



ENERGY EFFICIENCY INDICATORS BASED ON THE ENERGY STATISTICS DATA

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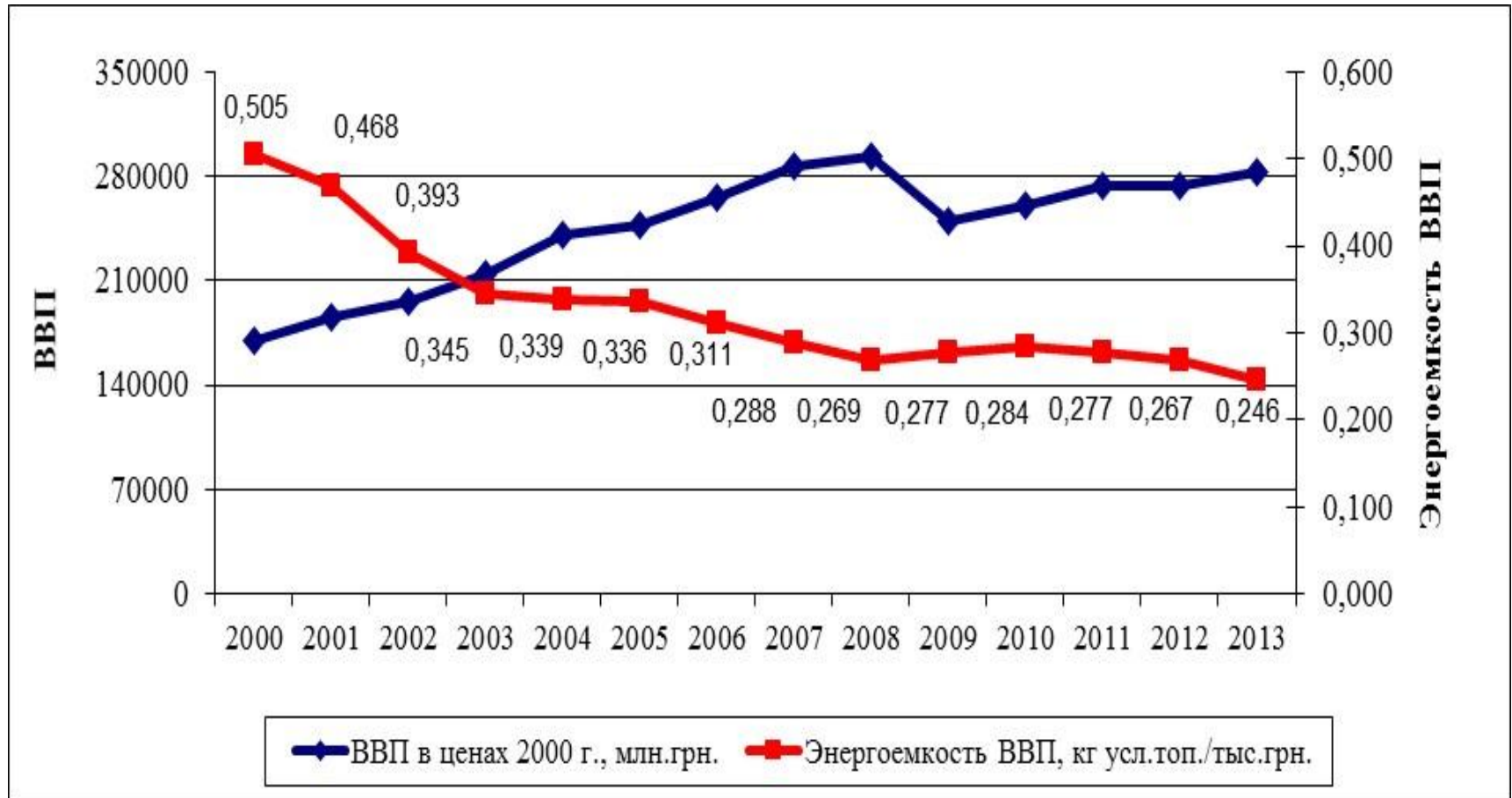


Energy efficiency indicators

Questions on energy efficiency are relevant worldwide. To calculate adequate indicators detailed information is necessary from one side, from the other – right choice of instruments for establishing priorities in development of the energy efficiency indicators.

This presentation shows possibilities of energy statistics data use for energy efficiency indicators calculation by using small examples.

General indicators of energy intensity in Ukraine

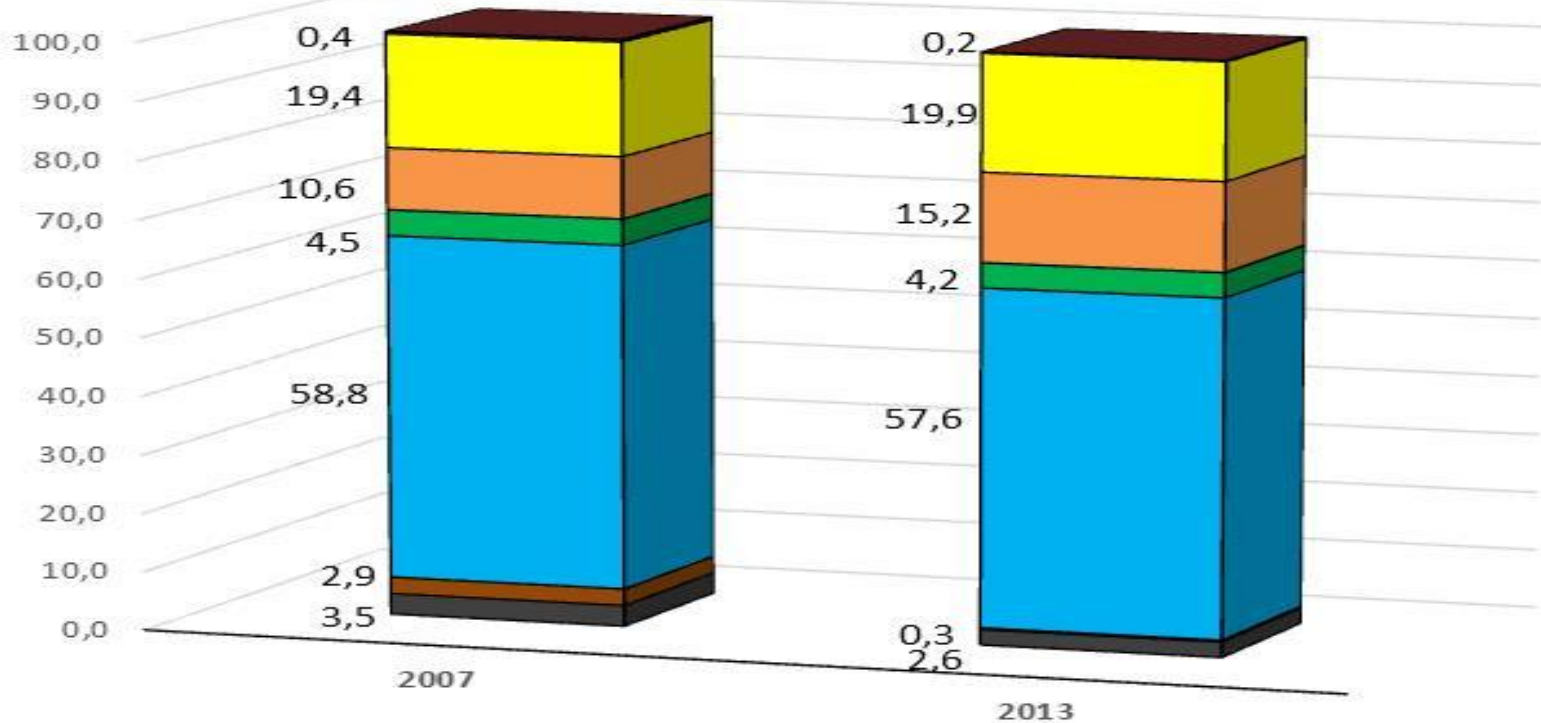


Energy consumption per capita in Ukraine

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Population in Ukraine, thousands	46930	46646	46373	46144	45963	45779	45634	45553	45426
Energy consumption by household sector, ktoe	24231	25124	23011	22845	22084	23813	23604	23466	23456
Energy consumption per capita in household sector, toe/capita	0,516	0,539	0,496	0,495	0,480	0,520	0,517	0,515	0,516



Use of fuel and energy in households, %



■ Уголь

■ Торф

■ Твердое биотопливо

■ Тепло

■ Торфяные и угольные брикеты

■ Природный газ

■ Электросенергия

■ Нефтепродукты



Energy consumption in the household sector per thousand households

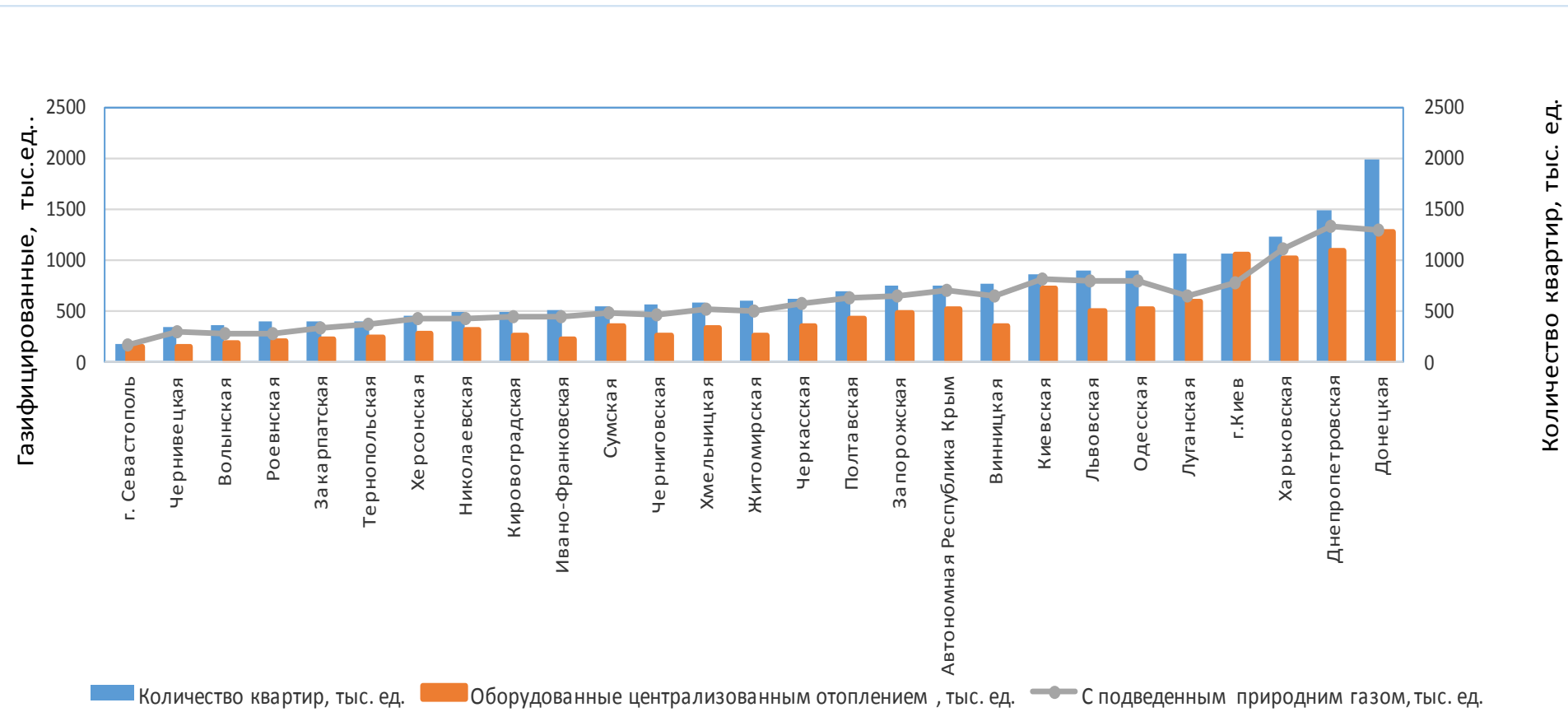
	2006	2007	2008	2009	2010	2011	2012	2013
Coal, peat, briquettes, TJ/th. households	4,44	3,48	1,84	1,35	1,17	1,74	1,76	1,68
Petroleum products, TJ/th. households	1,62	1,72	0,17	0,13	0,15	0,21	0,18	0,10
Natural gas, TJ/th. households	35,77	32,26	33,69	32,36	34,53	34,58	33,92	33,36
Solid biofuels and wastes, TJ/th. households	0,99	0,95	2,65	2,26	2,24	2,31	2,31	2,46
Electricity, TJ/th. households	5,72	5,87	6,54	7,07	7,76	8,14	8,14	8,79
Heat, TJ/th. households	12,43	11,28	10,72	10,92	12,62	11,09	11,54	11,52

Heat consumption in the households sector

	2006	2007	2008	2009	2010	2011	2012	2013
Heat consumption in the households sector, TJ	224347	202888	184345	186689	215202	188699	196026	195398
Total surface of inhabited dwellings in the inhabited houses, mln m ²	1049	1058	1067	1072	1079	1086	1094	1097
Share of the heated surface in the urban area, %	74,6	74,7	75,5	76,0	76,7	77,0	77,4	77,5
Share of the heated surface in the country area, %	25,3	26,9	31,4	33,6	36,1	38,6	40,4	42,0
Average temperature of the winter season, 0C	-4	-1	-1	-1	-3,1	-2,5	-1,6	-1,2
Heat consumption per m ² of the heated area TJ/m ²	0,363	0,307	0,290	0,286	0,321	0,275	0,279	0,246

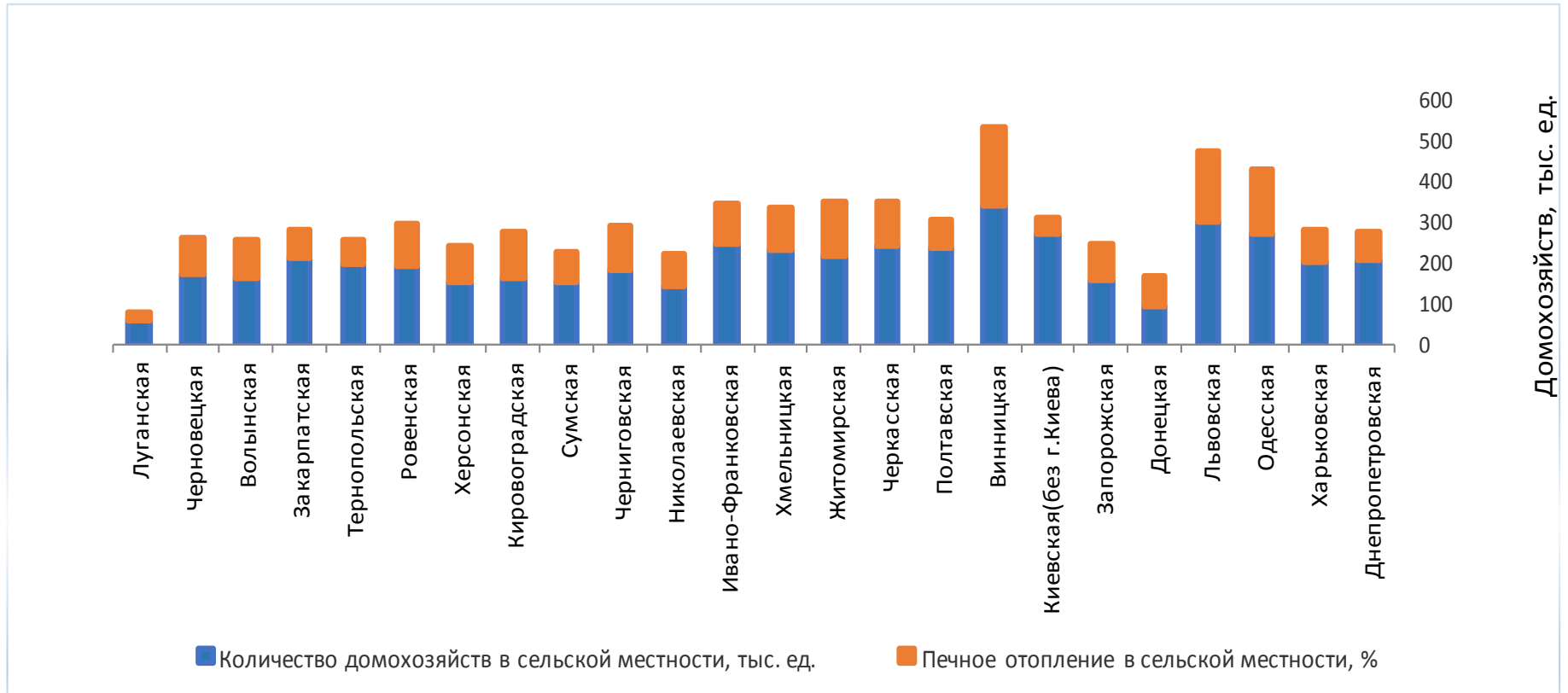


Apartments equipped with central heating and natural gas in 2013





Use of the stove heating in the houses of the rural area in 2014





Future directions of research

- Assessment of the energy intensity of final energy consumption in the households, split by the types of use (heating, hot water, cooking, lighting and work of the electric appliances, cooling);
- Comparative analysis of the energy efficiency indicators for Ukraine with other countries of the World;
- Collection of additional data and taking into account factors of influence (climatic conditions, regional specificities);
- Exploration of the possibilities of the SHARES software use для расчетов удельного веса потребления возобновляемых источников энергии.



Thank you for your attention!

