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- Energy Efficiency

Regional Cooperation
- New 400kV high voltage grid with Iran and Georgia
- Common energy market in EEU
- North-South Corridor of Energy “AGIR”
ARMENIA IS A COUNTRY WITH DIVERSIFIED ENERGY MIX

Structure of available capacities and electricity production as of 2016:
- **3,275 MW**
- **41%** (400 MW)
- **35%** (1330 MW)
- **12%** (SHPP 28%, LHPP 72%)

Structure of electricity production in 2016:
- **33%** (HYDRO)
- **32%** (THERMAL)
- **53%** (NUCLEAR)

**HYDRO**
- SHPP 40%
- LHPP 60%

**NUCLEAR**
- 810 MW
- Old fashion

**THERMAL**
- 728 MW
- New, highly efficient

**Sector overview**
Energy Market Structure

- Nuclear PP
- Thermal PPs
- Renewable PPs

- Independent system operator
- Transmission operator
- Settlement centre
- Distribution system operator

- Single buyer market

- Export/Import

- End users

PUBLIC SERVICES REGULATORY COMMISSION (PSRC)
- Regulates tariffs, service quality and licensing
Policy formulation and strategic planning: The MEINR is in charge of policy formulation and strategic planning in the power sector.

Generation: Independent companies providing capacity and energy services as per schedules agreed upon with System Operator and under PPAs with the ENA base on exemplary PPAs set by the PSRC. There are 7 big (more than 30 MW) generation companies out of which two: ANPP and Yerevan TPP are state owned companies and various small private companies (predominantly, small HPPs) producing electricity. In 2018, electricity generated amounted to 7.88 billion kWh.

Transmission: The state-owned High Voltage Electric Networks of Armenia (HVEN) maintains and develops the high-voltage electric network in the country.
Sector overview

04 Distribution: The Electric Network of Armenia (ENA) CJSC is the sole and exclusive license holder for the electricity distribution on the territory of Armenia. The license has been given in 2002 for an unlimited period. ENA is essentially the single buyer and the single seller of electricity in the country and all generating plants (except of transactions between alternative suppliers and qualified consumers) are required to sell to ENA.

05 System Operation and Dispatch: System Operator is 100% state-owned joint stock company and is responsible for managing the transmission and dispatch of generation to meet the domestic demand, as well as to ensure electricity exports and imports.

06 Regulation: The sector is regulated by the PSRC, an independent regulator responsible for tariff setting, service quality and licensing.
Pillars of the energy security strategy

01
Safe operation of the existing nuclear units and a construction of new units

02
Realization of the economically viable renewable energy potential

03
Enabling energy efficiency in the energy sector

04
Diversification of fuel supply and regional integration
National Legislation

- **2013**: Energy Security Concept
- **2014**: 2014-2025 Development Strategy Program
- **2015**: Long-term Energy Sector (up to 2036) Development Pathways
- **2017**: Government Action plan on RA Power System Market Liberalization and Development of Cross-border Trade
Development of nuclear energy is one of the main pillars of the Energy Sector Development Strategy of the Armenia. The one third of power generation in Armenia is from the Armenian Nuclear Power Plant (ANPP). Besides this, only the presence of NPP in the structure of base-load power generation will allow us to maintain an appropriate level of energy security and independence. The safety of the ANPP is a top priority for the Government of Armenia.

188 small HPPs were operated in 2018 which total installed capacity amounted 369 MW and the production was 1 billion kWh. There are also 33 small HPPs under construction with total installed capacity of 66 MW.

Hydro energy is more developed in Armenia than the other renewable energy resources. Total installed capacity of seven HPPs owned by the “International Energy Corporation” CJSC amounts to 559.4 MW and production was about 456.9 million kWh. Total installed capacity of three HPPs owned by “Contour Global Hydro Cascade” CJSC amounts to 405.4 MW and production was about 934.6 million kWh.

Two wind power plants (WPP) that are Lori-1 and the WPP owned by “Arats” Ltd were in operation in 2016 with the total installed capacities of 2.6 MW and 20 kW, respectively. In 2017, the aforesaid WPPs produced 1.2 million kWh electricity in total. Two foreign companies are studying the wind potential of Armenia for constructing up to 150 MW wind station.
12 organizations have been licensed (with a total limit of 10 MW) for up to 1 MW solar PV stations

9 of them (with a total capacity of about 7.02 MW) have already been launched

7 companies have already been licensed for the construction of a solar PV station with a rated capacity of up to 5 MW, with a total capacity of approximately 31.5 MW

786 solar PV systems operating systems with a total installed capacity of 9148.23 kW were connected to the grid (2018)
Energy Efficiency

RA Law on Energy Saving and Renewable Energy
National Program on Energy Saving and Renewable Energy
NEEAP 2

“Energy efficiency improvement project of non-gasified communities of Armenia”
The program was started in August 2017 for development of green energy and creation of energy from renewable energy sources in non-gasified communities of Armenia. Since the beginning of the project, 2015 water heaters and 66 solar photovoltaic systems have been installed.

Revolving Fund for EE Retrofits in public/municipal/social buildings
(over 50% energy saving in 64 public objects and more than 160 buildings and 9 urban lighting systems)

“EU for Yerevan Solar Community”
More than 300 visits are made and 50 multi-apartment buildings are selected during the first stage of the project.
90 multi-apartment buildings will be selected within the scope of “EU for Yerevan Solar Community” project.
Regional Cooperation

01. New 400kV high voltage grid with Iran and Georgia

02. Common energy market in EEU

03. North-South Corridor of Energy “AGIR”
THANK YOU