



**The organization of the monitoring system in the
field of renewable energy sources in Azerbaijan**

Jamil Malikov
Deputy Chairman

12-13 Apr 2016, Vilnius, Lithuania

State Agency on Alternative and Renewable Energy Sources - AREA



Central executive body carrying out followings
in the field of RES and EE:

- ▶ State policy and regulation
- ▶ Efficient organization of activity and coordination
- ▶ State control



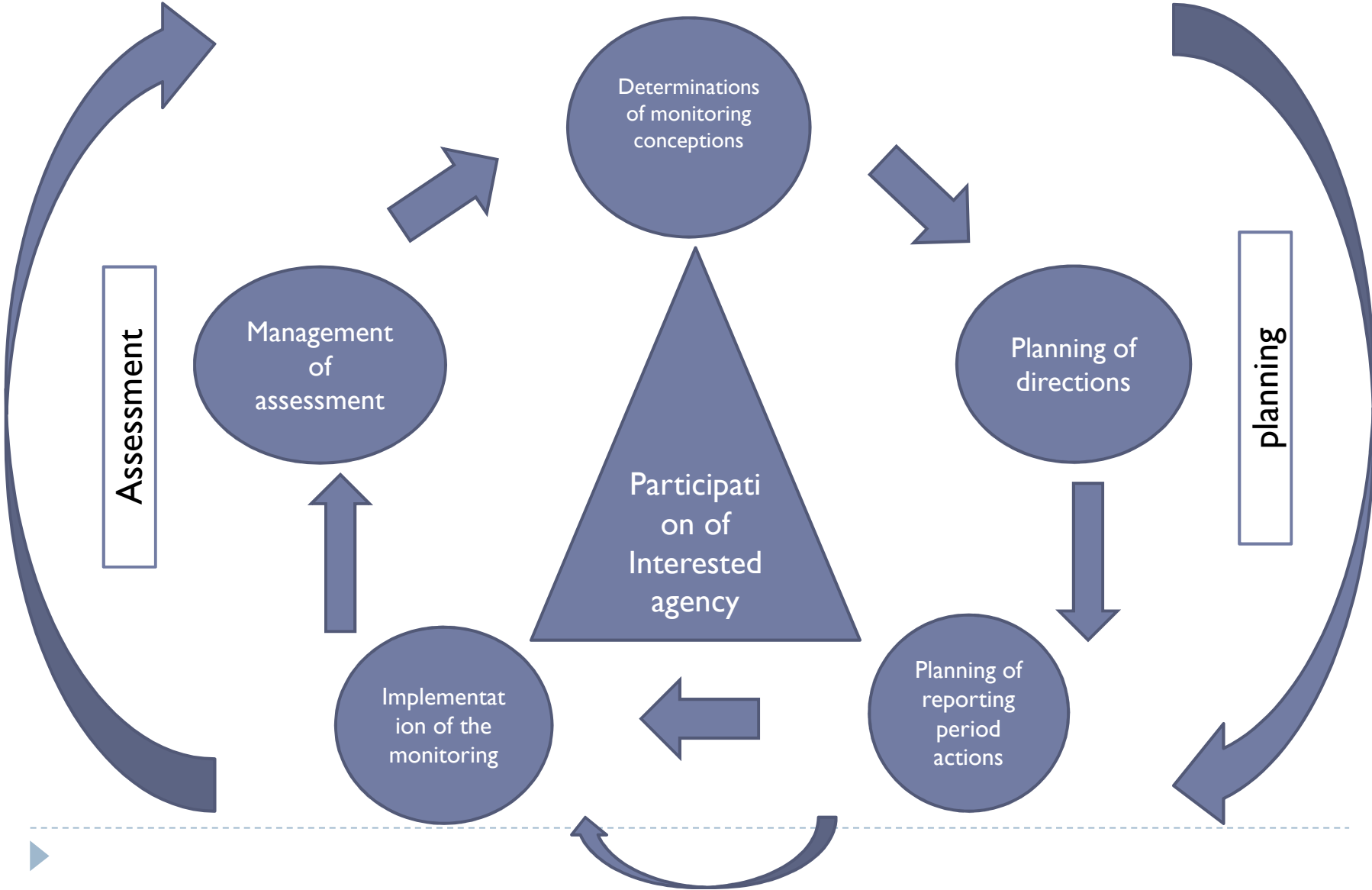


Legislation

- ▶ Resolution of the Cabinet of Ministers of Azerbaijan Republic on the approval of “Guidelines for the use of electric power” (2 February, 2005, № 18);
- ▶ Resolution of the Cabinet of Ministers of Azerbaijan Republic on the approval of “The Rules for issuing special permits for activities on alternative and renewable energy sources” (May 20, 2010, № 95);
- ▶ Resolution of the Cabinet of Ministers of Azerbaijan Republic on the approval of "Natural and artificial lighting, heating, ventilation and acoustics design guidelines for the construction facilities" (March 11, 2014 № 71);
- ▶ Resolution of the Cabinet of Ministers of Azerbaijan Republic on the approval of "Guidelines for increasing energy efficiency of construction facilities and saving energy resources" (March 11, 2014 № 73);
- ▶ Resolution of the Cabinet of Ministers of Azerbaijan Republic on the approval of "Guidelines for issuing technical conditions to consumers for obtaining electricity and connection to electricity supply grid" (August 27, 2014 № 234);



The General Structure of comprehensive and integrated development strategy for the energy sector



The subsystems which included to monitoring system of energy strategy



- Analyzing system of the current implementation status of the energy strategy
 - Decision-making system for the governance
 - Expert assessment and forecasting system
 - Methodical legal regulation system (normative – through the methodical documents and normative legal acts)
 - Regulation of the Energy Strategy System
-



The main target of Energy Strategy Monitoring



The creation of a common information field in the country's fuel and energy sector

Efficient collection and processing of data on energy resources consumption and competitiveness gained from the companies of the energy sector

Operative-analytical support

Submitted a special annually report to the government of associated with the implementation the energy strategy



The monitoring on the implementation of comprehensive and integrated development strategy for the energy sector is in the following areas



- Target achievement



- Implementation of the Action Plans



- Inter-cooperation analysis of organizations



- Analysis of foreign influence



- Use of financial sources



The monitoring on implementation of strategic plan of the State Agency is in the following areas



- Achievement of targets, goals, target indicators, Action Plans and results.
- Functional analysis of development opportunities
- Inter-cooperation analysis of organizations
- External Risk Management analysis
- Analysis of the Budget Programs

Data collection and management of ARES



State Statistical Committee:

- 1 alternative energy (official statistical questionnaire/report, **annual**);
- 1 production (official statistical questionnaire/report, **monthly & quarterly**);
- Sample statistical **survey** on fuel and energy consumption in households (each 5 years);
- Sample statistical **survey** on consumption and production of types energy by private entrepreneurs (natural) entities (each 5 years);
- etc.

State Agency on Alternative and Renewable Energy Sources:

quarterly & annual questionnaires



Electric and heat power produce by ARES in Azerbaijan



	2015*	2014	%
Electricity, mln. KW hour	1816,0	1494,3	121,5
of which:			
Hydro	1603,9	1294,0	123,9
Biomass & waste	181,9	174,0	104,5
Wind	25,6	23,4	109,4
Solar	4,6	2,9	158,6
Heat energy (heat pumps), Gcal	6315,3	5448,8	115,9

*Primary data



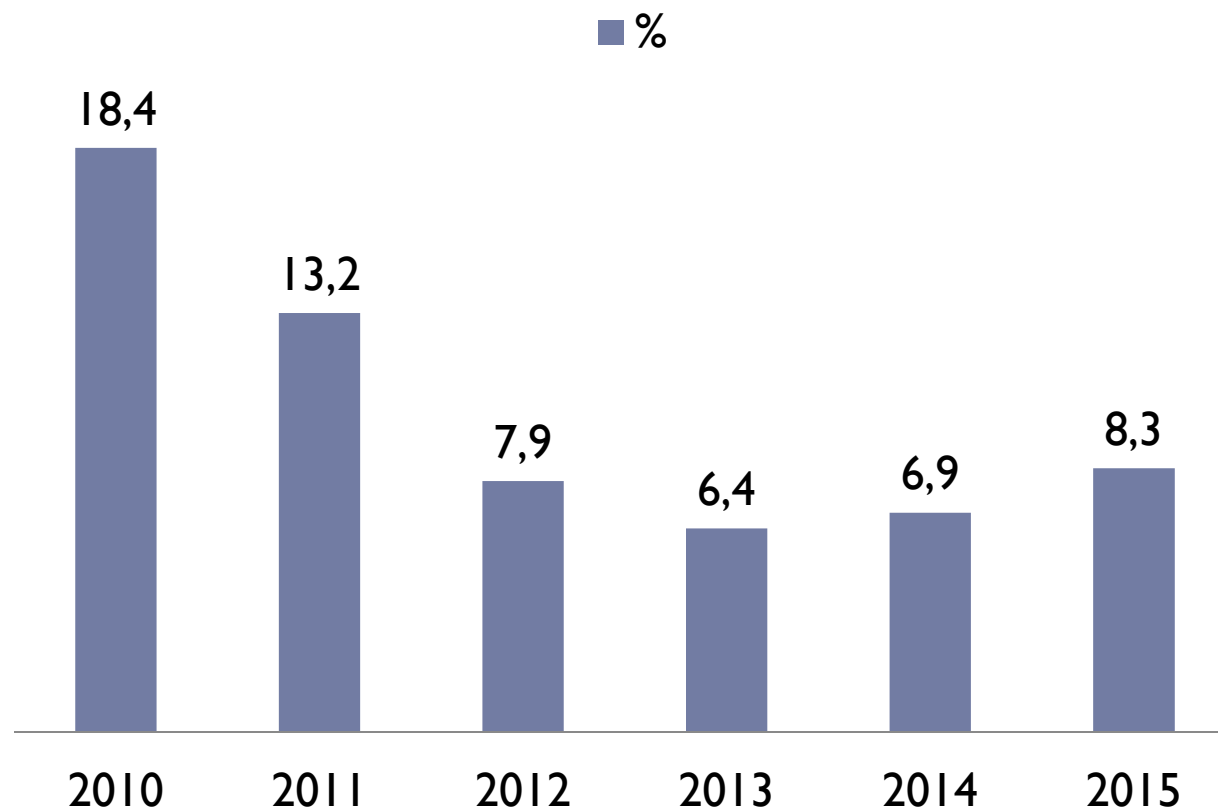
Energy balance in 2014

		Total all products	Crude oil	Petroleum products, total	Natural gas	Renewables and wastes	of which:					Heat	Electricity	Other fuel products
							solar energy	wind energy	hydro energy	biomass (wood & charcoal)	municipal wastes			
A	B	1	2	5	19	21	22	25	24	26	27	28	29	30
Primary production	1.1	61,132.0	43,295.9	-	-17,565.1	271.0	0.2	0.2	111.8	96.2	62.6	-	-	-
Import	1.2	299.6	0.1	281.3	-	-	-	-	-	-	-	-	10.7	7.5
Export	1.3	46,169.1	-36,248.9	-2,327.1	-7,551.0	-	-	-	-	-	-	-	-42.1	-
International bunkers	1.4	-432.5	-	-432.5	-	-	-	-	-	-	-	-	-	-
International marine bunkers	1.4.1	-75.1	-	-75.1	-	-	-	-	-	-	-	-	-	-
International aviation bunkers	1.4.2	-357.4	-	-357.4	-	-	-	-	-	-	-	-	-	-
Stocks changes	1.5	255.5	-13.9	-11.9	280.2	0.1	-	-	-	0.1	-	-	-	1.0
Total energy supply	1	15,085.5	7,033.2	-2,490.2	10,294.3	271.1	0.2	0.2	111.8	96.3	62.6	-	-31.4	8.5
Statistical difference	2	174.9	66.9	67.1	33.3	-	-	-	-	-	-	-	7.6	-
Transfers	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Transformation processes	4	-3,491.3	-6,900.9	6,600.8	-5,296.9	-72.2	-	-	-	-9.6	-62.6	163.5	2,126.6	-
Energy industries own use	5	1,188.2	15.4	365.8	440.4	-	-	-	-	-	-	22.2	344.4	-
Losses	6	1,238.2	50.0	-	878.9	-	-	-	-	-	-	20.1	289.2	-
Final consumption	7	8,992.9	-	3,677.7	3,644.8	86.7	-	-	-	86.7	-	121.2	1,454.0	8.5
Final energy consumption	7.1	8,241.7	-	2,961.2	3,616.3	86.7	-	-	-	86.7	-	121.2	1,454.0	2.3
Industry and construction	7.1.1	1,329.2	-	69.1	987.6	0.5	-	-	-	0.5	-	-	272.0	-
Transport	7.1.2	2,559.4	-	2,510.8	0.4	0.2	-	-	-	0.2	-	-	46.0	2.0
Other fields of economy	7.1.3	4,353.1	-	381.3	2,628.3	86.0	-	-	-	86.0	-	121.2	1,136.0	0.3
Non-energy use	7.2	751.2	-	716.5	28.5	-	-	-	-	-	-	-	-	6.2



thousand TOE

Share of RES in total energy production





AREA – Projects classification

In accordance with State Strategy

- ▶ **Small-scale projects:** 1 building – 1 power plant
- ▶ **Medium-sized projects:** Local (district) hybrid type power plants
- ▶ **Large-scale projects:** Wind Power Plants, Biogas Power Plants and Concentrated Solar Power Plants



Small-scale projects

1 building – 1 power plant

- ▶ Projects in more than 10 schools, 2 medical centers, 2 sport complexes

- ▶ Project at secondary school in Turkan (Baku city) was implemented by the grant of the Centre for Renewable Energy Sources of Greece



Medium-sized projects



Gobustan Experimental Polygon and Training Center

Total capacity – 5.5 MW

- ▶ Wind PP – 2.7 MW
- ▶ Solar PP – 1.8 MW (additional capacity is being installed)
- ▶ Biogas PP – 1 MW

Was put into operation in 2011



Medium-sized projects

Solar Power Projects

Re-cultivation of ecologically poor lands

- ▶ Pirallahy SPP
- ▶ Total capacity: 2.8 MW
- ▶ Surakhany SPP
- ▶ Total capacity: 2.8 MW



Large-scale projects



Samukh Agro-Energy Residential Complex

Implementation of alternative and renewable energy sources in economic sectors

- ▶ Total capacity:
31 MW electric,
48 MW thermal

Installation of solar component (2.8 MW) has already began

Project period: 2014-2018



Large-scale projects



- ▶ Yeni Yashma Wind Farm – 50 MW
- ▶ Absheron Wind Farm (with PV component) – 80 MW
- ▶ Power Plants on Biomass – 16 MW
- ▶ “Wind Island – 1” Offshore Wind Farm – 198 MW







Thank you for your attention!

AZ1000, Azerbaijan, Baku, 80 U.Hajibayov str., Government House

Tel.: (+99412) 493 15 26

Fax: (+99412) 493 16 97

E-mail: info@area.gov.az

Web: www.area.gov.az

A small blue triangle pointing to the right is located at the bottom left of the page, below the contact information.
