

Geothermal Applications focusing in Thermal Desalination with Geothermal Energy

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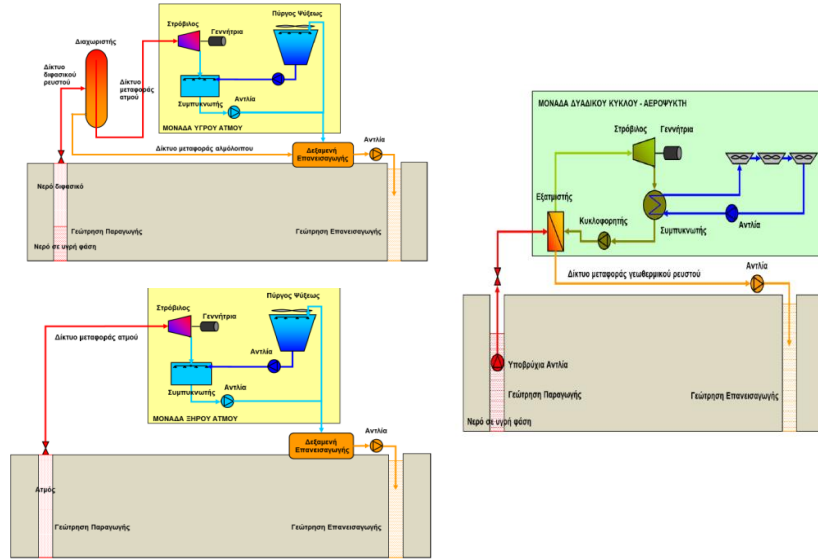
**ΚΑΠΕ
CRES**

CENTRE FOR RENEWABLE
ENERGY SOURCES AND SAVING

Geothermal Energy Uses

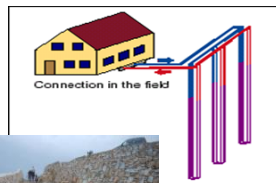
DESALINATION

POWER GENERATION



DISTRICT HEATING/COOLING

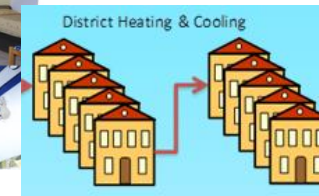
GEOTHERMAL HEAT PUMPS



AQUACULTURE



DRYING OF PRODUCTS



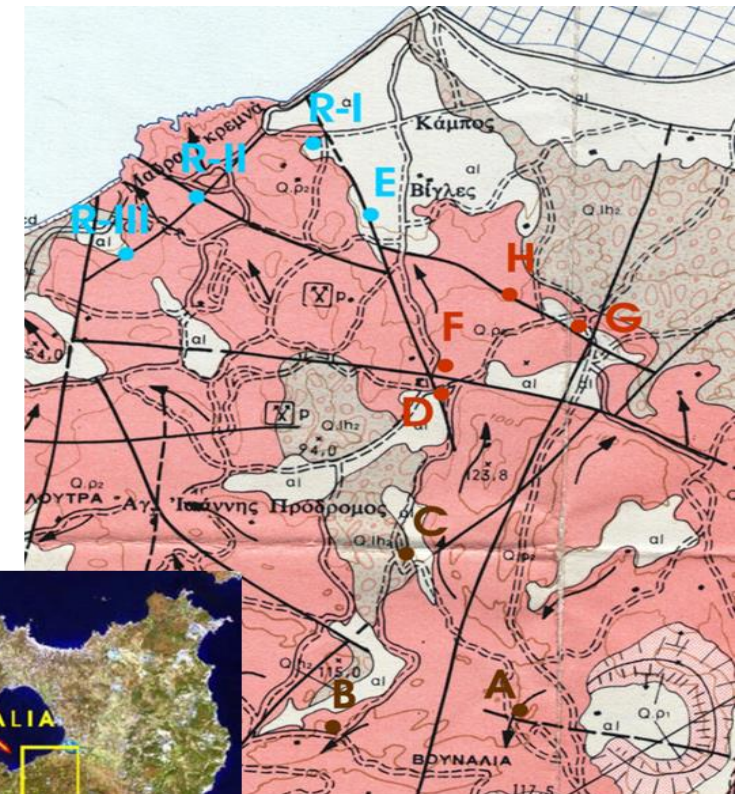
GREENHOUSE HEATING



MIDES PROJECT – MILOS ISLAND

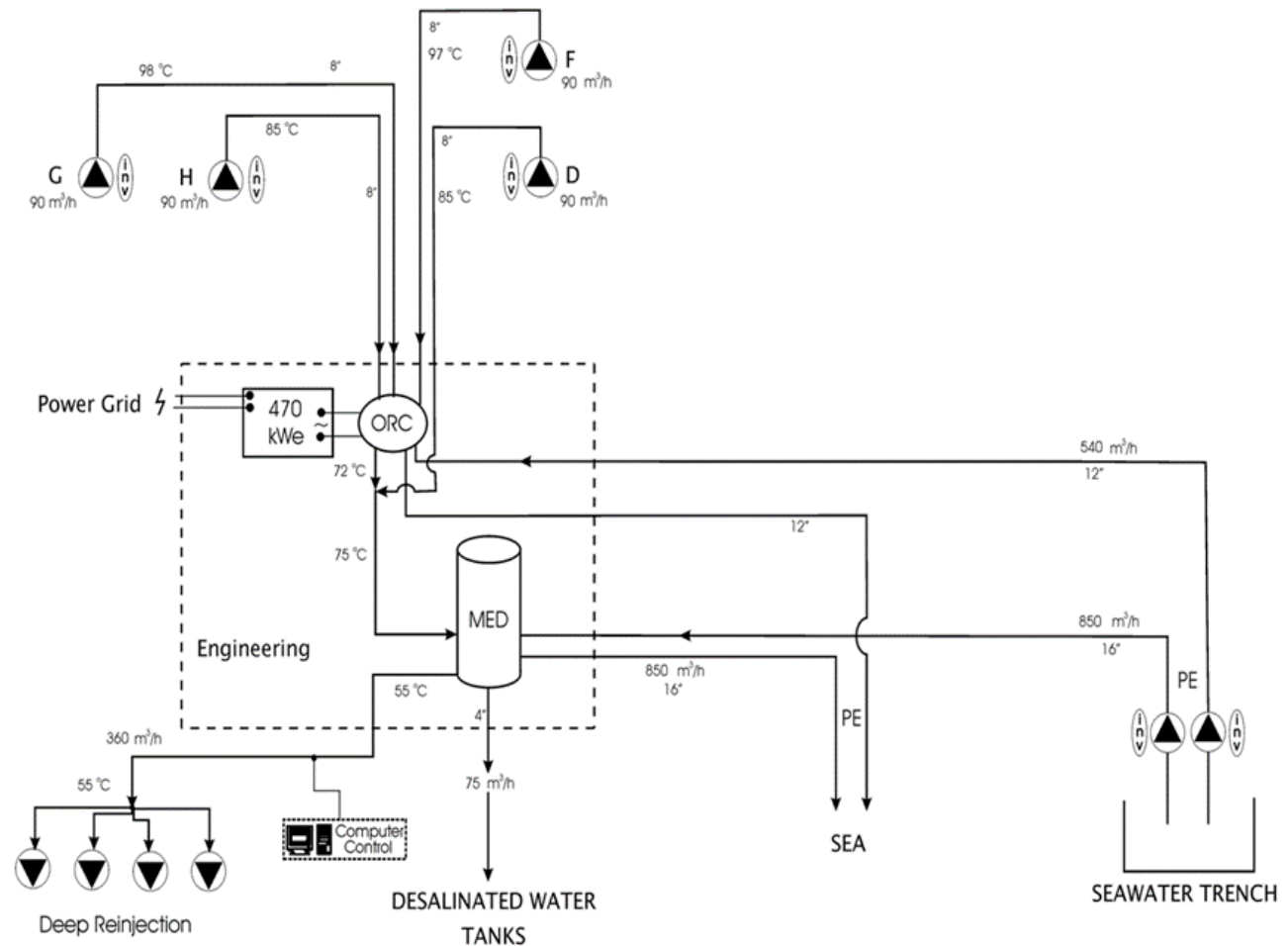
- ✂ Objective of the project: Utilization of geothermal energy for electricity generation, desalination of seawater and thermal uses.
- ✂ Construction of 5 production geothermal wells (A, C, D, E, F, G, H) and 2 re-injection wells (R-I, R-II) and one exploratory well (B).

Well	Depth (m)	Flow rate (m ³ /h)	Temperature (°C)
A	150	20	98
B	71	0	-
C	184	25	84
D	158	100	85
E	125	125	55
F	89	100	97
G	85	100	99
H	106	75	85
R-I	102	85	60
R-II	63	125	50



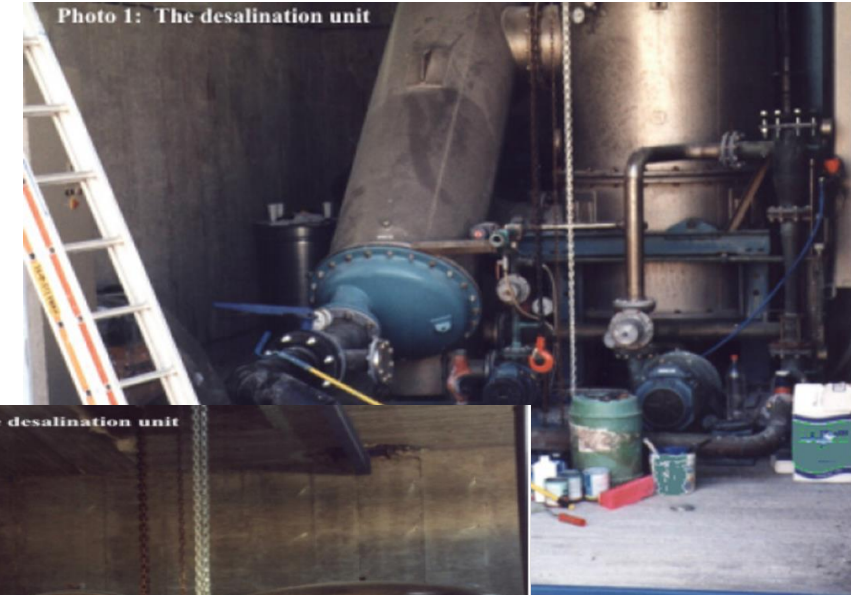
MIDES PROJECT – MILOS ISLAND

- ↗ 470 kWe (ORC).
- ↗ 75 m³/h Desalinated Water(MED).
- ↗ Saving Energy 12.375 TOE/year
- ↗ Cost per kWhth of thermal energy produced 0,0071 €/kwhth



The Kimolos Geothermal Desalination Project

	Geothermal water Well-head Temperature 60 °C	Geothermal water Well-head Temperature 62°C
Geothermal water flow-rate (m³/h)	Fresh water production (m³/h)	
50	2.89	3.09
60	3.55	3.80
70	3.98	4.25
80	4.33	4.62



תודה
Dankie Gracias
Спасибо شكراً
Merci Takk
Köszönjük Terima kasih
Grazie Dziękujemy Děkojame
Ďakujeme Vielen Dank Paldies
Kiitos Täname teid 谢谢
Thank You Tak
感謝您 Obrigado Teşekkür Ederiz
Σας ευχαριστούμε 감사합니다
Бодхон
Bedankt Děkuje vám
ありがとうございます
Tack