



Atlantic Arc Commission

Background note on Blue Energies in Europe

I - Current context for renewable energies in Europe

a) "20-20-20" objectives for the EU

A series of measures were agreed by the EU in 2008 in the climate and energy package, to implement the "20-20-20" targets. These targets aim to transform Europe into a highly energy-efficient, low carbon economy. The package is expected to reduce the EU's dependency on imported fuels but also to ensure that European businesses are at the forefront of the future's green technologies. The Union has set itself three targets to be attained by 2020: reducing greenhouse gas emissions by 20%, increasing the share of renewable energies by 20% and improving energy efficiency by 20%. The objectives were then included in the Europe 2020 Strategy.

b) 2020 and 2030 objectives for renewable energies

The European Commission presented on January 22 2014 the new objectives framework for 2030. Based on the "20-20-20" objectives of the Europe 2020 Strategy, these new objectives aim to reach a low-carbon and competitive economy for the 2050 horizon. This framework expects to reduce greenhouse gas emissions by 40% compared to 1990 levels, a binding objective for the EU to increase by 27% de share of renewable energies. Member states will gain flexibility in the implementation of measures to reach these objectives. The framework also provides a series of new measures to guarantee a competitive and secure energy system. The framework should be discussed at the European summit and at the European Parliament on the 20 and 21 of March. The realization of the objective concerning renewable would guaranteed by a new system of governance based on national energy plans. A certain number of measuring indicators would be used to implement adapted energy policies.

	2012-2014	Objectives 2020	Proposed objectives 2030
Greenhouse gas emissions	-18%	-20%	-40%
Share of renewable energies	+13%	+20%	+27%
Energy efficiency	-	+20	To be determined

II - Specific objectives of Blue energy (i.e. Marine Renewables)

Our seas and oceans have the potential to become important sources of clean energy. Marine renewable energy, which includes both offshore wind and ocean energy, presents the EU with an opportunity to generate economic growth and jobs, enhance the security of its energy supply and boost competitiveness through technological innovation. The ocean energy resource available globally exceeds our present and projected future energy needs. In the EU, the highest potential for the development of ocean energy is on the Atlantic seaboard. The ocean energy sector can become an important part of the **blue economy**, fuelling economic growth in coastal regions, as well as inland. Pan-European **supply chains** could develop as the industry expands involving both innovative SMEs and larger manufacturing companies in shipbuilding, mechanical, electrical and maritime engineering but also environmental impact assessment or health and safety management. Ocean energy also has the potential to create **new, high-quality jobs** in project development, component manufacturing and operations. From 10,500-26,500 permanent jobs and up to 14,000 temporary jobs could be created by 2035.

III - Proposed actions in the Communication for marine renewable energies

In the Communication, the Commission announces that a “Forum” on ocean energy will be set up, bringing together interested stakeholders in order to build capacities and foster cooperation. This Forum will result in a “roadmap” setting out clear targets for the industrial development of the sector as well as a timeframe for their achievement. As of 2017 in the second phase, a **European industrial initiative** could be launched on the basis of the outcomes of the Forum. Beyond this, **specific guidelines** will be prepared to facilitate the implementation of the Habitats and Birds Directives and Article 13 of the Renewable Energy Directive as well as to assist with maritime spatial planning processes.

1. Ocean Energy Forum (2014-2016)

An ocean Energy Forum will be set up, bringing together stakeholders in a series of workshops in order to develop a shared understanding of the problems at hand and to collectively devise workable solutions. The forum will also explore the synergies with other marine industries, particularly offshore wind, in matters relating to supply chains, grid connection, operations and maintenance, logistics and spatial planning. The forum will be organised into three workstreams coordinated in part by the Commission:

a) **Technology and Resource Workstream**

This workstream will include a detailed assessment of ocean energy resources and offshore infrastructures such as ports and vessels, as improvements in these areas would help to optimise the management of ocean energy devices and thus trigger corresponding cost reductions. The industry would have the opportunity to voice its needs on issues such as its research and development needs.

b) **Administrative Issues and Finance Workstream**

The aim of this workstream will be to examine the administrative procedures relevant to ocean energy installations in Member States and the effects that ocean energy installations may have on shipping. The funding opportunities available within EU research and innovation programmes such as Horizon 2020, the NER300 programme and the European Investment Bank's renewable energy funding programme will be specifically highlighted.

c) **Environment Workstream**

This workstream will encourage collaborative working on the monitoring of the environmental impacts of existing and planned installations and on innovative ways of mitigating the impact of ocean energy on the marine environment.

2. Ocean Energy Strategic Roadmap (end 2016)

Based on the outcomes of the Ocean Energy Forum, a Strategic Roadmap will be developed setting out clear targets for the industrial development of the sector as well as a timeframe for their achievement. This roadmap will be elaborated jointly by industry, Member States, interested regional authorities, NGOs and other relevant stakeholders through a structured and participative process, as outlined above.

3. European Industrial Initiative (2017 onwards)

A European Industrial Initiative (i.e. public-private partnerships that bring together industry, researchers, Member States and the Commission) could be developed based on the outcomes of the Ocean Energy Forum. Building large-scale public-private partnerships could be an effective means of sharing risk and leveraging private investment. It would help cooperation between stakeholders, facilitate access to finance and implement the Strategic Roadmap.

4. Sector-specific guidelines for the implementation of relevant legislation

The aim of these guidelines will be to reduce uncertainty through the provision of clearer and more specific guidance for the licensing of relevant projects and thus ease the burden faced by public authorities and project developers.

Referenced documents

Blue Energy Action needed to deliver on the potential of ocean energy in European seas and oceans by 2020 and beyond - Brussels, 20.1.2014 COM(2014) 8 final - <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2014:0008:FIN:EN:PDF>

Blue Growth opportunities for marine and maritime sustainable growth - Brussels, 13.9.2012 - COM(2012) 494 final - <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0494:FIN:EN:PDF>

A policy framework for climate and energy in the period from 2020 to 2030 - Brussels, 22.1.2014 - COM(2014) 15 final - http://ec.europa.eu/energy/doc/2030/com_2014_15_en.pdf