

# Emergy Resources and Safety of Supply to Armenia: Balances of Energy and Infrastructure Development

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#### NUCLEAR POWER DEVELOPMENT



- According to the National Security
  Strategy of RA development of the
  nuclear energy will insure energy
  security of Armenia
- Strategy for decommissioning of the existing Armenian Nuclear Power Plant as well as preparation of Feasibility Study and Environmental Impact Assessment of up to 1000 MW New Nuclear Unit are already completed.



#### POLICY FOR RENUWABLE ENERGY DEVELOPMENT

- All electricity generated from renewables shall be mandatory purchased pursuant to the Energy Law with fixed tariff during 15 years from the operation starts
- □ Preferential tariffs: 7.8 €cents per kWh for wind, 8.3 €cents per kWh for biomass electricity and 4.0 €cents per kWh for small off-river hydro power plants (without VAT).



#### NATIONAL GOALS IN RENEWABLES

- □Till 2015 put into operation 140 MW Meghri Hydropower Plant (800 mln kWh/y), 60 MW Loriberd Hydropower Plant (200 mln kWh/y), 75 MW Shnogh Hydropower Plant (300 mln kWh/y)
  - □Till 2025 put into operation in total 260 MW of Small Hydropower Plants (600 mln kWh/y)
- □Till 2025 put into operation in total 200 MW of Wind Power (500 mln kWh/y)



#### OTHER RENEWABLES

#### CURRENTLY ACTIVE WORKS ARE CARRIED OUT IN THE FOLLOWING DIRECTIONS

- **□**Bioethanol
- □Solar Power (Thermal and PV)
- □Geothermal Power



## According to the results of "Assistance to the Bioethanol Production Development in Armenia" (GEF/WB TF-056211) Project, by 2020 about 50 thousand tons of bioethanol could be produced in Armenia per annum from Jerusalem artichokes and cattle corn.

Indicator	Year											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
5% Level of Blending (E5 Fuel)												
Petrol	172	189	208	229	252	277	305	335	369	406	446	491
Bio- Ethanol	8.6	9.5	10.4	11.4	12.6	13.9	15.2	16.8	18.4	20.3	22.3	24.5
10% Level of Blending (E10 Fuel)												
Petrol	172	189	208	229	252	277	305	335	369	406	446	491
Bio- Ethanol	17.2	18.9	20.8	22.9	25.2	27.7	30.5	33.5	36.9	40.6	44.6	49.1



## FIRST IN CIS COUNTRIES GRID-CONNECTED BUILDING INTEGRATED 10kW PV POWER PLANT AT THE ARMENIAN-AMERICAN WELLNESS CENTER IN YEREVAN, 2007



WB supported project indicate presence of pure silicon mines, necessary infrastructure and skilled workforce for PV technology and industry development.



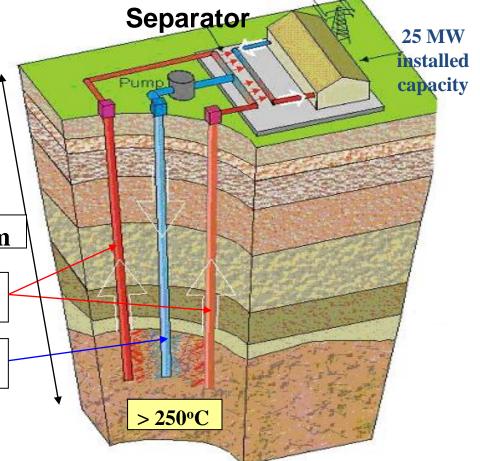
Pre-feasibility analysis of 25 MW Jermaghbure geothermal power plant is carried out.

GEF/GeoFund
will launch
extensive field
surveys in
Armenia in
2009

**Depth of mine: 2.5 - 3.0 km** 

**6 Production wells** 

2 Injection wells





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