

Turkey - Energy System Overview



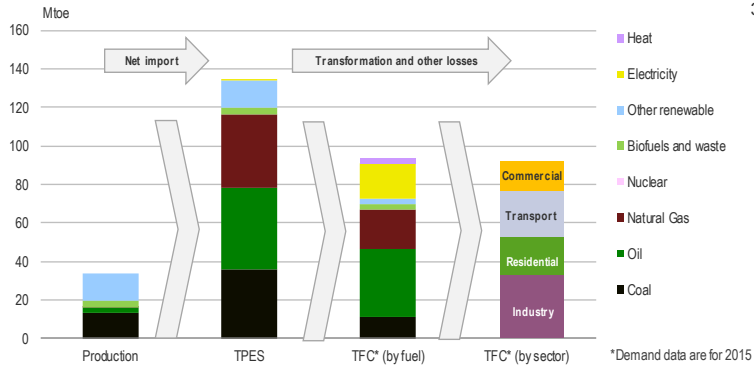
General information

Country size	Turkey 770 000 km ²	4th compared to IEA countries
Population (2016)	78.3 million	6.9% of IEA population
GDP (2016)	1831 billion USD 2010 prices and PPPs	* PPP = Purchasing Power Parities

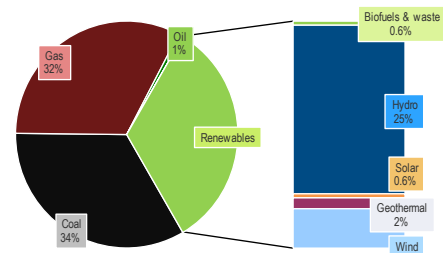
Energy system transformation

SUPPLY AND DEMAND 2016

TPES: 134.6 Mtoe, 13% renewables (IEA average 10%)



ELECTRICITY GENERATION: 273.4 TWh
33% renewables (IEA average: 24%)

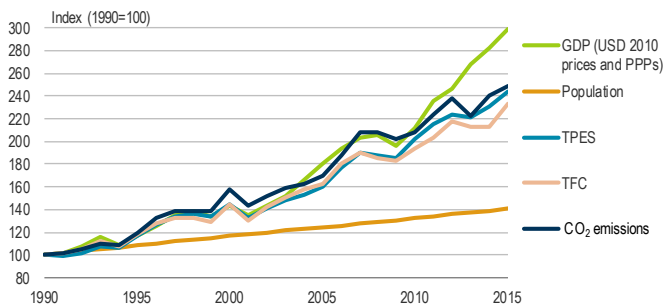


Fuel shares compared to IEA average

Fuel	TPES (%)	IEA average* (%)	IEA range (%)	Electricity (%)	IEA average (%)	IEA range (%)
Coal	27	17	0-69	34	28	0-84
Oil	31	36	7-58	1	2	0-10
Gas	28	27	2-40	33	27	1-51
Hydro	4	2	0-43	25	13	0-96
Nuclear	0	10	0-44	0	19	0-73
Biofuels	2	6	2-27	1	3	0-26
Wind	1	1	0-7	6	6	0-42
Geothermal	4	1	0-23	2	0	0-18
Solar	1	1	0-3	1	2	0-13

* IEA Average - total supply per fuel / TPES for 29 IEA countries

KEY ENERGY INDICATOR DEVELOPMENT, 1990-2015



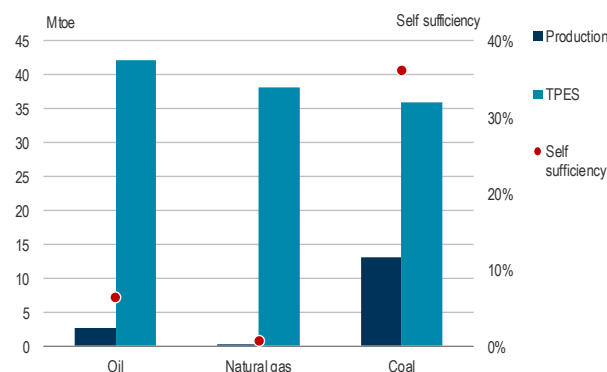
ENERGY AND CARBON INTENSITY (2016)

	Turkey	IEA average
TPES per capita (toe/cap)	1.72	4.42
Electricity consumption per capita (MWh/cap)	3.09	8.69
Emissions* per capita (tCO ₂ /cap)	4.10	9.88
Energy intensity (TPES) (Mtoe/USD PPP million)	73	96
Emission* intensity (tCO ₂ /USD PPP million)	178	193

* CO₂ emissions from fuel combustion (2015 data)

Energy Security

PRODUCTION AND SELF SUFFICIENCY, 2016



ENERGY IMPORT/EXPORT

FUEL	QUANTITY	IMPORT/EXPORT COUNTRY
Crude Oil		
Imports	25.1 Mt	Iraq (36.9%)
Exports	0.6 Mt	Singapore (31.3%)
Oil Products		
Imports	24.9 Mt	Russian Federation (23.5%)
Exports	5.8 Mt	Egypt (19.6%)
Natural gas		
Imports	46.3 bcm	Russian Federation (53%)
Exports	0.7 bcm	Greece (100%)
Coal		
Imports	36.2 Mt	Colombia (42.7%)
Exports	0.1 Mt	Not else here specified (100%)
ELECTRICITY		
Imports	7.1 TWh	Bulgaria (67.9%)
Exports	3.2 TWh	Greece (88.2%)

Note: 2016 data are estimated

Source: IEA World Energy Balances 2017