rules
Cost-sharing rules
Balancing rules
Curtailment regime

D.1.1. Please specify which obstacles and the nature and degree of them for each

D.2. Which renewables-specific grid related rules do you consider necessary and proportionate in a post-2020 perspective?

Obligation for network operator to develop network
Priority or guaranteed access
Priority dispatch and obligation on TSO to counteract curtailment

D.2.1. Please explain why

Increase flexible back-up capacity (capacity payments ...)


D.3. With regard to system integration of wind and solar power, what measures do you consider most important to increase the flexibility reserve of the system:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerate infrastructure development and interconnection</td>
<td></td>
</tr>
<tr>
<td>Increased availability of storage</td>
<td></td>
</tr>
</tbody>
</table>

E. MARKET INTEGRATION

E.1. In which of the following ways could renewable energy be made responsive to market signals?

<table>
<thead>
<tr>
<th>Response</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balancing risk - producers of renewable energy should bear balancing responsibility towards TSOs (if so, please specify how: responsibility on individual operator or centrally organised, same balancing rules for all operators or specific rules for variable generation?)</td>
<td>TSOs should have the right to curtail production when necessary for balancing purposes and with respect for the priority access of renewable energy over non-renewable supply. This right should be exercised for medium and larger renewable energy producers, e.g. above 1 MW.</td>
</tr>
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E.2. How can it be ensured that market arrangements reward flexibility?

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Dedicated arrangements to reward availability of generation capacity</td>
<td></td>
</tr>
<tr>
<td>Develop demand response to market signals (please specify, e.g. smart grids, smart meters, demand aggregation, interruptible demand)</td>
<td></td>
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</table>

E.3. In how far do you think today's market design needs to be adapted to provide an appropriate framework for renewables

<table>
<thead>
<tr>
<th>Adaptation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale markets would have to move to reflecting full costs</td>
<td></td>
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F. RENEWABLES IN HEATING AND COOLING

F.1. What do you consider to be the main barriers against a stronger uptake of renewable energy in the heating and cooling market beyond 2020?

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs/lack of financial support</td>
<td></td>
</tr>
<tr>
<td>Lack of awareness</td>
<td></td>
</tr>
<tr>
<td>Lack of public support</td>
<td></td>
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<tr>
<td>Lack of capacity (installers, other)</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
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</tbody>
</table>

Please specify which other barriers

In some parts of EU funding is a key problem, even when the installations are cost-effective when they get appropriate funding.

F.2. What pathways do you consider to be the most promising for further increasing the share of renewable energy in heating and cooling beyond 2020?

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Biomass</td>
<td></td>
</tr>
<tr>
<td>Geothermal</td>
<td></td>
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<tr>
<td>Solar thermal</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
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</tbody>
</table>

Please specify which other pathways

Heat pumps using mainly renewable electricity (with heat storage capacity they can consume most when there is a higher share of renewables in the electricity mix)

F.3. How do you see the interaction of promoting further use of renewable energy in heating and cooling and enhancing energy efficiency in this sector?

The renewable energy supply must be subject to energy efficiency requirements via building regulation, Ecodesign regulation, green public procurement etc. As heat demand goes down with heat efficiency, more care should be taken to avoid over-sizing. Low-temperature heat supply should be supported, in particular to increase the yield of heat pump systems.

G. RENEWABLES IN TRANSPORT

G.1. What do you consider to be the main barriers against a stronger uptake of renewable energy in transport?

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td></td>
</tr>
<tr>
<td>Pace of technology development</td>
<td></td>
</tr>
<tr>
<td>Lack of infrastructure</td>
<td></td>
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<tr>
<td>Lack of awareness</td>
<td></td>
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<tr>
<td>Lack of suitable information</td>
<td></td>
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<tr>
<td>Other (please specify)</td>
<td></td>
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</table>

Please specify which other barriers

Overemphasis on road transport that is harder to change to renewable energy than train transport with electric
trains. For energy efficiency and renewable energy rail-based transport is the optimal with trains for long-distance transport and trams for city transport.

### G.2. What sectors of transport do you consider to be the most promising for further increasing the share of renewable energy?

| Rail | Water |

### G.2.1. Please explain your answer

Railways can use electricity with high efficiency without need for batteries. This is the most efficient and environmentally benign way of changing transport to renewable energy, except for bi-cycling. Ships are actually also a promising user of renewable energy with supporting sails, onboard PV, and capacity to carry batteries and hydrogen with stored renewable energy.

### H. SUSTAINABILITY

| H.1. Do you think that additional sustainability criteria are necessary in the post 2020 period? |
| Yes, sustainability criteria should apply to both all biomass and fossil fuels. Yes, additional criteria should be introduced to promote only the best performing biomass (please specify which). |

Please specify which criteria

Biomass should not be imported to the EU from countries that has problems with deforestation and land degradation as the biomass produced in these countries should first meet the needs of these countries to avoid their unsustainable practices. Biomass use should have considerably lower life-cycle greenhouse gas emissions than fossil fuel use, not more than 1/3 of the average fossil fuel use it replaces. Biomass use should not lead to reduction of biodiversity on national levels. Additional criteria are necessary in countries with special conditions, e.g. countries with low biodiversity. Biomass production should not threaten food production for national food supply.

### I. REGIONAL AND INTERNATIONAL DIMENSIONS

| I.1. Do you consider current rules for cooperation between Member States sufficient to fulfil their purpose, i.e. realisation of cost-efficient renewable potential in the EU? |
| N/A |

| I.2. Do you think the EU should further facilitate cooperation with third countries when it comes to the development of the potential for renewable energy? |
| Yes, cooperation with third countries should be further promoted (please specify how and with whom, i.e. only neighbouring countries or more widely). |

Please specify how and with whom, i.e. only neighbouring countries or more widely

Transition to renewable energy has two main objectives on reducing global warming and increasing security of supply, both of which are global issues. Therefore EU in its cooperation with and support for other countries should promote renewable energy in these countries, mainly to replace their own fossil fuel use.

| I.3. Should investments in electricity networks in some Member States (i.e. Spain, Greece, Italy) be prioritized for this purpose? |
| No (explain why). |

Please explain why

Import of electricity from Africa is not a necessity to cover EU with renewable energy, and there is no need to favour it over other, more local, and probably cheaper solutions. Large-scale energy imports from Africa through centralised power lines will also reduce security of supply.

| I.4. Which measures do you consider appropriate and necessary in order to foster cooperation with third countries in this area? |
| Agreements between the EU and third countries |

| I.5. In its Communication on security of supply and energy cooperation - "The EU Energy Policy: Engaging with Partners beyond our Borders", the European Commission proposes to promote cooperation on renewable energy projects with the Southern Mediterranean countries and to gradually build a renewed EU-Mediterranean energy partnership focus on electricity and renewable energy. How do you consider this should relate with the EU internal renewables policy? What should be the priorities? |
| It could use the experiences from the EU: assisting the countries to increase use of renewable energy with targets and measures as is done in the renewable energy directive. In addition focus should be on renewable energy solutions that can reduce poverty in these countries caused by the increasing fossil fuel prices. For developing countries must also be focus on basic supply with renewable energy to those that lack this today. What should be prioritized: Cooperation on support policies for renewable energy, demonstration of renewable energy, training and capacity building. |
I.6. The possibility to explore regional cooperation and a coordinated, more strategic approach to grid connection for the rapidly growing volume of offshore wind generation in the North Sea is currently being explored in the framework of the North Sea Countries Offshore Grid Initiative (NSCOGI). Do you think such cooperation should be further fostered? What benefits do you think could arise from it? Do you consider that this experience could be generalised and applied elsewhere?

While the plans seems to have over-emphasized on off-shore electric networks, the ideas are definitely important for expansion of off-shore windpower.

J. TECHNOLOGY DEVELOPMENT

J.1. For a first set of renewable technologies, namely wind, solar, bio-energy, the SET Plan aims at a cost-competitive market roll out of renewable energy by 2020. It also aims at enabling integration of renewable energy into the electricity grid and smart cities and communities. In your view, what would be the remaining key challenges of these technologies to be addressed by research and innovation in view of the 2050 objectives?

Technology performance and cost-competitiveness
System integration

J.2. Which additional measures and/or instruments should be developed to address these technologies and their remaining challenges and to ensure that the EU innovation fabric is geared to supporting the significant deployment up to 2050?

Biomass technologies can be developed much more to increase efficiency, reduce environmental effects, and increase uses other than heating (CHP, industrial processes). Solar heating need better development of system integration including seasonal storages.

J.3. In your point of view, which technologies other than those covered by the current industrial initiatives should be given priority in the post-2020 perspective? Please justify with reference to the criteria mentioned above, i.e. large-scale availability and willingness of industry to engage in public private partnerships?

Geothermal energy that has an important potential in many EU countries. Wave power also has an important potential in several EU countries

J.4. How successful do you consider the existing measures have been and which have been the main drawbacks?

Successful but some drawbacks (please specify which)

Please specify which drawbacks

Intelligent Energy for Europe and EU research programs (FP7 and earlier) have been important to promote renewable energy in cross-border cooperation among EU countries, but the priorities have left some solutions out and have focused too much on large-scale solutions.

J.5. Do you consider that assistance in technology development should be linked to a certain result to be achieved by a certain deadline?

In general yes, but as technologies are different, it is a problem to have too strict rules on this applied universally.

Meta Informations

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