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The technology of extraction and use of geothermal energy by one isolated well has been developed (ISW-EGS). In Ukraine, a 4000 m deep well is capable of generating heat energy up to 10 MW. The conversion of this thermal energy into electrical energy is carried out with an efficiency of up to 25%. It was proved that the cost of 1 Gcal of geothermal energy is half the cost of 1 Gcal of natural gas burning at the same price of drilling a deep well for oil and gas.

ISW-EGS technology is designed to use the warmth of the Earth for 50 years, providing consumers with sufficient thermal and electrical energy. Figure 1 shows the geothermal resources of Ukraine, in Fig. 2 – the technical means of the technology, Fig. 3 and Fig. 4 shows the parameters of the feasibility study for the technology.

**ISW-EGS technology**

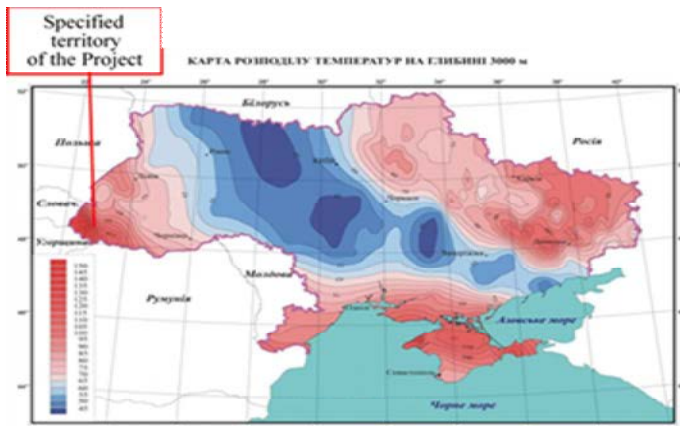


Fig. 1

**Resource:**

- **Depth 4000 m**
- **Temperature 120 + 200 °C**
- **Thermal flow 12000 + 18000 W/m<sup>3</sup>**

**Example: ISW-EGS 4/1,5 on 1,5 MW<sub>e</sub>**

Parameter	Measurement	Value
Total heat energy	MW <sub>t</sub>	6
Electric power, 50 Hz	MW <sub>e</sub>	1,5(2,5)
Thermal power (reserve)	MW <sub>t</sub>	0 (4)
Expenditures of hot water	l/c	50
Expenditures of cold water	l/c	100
Temperature hot water (on the way out)	°C	120+180 (50)
Temperature cold water (on the way out)	°C	10 (20)
Depth of thermal well	m	4000
Depth of the cold well	m	150
Weight (up to)	tonn	30-60
Cost of the project	mln.S	8-(10)

**Geothermal energy:**

- Ecological
- Autonomous
- Stable
- Safe
- Unlimited

**Ukraine:**

- 64% of the National Socialist Party,
- 67% of the population,
- 61% of the territory

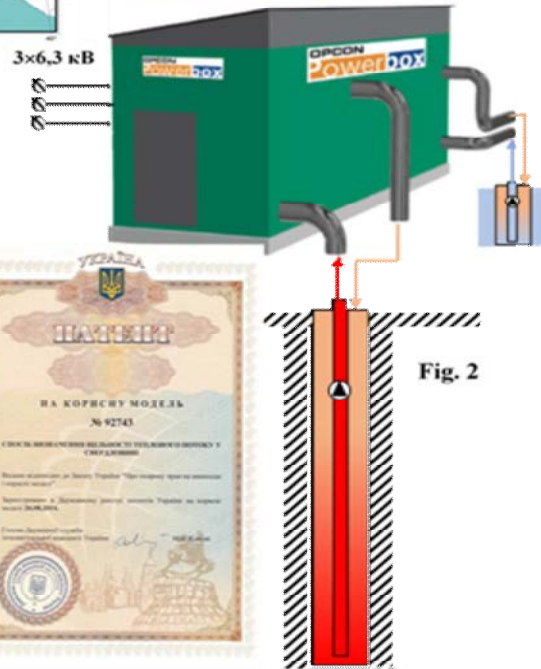


Fig. 2

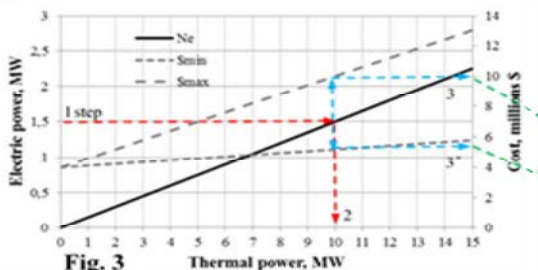


Fig. 3

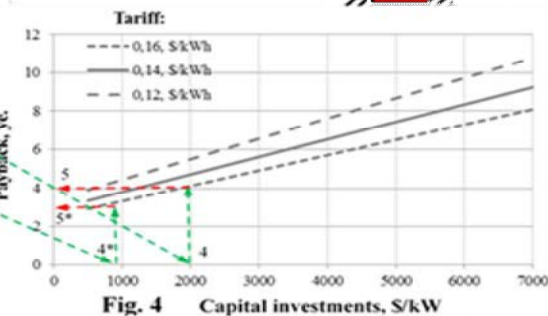


Fig. 4