NATIONAL COMMITTEE ON STATISTICS of the REPUBLIC of BELARUS

TOWARDS THE ENERGY EFFICIENCY INDICATORS: NEW METHODOLOGY AND FIRST RESULTS

Deputy Chairperson of the National Committee on Statistics
of the Republic of Belarus,
Dovnar O.A.

February 1, 2012 – January 31, 2016 is the period of implementation of the technical assistance project "INOGATE Technical Secretariat and Integrated Programme in Support of the Baku Initiative and the Eastern Partnership Energy Objectives"

April 10, 2013 – Energy Statistics Action Plan for the Republic of Belarus

- development and improvement of the legal and institutional framework
- improvement of data collection, compilation and analysis in line with international and European standards
- assistance in energy balance compilation
- development of the energy efficiency indicators

September 9-13, 2013 – the 1st INOGATE technical assistance mission to the Republic of Belarus on implementation of the approved Energy Statistics Action Plan

"Improvement of methodologies for the collection, processing, quality control and dissemination of energy statistics "

"Adaptation of the existing surveys to energy consumption surveys aimed at improving the final energy consumption balance "

"Energy efficiency indicators"

"Energy indicators of sustainable development: experience of Belarus"

"Importance of reliable and comparable energy statistics and energy efficiency indicators in the national policy"

In consideration of the received recommendations the National Committee on Statistics:

- has established the Standing Interagency Working Group on Energy Statistics;
- has developed a draft methodology of compilation of the fuel and energy balance using the “physical content” method and calculation of the final energy consumption;
- has developed the system of energy efficiency indicators by sectors of final consumption;
- has identified approaches to conducting surveys of energy consumption in households in the Republic of Belarus;
- has established the column “Energy statistics” on the website of the National Committee on Statistics;
- has introduced additional activities aimed at improving energy statistics into the Development Strategy of national statistics of the Republic of Belarus until 2017.

DEVELOPMENT STRATEGY OF NATIONAL STATISTICS OF THE REPUBLIC OF BELARUS UNTIL 2017:

Art.63. DEVELOPING AND INTRODUCING CALCULATION METHODOLOGY OF FINAL ENERGY CONSUMPTION AND ENERGY EFFICIENCY INDICATORS BY INDUSTRY SECTORS (PERIOD OF IMPLEMENTATION – 2013-2015)

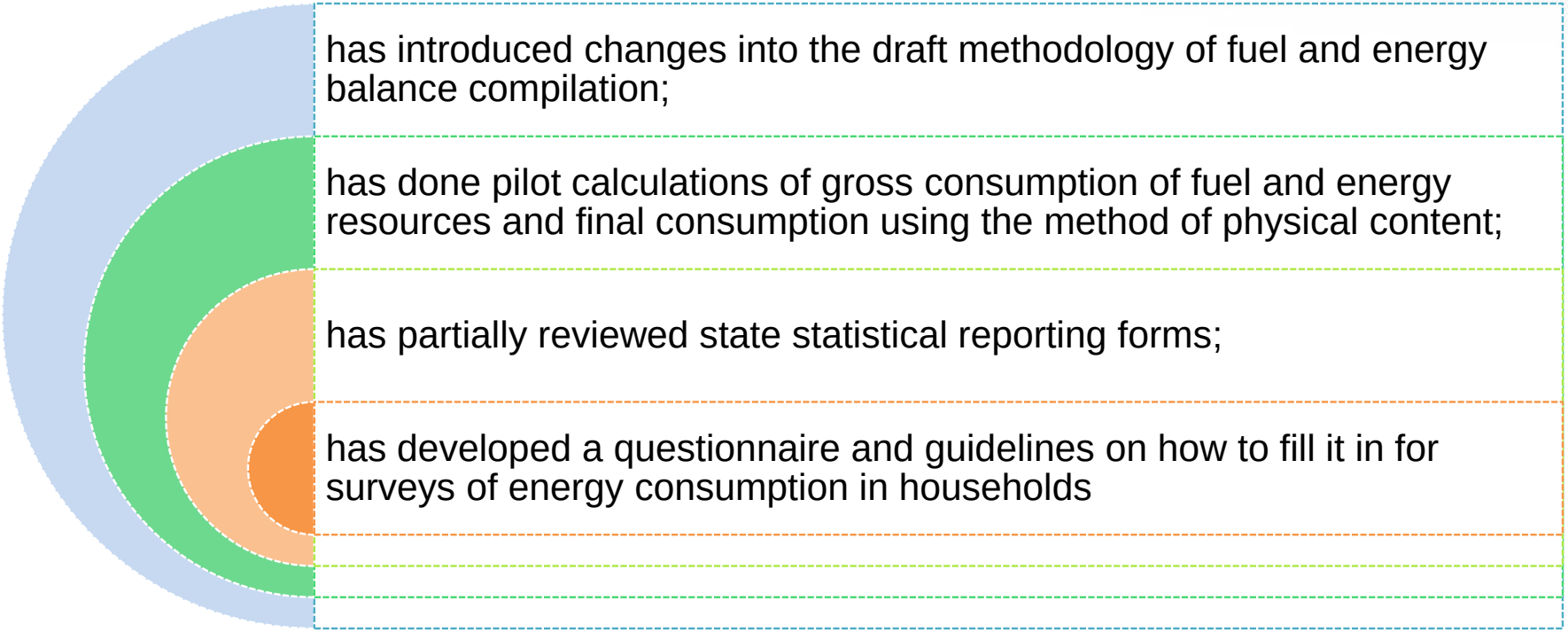
Art.64. IMPROVING METHODOLOGICAL APPROACHES IN ENERGY STATISTICS IN LINE WITH INTERNATIONAL RECOMMENDATIONS ON ENERGY STATISTICS BY THE UNSD (2011) (PERIOD OF IMPLEMENTATION – 2014-2016)

Art.65. INTRODUCING METHODOLOGY OF ADJUSTMENT OF TIME SERIES BY CLIMATE FACTOR INTO THE PRACTICE OF ENERGY STATISTICS (PERIOD OF IMPLEMENTATION – 2015)

Art.66. INTRODUCING SAMPLING SURVEY OF ENERGY CONSUMPTION IN HOUSEHOLDS INTO STATISTIAL PRACTICE (PERIOD OF IMPLEMENTATION – 2014-2016).

In February 2014 INOGATE Technical Secretariat prepared the Report on the 1st TA mission to the Republic of Belarus.

In consideration of the recommendations the National Committee on Statistics:



October 21-23, 2014 – the 2nd INOGATE technical assistance mission to the Republic of Belarus on implementation of the approved Energy Statistics Action Plan

"Organising and conducting surveys of energy consumption in households"

"Recommendations by ITS experts on development of guidelines for interviewers during surveys of the household sector"

"Development of Energy efficiency indicators in the household sector"

"Recommendations by ITS experts on development of energy balances"

Following the 2nd ITS mission the National Committee on Statistics:

- has developed the tools for conducting surveys of energy consumption in households;
- has conducted the 1st stage of surveys of energy consumption in the households – collection of annual data;
- has refined the draft of methodology of compilation of the fuel and energy balance harmonised with the international standards;
- has refined the system of energy efficiency indicators by final consumption sectors;
- has calculated the fuel and energy balance of the Republic of Belarus for 2013 using the new methodology which together with the draft new methodology of fuel and energy balances compilation are sent to consideration by the governmental agencies considered;
- has development a draft methodology of calculating the climate factor to smooth time series of energy indicators based on the calculation of the share of energy consumption related to changes in the temperature regime.

Current status:

- Works on switching to the new methodology of energy balance compilation harmonised with the international standards starting from 2016 are being completed;
- Developed a methodology of climate factor calculation to smooth time series of energy data with a view of eliminating an impact of the temperature regime;
- Improved forms of governmental statistical reporting on energy statistics in terms of expanding the list of RES and indicators of their consumption;
- Developed system of energy efficiency indicators;
- On-going the 2nd stage of survey of energy consumption in households – quarterly data collection

Methodology of energy balance compilation

Recalculation of 2012 and 2013 energy balances, calculation of 2014 energy balance considering both the new methodology and switching to NACE 2 version starting from 2016.

Works on adjusting the model of energy balance compilation developed by the ITS experts

Preparation of draft methodology of fuel and energy balances compilation and coordination with all the stakeholders concerned

Approval of the methodology – December **2015.**

Official switching to the new format – starting from **2016**

Development of approaches to defining calorific values of different fuels based on statistical reporting data

Comparison of the old and new energy balance format

	Old energy balance format	New energy balance format
Number of commodity balances	17	22
Number of balance sheet items	18	52
In the transformation sector	3	14
Final consumption	3	27
Method of secondary energy conversion (heat and electricity)	“Partial substitution” method	Physical method
Number of calculated energy efficiency indicators on the basis of energy balance data	1	about 40

List of key energy efficiency indicators palled to be calculated on the basis of the data of new energy balance

Title of indicator	Section
GDP energy intensity	Energy element Неэнергетическая составляющая
Efficiency of energy production	By categories of energy units and fuel types
Energy intensity by economic activities	Types of economic activities
Energy intensity of production of most energy intensive production (works)	About 20 types of production (works)
Energy intensity in transport	By types of transport
Energy consumption per one employee in the service sector	By subsectors
Energy consumption per capita	By fuel and energy types

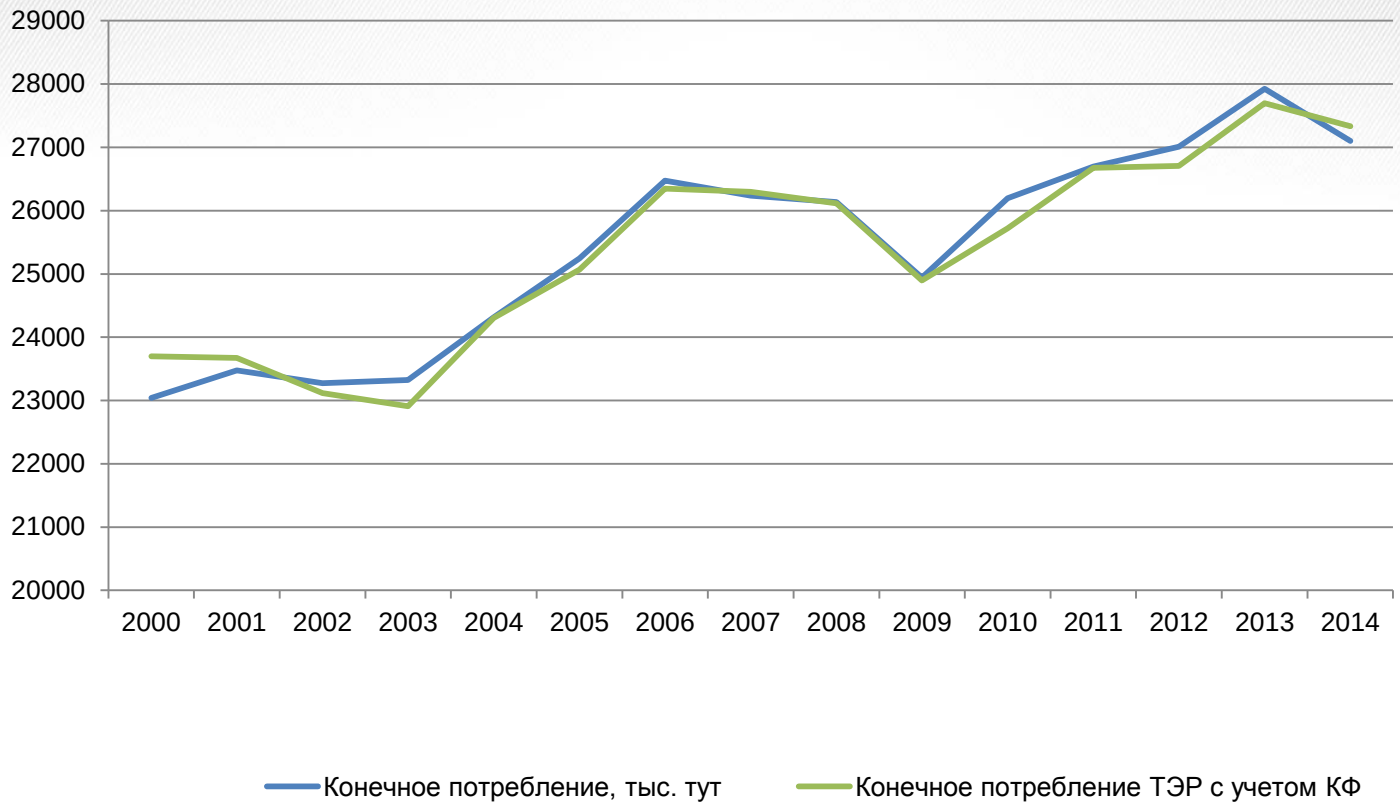
Methodology of climate factor calculation

Preparation of draft methodology of climate factor calculation for smoothing time series of energy data

Works on pilot calculations for smoothing time series since 2000

Preparation of draft methodology – **December 2015**

Methodology of climatic factor calculation



Decision on conducting surveys on energy consumption in households

Ministry of Economy

Ministry of Energy

National Academy of Sciences of Belarus

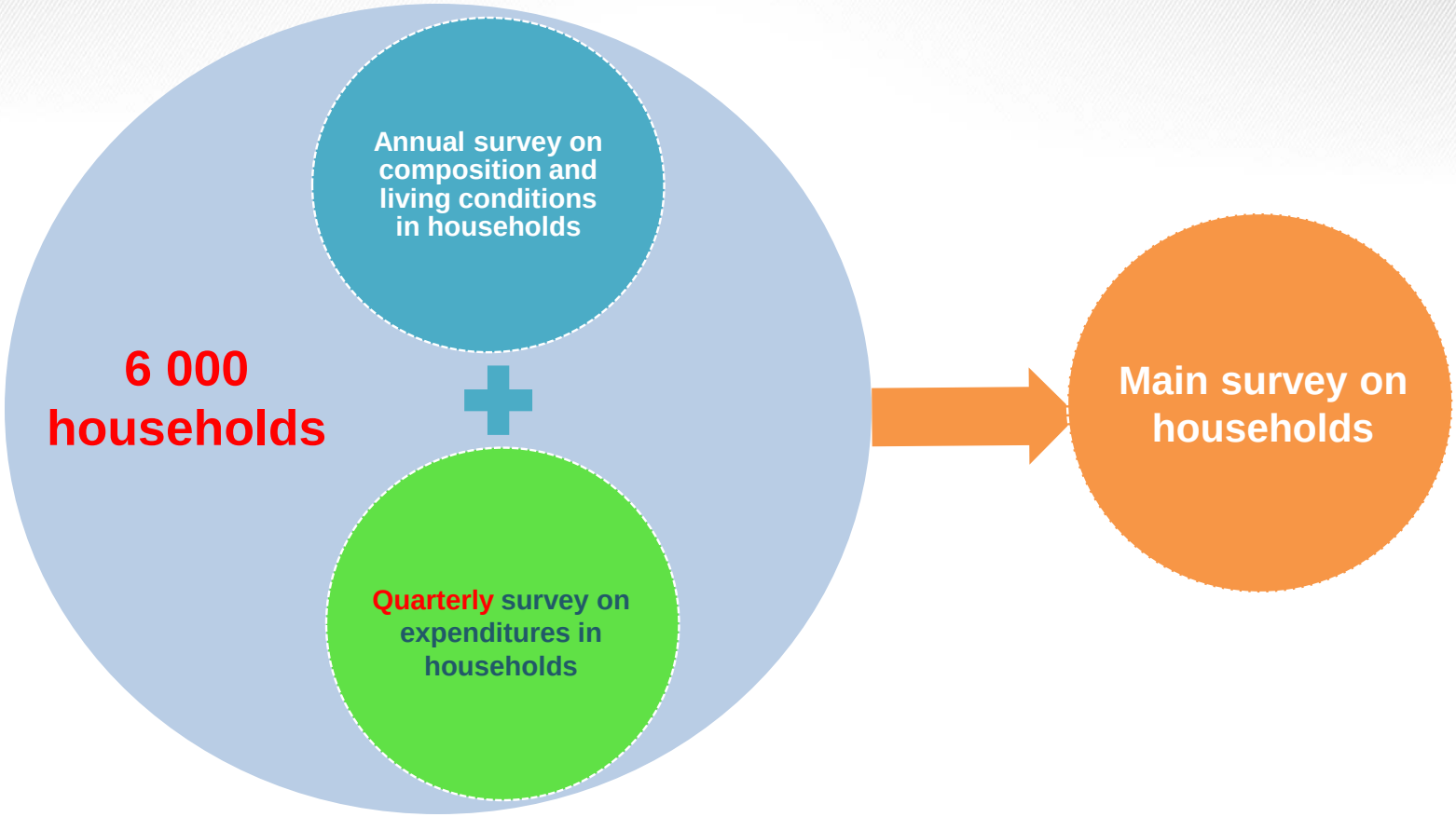
National Statistics Committee

Department on Energy Efficiency

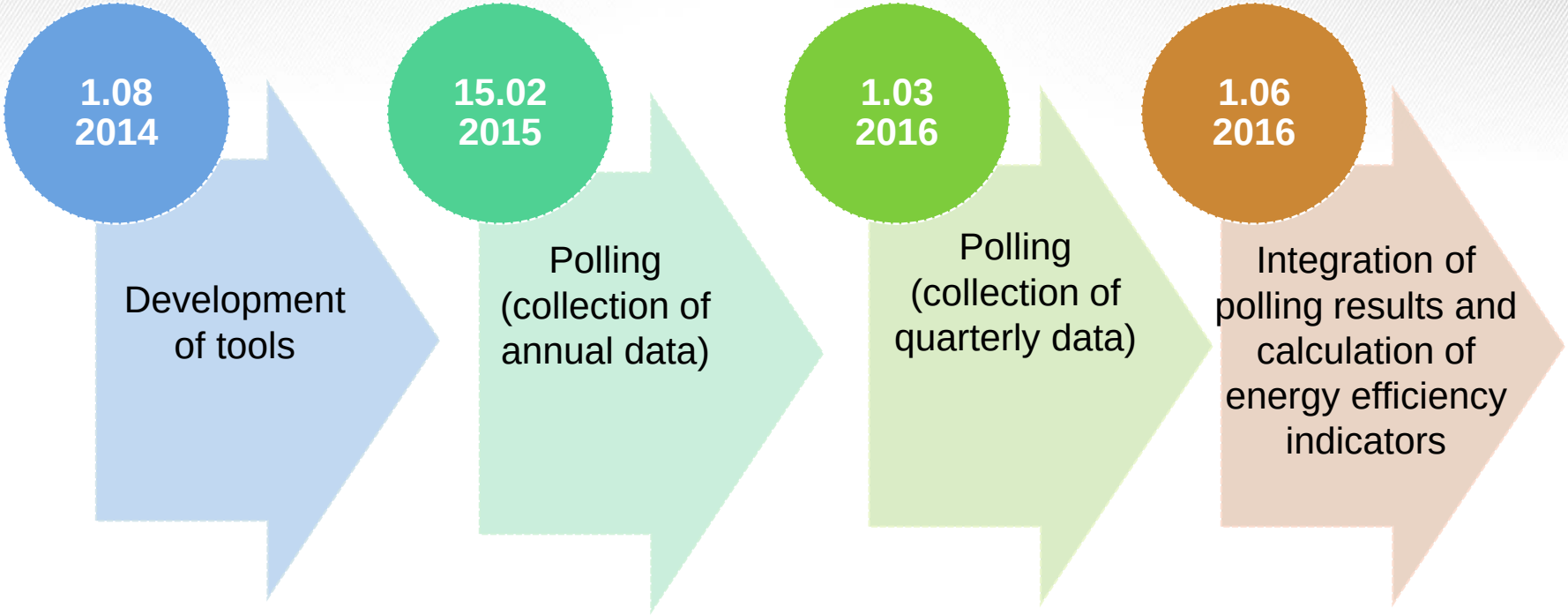
Key targeted areas for surveys on energy consumption:

- Heating
- Hot water supply
- Cooking
- Power consumption of household appliances
- Power consumption of lighting
- Availability of energy efficient lighting devices

Surveys on energy consumption in households



Surveys on energy consumption in households

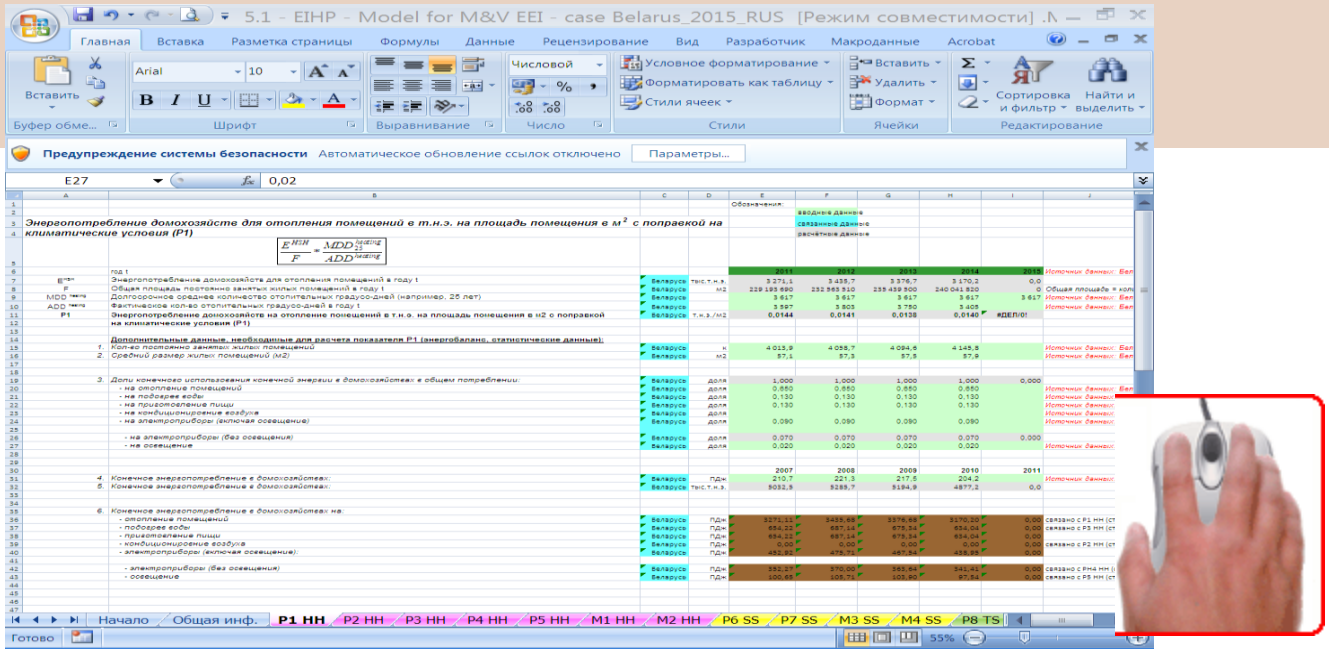


List of additional energy efficiency indicators in the household sector:

Indicator title
Energy consumption per heating of living area unit
Energy consumption of hot water supply per capita
Energy consumption of household appliances per household
Energy consumption of lighting per household
Energy consumption of cooking per household

Model of EE indicators calculation by sectors of final consumption, prepared by ITS experts

Household sector	*Service sector*	*Transport sector*	*Industry*



PLANS for 2016:

- To complete a survey on energy consumption in households (February 2016);
- To refine the model of calculation of EE indicators with ITS experts' assistance and calculate these indicators (June 2016);
- To do the calculation on smoothing time series of energy data in the household and service sectors by the climate factor (late 2016);
- To recalculate the 2015 energy balance using the new methodology harmonised with the international standards (late 2016);
- To refine and officially approve the system of EE indicators by sectors of final consumption (by the end of 2016);
- To complete a review of forms of governmental statistical reporting in light of introduction of the new methodology of energy balance compilation (August 2016)

THANK YOU!