Energy and transport statistics for the European Neighbourhood Policy-South countries 2018 edition

Background information

The key objectives of the European Union's (EU) energy policy may be grouped together under three main headings: to secure energy supplies, ensuring the reliable provision of energy; to ensure that that energy providers operate in a competitive environment; to promote sustainable energy consumption, through the lowering of greenhouse gas emissions, pollution, and fossil fuel dependence.

The EU's policies related to transport aim to foster clean, safe and efficient travel throughout Europe, underpinning the internal market for goods and the right of citizens to travel freely throughout the EU.

The European Neighbourhood Policy (ENP) was initiated in 2004, principally to avoid the emergence of dividing lines between an enlarged EU and its closest neighbours. On 18 November 2015, the High Representative for Foreign Affairs and Security Policy and the European Commission jointly presented a review of the European Neighbourhood Policy (SWD(2015) 500 final) which underlined a new approach for the EU in relation to its eastern and southern neighbours, based on stabilising the region in political, economic, and security-related terms.

There are currently 16 neighbours within the ENP, of which 10 in the south: they are Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine (¹), Syria and Tunisia; note that cooperation with Syria is currently suspended (no data from Syria are shown in this leaflet) and very difficult with Libya.

The European Commission supports the development of statistics in the ENP-South countries through a technical assistance programme called Medstat, a Euro-Mediterranean statistical cooperation programme. The overall objective of Medstat IV, which runs from 2016 to 2019, is to promote evidence-based decision-making and to foster democratic development by improving the availability, visibility and accessibility of robust, reliable and timely statistical data in the ENP-South countries. Indeed, the ENP countries and Eurostat exchange a wide range of harmonised indicators on a voluntary, annual basis. For more information: http://eeas.europa.eu/enp.

(¹) This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the EU Member States on this issue.

Table 1: Main indicators for energy, 2016 (thousand toe)

	Primary energy production	Energy exports	Energy imports	Gross inland energy consumption
EU-28	757 318	578 408	1 481 553	1 640 579
Algeria	165 411	109 568	4 049	59 870
Egypt	71 732	15 887	26 511	81 872
Israel (1)	7 624	6 794	23 269	22 608
Jordan	510	699	9 740	9 615
Lebanon	87	0	8 170	8 251
Libya (¹)	31 640	21 580	7 941	17 246
Morocco	2 153	24	18 580	20 510
Palestine (1)(2)	273	1	1 516	1 789
Tunisia	5 350	2 823	7 521	9 054

^{(1) 2015.}

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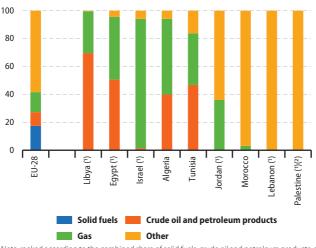
Main statistical findings

In 2016, the primary energy production of the EU-28 was 757 million tonnes of oil equivalent (toe; a normalised unit of energy, equivalent to the approximate amount of energy that can be extracted from one tonne of crude oil) — see Table 1. Algeria, Egypt and Libya are endowed with considerable oil and natural gas resources, as reflected by primary energy production of 165.4 million toe in Algeria in 2016 (equivalent to one fifth of the EU-28 total), 71.7 million toe in Egypt in 2016 and 31.6 million toe in Libya in 2015; note that Libya has the largest oil reserves in Africa (according to the BP Statistical Review of World Energy), although its level of primary production was disrupted from 2011 as a result of civil unrest.

Natural resource endowments largely determine the level and structure of primary energy production. Many of the ENP-South countries have an energy mix that is dominated by just one source of energy. By contrast, energy production in the EU-28 is more varied, reflecting the availability of different fossil fuel deposits and the potential for hydro power, as well as different policies in relation to the production of energy from nuclear fuels and renewables. Figure 1 shows that primary energy production in a majority of the ENP-South countries was dominated by petroleum products and gas; the former was of particular importance to the energy mix in Libya (2015 data), Egypt (2015 data) and Tunisia, while the latter was of particular importance in Israel (2015 data), Algeria and Egypt (2015 data).

The EU-28 is a net importer of energy, as its energy imports in 2016 totalled 1.48 billion toe, compared with exports of 578.4 million toe. Among the

Figure 1: Primary production of energy, by product, 2016 (% of total)



Note: ranked according to the combined share of solid fuels, crude oil and petroleum products, and gas.

Source: Eurostat (online data code: nrg_100a) and the International Energy Agency

^{(1) 2015.}

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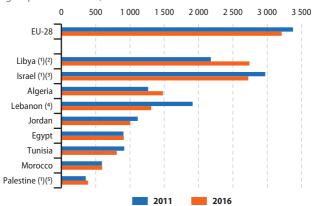
ENP-South countries, the largest net importers of energy products were Morocco (18.6 million toe) and Israel (16.5 million toe; 2015 data). By contrast, Algeria was a sizeable net exporter of energy (105.5 million toe) as was Libya (13.6 million toe).

In 2016, the gross inland energy consumption of the EU-28 was 1.64 billion toe (see Table 1). The highest levels of gross inland energy consumption among the ENP-South countries in 2016 were recorded in the most populous countries, Egypt and Algeria, while the third highest level of gross inland energy consumption was recorded in Israel (2015 data), a level that was slightly higher than in Morocco.

In 2016, gross inland energy consumption in the EU-28 averaged 3 211 kgoe per inhabitant, a reduction of 164 kgoe when compared with 2011 (see Figure 2). All of the ENP-South countries recorded gross inland energy consumption per inhabitant below the level registered in the EU-28: Libya and Israel had by far the highest levels of gross inland energy consumption per inhabitant among the ENP-South countries.

Relative to its overall energy needs, Lebanon, Jordan and Morocco had the highest energy dependency, as net imports made up more than 90 % of gross inland energy consumption in 2016 (Figure 3). Tunisia (52 %) and Egypt (13 %) reported energy dependencies below that of the EU-28 (54 %), while Libya (2015 data) and Algeria reported negative dependencies as they were net exporters of energy products.

Figure 2: Gross inland consumption of energy relative to population size (kgoe per inhabitant)

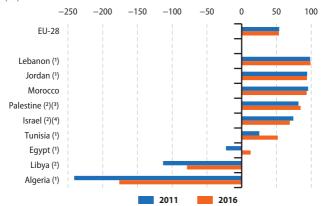


- (1) 2015 instead of 2016.
- (2) Rounded values.
- (3) 2012 instead of 2011.
- (*) 2012 instead of 2011; population data excludes the population of Palestinian refugee camps in Lebanon. 2015 (rounded value) instead of 2016.
- (°) This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

Source: Eurostat (online data codes: nrg_100a and demo_gind) and the International Energy Agency

Figure 3: Energy dependency

(%)



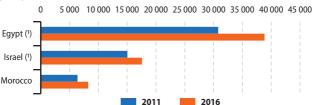
Note: calculated as net imports divided by the sum of gross inland energy consumption plus international marine bunkers (expressed as a percentage).

- (¹) Approximation, calculated as net imports divided by gross inland energy consumption (expressed as a percentage).
- (2) 2015 instead of 2016.
- (3) This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.
- (4) 2013 instead of 2011.

Source: Eurostat (online data code: tsdcc310) and the International Energy Agency

The installed electricity generating capacity in the EU-28 in 2016 was 991 gigawatts (GW), 7.6 % higher than in 2011. The three ENP-South countries for which data are available (see Figure 4) all recorded larger increases than in the EU-28: 16.8 % in Israel (2013-2016), 26.2 % in Egypt (2013-2016) and 29.6 % in Morocco. In the EU-28, 29 % of the electricity that was generated was from renewable energy sources, while in most of the ENP-South countries the use of renewable energy sources for the generation of electricity was relatively low, less than 15 % except in Lebanon where electricity generation was almost entirely based on renewable energy sources (see Figure 5). Total electricity generation in the EU-28 in 2016 was 3.3 petawatt hours (PWh) (or 3.3 million gigawatt hours (GWh)). Egypt had the highest level of electricity generation among the ENP-South countries, 186 thousand GWh in 2016.

Figure 4: Electricity — maximum net generating capacity (MW)



Note: Algeria, Jordan, Lebanon, Libya, Palestine (2) and Tunisia, no recent data available. EU-28: 921 GW in 2011 and 991 GW in 2016.

- (1) 2013 instead of 2011.
- (2) This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

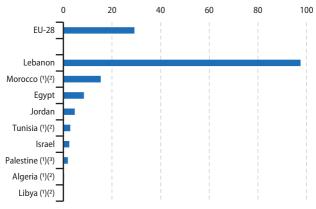
Source: Eurostat (online data code: nrg_113a) and the International Energy Agency

The EU-28 had a relatively balanced level of exports and imports of electricity (including trade between EU Member States). Israel, Egypt, Tunisia (2015 data) and Algeria (2015 data) were net exporters of electricity while the remaining ENP-South countries were net importers (Table 2). Net imports were a relatively small share of domestic supply in most countries, with the notable exceptions of Morocco (17 %) and Palestine (91 %; 2015 data).

Based on the latest available information, the ENP-South countries together had a combined road network that was approximately one tenth of the length of the EU-28 network. Many areas in the ENP-South countries are very sparsely populated and this may, at least to some degree, explain the relatively low level of development of motorway infrastructure. The longest motorway network in the

Figure 5: Share of renewables in gross electricity generation, 2016





^{(1) 2015.}

Source: Eurostat (online data code: nrg_105a) and the International Energy Agency

 Table 2: Main indicators for electricity, 2016

(GWh)

(
	Gross generation	Exports	Imports	Domestic supply
EU-28	3 255 050	382 221	364 031	3 236 860
Algeria (1)	68 798	641	610	68 767
Egypt	186 320	747	54	156 300
Israel	67 210	5 553	0	56 965
Jordan	19 730	45	334	20 019
Lebanon	1 337	0	6	1 343
Libya (¹)	37 713	0	88	37 801
Morocco	24 865	135	5 289	30 019
Palestine (1)(2)	505	0	5 413	5 928
Tunisia (1)	19 676	500	403	19 579

^{(1) 2015.}

Source: Eurostat (online data code: nrg_105a)

⁽²⁾ Renewables includes pumped hydro.

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ENP-South countries was recorded in Morocco (1.8 thousand km), followed by Israel that reported 555 km of motorway (Table 3).

Among the ENP-South countries, car ownership is usually less commonplace than in the EU and cars tend to account for a lower share of the total number of road motor vehicles (see Table 4). Subject to data availability, Algeria had the highest total number of passenger cars, at 3.7 million in 2015, followed by Israel (2.8 million) and Morocco (2.7 million) in 2016.

Table 3: Length of road network (km)

	Roads (includi	ng motorways)	Motor	ways
	2006	2016	2006	2016
EU-28 (1)	3 700 000	4 000 000	65 673	75 000
Algeria	110 125	:	119	:
Egypt	106 854	174 605	134	:
Israel (2)	17 714	19 362	340	555
Jordan	7 694	7 377	-	-
Lebanon	6 850	6 850	300	300
Morocco	57 764	59 104	639	1 770
Palestine (3)	5 147	3 297	:	:
Tunisia	19 275	19 546	262	407

Note: Libya, not available.

- (¹) Roads and motorways 2016: rounded estimates based on the closest reference period available for each EU Member State. Roads: excluding Germany and Greece. Motorways: excluding Greece.
- (2) Paved roads only.
- (*) Excluding the Gaza strip. This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

Source: Eurostat (online data codes: road_if_roadsc and road_if_motorwa)

Table 4: Road equipment

(t	h	0	u	S	a	n	d	S)
	_			_	_			

		of road motor icles	Passenger cars	Lorries
	2006	2016	2016	2016
EU-28 (1)	271 000	300 000	258 000	34 000
Algeria (²)	3 161	5 364	3 655	1 543
Egypt	3 008	5 937	:	1 210
Israel	2 090	3 109	2 751	319
Jordan (3)	707	1 439	1 226	160
Lebanon (4)	1 155	1 676	1 548	76
Morocco (5)	2 122	3 749	2 671	:
Palestine (6)	116	196	167	26
Tunisia	1 038	1 725	1 210	481

Note: Libya, not available.

- (¹) Rounded estimates based on the closest reference period available for each EU Member State. Total number of road motor vehicles: excluding motorcycles.
- (2) 2015 instead of 2016.
- (3) Licensed vehicles only.
- (4) Total number of road motor vehicles and passenger cars: 2007 instead of 2006. Lorries: 2008 instead of 2006. Passenger cars and lorries: 2014 instead of 2016.
- (3) Total number of road motor vehicles: private road motor vehicles in use; may also include trailers and semi-trailers and exclude trolley buses, motorcycles and mopeds.
- (°) Excluding the Gaza strip. This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

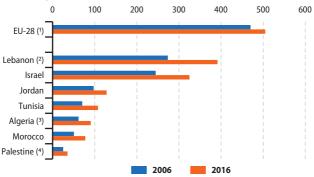
Source: Eurostat (online data code: tran_r_vehst)

Lebanon had the highest motorisation rate among the ENP-South countries for which data are available, 391 per 1 000 inhabitants (2012 data), followed by Israel with a rate of 325 per 1 000 inhabitants in 2016 (see Figure 6).

Figure 7 presents information on the number of persons killed in road accidents relative to the size of the population. Israel and Palestine were the only ENP-South countries (for which data are available) to record lower ratios

Figure 6: Motorisation rate — number of passenger cars relative to population size

(number per 1 000 inhabitants)

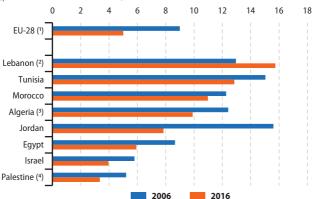


Note: Egypt and Libya, not available

- (¹) 2006: rounded estimate based on the closest reference period available for each EU Member State.
- (2) 2007 instead of 2006. 2012 instead of 2016.
- (3) 2015 instead of 2016.
- (4) This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

Source: Eurostat (online data codes: tran_r_vehst and demo_gind)

Figure 7: Persons killed in road accidents (per 100 000 inhabitants)



Note: Libya, not available.

- (¹) Rounded estimates based on the closest reference period available for each EU Member State. 2015 instead of 2016.
- (2) 2007 instead of 2006 and 2012 instead of 2016.
- (3) 2015 instead of 2016.
- (*) Excluding the Gaza strip. This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue

Source: Eurostat (online data codes: tran sf roadse and demo gind)

than in the EU-28. By contrast, the number of people killed in road accidents was more than twice the EU-28 average in the Maghreb countries of Algeria (2015 data), Morocco and Tunisia, and even higher still in Lebanon (2012 data). Between 2006 and 2016 Jordan experienced a large fall in the number of road accident deaths.

The rail network in the ENP-South countries was relatively underdeveloped, with the longest networks in Egypt and Algeria (see Table 5). There are no operational rail lines in Lebanon or Palestine. The length of the rail network in most of the ENP-South countries grew during the period 2006 to 2016, with particularly high growth rates in Algeria, Egypt and Israel.

The data for the number of locomotives shown in Figure 8 confirm the expansion of rail transport across several ENP-South countries, particularly in

Table 5: Length of rail network

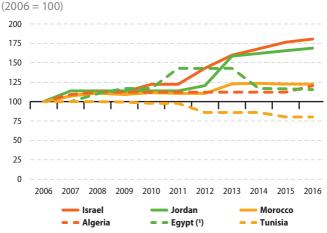
(km)

	2006	2011	2016
EU-28 (1)	220 500	219 500	218 400
Algeria	3 572	4 440	4 440
Egypt	5 128	5 530	7 082
Israel	905	1 079	1 340
Jordan	622	622	622
Lebanon	-	_	-
Morocco	1 907	2 109	2 109
Palestine (2)	_	_	_
Tunisia (3)	2 165	2 165	2 165

Note: Libya, not available.

Source: Eurostat (online data code: rail_if_tracks)

Figure 8: Number of rail locomotives



Note: Lebanon and Palestine (2), no railway. Libya: not available.

Source: Eurostat (online data code: rail_eq_locon)

^{(&#}x27;) Rounded estimates based on the closest reference period available for each EU Member State..

⁽²⁾ This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

⁽³⁾ Includes lines no longer in use.

^{(1) 2007 = 100. 2006:} not available.

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Israel and Jordan. There were over 410 million passengers carried on the rail networks of six ENP-South countries in 2016 (see Table 6; no data for Libya or Syria, no railway in Lebanon or Palestine). Between 2011 and 2016 the number of rail passengers increased by two thirds in Israel, while there were also considerable increases in passenger numbers in Algeria, Tunisia and Morocco. The quantity of rail freight fell in the majority of ENP-South countries between 2011 and 2016, with only Israel (among those for which data are available and/or have rail networks) recording an expansion. In 2016, the amount of rail freight in Morocco was more than the total for all of the other ENP-South countries (for which data are available) combined.

Figure 9 provides information as to the composition of the civil air fleet for 2016. Among the ENP-South countries, Egypt had by far the highest number

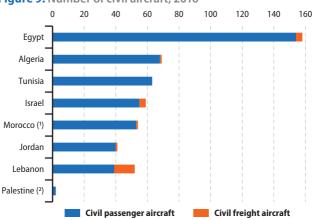
Table 6: Passenger and freight rail transport

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		sengers sands)	Rail freight (thousand tonnes)			
	2011	2011 2016		2016		
EU-28 (1)	8 364 810	9 620 292	1 708 130	1 594 305		
Algeria	27 416	37 687	4 983	3 487		
Egypt	224 800	236 445	6 163	4 675		
Israel	35 930	59 544	6 229	9 232		
Jordan	11	12	2 055	1 469		
Lebanon	-	_	_	-		
Morocco	33 931	39 487	37 153	28 151		
Palestine (2)	_	_	_	_		
Tunisia	32 683	40 954	4 365	3 856		

Note: Libya, not available. All transport on the national territory.

Source: Eurostat (online data codes: rail_pa_typepas and rail_go_typeall)

Figure 9: Number of civil aircraft, 2016



Note: ranked according to the number of civil passenger aircraft. Libya: not available. EU-28 (2015): 4 137 civil passenger aircraft; 168 civil freight aircraft.

Source: Eurostat (online data code: avia_eq_arc_typ)

^(*) Passengers: rounded estimates based on the closest reference period available for each EU Member State. Freight: 2015 instead of 2016; excluding Belgium.

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⁽¹⁾ Provisional.

^{(*) 2012.} This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

of passenger aircraft in 2016, more than twice as many as in any other ENP-South country. The largest civil air freight fleet among the ENP-South countries was in Lebanon. With the exception of Egyptian air transport, there was growth between 2011 and 2016 in air passenger numbers and in air freight and mail quantities for each of the ENP-South countries (for which data are available; see Table 7). Algeria recorded the fastest growth for passengers and for freight, both increasing by just over 50 %.

The highest number of maritime passengers disembarked in the ENP-South countries in 2016 was recorded in Morocco, due in part to its close proximity and ties to mainland Europe. In each of the ENP-South countries (for which data are available) there was an increase in the weight of freight carried by sea between 2011 and 2016, most notably in Israel. The latest information available shows that Egypt had the highest quantity of inward freight carried by sea, some way ahead of Morocco, Algeria and Israel.

Table 7: Main indicators for air transport

		passengers sands)	Air freight and mail arrivals (thousand tonnes)	
	2011 2016		2011	2016
EU-28	646 752	770 940	7 624	8 240
Algeria	4 493	6 920	23	35
Egypt	14 570	13 500	116	113
Israel	6 160	8 725	139	172
Jordan	2 972	3 782	53	63
Lebanon	2 815	3 778	43	53
Morocco	7 640	9 017	:	:
Palestine (1)	0	:	:	:
Tunisia	3 842	3 919	16	18

Note: Libya, not available.

Source: Eurostat (online data codes: avia_paoc and avia_gooc)

Table 8: Main indicators for maritime transport

	Passengers of (thous	disembarked sands)	Freight handled — inward (thousand tonnes)		
	2011	2016	2011	2016	
EU-28 (1)	206 429	198 233	2 329 091	2 279 042	
Algeria	308	318	37 682	48 229	
Egypt (1)	1 029	500	79 128	93 400	
Israel (2)	230	95	25 483	36 311	
Jordan	315	145	10 208	12 219	
Lebanon (3)	9	2	5 879	7 731	
Morocco (4)	2 016	2 269	46 907	56 383	
Palestine (5)	_	_	_	_	
Tunisia	366	382	14 516	17 099	

Note: Libya, not available.

- (1) 2015 instead of 2016.
- (2) 2016: includes freight loaded and unloaded offshore.
- (3) Only covers Beirut port (which represents about 90 % of maritime transport in Lebanon).
- (4) 2013 instead of 2011

Source: Eurostat (online data codes: mar_mp_aa_cphd and mar_mg_aa_cwhd)

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Further information

Eurostat's website

Eurostat's website (http://ec.europa.eu/eurostat) provides free access to its statistics; it is available in German, English and French. Eurostat online data codes, which are given in the source under each table or figure, provide users with a quick and efficient way to access the most up-to-date statistics. When entered in the 'search' facility on Eurostat's website, these codes provide users with the freshest data and longer time series.

Statistics Explained

Statistics Explained (http://ec.europa.eu/eurostat/statistics-explained/index.php) is Eurostat's wiki-based system that presents statistical topics in an easy to understand way.

Statistical articles on ENP countries:

http://ec.europa.eu/eurostat/statistics-explained/index.php/ European_Neighbourhood_Policy_countries_-_statistical_overview

Background information on the ENP:

http://ec.europa.eu/eurostat/statistics-explained/index.php/ Statistical_cooperation_-_European_Neighbourhood_Policy

National statistical authorities of the ENP-South countries

Algeria	Office national des statistiques	www.ons.dz
Egypt	Central Agency for Public Mobilization and Statistics	www.capmas.gov.eg
Israel	Central Bureau of Statistics	www.cbs.gov.il
Jordan	Department of Statistics	dosweb.dos.gov.jo
Lebanon	Central Administration of Statistics	www.cas.gov.lb
Libya	Bureau of Statistics and Census Libya	www.bsc.ly
Morocco	Direction de la Statistique, Haut-Commissariat au Plan	www.hcp.ma
Palestine	Palestinian Central Bureau of Statistics	www.pcbs.gov.ps
Tunisia	Institut National de la Statistique	www.ins.nat.tn

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