



Ministry of energy and coal industry of Ukraine



Energy policy of UKRAINE

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General information OF UKRAINE



Ukraine, the second-largest country in Europe, is located in Eastern Europe with a **total area of 603,700 sq km.**

Ukraine shares boundaries with Belarus on the north, Russia on the east, the Black Sea on the south, Romania, Moldova, Hungary, and Slovakia on the west, and Poland on the north-west.

Kyiv is the capital of Ukraine, which is located in the north central part of the country. **Current population is no more than 42 million people.**

GDP was 93 937 mln \$ in 2016

Ukraine's location is one of strategic importance at the crossroads between Europe and Asia

Ukraine is going to be EU member-state

Key achievements: *implementation of EU legislation*

- Law "On Electricity Market of Ukraine" **was adopted**. Law will provide a transition to a new model of the electricity market.
- Harmonization of legislation in line with EU with the Law of Ukraine "**On the natural gas market**", "**On the National Commission for state regulation in the energy and utilities**"
- Process of restructuring "Naftogaz Ukraine" on the subject of legal separation of business **transportation, distribution and storage of natural gas** and the implementation of European regulations for proper operating of GTS.
- **Adoption a new Energy Strategy of Ukraine till 2035**, which is to identify and fix the main directions of the energy sector, the level of energy security, energy efficiency, the transition to the energy saving usage and the energy consumption with the introduction of innovative technologies.
- **Concept of development of the coal industry and gas** were adopted. Coal concept will optimize the structure of the coal industry and output it to the breakeven level and self-sustaining operation.



Dynamics of the GDP of Ukraine from 2002 to 2016

	GDP mln, USD		
2002			42393
2003	50133	7740	+18.3%
2004	64883	14750	+29.4%
2005	86142	21259	+32.8%
2006	107753	21611	+25.1%
2007	142719	34966	+32.5%
2008	179992	37273	+26.1%
2009	117228	-62765	-34.9%
2010	136419	19192	+16.4%
2011	163160	26740	+19.6%
2012	175781	12622	+7.7%
2013	183310	7529	+4.3%
2014	131805	-51505	-28.1%
2015	90 615	-41190	-31.3%
2016	93 937	+3 322	+3,67 %

Main strategic directions

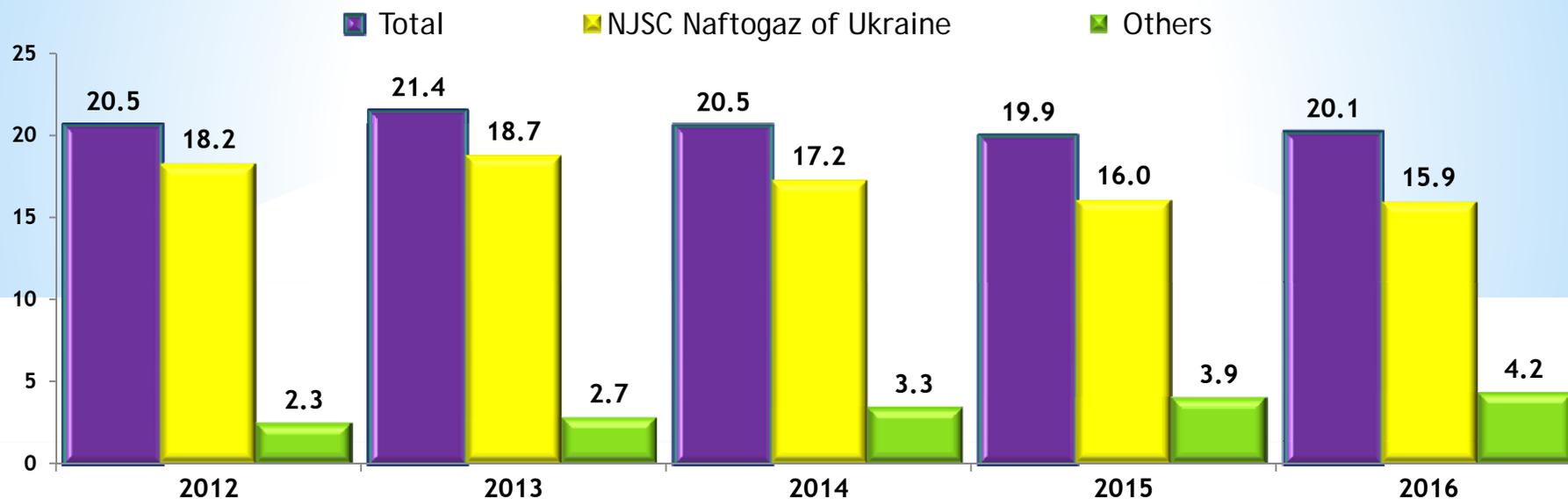
- ➔ Save the transit role of gas transmission system of Ukraine
- ➔ Stimulate gas production
- ➔ Harmonize Ukrainian legislation in line with EU
- ➔ Ensure integration electric and gas sectors of Ukraine into the European market
- ➔ Diversify the sources and routes of energy supply
(gas, oil, nuclear fuel, coal)
Ukraine will buy coal from USA and Kazakhstan
- ➔ According to the obligations Ukraine in the future should increase in the total balance of electricity the share of electricity from renewable sources to 11% (**currently 2%**)





TREND OF NATURAL GAS PRODUCTION IN UKRAINE FROM 2012 TO 2016

billion cm



Total
 2012 - 20,5 bill cm
 2016 - 20,1 bill cm



Naftogaz of Ukraine (state company) and other private companies are responsible for gas production in Ukraine. Also our state company is involved with extraction, transportation, and refinement of natural gas and crude oil.

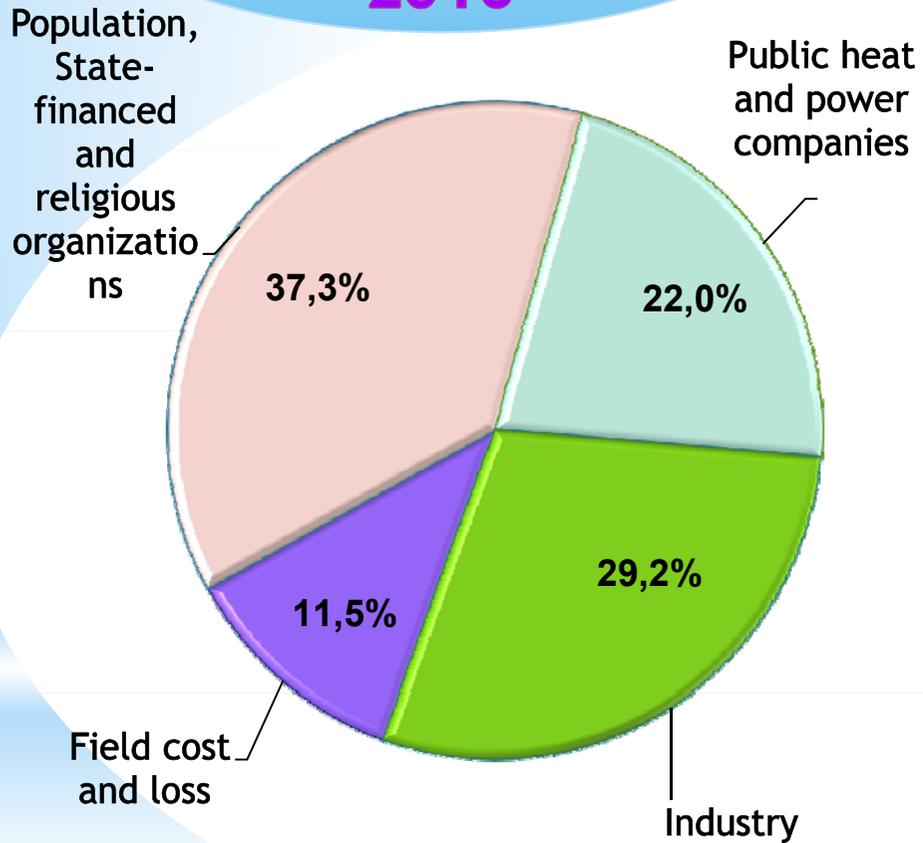
Compare 2012 and 2016 Naftogaz decreased gas production **on 12,6 %**.

But in general **total index significantly not changed** and in the future Ukraine is going to increase the own gas production

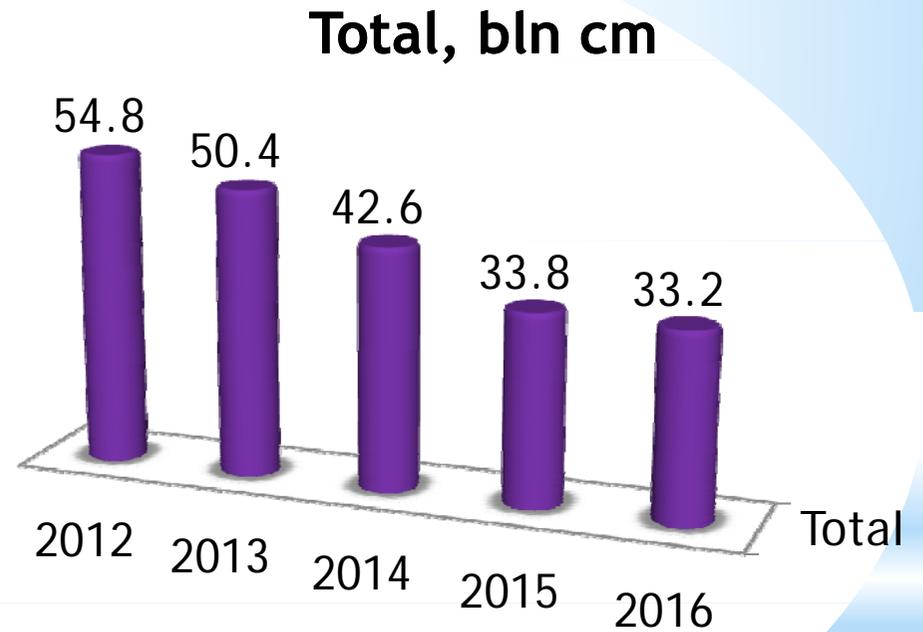
(Concept of development of gas production in Ukraine until 2020).



STRUCTURE OF NATURAL GAS CONSUMPTION IN 2016



NATURAL GAS CONSUMPTION IN UKRAINE, 2012-2016



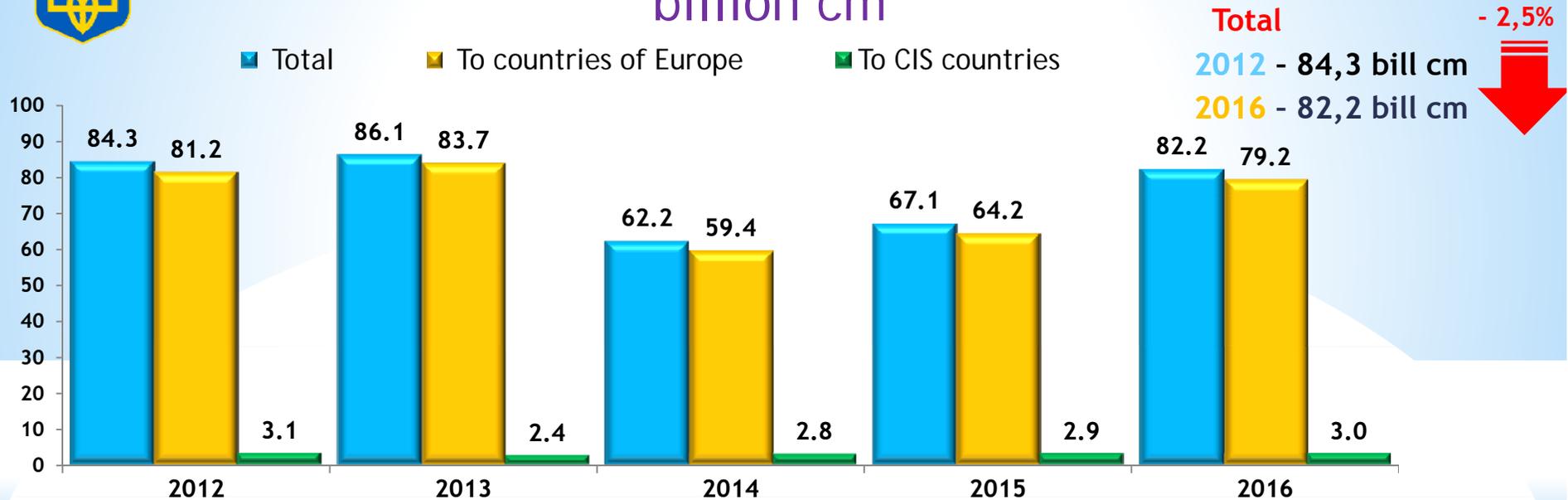
Total
2012 - 54,8 bill cm
2016 - 33,2 bill cm

- 39,4%



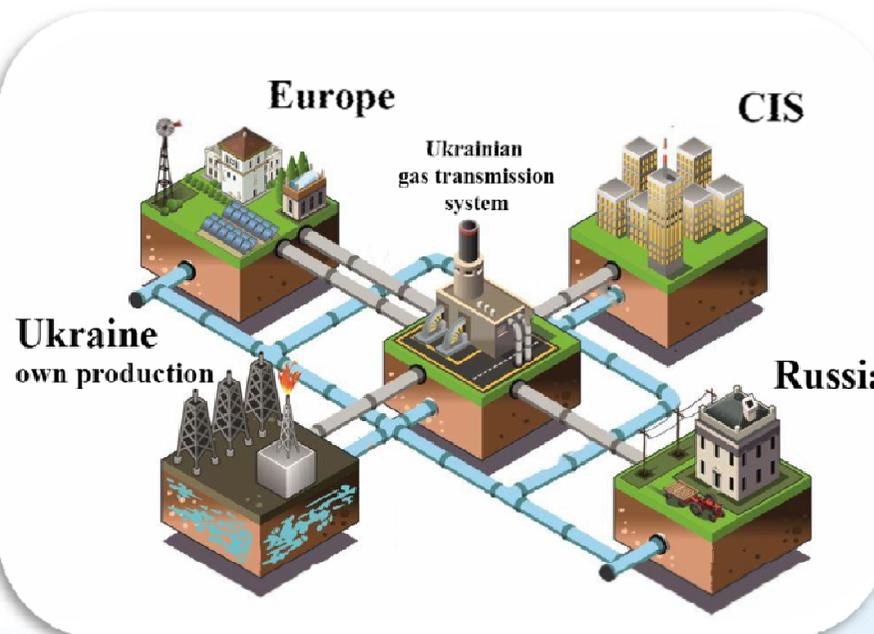


Natural gas transmission from 2012 till 2016 billion cm



The capacity of the Gas Transmission System of Ukraine is:

- input: 302 bln cm / year
- output: 178,5 bln cm / year
- Length of pipelines - 38,0 thousand km
- 12 underground gas storage facilities
- 31,0 bln cm working capacity
- 1458 distribution stations

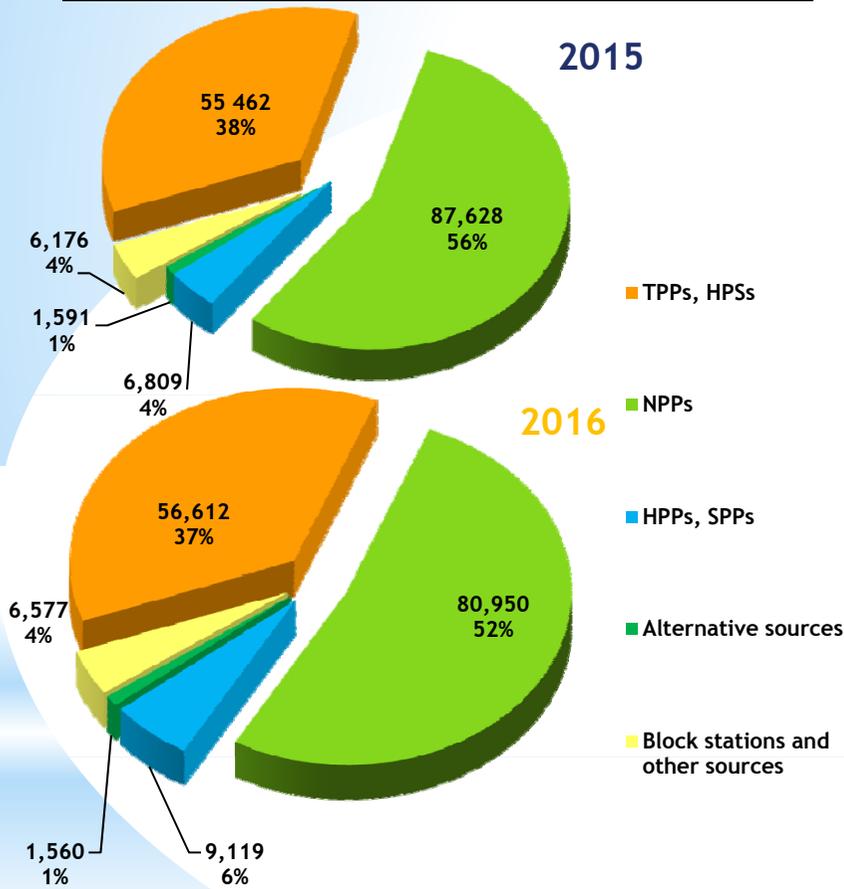




Electric Power Of Ukraine 2015-2016

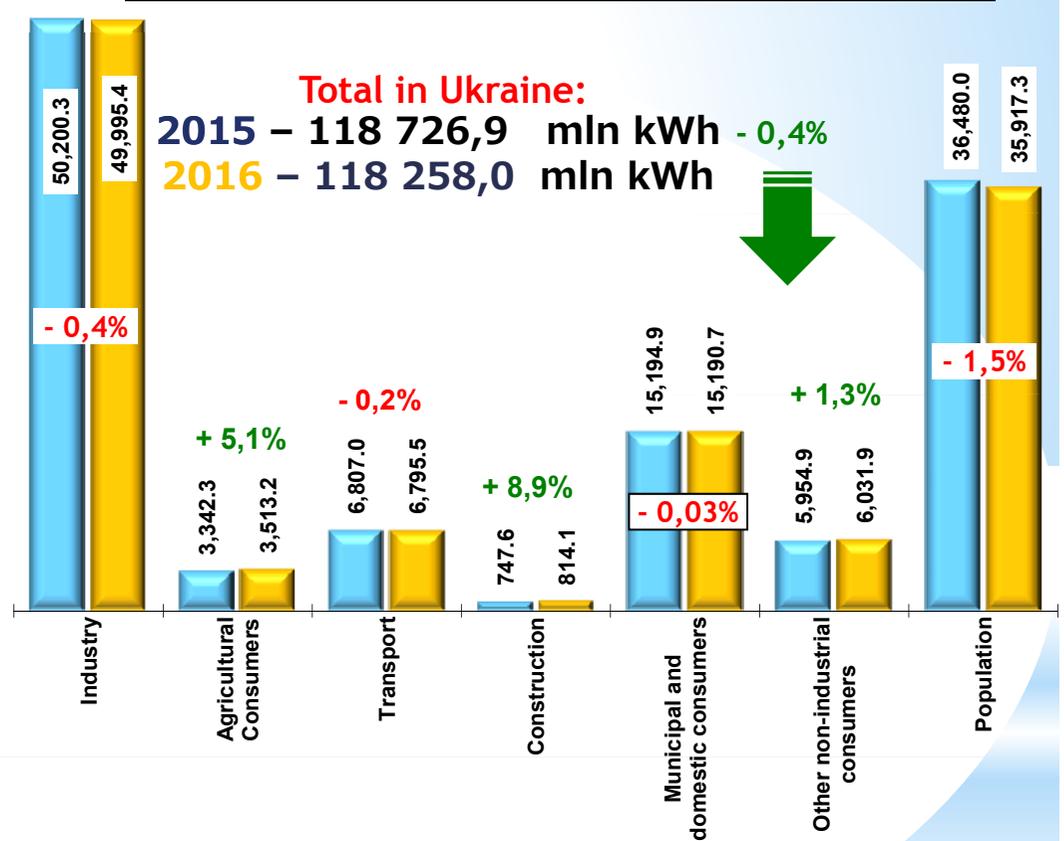
Electric Power Generation, mln kWh

Net power consumption mln kWh



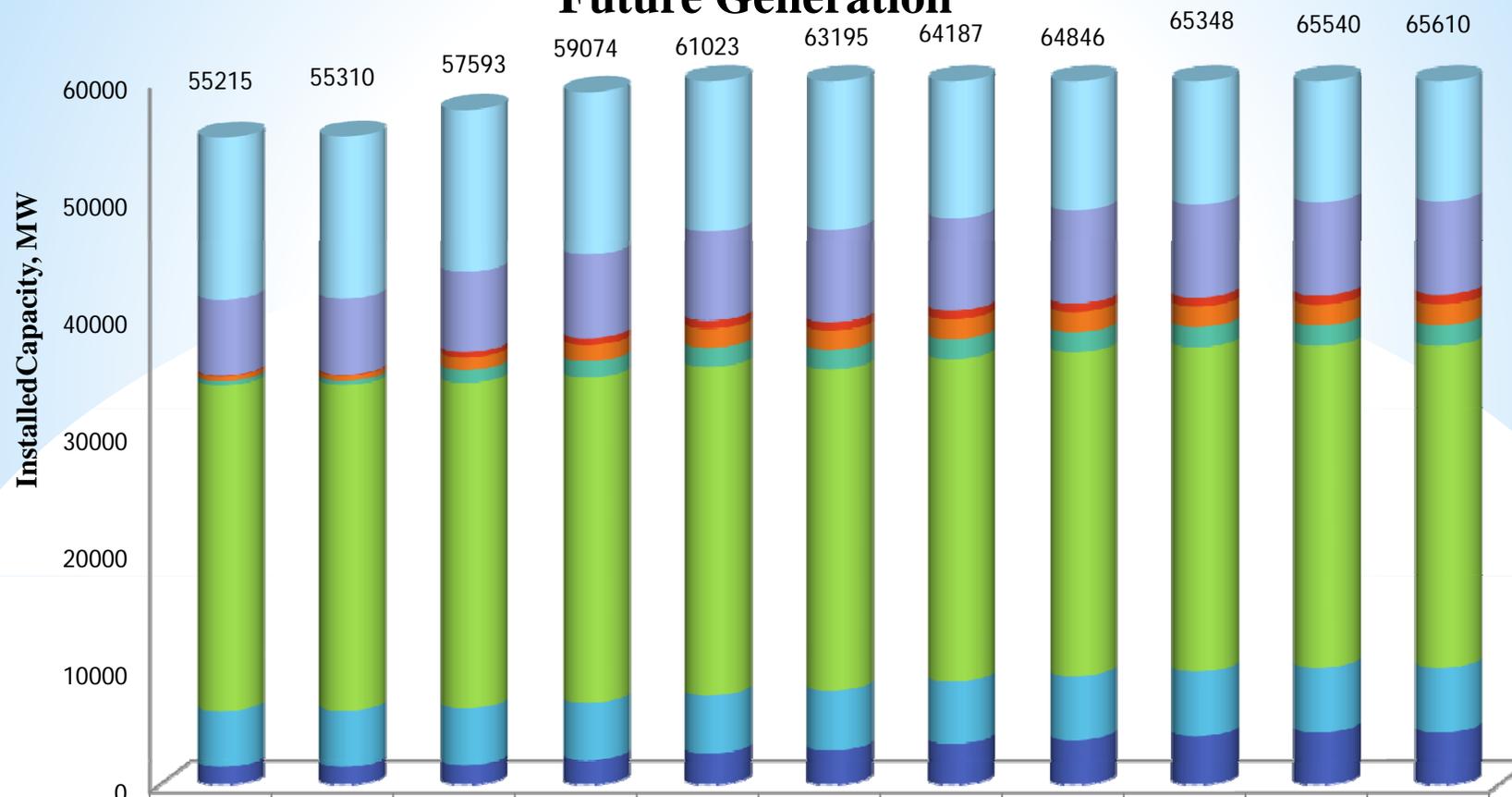
Total in Ukraine:
 2015 - 157 665,2 mln kWh
 2016 - 154 817,4 mln kWh

- 1,8%



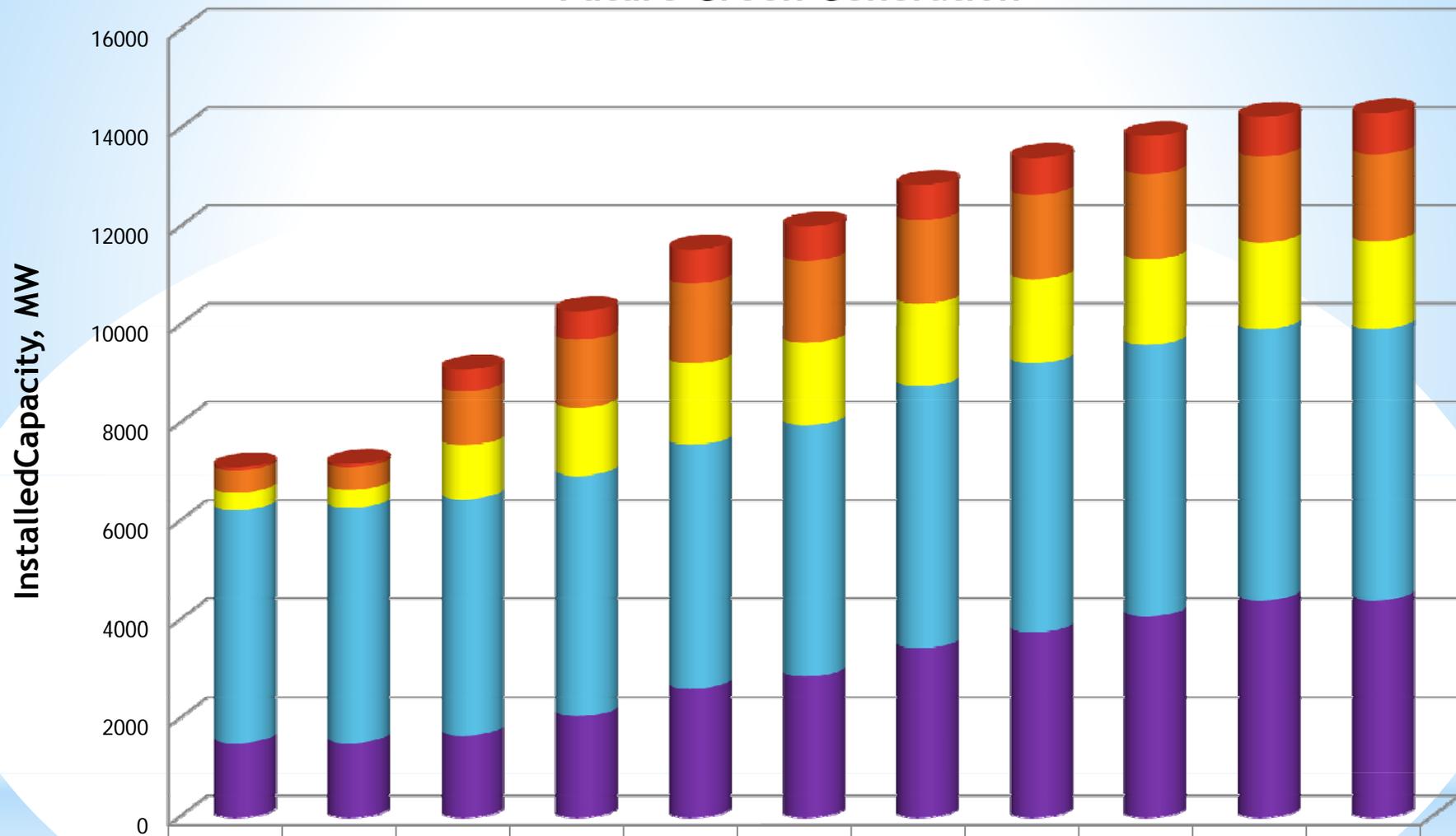
Indexes	Since 2016	relative to the same period last year	
		+ / -	%
Electricity consumption (gross)	149 346,3	- 1139,6	99,2
Electric Power Generation	154 817,4	- 2847,8	96,2
Electricity exports	4 016,9	+375,3	110,3

Future Generation



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total	55215	55310	57593	59074	61023	63195	64187	64846	65348	65540	65610
NPPs	13835	13835	13835	13835	13835	15835	15835	15835	15835	15835	15835
TPPs	6477	6501	6860	7155	7599	7915	7928	7953	7953	7966	7966
Biogas PP	60	70	450	580	686	700	720	745	770	800	830
WPP	440	450	1085	1382	1640	1670	1700	1720	1740	1760	1780
SPP	365	375	1094	1393	1655	1680	1700	1720	1740	1760	1780
PS GC	27803	27803	27803	27789	28040	27423	27556	27646	27701	27486	27486
TPPs	4726	4767	4805	4878	4954	5108	5310	5465	5523	5523	5523
PSPs	1509	1509	1661	2062	2614	2864	3438	3762	4086	4410	4410

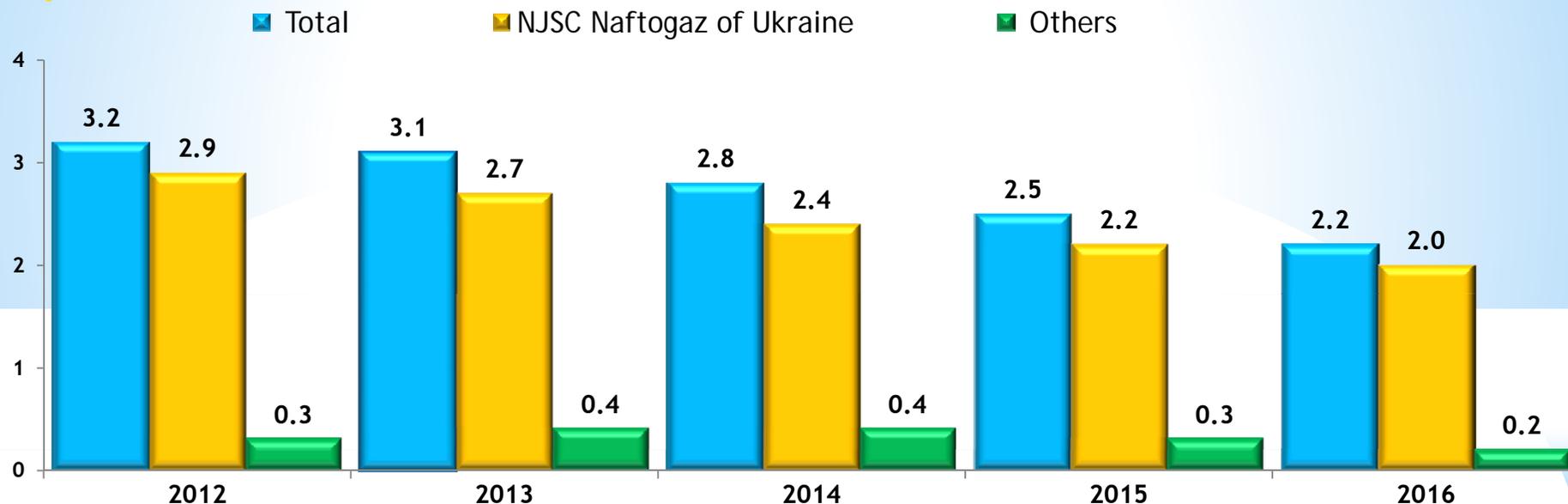
Future Green Generation



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
■ Biogas PP	60	70	450	580	686	700	720	745	770	800	830
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■ PSPs	1509	1509	1661	2062	2614	2864	3438	3762	4086	4410	4410



Oil production in Ukraine million tons



According to the results 2016 Ukraine has reduced oil production by 11.6% or 208.9 ths. tons compared to 2015 year - up to 1 million 596.7 thousand tonnes.

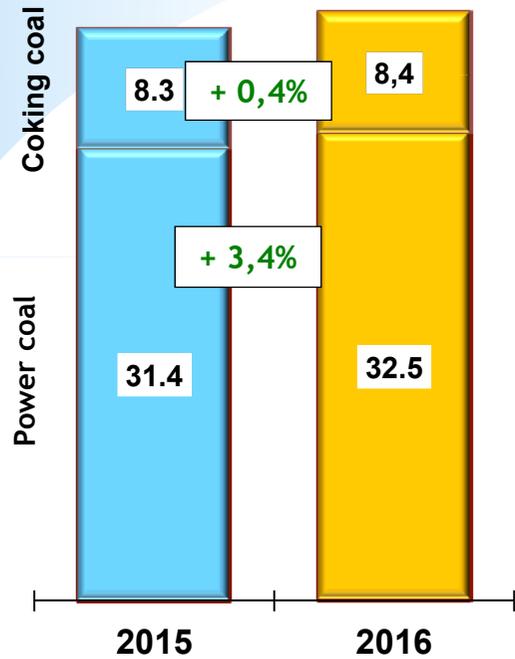
Other oil and gas companies of the country in 2016 have reduced oil production by 54.5% (to 60.2 thousand tons) - to 50.3 thousand tons.





The coal industry of Ukraine 2015-2016

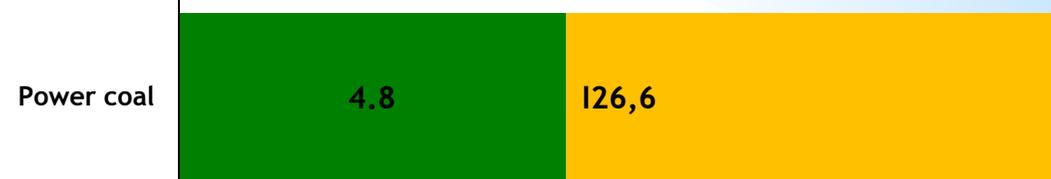
Total Coal Mining in Ukraine, mln tons



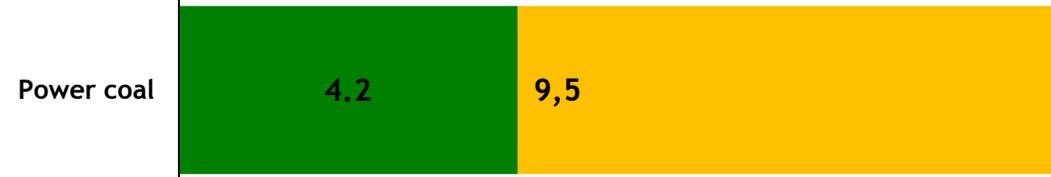
Total in Ukraine:
 2015 - 39,7 mln tons
 2016 - 40,9 mln tons
 + 2,8%

In the context of the subordination of enterprises, mln tons

2015

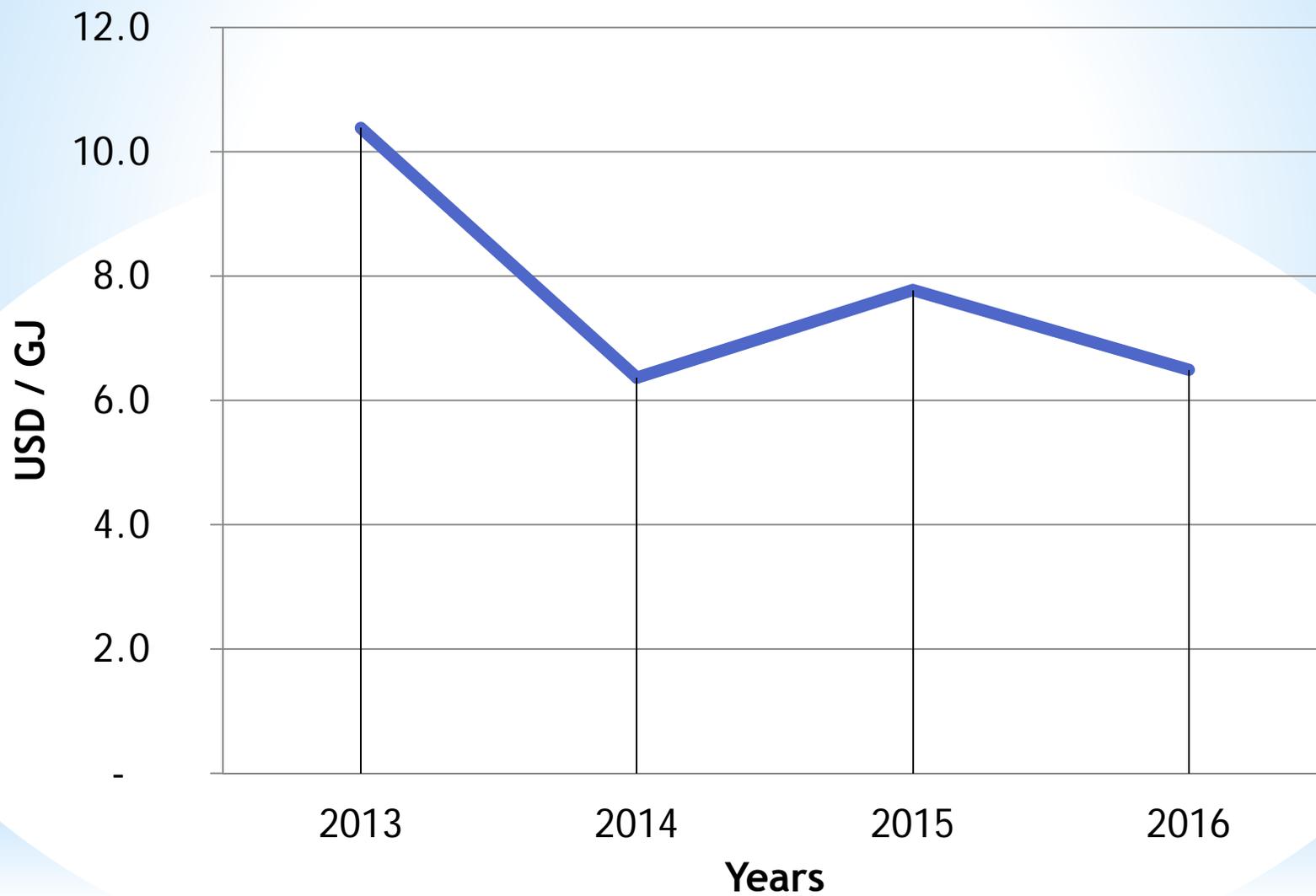


2016



■ Enterprises of the Ministry of Energy and Coal Industry of Ukraine
 ■ Others

Natural Gas End-user Prices, USD / GJ





REGARDING THE INTERESTING SUBJECT FOR STUDY

As it was mentioned before **RENEWABLE ENERGY** is a new and perspective direction for development in Ukraine.

At this time Ministry of Energy and Coal industry of Ukraine receives the offers from potential investors for the launch the new energy projects by energy production from renewable energy sources (mainly hydropower, solar, wind energy)

Furthermore, the Ministry supports, in particular those initiatives primarily aimed at saving traditional energy resources by a corresponding reduction of consumption and use of alternative and renewable energy sources.

It will be great to know more about this sector in the context to increase the level of energy independence.

