



Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

7.2.1: Renewable energy share in the total final energy consumption

7.3.1: Energy intensity measured in terms of primary energy and GDP



7.2.1: Renewable energy share in the total final energy consumption

The indicator of the share of electricity produced by renewable energy sources in the total volume of electricity production is measured in terms

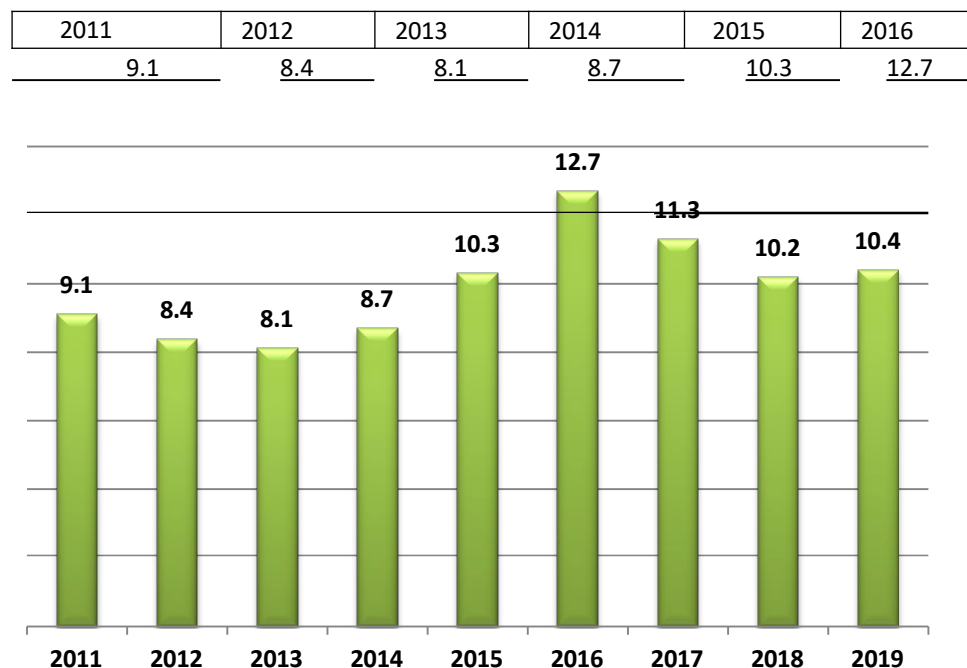
of the ratio of the renewable energy sources production, including large hydroelectric power plants, to the total volume of electricity production, on a percentage basis.

Renewable energy sources include: hydroelectric power, wind power,

solar power, biomass. The data is generated on the basis of the statistical form called 1-FEB: Fuel and Energy Balance once a year. Data on the indicator is available on the Bureau's website www.stat.gov.kz in the section as follows: Official Statistics - By industry - Statistics of energy and commodity markets - Dynamic tables - Data on renewable energy sources, as well as on the main page in the Monitoring of the Sustainable Development Goals until 2030 of the year.

The data has been calculated since 2011.

Dynamics of the share of electricity produced by renewable energy sources in the total volume of electricity production, 2011-2019.





7.3.1: Energy intensity measured in terms of primary energy and GDP

The energy intensity of the economy is a particular indicator of the nature intensity. This is a key indicator that characterizes the sustainability of the development of both the country as a whole and the energy sector. This indicator is one of the basic indicators in most systems of sustainability indicators.

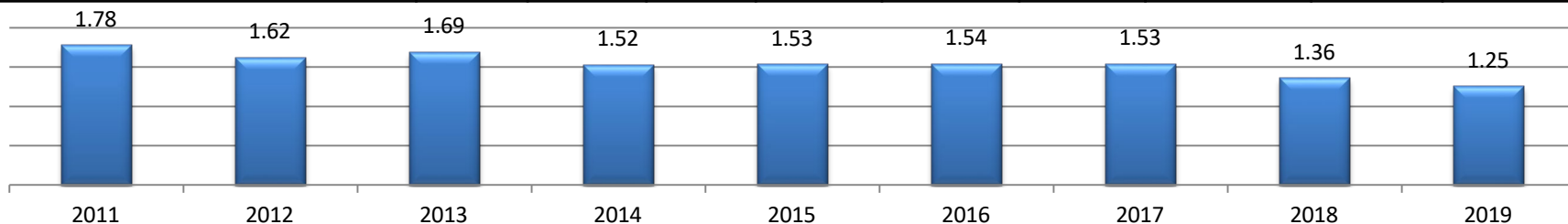
To determine the economic efficiency of fuel and energy resources consumption in the production of GDP in the Republic of Kazakhstan as a whole, the indicator of the GDP energy intensity is calculated.

The GDP energy intensity is defined as the ratio of the volume of gross consumption of fuel and energy resources for all production and non-production needs in tons of oil equivalent to the value of GDP. Data on the indicator is generated on the basis of the statistical form called 1-FEB: Fuel and Energy Balance once a year. The data for the republic has been generated since 2000, in the context of regions - since 2011. %

Data on the indicator is available on the Bureau's website www.stat.gov.kz in the section as follows: *Official Statistics - By industry - Statistics of energy and commodity markets - Dynamic tables - GDP energy intensity in the Republic of Kazakhstan*, as well as on the main page in the Monitoring of the Sustainable Development Goals until 2030 of the year.

Dynamics of GDP energy intensity, 2011-2019

	2011	2012	2013	2014	2015	2016	2017	2018	2019
GDP energy intensity, (TOE per thousand US dollars in 2000 prices)	1.78	1.62	1.69	1.52	1.53	1.54	1.53	1.36	1.25





Fuel and energy balance of the Republic of Kazakhstan for 2019 (1000
tons of oil equivalent)

The Energy Balance for 2019 is available in the format of the International Energy Agency (IEA) at the Bureau's website, in the following sections: Official Statistics - By industry - Statistics of energy and commodity markets - Main indicators – Energy Balance in the format of the IEA:

<https://www.stat.gov.kz/official/industry/30/statistic/7>

Balance sheet items	Coal	Oil	Petroleum products	Natural gas	Hydropower	Solar power	Biofuels / waste	Electric power	Heat energy	Total
Production	44 917	92 172	0	28 801	859	132	59	0	0	166 941
Import	875	38	588	13 910	0	0	17	166	0	15 592
Export	-11,044	-69,940	-5 068	-22,572	0	0	0	-208	0	-108 832
International bunkering	0	0	-164	0	0	0	0	0	0	-164
International aviation bunkering	0	0	-475	0	0	0	0	0	0	-475
Inventory changes	-275	461	-58	-16	0	0	2	0	0	114
Total primary energy consumption	34 473	22 729	-5 177	20 122	859	132	79	-42		73 176
Overflows	0	-1 705	1 705	0	0	0	0	0	0	0
Statistical difference	-1 730	-2 708	-1 042	-3 180	0	0	1	-822	707	-8 774
Power plants	0	0	0	0	-859	-132	-1	992	0	-1
CHP plant	-22,158	0	-176	-6 704	0	0	0	8 198	8 297	-12,544
Heating plants	0	-11	0	0	0	0	0	0	0	-11
Blast furnaces	-791	0	-120	0	0	0	0	0	0	-911
Gas processing plant	0	0	0	0	0	0	0	0	0	0
Coke plants, pressed fuel	25	0	0	0	0	0	0	0	0	25
Oil refineries	0	-17,054	16 072	0	0	0	0	0	0	-981
Petrochemical industry	0	0	0	0	0	0	0	0	0	0
LNG plants	0	0	0	0	0	0	0	0	0	0
The rest of the transformation sector	0	0	0	0	0	0	-2	0	0	-2
Use of energy for for BOP needs	-694	-1 085	-437	-1 614	0	0	-41	-1 307	-1 091	-6 260
Losses	-117	-165	-0	-255	0	0	0	-833	-770	-2 139
Final consumption industry	9 008	1	10 826	8 369	0	0	36	6 187	7 143	41 570
Industry	4 314	0	1 790	1 137	0	0	0	3 790	2 071	13 101
Ferrous metallurgy	1 322	0	470	34	0	0	0	1 219	645	3 690
Chemical and petrochemical industry	230	0	21	369	0	0	0	303	118	1 041
Non-ferrous metallurgy	1 611	0	80	0	0	0	0	1 224	15	2 930
Non-metallic product manufacturing	642	0	194	129	0	0	0	142	40	1 147
Transport equipment	1	0	5	9	0	0	0	4	1	20
Mechanical engineering	31	0	30	15	0	0	0	55	40	170
Mining industry	419	0	441	281	0	0	0	564	480	2 184
Food, beverages and tobacco manufacturing	31	0	62	232	0	0	0	141	119	584
Pulp and paper production and printing trades	1	0	4	18	0	0	0	10	13	45
Woodworking industry	1	0	1	0	0	0	0	1	1	4
Construction industry	24	0	480	43	0	0	0	115	192	855
Textile and leather industry	2	0	2	8	0	0	0	12	3	25
Not listed in other categories	0	0	0	0	0	0	0	0	406	406
Transport	2	1	5 465	130	0	0	0	303	0	5 902
Domestic air transport	0	0	132	0	0	0	0	0	0	132
Road transport	0	0	5 329	130	0	0	0	0	0	5 459
Railway transport	2	0	0	0	0	0	0	303	0	305
Pipeline transport	0	1	4	0	0	0	0	0	0	5
Domestic navigation	0	0	0	0	0	0	0	0	0	0
Not listed in other categories	0	0	0	0	0	0	0	0	0	0
Other	4 692	0	3 554	6 850	0	0	36	2 094	5 072	22 298
Housing sector	3 894	0	2 580	6 189	0	0	36	1 331	1 116	15 145
Commercial and public services	701	0	476	606	0	0	0	690	2 138	4 611
Agriculture/forestry	96	0	499	55	0	0	0	72	147	869
Fishery	1	0	0	0	0	0	0	1	0	2