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**Key facts and figures on the external dimension of the EU energy policy**

*Accompanying document to the*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**On security of energy supply and international cooperation - "The EU Energy Policy:  
Engaging with Partners beyond Our Borders"**

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The EU energy policy has developed around a common objective of ensuring safe, secure, affordable and sustainable energy supplies for its economy and citizens. Delivering on this objective will require development of an integrated internal energy market, ensuring adequate infrastructure investments, realising substantial energy savings, and fostering clean technology innovation and deployment. None of these policy priorities can be pursued without taking into account major evolutions on the energy scene beyond the EU borders. The external challenges need to be appropriately considered in the EU energy policy and response to them has to be an integral part of the EU action.

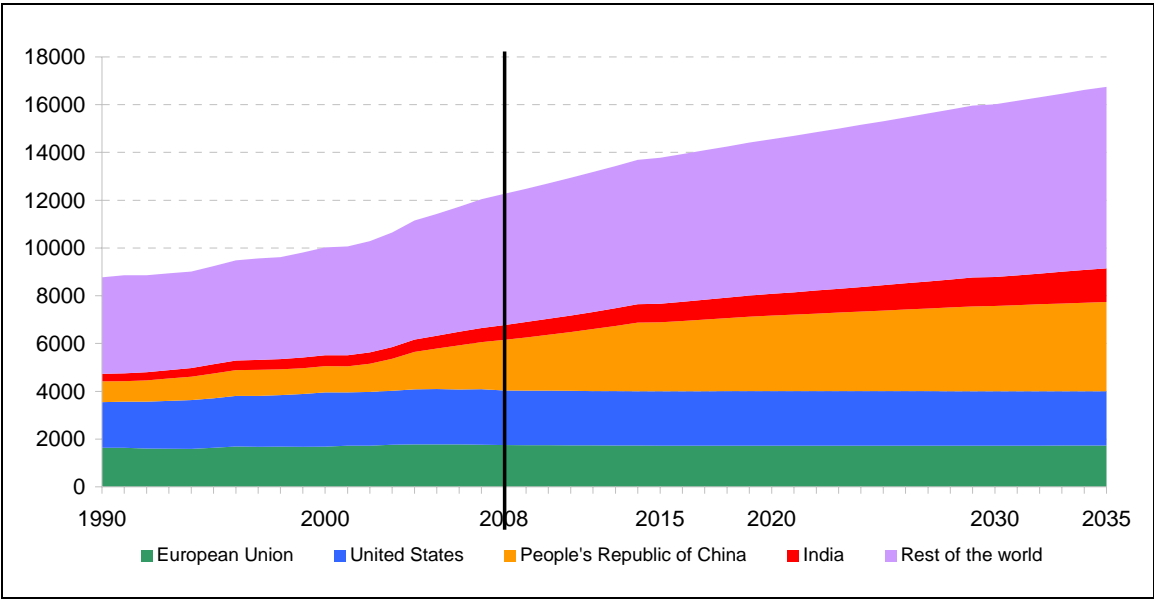
The aim of this document is to outline the main factors with relevance to the external dimension of the EU energy policy and to provide background information to priorities outlined in the Communication on security of energy supply and international cooperation - "The EU Energy Policy: Engaging with Partners beyond Our Borders."

**1. THE EU IN THE GLOBAL ENERGY MARKET**

**1.1. The growth in global energy demand**

Global energy markets are undergoing a significant transformation. While in the past decades the OECD countries accounted for the majority of the world's energy consumption, in recent years the growth in demand is increasingly driven by the emerging economies, in particular China and India.

**Primary energy demand by region (Mtoe)**



Source: IEA World Energy Outlook, 2010

The EU energy consumption is expected to level out. Overall world energy demand, however, is projected to increase by more than a third between 2008 and 2035, nearly doubling in China and India due to the expected population and economic growth.

High growth rates are also likely in the Middle East and the Caspian regions, where the demand is expected to increase by 70% and 50% respectively between 2008 and 2035.

## 1.2. Security of supply dimension

The EU will increasingly compete with other importing countries and regions for energy supplies, given that its own domestic energy production is on the decline. With more than half of the energy consumed in the EU coming from third countries, the EU is already the world's largest energy importer.

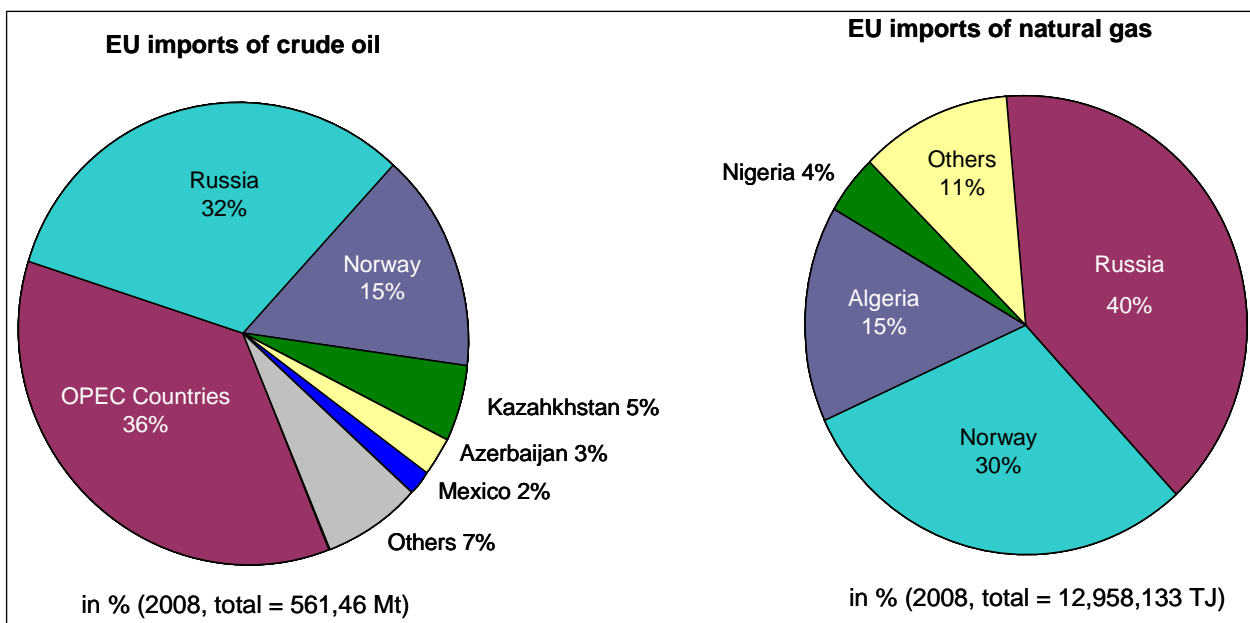
Top energy importing countries and regions, 2008

Country	Exports (ktoe)	Imports (ktoe)	Net imports (ktoe)
<b>EU27</b>	-482,554	1,495,097	1,012,543
<b>United States</b>	-167,141	798,737	631,596
<b>Japan</b>	-20,204	435,899	415,695
<b>China</b>	-67,930	278,355	210,425
<b>Korea, Republic of</b>	-44,656	238,639	193,983
<b>India</b>	-40,070	197,958	157,888

Source: International Energy Agency

Today, the EU imports more than 80% of the oil and more than 60% of the gas it consumes. If the current trends continue, import levels will reach more than 70% of the EU overall energy needs by 2030.

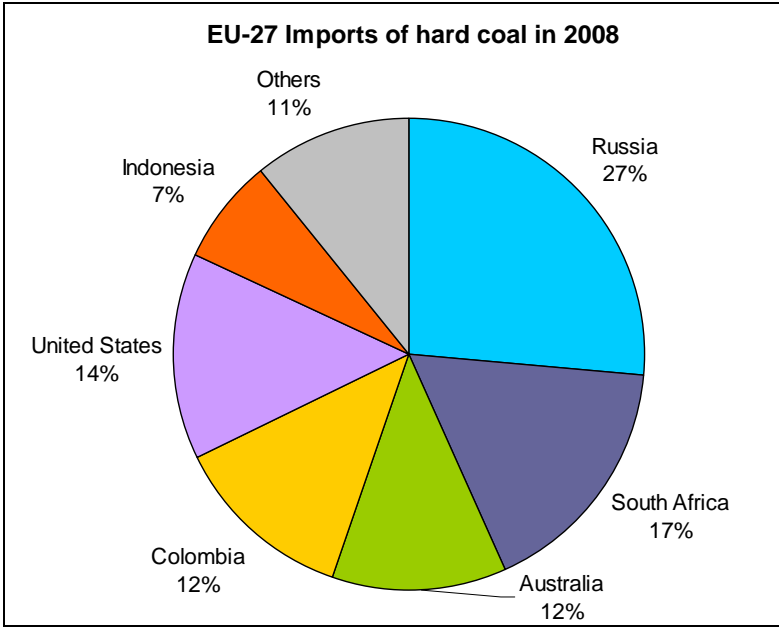
The EU's geographical location puts it in close proximity of a number of energy-producing regions as well as at the intersection of important supply routes. Countries in the EU's neighbourhood already account for the majority of EU's imports in oil and gas. Russia, Norway and Algeria represent together 85% of the EU natural gas imports and almost 50% of the crude oil imports.



Source: Eurostat

The EU is also a major importer of natural uranium as its indigenous production, based in the Czech Republic and Romania,<sup>1</sup> covers only slightly more than 3% of the EU's needs. In 2010, supplies from Russia, Kazakhstan, Canada and Australia represented two thirds of the EU's needs, complemented by deliveries from Niger, South Africa, Namibia and other origins as well as by use of highly enriched uranium for blending.

Indigenous production accounts for approximately 60% of the EU coal consumption. EU's major coal suppliers are located further away from Europe, with exception of Russia that is the EU's largest supplier of coal.



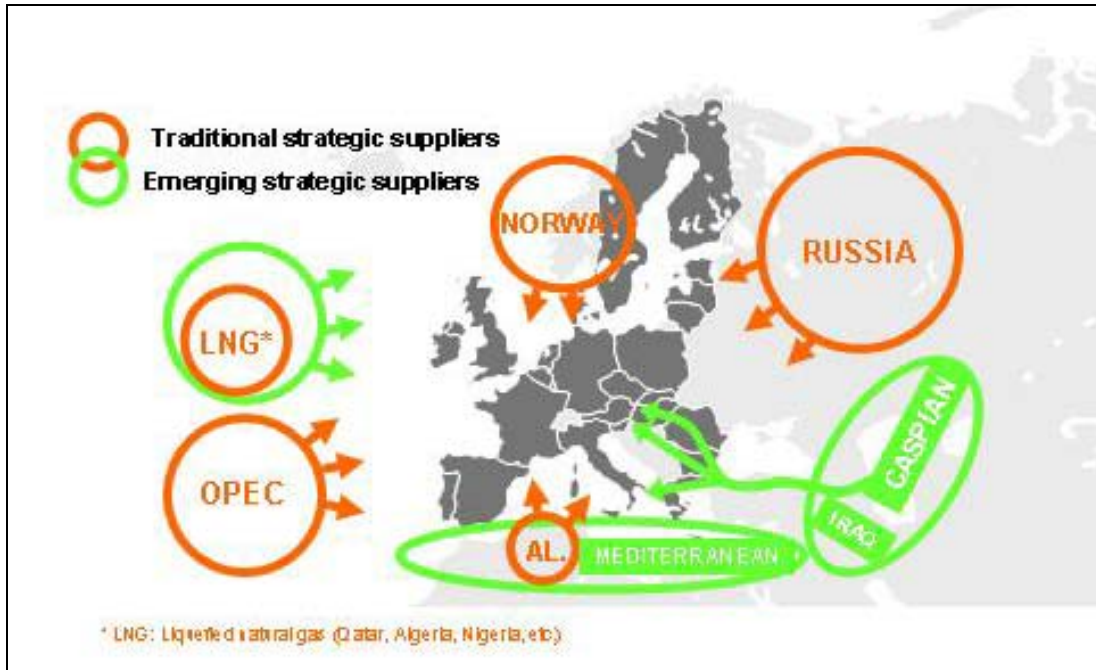
Source: Eurostat

The EU has already experienced a number of energy supply disruptions and its vulnerability is likely to continue rising in a context of more challenging international political environment, and difficult investment conditions and access to upstream resources in producing countries.

Given its reliance on imported energy and few suppliers, the EU should continue addressing risks related to unexpected price fluctuations on the global energy markets stemming from imperfect competition and other market or regulatory failures.

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<sup>1</sup> A new uranium mine is currently in the process to be developed in Finland.



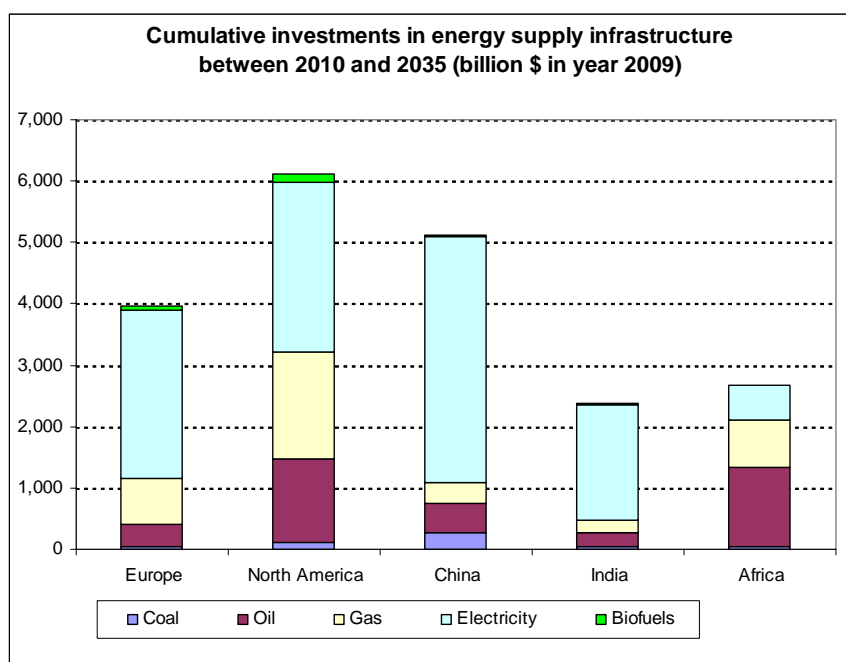
Source: European Commission

### 1.3. Significant efforts on energy infrastructure are needed

Over the next decade and beyond, significant investment in and modernisation of energy infrastructure will be needed globally in order to diversify the existing resources, replace equipment and cater for changing energy requirements. Apart from efforts to coordinate and optimise infrastructure development inside the EU, it will be important to ensure that sufficient investments are made both in production capacities in EU's main supplier countries as well as in energy transit infrastructure.

One of the key initiatives to diversify EU's energy sources and supply routes is the Southern Corridor with a potential to link the Union to the Caspian/Middle East basin – the largest deposit of gas in the world estimated at approximately 90 trillion cubic meters.<sup>2</sup>

<sup>2</sup> BP Statistical Review of World Energy, 2010.



Source: IEA World Energy Outlook, 2010

Another key external infrastructure priority is to ensure stable and uninterrupted transit of energy through the Eastern corridor. In the period from May 2010 to April 2011, Ukraine transited 63% of the Russian exports of natural gas to the EU, while Belarus accounted for some 30%. Much of the pipelines connecting the Russian supply regions and the EU require modernisation and reconstruction. The Master Plan on the Modernisation of Ukraine's Gas Transit System, prepared by Ukraine's Natfogaz and UkrTransGas and presented during the International Investment Conference in Brussels on 23 March 2009, estimated that total investments necessary to conduct a modernisation programme of the system amount to \$3 billion.<sup>3</sup>

Europe's renewable energy targets may mean that new suppliers of electricity to the EU will emerge. The role of North Africa in this context could be particularly important. The political objective of the Mediterranean Solar Plan is to achieve 20GW of new renewable energy capacity by 2020, out of which 5GW is to be dedicated for export to the EU. Realising this renewable energy objective will require, among others, the adequate development of electricity interconnections in the region.

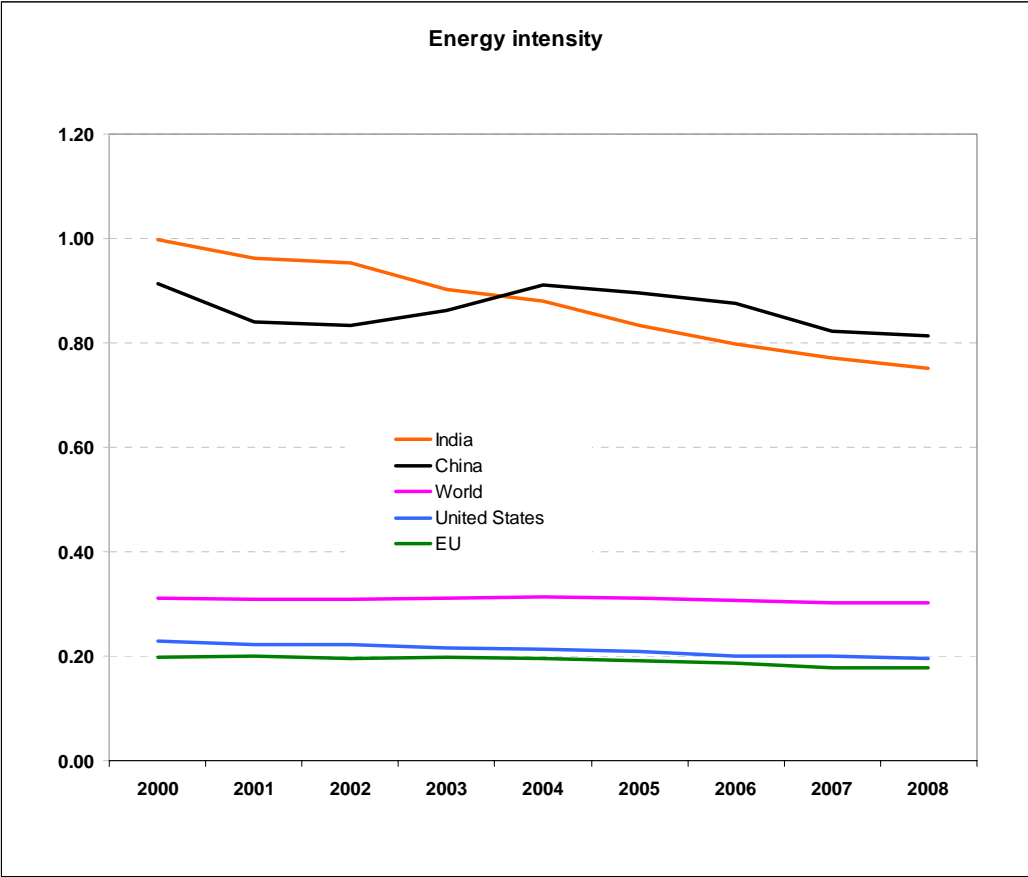
#### 1.4. Responding to climate concerns

The shifts in global demand patterns are accentuated by concerns about climate change. World emissions are set to rise by over 20% compared to 2008 levels, and are also largely driven by non-OECD countries.<sup>4</sup> According to the IEA, 2010 has seen the highest level of carbon dioxide emissions worldwide, and a further increase in carbon intensive energy production can accelerate climate change with effects on all sectors of economy, environment and human health.

<sup>3</sup> Presentation on the Ukraine's Gas Master Plan at the "EU-Ukraine: Partners for securing gas to Europe" conference, 23 March 2009; [http://www.eas.europa.eu/energy/events/eu\\_ukraine\\_2009/bekker\\_en.pdf](http://www.eas.europa.eu/energy/events/eu_ukraine_2009/bekker_en.pdf).

<sup>4</sup> International Energy Agency, World Energy Outlook 2010.

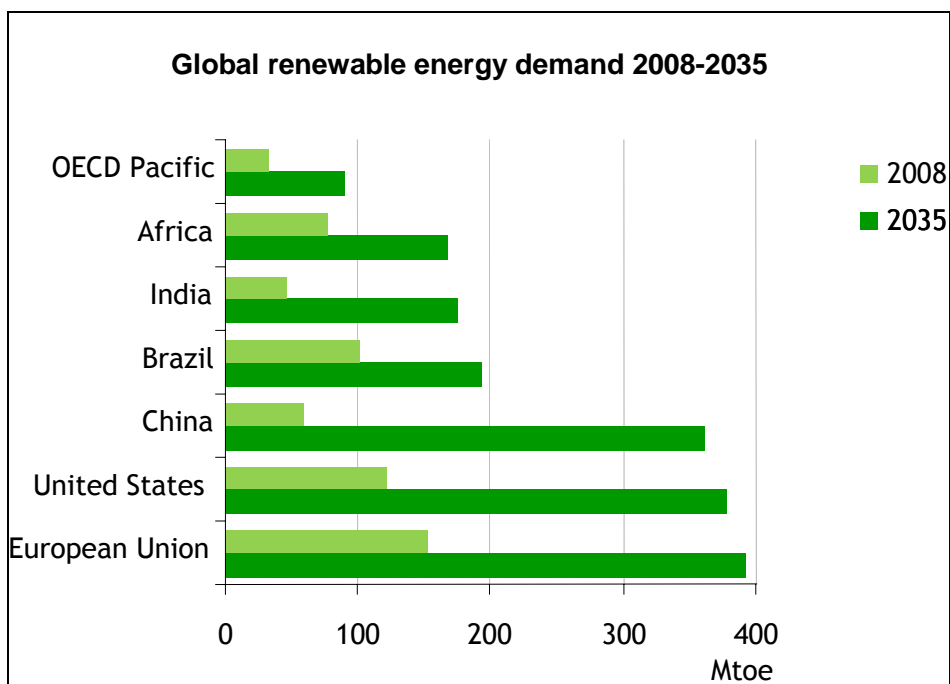
There is a general agreement on a global level that improving energy efficiency is one of the most efficient and cost-effective ways to address both climate change and security of supply concerns. Policies and targets to capture the potential energy savings are being developed in many countries, and some have already seen noticeable decreases in their energy intensity levels. Despite this progress, the global energy intensity level remains relatively stable. There is still an urgent need for further global action on resource efficiency and global low carbon energy solutions.



Note: total primary energy supply (in tons of oil equivalent) per unit of GDP (USD 2000)  
 Source: IEA World energy balances, 2010

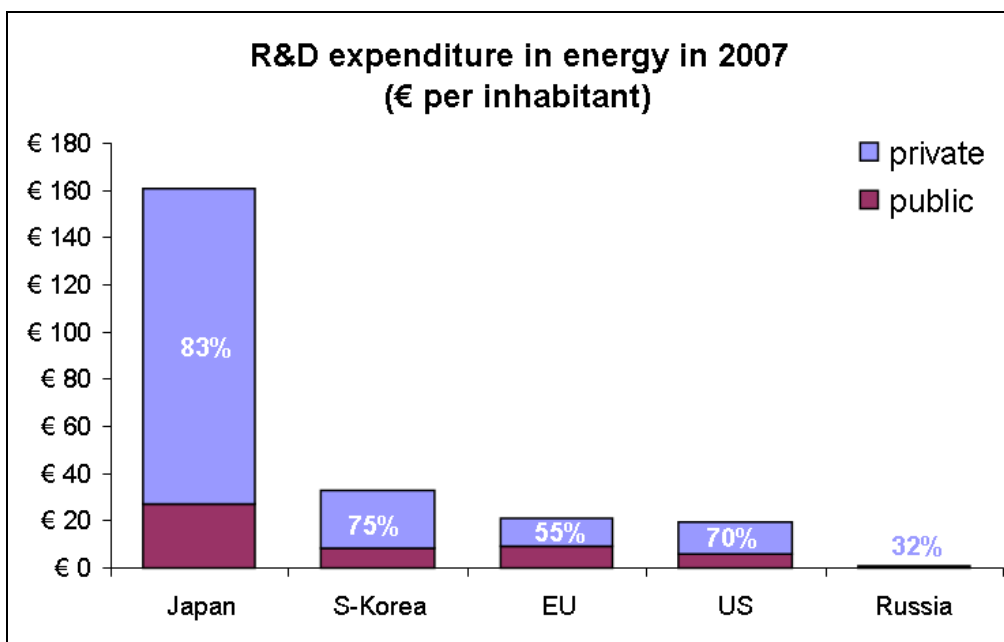
Globally, there is also a major push to develop and deploy low carbon technologies, including renewable energy. It is expected that the global use of renewable energy will triple in the coming decade with major markets developing in countries like the United States, China, India and Brazil. Europe is expected to retain its lead as far as demand of renewable energy. Demand for renewable energy in China and India is projected to grow six-fold and four-fold, respectively.





Source: IEA World Energy Outlook, 2010

The growth in renewable and other low carbon technology markets will represent a challenge as well as a large potential for the European industry. Sustaining Europe's technological edge and leadership position in these technologies will require adequate investments in research and development.



Source: European Commission

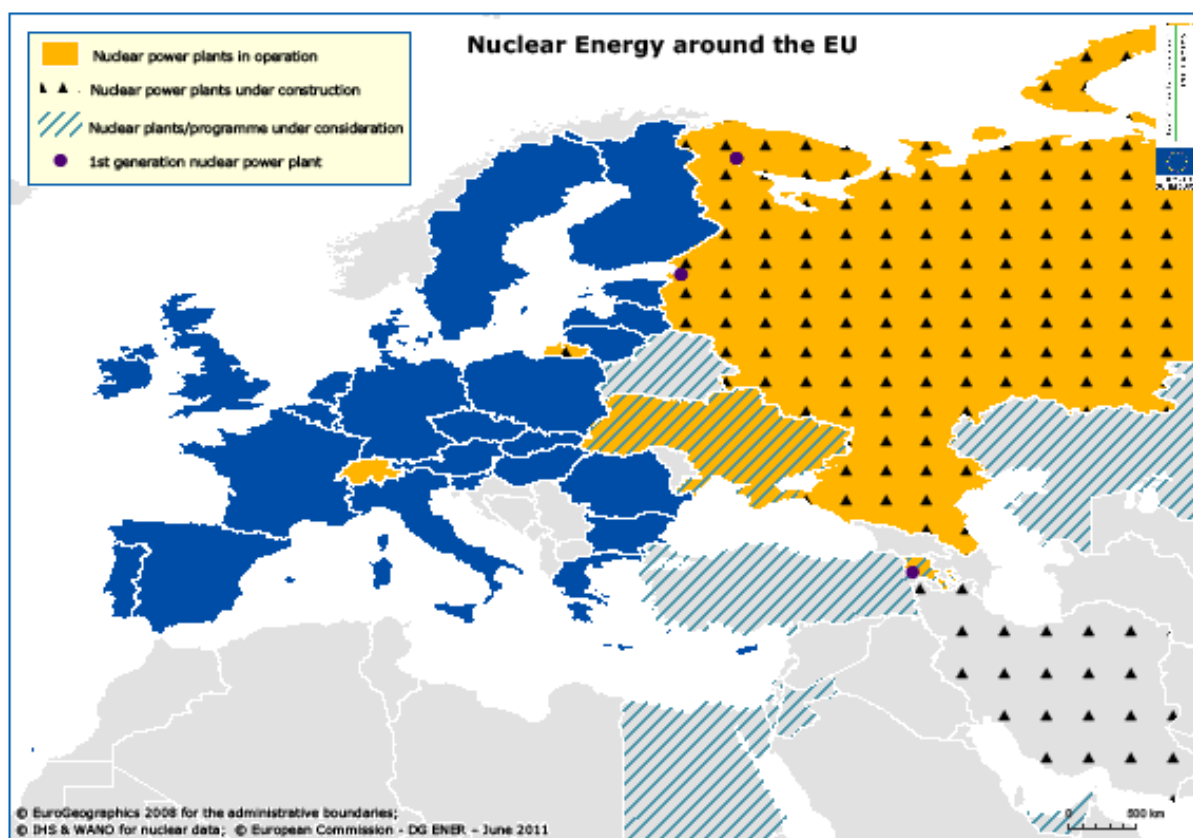
### 1.5. Global energy safety issues

The explosion of the Deepwater Horizon drilling rig in the Gulf of Mexico in 2010 and the Fukushima nuclear accident following the earthquake and tsunami in Japan in early 2011

have brought safety concerns to the fore of the global energy discussions. The EU has a vital interest ensuring the highest level of safety standards beyond European borders.

Waters in the vicinity of the EU are already in parts intensively exploited for the production of oil and gas. more exploration is taking place, for example, off the coasts of Algeria, Croatia, Egypt, Israel, Libya, Tunisia, Turkey and Ukraine. The number of offshore installations in the North East Atlantic exceeds 1,000, while 100 installations operate in EU waters in the Mediterranean and several installations in the Black and Baltic Seas.

In the nuclear field, a number of countries in the EU's neighbourhood and elsewhere are planning to introduce nuclear energy or to build additional nuclear power plants. Among those closest to the EU are Armenia, Belarus, Russia, Turkey and Ukraine as well as several countries in the Mediterranean and the Middle East regions that are in various stages of



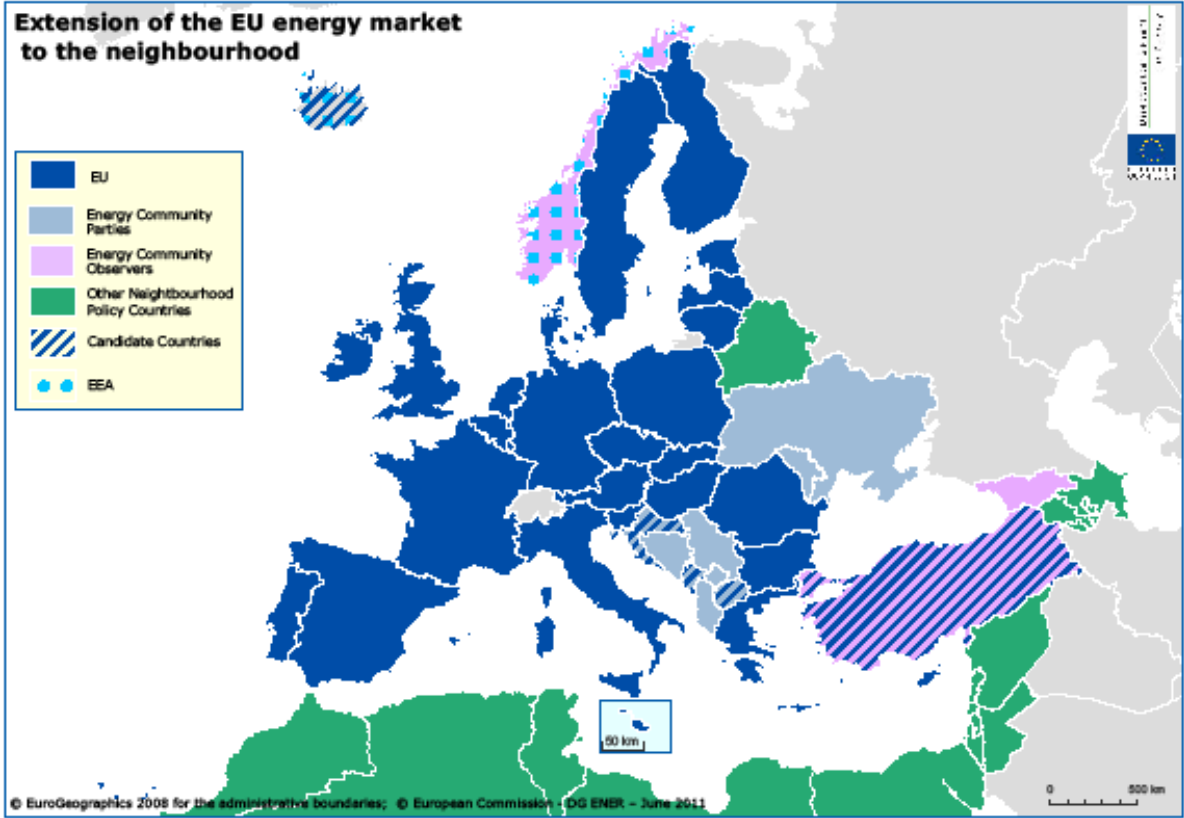
consideration of nuclear programmes.

## 1.6. Frameworks for cooperation adapted to changing energy needs

The EU has developed a number of complementary and targeted frameworks for cooperation to promote its objectives in external energy field. Energy dialogues and Memoranda of Understanding are in place with key countries and regions. Significant efforts are under way to address energy specific concerns in EU trade and investment agreements, regional frameworks such as the Energy Charter Treaty and within the WTO framework.

Energy Community Treaty, linking the EU to Albania, Bosnia-Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Kosovo (under UNSCR 1244), Montenegro, Serbia, Moldova and Ukraine, is among the instruments at the disposal of the EU. Its general

objective is to create a stable regulatory and market framework through the implementation of key parts of the EU legislation, including the electricity and gas directives and regulations, key environment directives relevant for the energy sector, key directives on the promotion of renewable energy, energy efficiency and biofuels, and the main principles of the EU competition policy.



Section 3 of this document includes a full listing of bilateral and multilateral energy cooperation frameworks and agreements in place with the EU's partners.

**2. EXTERNAL EU ASSISTANCE IN THE ENERGY SECTOR**

**2.1. A key role of the EU external assistance in the energy sector**

Energy has become not only a priority topic of political and policy discussion with the EU's partners but also a key component of the EU external assistance programmes. The EU assistance to third countries in the energy sector amounted to approximately €1.77 billion for the period 2007-2011, across various financial instruments.

**EU external assistance 2007-2011 (€million)**

Values by Geographical Zone	EU external assistance 2007-2011 (€million)					Total
	2007	2008	2009	2010	Pending 2011	
Energy Facility I	178.30	20.80	2.10		0.20	201.40

Values by Geographical Zone						Total
	2007	2008	2009	2010	Pending 2011	
Energy Facility II				0.80	199.20	200.00
<b>Total Energy Facilities</b>	<b>178.30</b>	<b>20.80</b>	<b>2.10</b>	<b>0.80</b>	<b>199.40</b>	<b>401.40</b>
EDF PIN <sup>5</sup>	14.40	13.69	46.89	12.89	109.85	197.72
EDF PIR <sup>6</sup>			6.65		38.00	44.65
<b>Total EDF</b>	<b>14.40</b>	<b>13.69</b>	<b>53.54</b>	<b>12.89</b>	<b>147.85</b>	<b>242.37</b>
DCI <sup>7</sup> Asia		45.00	9.50	46.40		100.90
DCI Latin America					27.00	27.00
<b>Total DCI</b>		<b>45.00</b>	<b>9.50</b>	<b>46.40</b>	<b>27.00</b>	<b>127.90</b>
ENPI <sup>8</sup> South		76.66	20.50	20.00	99.00	216.16
ENPI East	115.00	78.00		36.00	42.60	271.60
<b>Total ENPI</b>	<b>115.00</b>	<b>154.66</b>	<b>20.50</b>	<b>56.00</b>	<b>141.60</b>	<b>487.76</b>
<b>Total ENRTP<sup>9</sup></b>						<b>133.30</b>
<b>Nuclear Safety Instrument</b>	<b>73.45</b>		<b>49.32</b>	<b>58.13</b>		<b>180.90</b>
<b>IPA<sup>10</sup> National Programmes and Multi-beneficiary Funds</b>						<b>197.12</b>
<b>TOTAL</b>						<b>1.770,75</b>

<sup>5</sup> European Development Fund National Indicative Programmes

<sup>6</sup> European Development Fund Regional Indicative Programmes

<sup>7</sup> Development Cooperation Instrument

<sup>8</sup> European Neighbourhood and Partnership Instrument

<sup>9</sup> Thematic programme for Environment and Sustainable Management of Natural Resources including Energy

<sup>10</sup> Instrument for Pre-Accession Assistance

## 2.2. Access to energy on the agenda of the EU development efforts

Energy is likely to continue playing a significant role in the EU's financial assistance programmes, given its importance to the EU's partner countries. It is likely to be among key priorities of the EU development policy, as outlined in the Green Paper on EU development policy.<sup>11</sup>

Energy is a pre-requisite to meet most Millennium Development Goals and is vital for poverty eradication, health, education, agriculture and economic development. Ensuring energy access in developing and least developed countries remains a challenge. Over 1.4 billion people, mostly in rural areas of Sub-Saharan Africa and South Asia, do not have access to electricity at present. This number expected to decrease only marginally to 1.2 billion in the next two decades.

**Number of people without access to electricity and electrification rates by region (million)**

	2009			2015	2030	2009	2015	2030
	Rural	Urban	Total	Total	Total	%	%	%
Africa	466	121	587	636	654	42	45	57
Sub-Saharan Africa	465	120	585	635	652	31	35	50
Developing Asia	716	82	799	725	545	78	81	88
China	8	0	8	5	0	99	100	100
India	380	23	404	389	293	66	70	80
Other Asia	328	59	387	331	252	65	72	82
Latin America	27	4	31	25	10	93	95	98
Developing countries*	1 229	210	1 438	1 404	1 213	73	75	81
World**	1 232	210	1 441	1 406	1 213	79	81	85

\*Includes Middle East countries. \*\*Includes OECD and transition economies.

Source: IEA World Energy Outlook, 2010

<sup>11</sup> "EU development policy in support of inclusive growth and sustainable development – Increasing the impact of EU development policy" COM (2010) 629 final.

### 3. INTERNATIONAL COOPERATION FRAMEWORKS AND AGREEMENTS RELEVANT TO THE ENERGY SECTOR

#### 3.1. EU's existing international instruments

<i>Country / groups of countries</i>	<i>Political instruments</i>				<i>Bilateral legal instruments</i>				<i>Multilateral legal instruments</i>				
	<i>Energy dialogue</i>	<i>Memorandum of Understanding</i>	<i>ENP Action Plan / Roadmap / Association Agenda</i>	<i>Other</i>	<i>PCA/Association Agreement /SAA / Framework Agreement</i>	<i>FTA /Non-preferential Agreements /TA /EEA</i>	<i>Euratom agreements</i>	<i>Science and technology cooperation agreement</i>	<i>Energy Community</i>	<i>Energy Charter Treaty</i>	<i>WTO</i>	<i>Non-proliferation treaty</i>	<i>ITER agreement</i>
<i>Enlargement countries</i>													
<i>Albania</i>				$x^1$	$x$	$x$		$x^2$	$x$	$x$	$x$	$x$	
<i>Bosnia and Herzegovina</i>				$x^1$	$(x)^3$	$x$		$x^2$	$x$	$x$		$x$	
<i>Croatia</i>				$x^1$	$x$	$x$	$x^4$	$x^2$	$x$	$x$	$x$	$x$	
<i>Former Yugoslav Republic of Macedonia</i>					$x$	$x$		$x^2$	$x$	$x$	$x$	$x$	
<i>Iceland</i>						$x$		$x^2$		$(x)^3$	$x$	$x$	
<i>Montenegro</i>				$x^1$	$x$	$x$		$x^2$	$x$		$(x)^3$	$x$	
<i>Serbia</i>					$(x)^3$	$x$		$x^2$	$x$		$(x)^3$	$x$	
<i>Turkey</i>				$x^{1,5}$	$x$	$x$		$x^2$	$(x)^6$	$x$	$x$	$x$	

<i>Country / groups of countries</i>	<i>Political instruments</i>				<i>Bilateral legal instruments</i>				<i>Multilateral legal instruments</i>				
	<i>Energy dialogue</i>	<i>Memorandum of Understanding</i>	<i>ENP Action Plan / Roadmap / Association Agenda</i>	<i>Other</i>	<i>PCA/Association Agreement /SAA / Framework Agreement</i>	<i>FTA /Non-preferential Agreements /TA /EEA</i>	<i>Euratom agreements</i>	<i>Science and technology cooperation agreement</i>	<i>Energy Community</i>	<i>Energy Charter Treaty</i>	<i>WTO</i>	<i>Non-proliferation treaty</i>	<i>ITER agreement</i>
<i>Kosovo<sup>a</sup></i>					<i>x</i>				<i>x</i>				
<b><i>ENP - Eastern Partnership</i></b>													
<i>Armenia</i>			<i>x</i>	<i>x<sup>5, 7, 8</sup></i>	<i>x<sup>9</sup></i>	<i>(x)<sup>3</sup></i>				<i>x</i>	<i>x</i>	<i>x</i>	
<i>Azerbaijan</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x<sup>5, 7, 8</sup></i>	<i>x<sup>9</sup></i>	<i>(x)<sup>3</sup></i>				<i>x</i>	<i>(x)<sup>3</sup></i>	<i>x</i>	
<i>Belarus<sup>b</sup></i>	<i>x</i>	<i>x<sup>10</sup></i>		<i>(x)<sup>11, 3, 5, 7, 8</sup></i>						<i>(x)<sup>3</sup></i>	<i>(x)<sup>3</sup></i>	<i>x</i>	
<i>Georgia</i>			<i>x</i>	<i>x<sup>5, 7, 8</sup></i>	<i>x<sup>9</sup></i>	<i>(x)<sup>3</sup></i>			<i>(x)<sup>6</sup></i>	<i>x</i>	<i>x</i>	<i>x</i>	
<i>Republic of Moldova</i>	<i>x</i>		<i>x</i>	<i>x<sup>5, 7, 8</sup></i>	<i>x<sup>9</sup></i>	<i>(x)<sup>3</sup></i>			<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	
<i>Ukraine</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x<sup>5, 7, 8</sup></i>	<i>x<sup>9</sup></i>	<i>(x)<sup>3</sup></i>	<i>x; x<sup>12, 13</sup></i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>	

<sup>a</sup> Under UN Security Council Resolution 1244

<sup>b</sup> EU sanctions/restrictive measures in place

<i>Country / groups of countries</i>	<i>Political instruments</i>				<i>Bilateral legal instruments</i>				<i>Multilateral legal instruments</i>				
	<i>Energy dialogue</i>	<i>Memorandum of Understanding</i>	<i>ENP Action Plan / Roadmap / Association Agenda</i>	<i>Other</i>	<i>PCA/Association Agreement /SAA / Framework Agreement</i>	<i>FTA /Non-preferential Agreements /TA /EEA</i>	<i>Euratom agreements</i>	<i>Science and technology cooperation agreement</i>	<i>Energy Community</i>	<i>Energy Charter Treaty</i>	<i>WTO</i>	<i>Non-proliferation treaty</i>	<i>ITER agreement</i>
<b><i>ENP - Southern Neighbourhood</i></b>													
<i>Algeria</i>	<i>x</i>	<i>(x)<sup>3</sup></i>	<i>x</i>	<i>x<sup>1,7</sup></i>	<i>x</i>	<i>x</i>				<i>(x)<sup>6</sup></i>	<i>(x)<sup>3</sup></i>	<i>x</i>	
<i>Egypt</i>	<i>x</i>	<i>x</i>	<i>x</i>	<i>x<sup>1,7</sup></i>	<i>x</i>	<i>x</i>		<i>x</i>		<i>(x)<sup>6</sup></i>	<i>x</i>	<i>x</i>	
<i>Israel</i>	<i>x</i>		<i>x</i>	<i>x<sup>1,7</sup></i>	<i>x</i>	<i>x</i>		<i>x<sup>2</sup></i>			<i>x</i>		
<i>Jordan</i>	<i>x</i>		<i>x</i>	<i>x<sup>1,7</sup></i>	<i>x</i>	<i>x</i>		<i>x</i>		<i>(x)<sup>6</sup></i>	<i>x</i>	<i>x</i>	
<i>Lebanon</i>			<i>x</i>	<i>x<sup>1,7</sup></i>	<i>x</i>	<i>x</i>						<i>x</i>	
<i>Libya<sup>c</sup></i>						<i>(x)<sup>3</sup></i>					<i>(x)<sup>3</sup></i>	<i>x</i>	
<i>Morocco</i>	<i>x</i>	<i>x<sup>10</sup></i>	<i>x</i>	<i>x<sup>1,7</sup></i>	<i>x</i>	<i>x</i>		<i>x</i>		<i>(x)<sup>6</sup></i>	<i>x</i>	<i>x</i>	
<i>Occupied Palestinian Territory</i>	<i>x</i>		<i>x</i>	<i>x<sup>1,7</sup></i>	<i>x</i>	<i>x</i>				<i>(x)<sup>6</sup></i>			
<i>Syria<sup>d</sup></i>				<i>x<sup>1,7</sup></i>	<i>(x)<sup>3</sup></i>	<i>x</i>				<i>(x)<sup>6</sup></i>	<i>(x)<sup>3</sup></i>	<i>x</i>	

<sup>c</sup> EU sanctions/restrictive measures in place



<i>Country / groups of countries</i>	<i>Political instruments</i>				<i>Bilateral legal instruments</i>				<i>Multilateral legal instruments</i>				
	<i>Energy dialogue</i>	<i>Memorandum of Understanding</i>	<i>ENP Action Plan / Roadmap / Association Agenda</i>	<i>Other</i>	<i>PCA/Association Agreement /SAA / Framework Agreement</i>	<i>FTA /Non-preferential Agreements /TA /EEA</i>	<i>Euratom agreements</i>	<i>Science and technology cooperation agreement</i>	<i>Energy Community</i>	<i>Energy Charter Treaty</i>	<i>WTO</i>	<i>Non-proliferation treaty</i>	<i>ITER agreement</i>
<i>Tunisia</i>			<i>x</i>	<i>x</i> <sup>1, 7</sup>	<i>x</i>	<i>x</i>		<i>x</i>		<i>(x)</i> <sup>6</sup>	<i>x</i>	<i>x</i>	
<b><i>Other key supplier and transit countries</i></b>													
<i>Australia</i>				<i>x</i> <sup>14</sup>			<i>x</i>	<i>x</i>		<i>(x)</i> <sup>3</sup>	<i>x</i>	<i>x</i>	
<i>Brazil</i>	<i>x</i>			<i>x</i> <sup>15</sup>	<i>x</i>	<i>(x)</i> <sup>3, 16</sup>	<i>x; x</i> <sup>13</sup>	<i>x</i>			<i>x</i>	<i>x</i>	
<i>Canada</i>	<i>x</i>			<i>x</i> <sup>17</sup>	<i>x</i> <sup>9</sup>	<i>(x)</i> <sup>3</sup>	<i>x</i> <sup>9, 18</sup>	<i>x</i>		<i>(x)</i> <sup>6</sup>	<i>x</i>	<i>x</i>	
<i>Iran</i> <sup>d</sup>	<i>x</i>				<i>(x)</i> <sup>3</sup>	<i>x</i>				<i>(x)</i> <sup>6</sup>		<i>x</i>	
<i>Iraq</i>	<i>x</i>	<i>x</i>			<i>x</i>	<i>x</i>						<i>x</i>	
<i>Kazakhstan</i>	<i>x</i>	<i>x</i>		<i>x</i> <sup>5</sup>	<i>x</i> <sup>9</sup>	<i>x</i>	<i>x; x</i> <sup>12, 13</sup>			<i>x</i>	<i>(x)</i> <sup>3</sup>	<i>x</i>	
<i>Mozambique</i>				<i>x</i> <sup>19</sup>		<i>x</i>					<i>x</i>	<i>x</i>	
<i>Nigeria</i>				<i>x</i> <sup>20</sup>		<i>x</i>				<i>(x)</i> <sup>6</sup>	<i>x</i>	<i>x</i>	

<sup>d</sup> EU sanctions/restrictive measures in place

<i>Country / groups of countries</i>	<i>Political instruments</i>				<i>Bilateral legal instruments</i>				<i>Multilateral legal instruments</i>				
	<i>Energy dialogue</i>	<i>Memorandum of Understanding</i>	<i>ENP Action Plan / Roadmap / Association Agenda</i>	<i>Other</i>	<i>PCA/Association Agreement /SAA / Framework Agreement</i>	<i>FTA /Non-preferential Agreements /TA /EEA</i>	<i>Euratom agreements</i>	<i>Science and technology cooperation agreement</i>	<i>Energy Community</i>	<i>Energy Charter Treaty</i>	<i>WTO</i>	<i>Non-proliferation treaty</i>	<i>ITER agreement</i>
<i>Norway</i>	<i>x</i>					<i>x</i>		<i>x</i> <sup>2</sup>	<i>(x)</i> <sup>6</sup>	<i>(x)</i> <sup>3</sup>	<i>x</i>	<i>x</i>	
<i>Republic of South Africa</i>	<i>x</i>			<i>x</i> <sup>21</sup>	<i>x</i>	<i>x</i>	<i>(x)</i> <sup>3</sup>	<i>x</i>			<i>x</i>	<i>x</i>	
<i>Russian Federation</i>	<i>x</i>	<i>x</i>		<i>x</i> <sup>5,6</sup> ; <i>x</i> <sup>11</sup>	<i>x</i> <sup>9</sup>	<i>x</i>	<i>(x)</i> <sup>3</sup> ; <i>x</i> <sup>12,13</sup>	<i>x</i>		<i>(x)</i> <sup>22</sup>	<i>(x)</i> <sup>3</sup>	<i>x</i>	<i>x</i>
<i>Switzerland</i>						<i>x</i>	<i>x</i> <sup>4, 13</sup>	<i>x</i> <sup>2</sup>		<i>x</i>	<i>x</i>	<i>x</i>	
<i>Turkmenistan</i>	<i>x</i>	<i>x</i>		<i>x</i> <sup>5</sup>	<i>(x)</i> <sup>3</sup>					<i>x</i>		<i>x</i>	
<i>Uzbekistan</i>	<i>x</i>	<i>x</i>			<i>x</i>	<i>x</i>	<i>x</i>			<i>x</i>	<i>(x)</i> <sup>3</sup>	<i>x</i>	
<i>Venezuela</i>				<i>x</i>						<i>x</i> <sup>6</sup>	<i>x</i>	<i>x</i>	
<b><i>Industrialised countries and fast growing economies</i></b>													
<i>Argentina</i>					<i>x</i>	<i>(x)</i> <sup>3, 16</sup>	<i>x</i>	<i>x</i>			<i>x</i>	<i>x</i>	
<i>Chile</i>					<i>x</i>	<i>x</i>		<i>x</i>			<i>x</i>	<i>x</i>	
<i>China</i>	<i>x</i>	<i>x</i>		<i>x</i> <sup>23</sup>	<i>x</i> <sup>9</sup>		<i>x</i> <sup>18</sup>	<i>x</i>		<i>(x)</i> <sup>6</sup>	<i>x</i>	<i>x</i>	<i>x</i>

<i>Country / groups of countries</i>	<i>Political instruments</i>				<i>Bilateral legal instruments</i>				<i>Multilateral legal instruments</i>				
	<i>Energy dialogue</i>	<i>Memorandum of Understanding</i>	<i>ENP Action Plan / Roadmap / Association Agenda</i>	<i>Other</i>	<i>PCA/Association Agreement /SAA / Framework Agreement</i>	<i>FTA /Non-preferential Agreements /TA /EEA</i>	<i>Euratom agreements</i>	<i>Science and technology cooperation agreement</i>	<i>Energy Community</i>	<i>Energy Charter Treaty</i>	<i>WTO</i>	<i>Non-proliferation treaty</i>	<i>ITER agreement</i>
<i>India</i>	<i>x</i>			<i>x<sup>24</sup></i>	<i>x</i>	<i>(x)<sup>3</sup></i>	<i>(x)<sup>18,3</sup>; x<sup>13</sup></i>	<i>x</i>			<i>x</i>		<i>x</i>
<i>Japan</i>	<i>x</i>			<i>x<sup>25</sup></i>			<i>x<sup>26, 13</sup></i>	<i>x</i>		<i>x</i>	<i>x</i>	<i>x</i>	<i>x</i>
<i>Republic of South Korea</i>					<i>(x)<sup>3</sup></i>	<i>x</i>	<i>x<sup>13</sup></i>	<i>x</i>		<i>(x)<sup>6</sup></i>	<i>x</i>	<i>x</i>	<i>x</i>
<i>US</i>	<i>x</i>						<i>x; x<sup>12,13</sup></i>	<i>x</i>		<i>(x)<sup>6</sup></i>	<i>x</i>	<i>x</i>	<i>x</i>
<b><i>Regional groupings</i></b>													
<i>African Caribbean Pacific (ACP)</i>				<i>x<sup>27, 28</sup></i>		<i>x<sup>29</sup></i>							
<i>African Union</i>	<i>x</i>												
<i>Andean Community</i>				<i>x<sup>30</sup></i>		<i>x<sup>31</sup></i>							
<i>The Association of Southeast Asian Nations (ASEAN)</i>	<i>x</i>			<i>x<sup>32</sup></i>		<i>(x)<sup>31</sup></i>				<i>(x)<sup>6</sup></i>			
<i>Gulf Cooperation Council (GCC)</i>	<i>x</i>					<i>(x)<sup>3</sup></i>							

<i>Country / groups of countries</i>	<i>Political instruments</i>				<i>Bilateral legal instruments</i>				<i>Multilateral legal instruments</i>				
	<i>Energy dialogue</i>	<i>Memorandum of Understanding</i>	<i>ENP Action Plan / Roadmap / Association Agenda</i>	<i>Other</i>	<i>PCA/Association Agreement /SAA / Framework Agreement</i>	<i>FTA /Non-preferential Agreements /TA /EEA</i>	<i>Euratom agreements</i>	<i>Science and technology cooperation agreement</i>	<i>Energy Community</i>	<i>Energy Charter Treaty</i>	<i>WTO</i>	<i>Non-proliferation treaty</i>	<i>ITER agreement</i>
<i>Southern Common Market (Mercosur)</i>					<i>(x)<sup>3, 33</sup></i>	<i>(x)<sup>3</sup></i>							

### 3.2. International organisations and initiatives relevant to the energy sector

<i>International organisations and initiatives</i>	<i>Type of organisation / Initiative</i>	<i>Energy topics covered</i>	<i>Constituency</i>	<i>EU/EC involvement</i>
<i>Baku Initiative</i>	<i>Regional cooperation initiative</i>	<i>Energy efficiency, renewable energy, oil and gas transportation</i>	<i>Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan</i>	<i>EC participation at Ministerials. EC chairs bi-annual INOGATE meetings.</i>
<i>Black Sea Economic Cooperation (BSEC)</i>	<i>International initiative</i>	<i>Energy efficiency, renewable energy, oil and gas transportation.</i>	<i>Black Sea littoral countries, Greece, Armenia.</i>	<i>Involvement at Member State Level.</i>
<i>Black Sea Synergy</i>	<i>Regional cooperation initiative</i>	<i>Strengthening regional energy cooperation, energy</i>	<i>Black Sea littoral states and Armenia, Azerbaijan,</i>	<i>Involvement at Member State level.</i>

<i>International organisations and initiatives</i>	<i>Type of organisation / Initiative</i>	<i>Energy topics covered</i>	<i>Constituency</i>	<i>EU/EC involvement</i>
		<i>infrastructure, energy security.</i>	<i>Moldova and Greece.</i>	
<i>Baltic Sea Baltic Sea Energy Co-operation (BASREC) as a part of the Council of the Baltic Sea States (CBSS)</i>	<i>Intergovernmental organisation, initiated by the EC and the Baltic Sea countries</i>	<i>Energy, infrastructure, energy efficiency, renewable energy, clean coal technologies.</i>	<i>11 Baltic Sea countries, EC, and 11 Observers, 15 Strategic Partners (incl. OECD).</i>	<i>Participation in Senior official meetings.</i>
<i>Barents – Euro – Arctic Council Joint Energy Working Group (BEAC JEWG)</i>	<i>Intergovernmental and interregional cooperation initiative</i>	<i>Energy efficiency, renewable energy.</i>	<i>Denmark, Finland, Iceland, Norway, Russia, Sweden, EC.</i>	<i>Participation in meetings of the Working Group.</i>
<i>Eastern Partnership Energy Security Platform</i>	<i>Regional cooperation initiative</i>	<i>Energy market convergence, sustainable energy.</i>	<i>Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine</i>	<i>EC chairs the Platform and organises seminars. Participation at Member State level.</i>
<i>Extractive Industries Transparency Initiative (EITI)</i>	<i>International initiative</i>	<i>Improved governance in resource-rich countries through the verification and full publication of company payments and government revenues from oil, gas and mining.</i>	<i>Australia, Belgium, Canada, Denmark, Germany, Finland, France, Italy, Japan, The Netherlands, Norway, Qatar, Spain, Sweden, Switzerland, UK, USA as supporting countries.</i>	<i>EC participates in the work of the EITI Board and the Multi-Donor Trust Fund (MDTF) Steering Committee. EU financial support to Extractive Industries Transparency Initiative through the Africa-EU Energy Partnership of the Joint Africa-EU Strategy and MDTF. 12 EU Member States are donors and supporters of the initiative.</i>

<i>International organisations and initiatives</i>	<i>Type of organisation / Initiative</i>	<i>Energy topics covered</i>	<i>Constituency</i>	<i>EU/EC involvement</i>
<i>Carbon Sequestration Leadership Forum (CSLF)</i>	<i>International initiative</i>	<i>Carbon capture and storage</i>	<i>25 members, including 24 countries and the European Commission. 8 EU Member States are members of the Forum.</i>	<i>EC and Member States participation</i>
<i>Clean Energy Ministerial(CEM)</i>	<i>High level forum</i>	<i>Clean energy technology</i>	<i>Australia, Brazil, Canada, China, Denmark, the European Commission, Finland, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Norway, Russia, South Africa, Spain, Sweden, the United Arab Emirates, the United Kingdom, and the United States.</i>	<i>EC and Member States participation</i>
<i>International Atomic Energy Agency (IAEA)</i>	<i>International organization</i>	<i>Nuclear energy</i>	<i>151 member countries, including all 27 EU Member States.</i>	<i>EU participation as an observer. Involvement at Member State level.</i>
<i>International Biofuels Forum (IBF)</i>	<i>International initiative</i>	<i>Sustainable development of biofuels.</i>	<i>Biofuels producing countries and the EC.</i>	<i>Participation in meetings of the Forum and its working groups as a member.</i>
<i>International Energy Agency (IEA)</i>	<i>International organization</i>	<i>Energy security, markets analysis, energy policy analysis, statistics, energy technology, global energy</i>	<i>28 member countries, including Australia, Canada, Japan, New Zealand, Republic of Korea, Turkey, the US, and 19 of</i>	<i>Full participation of the EU in IEA activities. Involvement at Member State level.</i>

<i>International organisations and initiatives</i>	<i>Type of organisation / Initiative</i>	<i>Energy topics covered</i>	<i>Constituency</i>	<i>EU/EC involvement</i>
		<i>dialogue.</i>	<i>the EU Member States.</i>	
<i>International Energy Forum (IEF)</i>	<i>International initiative</i>	<i>Global energy dialogue.</i>	<i>Energy Ministers from 98 countries, accounting for around 90% of global oil and gas supply and demand.</i>	<i>Participation of the EC in the Informal Support Group of the IEF; contribution by Eurostat to the Joint Organisations Data Initiative (JODI).</i>
<i>International Partnership for the Hydrogen and Fuel Cells in the Economy (IPHE)</i>	<i>International initiative</i>	<i>Hydrogen and fuel cells technological development.</i>	<i>18 members, including US, Japan, China, India, Brazil, the EC.</i>	<i>Participation of the EC in steering committee (SC).</i>
<i>International Platform for Energy Efficiency Cooperation (IPEEC)</i>	<i>International initiative</i>	<i>Energy efficiency.</i>	<i>Large developing and developed economies, including the EU, representing up to 75% of global GDP and energy-use.</i>	<i>EU and several EU Member States are IPEEC members. EU is involved in the Executive Committee and Policy Committee, and in specific Task Groups.</i>
<i>International Renewable Energy Agency (IRENA)</i>	<i>International organization</i>	<i>Promotion of renewable energy worldwide.</i>	<i>148 countries and the EU are signatories; 74 countries and the EU are members.</i>	<i>EU participation as a member.</i>
<i>International Thermonuclear Experimental Reactor (ITER)</i>	<i>International initiative</i>	<i>Proving the commercial viability of atomic fusion.</i>	<i>EU, Japan, China, South Korea, Russia, India, the US.</i>	<i>Participation in the ITER Council.</i>
<i>G8</i>	<i>High level forum</i>	<i>Broad range of energy topics</i>	<i>Canada, France, Germany, Italy, Japan, Russia, UK,</i>	<i>Participation in Summits, Ministerial meetings and</i>

<i>International organisations and initiatives</i>	<i>Type of organisation / Initiative</i>	<i>Energy topics covered</i>	<i>Constituency</i>	<i>EU/EC involvement</i>
			<i>USA, EU.</i>	<i>relevant working groups.</i>
<i>G20</i>	<i>High level forum</i>	<i>Fossil fuels' subsidies, fossil fuels' price volatility, offshore oil and gas safety, clean energy and energy efficiency, nuclear safety.</i>	<i>Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, Republic of Korea, Turkey, UK, USA, EU.</i>	<i>Participation in Summits, Ministerial meetings and relevant working groups.</i>
<i>Global Carbon Capture and Storage Institute (GCCSI)</i>	<i>International initiative</i>	<i>Carbon capture and storage</i>	<i>Government, industry, non-government bodies and research organisations in the field of CCS.</i>	<i>EC and several Member States (DE, FR, IT, NL, UK, RO, SE, BU) participate as members.</i>  <i>Membership of an EC official in the Technical Advisory Committee.</i> <i>Frequent participation in technical meetings on knowledge sharing and CCS demonstration.</i>
<i>Global Gas Flaring Reduction Partnership (GGFR)</i>	<i>International initiative</i>	<i>Gas flaring, carbon credits financing and related regulation.</i>	<i>National oil/gas companies, the World Bank, the OPEC Secretariat and the EU.</i>	<i>Participation in Steering Committee meetings and financial contribution.</i>
<i>Global Bioenergy Partnership</i>	<i>International initiative</i>	<i>Sustainable promotion of bioenergy, focused on developing countries</i>	<i>Producers and supporters of biomass-based energy.</i>	<i>Participation in Steering Committee and Task Force meetings.</i>



<i>International organisations and initiatives</i>	<i>Type of organisation / Initiative</i>	<i>Energy topics covered</i>	<i>Constituency</i>	<i>EU/EC involvement</i>
<i>Major Economies Forum</i>	<i>International initiative</i>	<i>Climate change</i>	<i>17 major economies: Australia, Brazil, Canada, China, EU, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, South Africa, UK, and the US.</i>	<i>EU participation as a member of the Forum. Participation at Member State level.</i>
<i>Methane to Market Partnership</i>	<i>International initiative</i>	<i>Cost-effective, near-term methane recovery and use as a clean energy source; reduction of global methane emissions to enhance economic growth; energy security; air quality and industrial safety.</i>	<i>38 member countries and the EC, representing over 60% of global methane emissions, mostly from North and South America, Asia and Oceania.</i>	<i>EC involvement in Project Network, in the Coal Mines Subcommittee, and the Subcommittee on Oil and Gas</i>
<i>Nuclear Energy Agency (NEA)</i>	<i>International organisation</i>	<i>Nuclear energy.</i>	<i>30 countries in Europe, North America and the Asia-Pacific, including 20 EU Member States</i>	<i>EC takes part in a work of NEA (as stated in Supplementary Protocol No. 1 to the OECD Convention)</i>
<i>Organisation of Petroleum Exporting Countries (OPEC)</i>	<i>International energy organisation</i>	<i>Global oil markets.</i>	<i>12 oil exporting countries.</i>	<i>EU-OPEC high-level energy dialogue.</i>
<i>Organisation for Security and Co-operation in Europe (OSCE)</i>	<i>International organisation</i>	<i>General crisis management and conflict prevention, including environmental aspects.</i>	<i>56 states from North America, Europe and Asia.</i>	<i>The EU participates in all proceedings and may speak on behalf of the Member States where the issue under discussion mainly falls</i>

<i>International organisations and initiatives</i>	<i>Type of organisation / Initiative</i>	<i>Energy topics covered</i>	<i>Constituency</i>	<i>EU/EC involvement</i>
				<i>under EU competence.</i>
<i>United Nations Commission for Sustainable Development (UNCSD)</i>	<i>International organisation</i>	<i>Environmental and sustainable development. Reviewing progress of the implementation of Agenda 21 and the Rio Declaration on Environment and Development.</i>	<i>53 selected members of UN for a three-year term.</i>	<i>Participation at EC level.</i>
<i>United Nations Economic Commission for Europe (UNECE)</i>	<i>International organisation</i>	<i>Gas, energy efficiency, electricity production from coal and other fossil fuels, coal mine methane.</i>	<i>56 countries from Europe, the Commonwealth of Independent States (CIS) and North America, including all EU Member States.</i>	<i>EC participates to meetings of certain UNECE bodies. It is a Member to certain Conventions under UNECE. Involvement at Member State level.</i>
<i>United Nations Framework Convention on Climate Change (UNFCCC); Kyoto Protocol</i>	<i>International agreement</i>	<i>Climate change.</i>	<i>195 Parties to the Convention, including the EU and its Member States,</i>	<i>Full EU participation as a party.</i>

**List of Acronyms:**

DCFTA	Deep and Comprehensive Free Trade Agreement
EaP	Eastern Partnership
EC	European Commission
EEA	European Economic Area
ENP	European Neighbourhood Policy
EWM	Early Warning Mechanism
FTA	Free Trade Agreement
MoU	Memorandum of Understanding

PCA	Partnership and Cooperation Agreement
SAA	Stabilisation and Association Agreement
TCA	Trade and Cooperation Agreement
UN	United Nations
WTO	World Trade Organization

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<sup>1</sup> The Union for the Mediterranean

<sup>2</sup> Associated to Framework Programme 7 (FP7)

<sup>3</sup> Pending

<sup>4</sup> ECURIE agreement

<sup>5</sup> Baku Initiative

<sup>6</sup> Observer

<sup>7</sup> European Neighbourhood Policy

<sup>8</sup> Eastern Partnership

<sup>9</sup> New agreement replacing existing one under negotiation/pending

<sup>10</sup> Energy Declaration

<sup>11</sup> Early Warning Mechanism

<sup>12</sup> Agreement on nuclear safety

<sup>13</sup> Agreements on fusion research

<sup>14</sup> EU-Australia Partnership Framework

<sup>15</sup> EU-Brazil Joint Action Plan

<sup>16</sup> EU-Mercosur Free Trade Agreement

<sup>17</sup> EU-Canada Partnership Agenda

<sup>18</sup> Agreement on nuclear research

<sup>19</sup> Brazil-Africa-EU Initiative on bio-energy development in African countries

<sup>20</sup> The EU-Nigeria Joint Way Forward

<sup>21</sup> EU-South Africa Strategic Partnership Joint Action Plan

<sup>22</sup> Withdrew provisional application

<sup>23</sup> EU-China Partnership on Climate Change

<sup>24</sup> EU-India Strategic Partnership Joint Action Plan

<sup>25</sup> Action Plan for EU-Japan Cooperation

<sup>26</sup> Broader approach agreement

<sup>27</sup> Economic Partnership Agreement between the EU-ACP states

<sup>28</sup> Africa-EU Energy Partnership

<sup>29</sup> Economic Partnership Agreements

<sup>30</sup> Political Dialogue & Cooperation Agreement (pending), The Rio Group (forum of political consultation)

<sup>31</sup> FTAs with individual members

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<sup>32</sup> Asia-Europe Meeting (ASEM)

<sup>33</sup> International Framework Cooperation Agreement in place