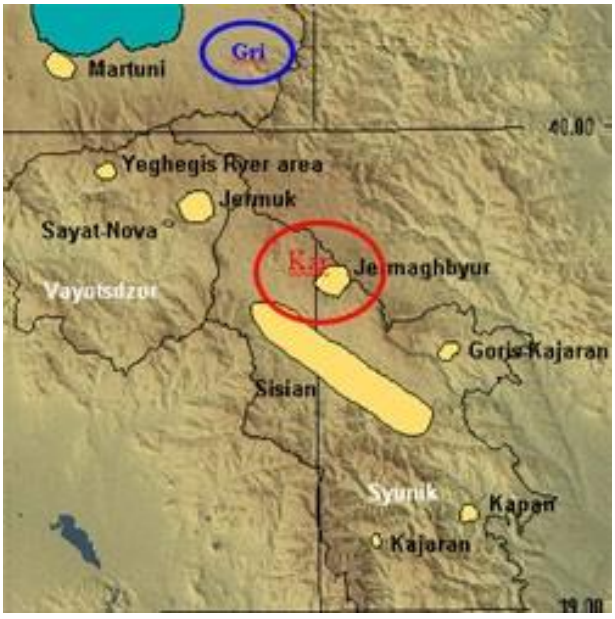
RENEWABLE ENERGY

Geothermal Energy

During the recent years one of the most actual and important problems in Armenia is investigation and exploration of the geothermal sources – as renewable energy resource with capacity to "firm capacity" for base-load coverage.
Utilization of renewable energy resources reduces dependence on imported fuels and will increase energy security level. It will also increase the own Renewable energy production in the whole energy production, as well as will reduce an amount of the greenhouse gas emissions.

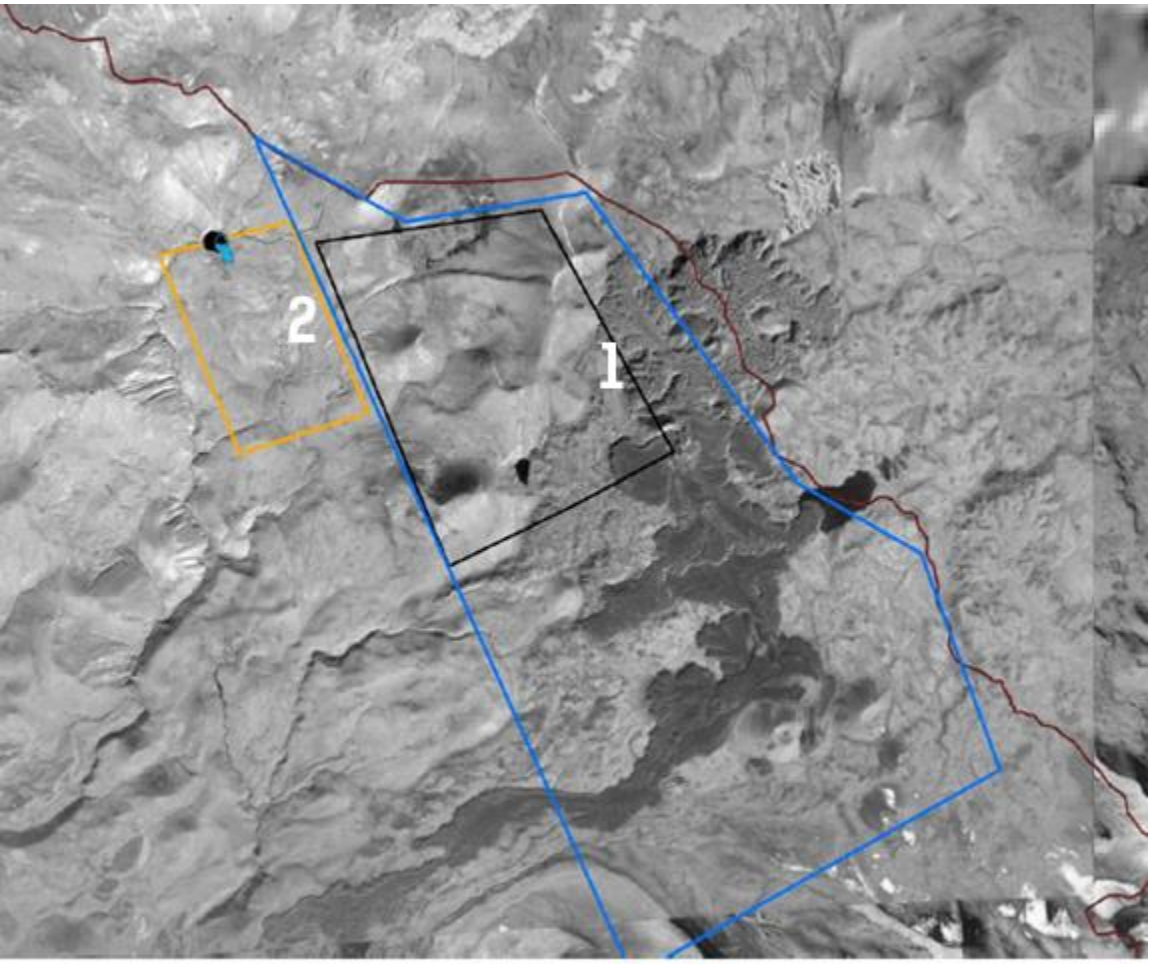
"JERMAGHBYUR" GEOTHERMAL POWER PLANT CONSTRUCTION



Investigations have been conducted to reveal the precise sites of geothermal energy sources for construction of geothermal power plant

One of these sites is Jermaghbyur, where according to geological and geophysical explorations high pressure (20-25 atmosphere pressure) hot water /up to 250°C / resources are considered to be available in depth of 2500-3000 meter. In case of confirmation of this data, it will be possible to construct the first geothermal power plant in Armenia with 25MW capacity in this area

JERMAGHBYUR GPP: GENERAL CHARACTERISTICS	
Plant location	Jermaghbyur, Syunik Marz
Geothermal resources min. temperature, depth	250°C 2500-3000m
Required investments	44 mln. USD
Installed capacity	25 MW
Tariff used in economic calculations	4.50 US cent per kWh
Break-even tariff (self-covering)	2.44 US cent per kWh
Plant factor	88%
Annual generation	194.4 mln. kWh
Construction and installation	2 years
Plant operation cycle	28 years
Project overall duration	30 years
Payback period	12 years including 2 years of construction



1 – KARKAR SITE 2 – JERMAGHBYUR SITE