



Energy in the Republic of Armenia

2012

Ministry of Energy and Natural Resources, Republic of Armenia



Common data about the Republic of Armenia



Capital:

Yerevan

Area:

29.8 th. km²

Population:

3.5 mln.

Religion:

Christianity

Climate:

mountainous.

continent

summer— up to +40C

winter— up to -30C





Legislative and regulative documents

- “Energy Law of the Republic of Armenia”
- “The Law on Energy Saving and Renewable Energy”
- “National Plan on Energy Saving and Renewable Energy in RA”
- “Energy Sector Development Strategy in the Context of Economic Development”
- “Action Plan for the Ministry of Energy and Natural Resources Stipulated by the Provisions of the National Security Strategies of the Republic of Armenia”
- Public Services Regulatory Commission Decision on:
“Definition of sale tariffs of Electricity Delivered from Plants that Generates Electricity by Utilization of Renewable Energy Resources at the Territory of the Republic of Armenia”
and many other regulative decisions.



Energy Sector Review

- Energy is one of the most developed sectors of economy in Armenia with qualified specialists,
- The Armenian energy sector was and is developing as a regional centre of energy,
- We have a significant practices in design, construction, operation and maintenance of nuclear, thermal and hydro stations, and of parallel work with integrated energy system.

Five Pillars of Armenian National energy strategy

- utilization of renewable energy sources and improving energy efficiency;
- development of nuclear energy;
- diversification of primary energy resources and import/export routs;
- regional integration and cooperation.
- development of thermal energy to cover electrical energy demand peak;



Structure of operating tariffs

(In US dollars)

Consumer	Voltage, kW	Tariff, \$/kW/h	
		night	day
High – voltage consumer	35 and above	0.043	0.053
Direct feeder	6 – 10	0.043	0.064
Indirect feeder	6 – 10	0.043	0.076
Low – voltage consumer	0.38 and lower	0.051	0.076

Soft tariffs for energy producers utilizing renewable sources :

- 0.05 \$/ kW /h (excluding VAT) – for Small HPPs, constructed on natural stream canals
- 0.09 \$/ kW /h (excluding VAT)– for wind power plants
- 0.096 \$/ kW /h (excluding VAT)– for power stations utilizing biomass

According to the confirmed technique, tariffs are reconsidered annually till the 1st of December of current year and come into force from the 1st of January of following year



Small HPPs in RA:

- 115 small HPPs -operating : 158 MW / 520 mln. kW /h
- 88 small HPPs -under construction: 177 MW / 637 mln. kW /h
- 115 small HPPs -projected: 147 MW / 540 mln. kW /h

Wind energy

First Wind Power Plant in Armenia and Transcaucasia:

“Lori - 1” : 2.6 MW / 5 mln. kW /h



Intersystem relations

<i>country</i>	<i>Starting and terminal points of substations (projects at a development stage)</i>	<i>Voltage (kV)</i>	<i>Length (km)</i>	<i>Operating flow (MBA)</i>	<i>Other</i>
Iran	Shinuhayr (Arm.) - Agar (Iran)	220	176.8	270	operating
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	Armenia - Iran	400	290	1000	Under the construction
Georgia	Alaverdy-2(Arm.) – Tbilisi (Georgia)	220	63.5	250	operating
	Ashotsk (Arm) - Ninotsminda (Georgia)	110	35.8	85	operating
	Alaverdy - 2 (Arm) – Sadakhlo (Georgia)	110	30.0	85	operating
	Armenia -Georgia	400	105	600	Under the design
Turkey	Gyumry-2 (Arm) – Kars (Turkey)	220	80.0	250	not operating
Azerbaijan	Hrazdan HPP (Arm) –Akstafa (Az)	330	108	400	not operating
	Ararat-2 (Arm) - Babek (Nahichevan,Az)	220	99.6	250	not operating
	Ararat-2(Arm) -Norashen(Nahichevan, Az)	110	98	85	not operating
	Agarak (Arm) - Ordubad (Nahichevan, Az)	110	30	85	not operating

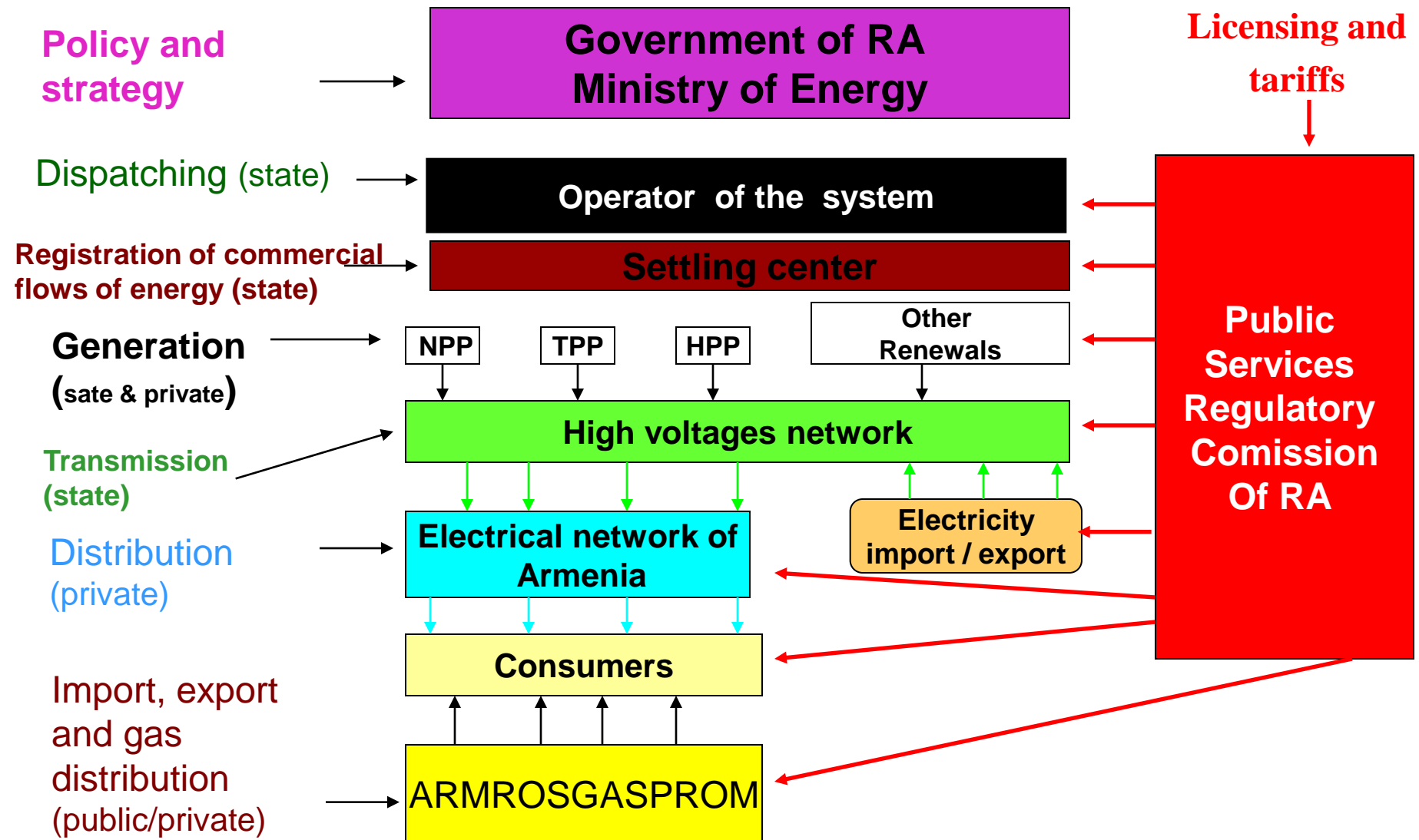


Transmission and distribution systems

220 kV	1323 km	14 substations
110 kV	3169 km	119 substations
35 kV	2675 km	278 substations
6(10) kV	9740 km overhead cable lines	
	4955 km cable lines	
		8598 substations
0.4 kV	13570 km overhead cable lines	
	2160 km cable lines	



Functional structure of Armenian Energy System





Participation in Regional Energy Programs

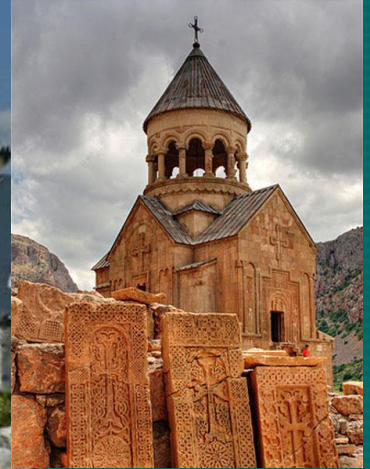
European Energy Charter

Black Sea Economic cooperation

Energy Council of CIS

Regional Projects: WB, Tacis, USAID, Inogate, EBRD, UNDP etc.

Development of multilateral economical cooperations



Thanks for the attention