

# Morocco

Energy Efficiency/CO <sub>2</sub> <sup>1</sup> Indicators	Units	1980	1990	2000	<sup>4</sup> 2008
<b>Key indicators</b>					
Primary energy intensity (at purchasing power parities (ppp))	koe/\$05p	0.107	0.105	0.121	0.123
Primary energy intensity excluding traditional fuels (ppp)	koe/\$05p	0.102	0.100	0.116	0.120
Primary energy intensity adjusted to EU structure (ppp)	koe/\$05p	0.109	0.096	0.105	0.107
Final energy intensity (at ppp)	koe/\$05p	0.083	0.072	0.085	0.086
Final energy intensity at 2005 GDP structure <sup>3</sup> (ppp)	koe/\$05p	0.078	0.069	0.085	0.086
Final energy intensity adjusted to EU economic structure (ppp)	koe/\$05p	0.080	0.067	0.074	0.076
Ratio final/primary intensity	%	79.6	71.5	72.9	72.4
CO <sub>2</sub> intensity (at ppp)	kCO <sub>2</sub> /\$05p	n.a.	0.295	0.344	0.358
CO <sub>2</sub> emissions per capita	tCO <sub>2</sub> /cap	n.a.	0.81	1.02	1.44
<b>Industry</b>					
Energy intensity of industry (to value added) (at ppp)	koe/\$05p	0.144	0.113	0.086	0.094
Energy intensity of manufacturing (at ppp)	koe/\$05p	0.206	0.167	0.131	0.128
Energy intensity of chemicals industry (at ppp)	koe/\$05p	n.a.	n.a.	n.a.	n.a.
Unit consumption of steel	toe/t	n.a.	n.a.	n.a.	n.a.
Share of electric process in steel production	%	n.a.	n.a.	100	100
Share of industrial cogeneration in power generation	%	0	0	0	0
CO <sub>2</sub> intensity of industry <sup>2</sup> (to value added) (at ppp)	kCO <sub>2</sub> /\$05p	n.a.	0.370	0.263	0.329
CO <sub>2</sub> emissions of industry <sup>2</sup> per capita	tCO <sub>2</sub> /cap	n.a.	0.25	0.20	0.31
<b>Transport</b>					
Energy intensity of transport to GDP (at ppp)	koe/\$05p	0.019	0.018	0.028	0.028
Average consumption of road transport per equivalent car	toe/car equiv.	n.a.	n.a.	0.75	0.65
Unit consumption of goods per ton km	toe/tkm	n.a.	n.a.	n.a.	n.a.
Share of biofuels in road transport energy consumption	%	0	0	0	0
CO <sub>2</sub> intensity of transport to GDP (at ppp)	kCO <sub>2</sub> /\$05p	n.a.	0.054	0.086	0.084
CO <sub>2</sub> emissions of transport per capita	tCO <sub>2</sub> /cap	n.a.	0.15	0.25	0.34
<b>Households</b>					
Average electricity consumption of households per capita	kWh/cap	51	89	146	223
Average electricity consumption of electrified households	kWh/hh	n.a.	1042	1138	1185
Households consumption for electrical appliances and lighting	kWh/hh	n.a.	n.a.	n.a.	n.a.
Per capita installed capacity of solar water heaters	m <sup>2</sup> /1000inhab	n.a.	n.a.	n.a.	n.a.
CO <sub>2</sub> emissions of residential sector per household	tCO <sub>2</sub> /hh	n.a.	0.33	0.48	0.67
<b>Services</b>					
Energy intensity of service sector (to value added) (at ppp)	koe/\$05p	0.003	0.004	0.003	0.005
Electricity intensity of service sector (to value added) (at ppp)	kWh/k\$05p	40	46	41	52
Unit consumption of services per employee	toe/emp	n.a.	0.06	0.05	0.07
Unit electricity consumption of services per employee	kWh/emp	n.a.	702	541	805
CO <sub>2</sub> intensity of service sector (to value added) (at ppp)	kCO <sub>2</sub> /\$05p	n.a.	n.a.	n.a.	n.a.
CO <sub>2</sub> emissions of service sector per employee	tCO <sub>2</sub> /emp	n.a.	n.a.	n.a.	n.a.
<b>Agriculture</b>					
Energy intensity of agriculture (to value added) (at ppp)	koe/\$05p	0.036	0.042	0.095	0.076
CO <sub>2</sub> intensity of agriculture (to value added) (at ppp)	kCO <sub>2</sub> /\$05p	n.a.	0.117	0.262	0.195
CO <sub>2</sub> emissions of agriculture sector per capita	tCO <sub>2</sub> /cap	n.a.	0.07	0.10	0.14
<b>Transformation sector</b>					
Efficiency of total electricity generation	%	37.8	35.2	37.4	38.6
Rate of electricity transmission-distribution losses	%	13.0	11.6	18.0	23.7
Efficiency of thermal power plants	%	30.2	32.2	36.1	36.9
Share of renewables in electricity generating capacity	%	38.0	26.4	25.2	25.6
Share of renewables in gross electricity consumption	%	28.9	12.7	5.7	7.1

<sup>1</sup> CO<sub>2</sub> from fuel combustion

<sup>2</sup> incl. autoproducers

<sup>3</sup> by main sector

<sup>4</sup> Italic = 2007

GDP / PRICES	Units	1980	1990	2000	2008
GDP per capita (at ppp)	\$05p/cap	2375	2780	2980	4056
Average electricity price (at ppp)	c05p/kWh	n.a.	19.8	21.3	22.2
Average price of motor fuels (at ppp)	\$05p/l	n.a.	1.48	1.29	1.51