

"The Stone Age did not end Because We ran out of stones"  
"석기시대는 돌이 다 떨어져서 끝난 것이 아니다"

[www.mckinleyngx-at.com](http://www.mckinleyngx-at.com)

# GEOTHERMAL POWER TECHNOLOGY INTRODUCTION.

## (지열발전 기술 소개서)

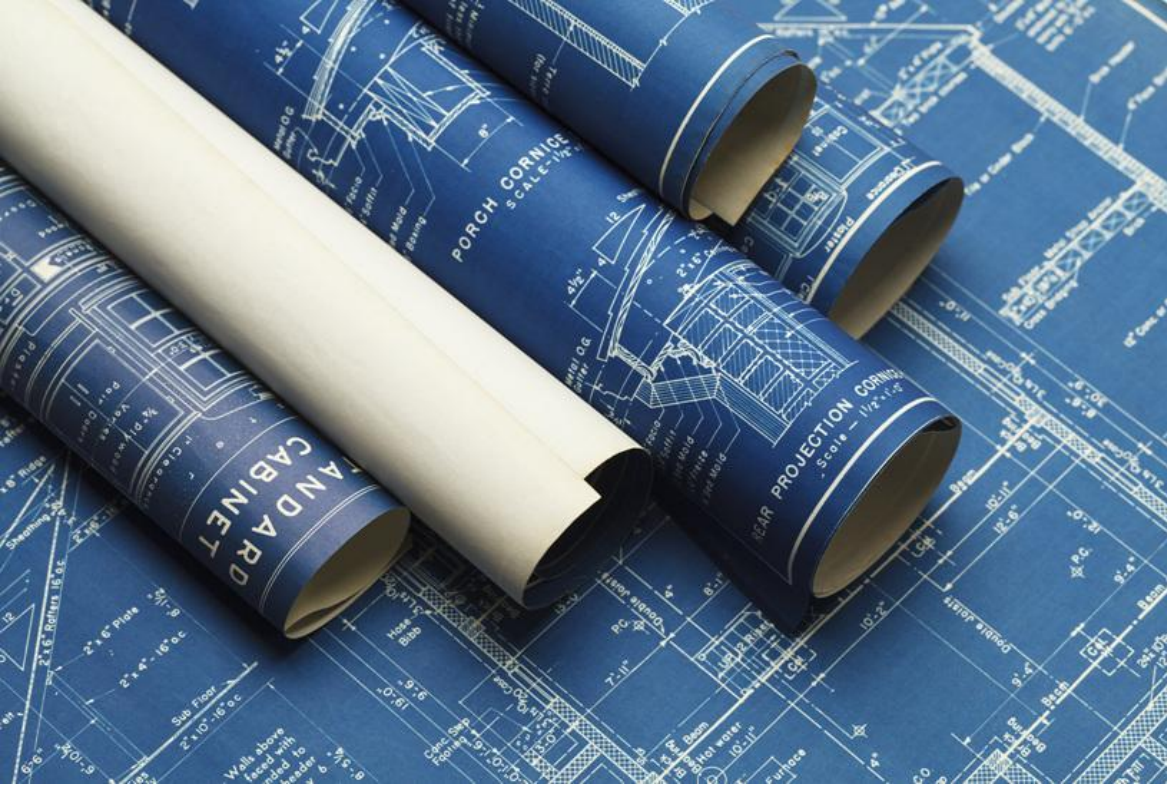
2026.5

McKinley NexGen Adv Tech PTE. Ltd.  
맥킨리 차세대 고들기술



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# EXECUTIVE SUMMARY



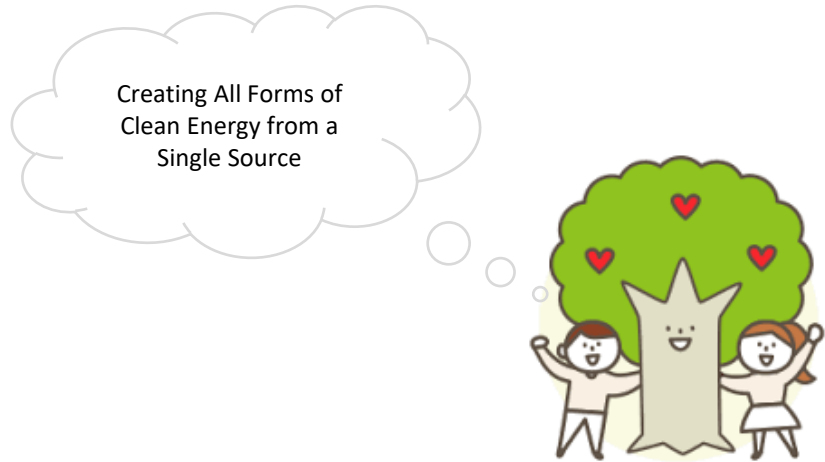
## **Geothermal Power Technology**

The geothermal power generation technology we possess is among the most cost-effective, reliable, and environmentally sustainable renewable energy technologies currently available. Geothermal energy can be harnessed effectively even in non-volcanic regions. Our technology enables power generation from low-temperature heat sources that are typically discarded by conventional geothermal power plants.

## **Applications of Geothermal Power Technology**

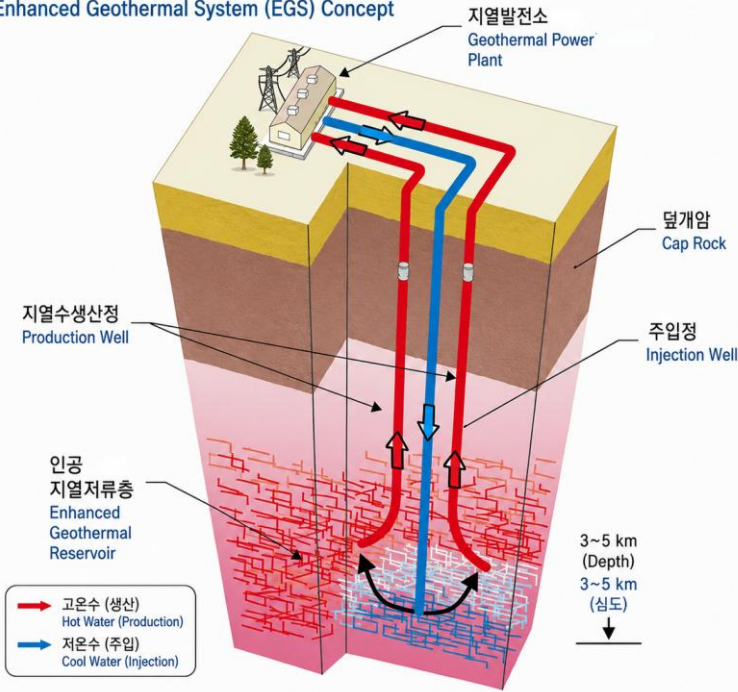
This is a zero-waste energy solution with extensive industrial applications. High-temperature geothermal resources are utilized for electricity generation through multi-stage power generation systems. Medium-temperature geothermal resources are supplied for industrial applications. Low-temperature geothermal resources can be utilized for hot spring facilities, high-value smart agriculture, and advanced land-based aquaculture systems. After thermal energy extraction, the cooled water is reinjected underground, creating a sustainable closed-loop geothermal energy cycle.

# TECHNOLOGY SUMMARY

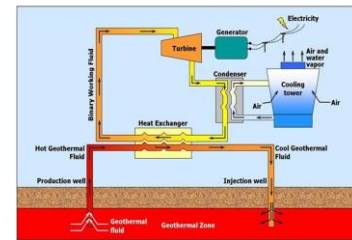
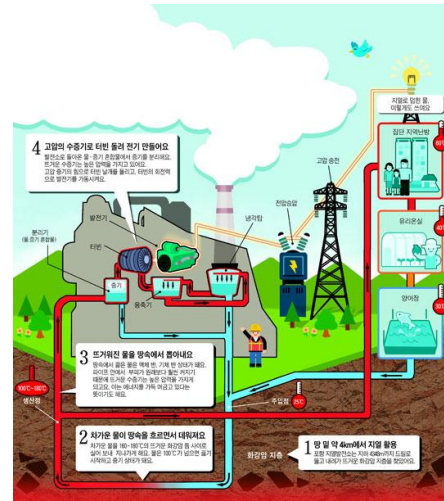


## McKinley's Advanced Proprietary Technologies

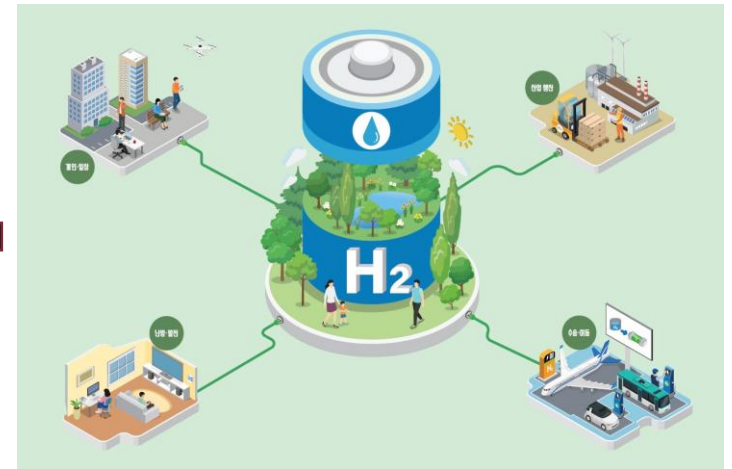
### 인공저류층지열시스템(EGS) 개념도 Enhanced Geothermal System (EGS) Concept



Technology that enables geothermal power generation even in non-hot spring areas.



Possesses technology to generate low-temperature power from waste heat from other geothermal power plants Possesses technology to produce generators.



Green hydrogen grade hydrogen production.



# ECHNOLOGY APPLICATION PROPOSAL

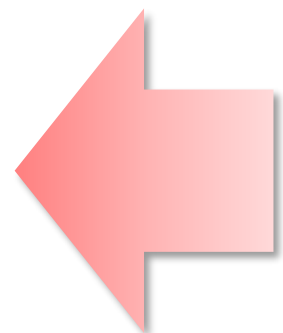
- Producing hydrogen requires a large amount of artificial energy.
- Energy is a cost.
- Is there no way to produce it cheaply?



Hydrogen Production.

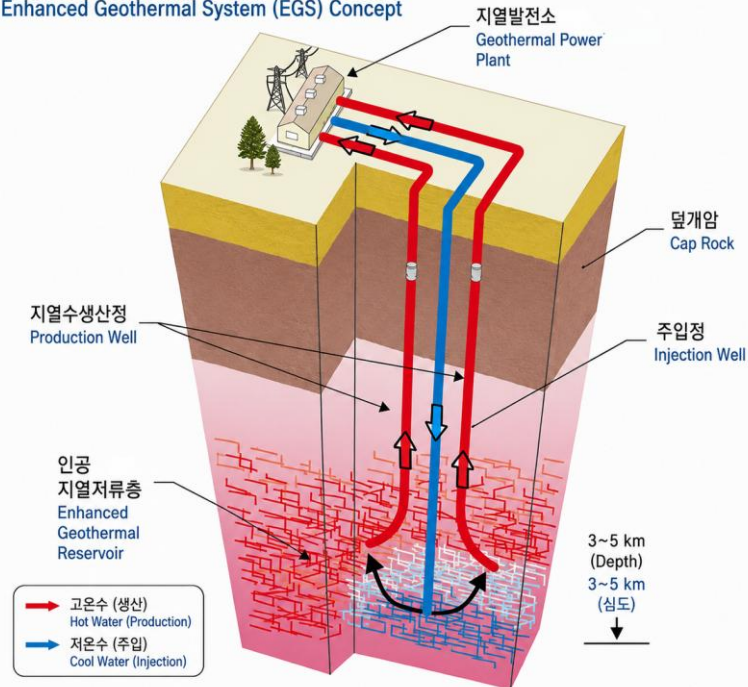


Industrial and Living Energy.



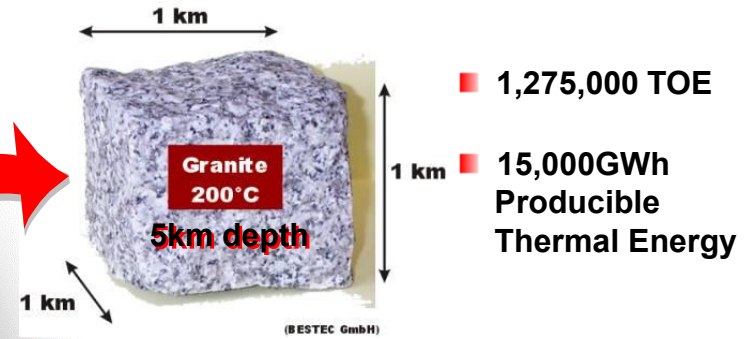
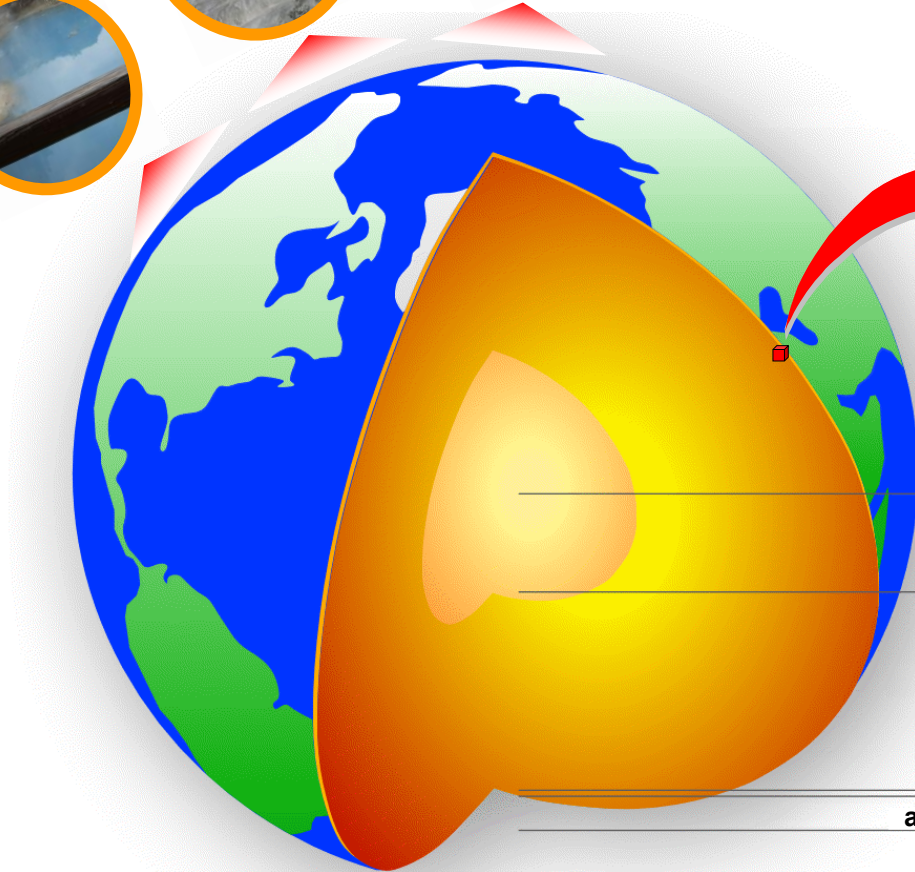
- Stable energy production 24 hours a day.
- Permanent energy source (geothermal).
- Lowest energy production costs. Eco-friendly system.
- No environmental pollutants (waste, etc.).

인공저류층지열시스템(EGS) 개념도  
Enhanced Geothermal System (EGS) Concept

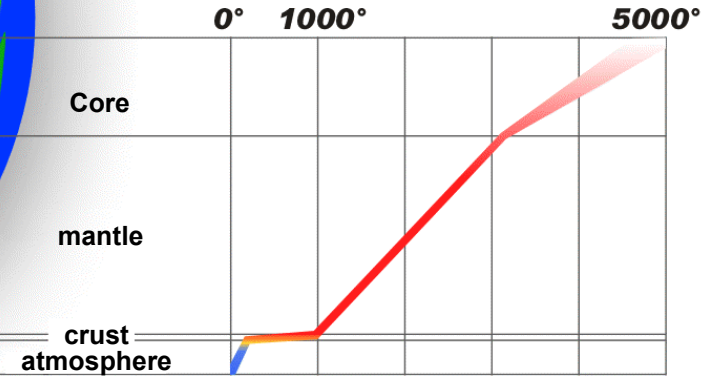


# This is Sustainable Energy Resource

99% of our Planet is hotter than 1,000°C

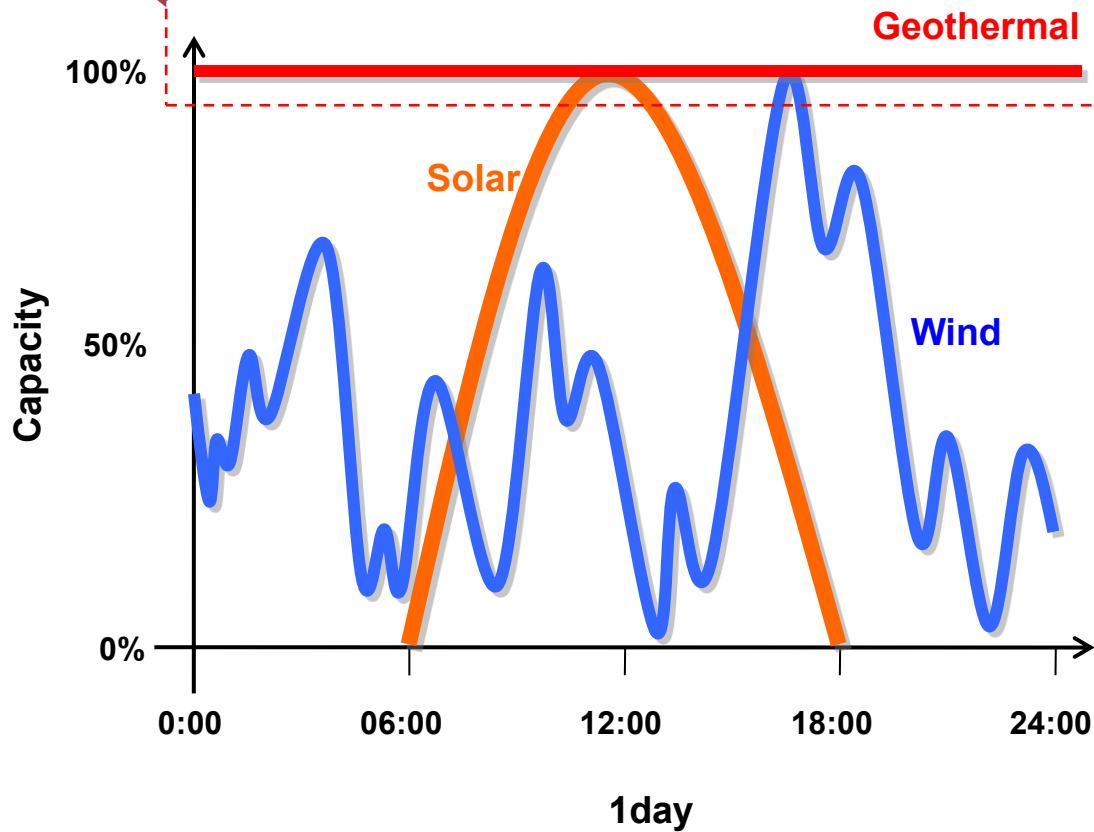


Earth Temperature profile  
Temperature(°K)



This that we are focusing on.

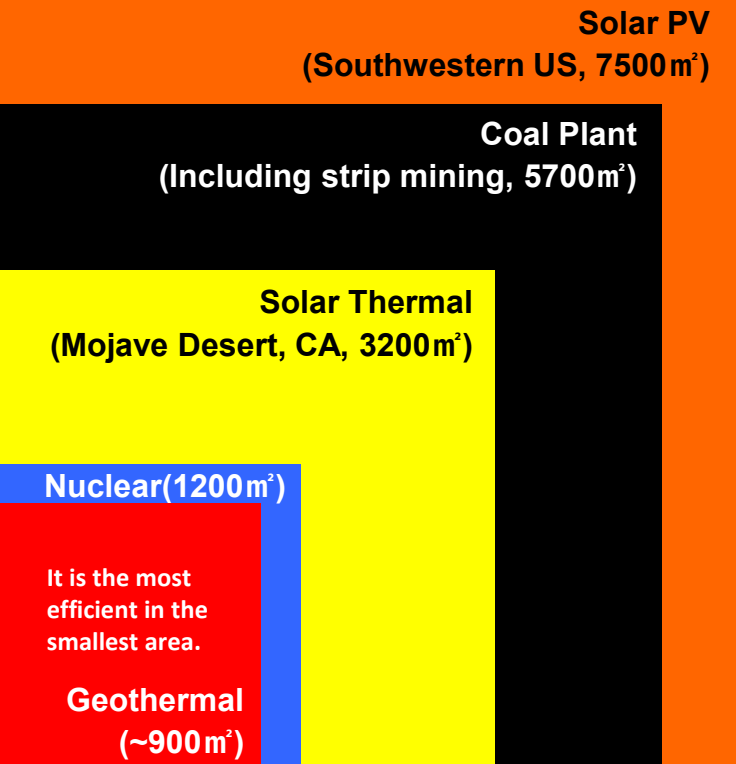
Stable advanced energy source.



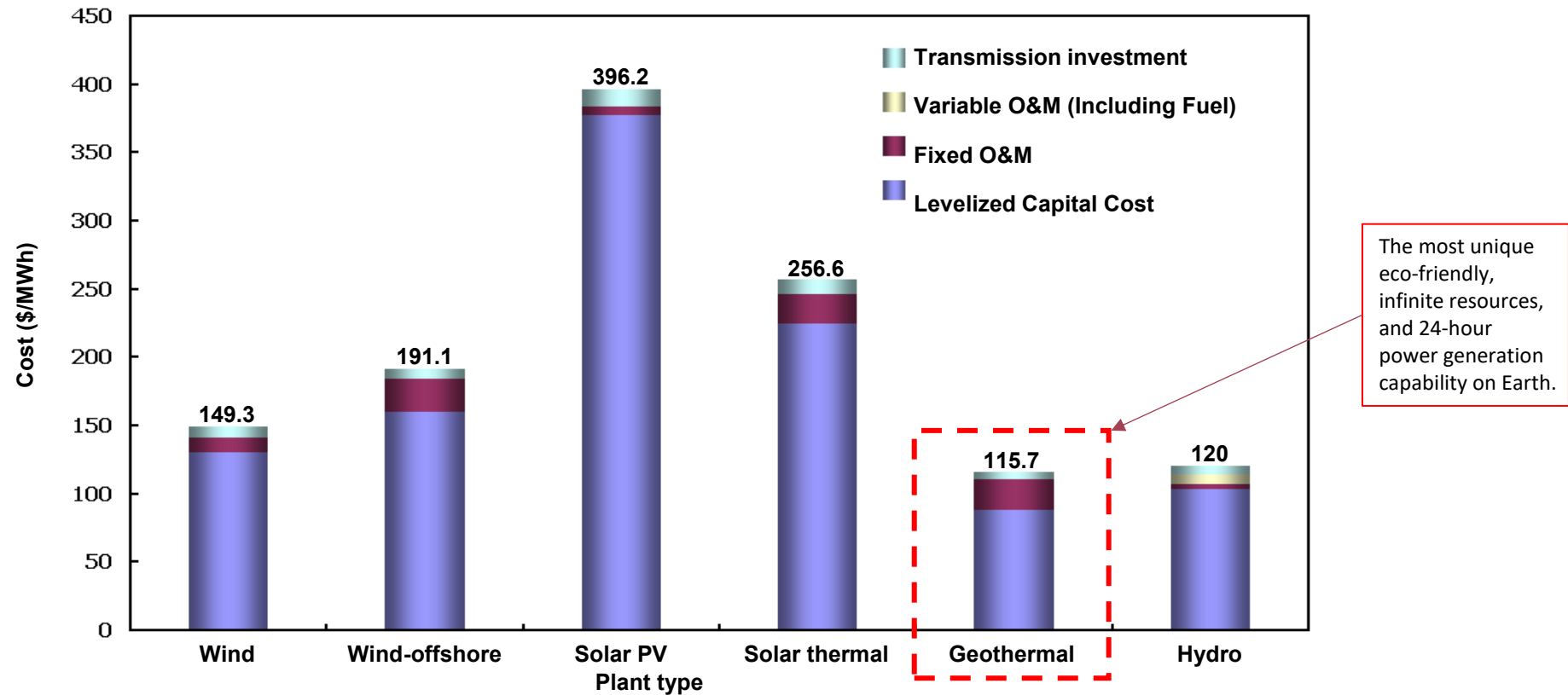
# Small Footprint

## Land use- m<sup>2</sup>/GWh

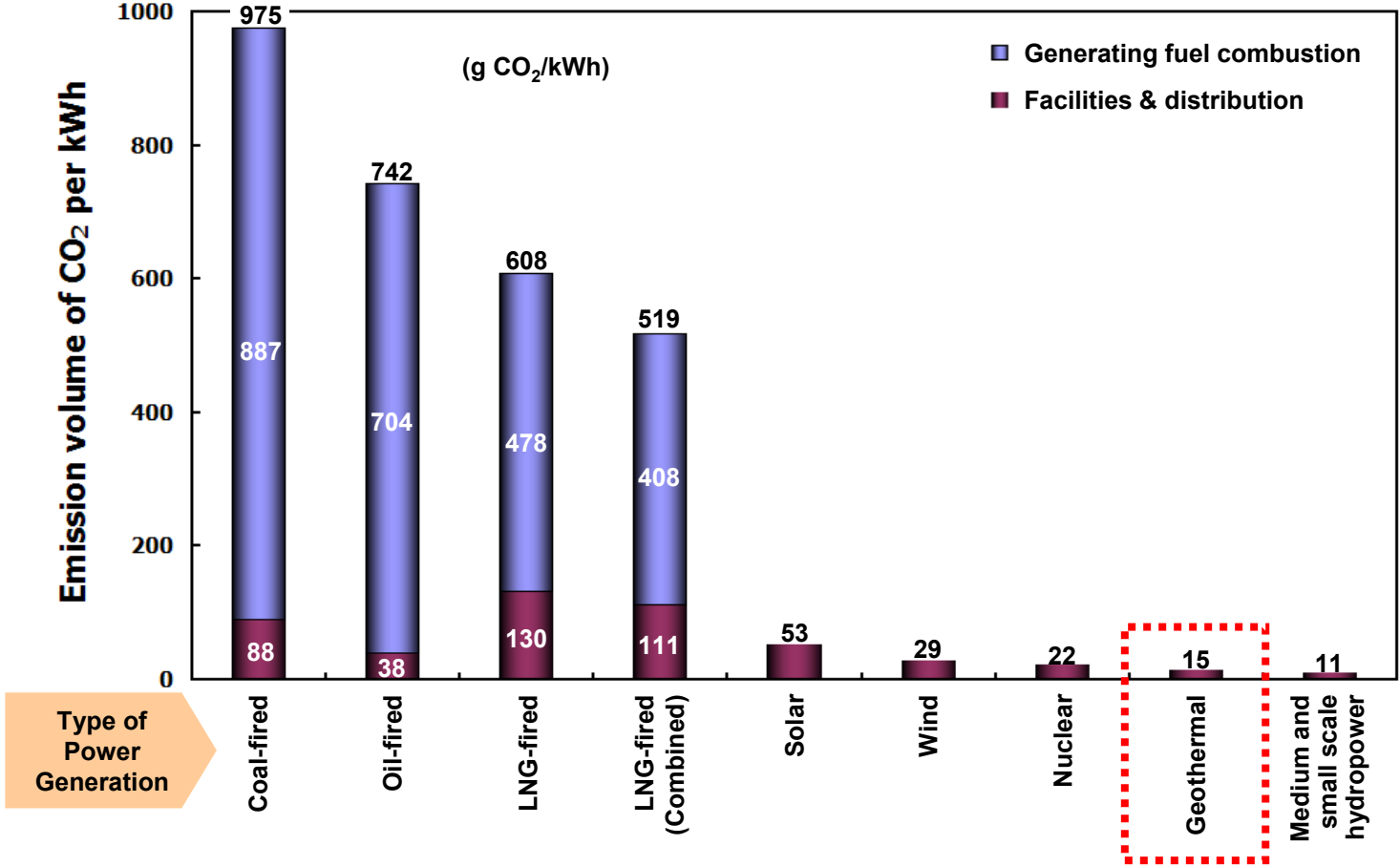
(Data: Future of geothermal energy, MIT, 2006)

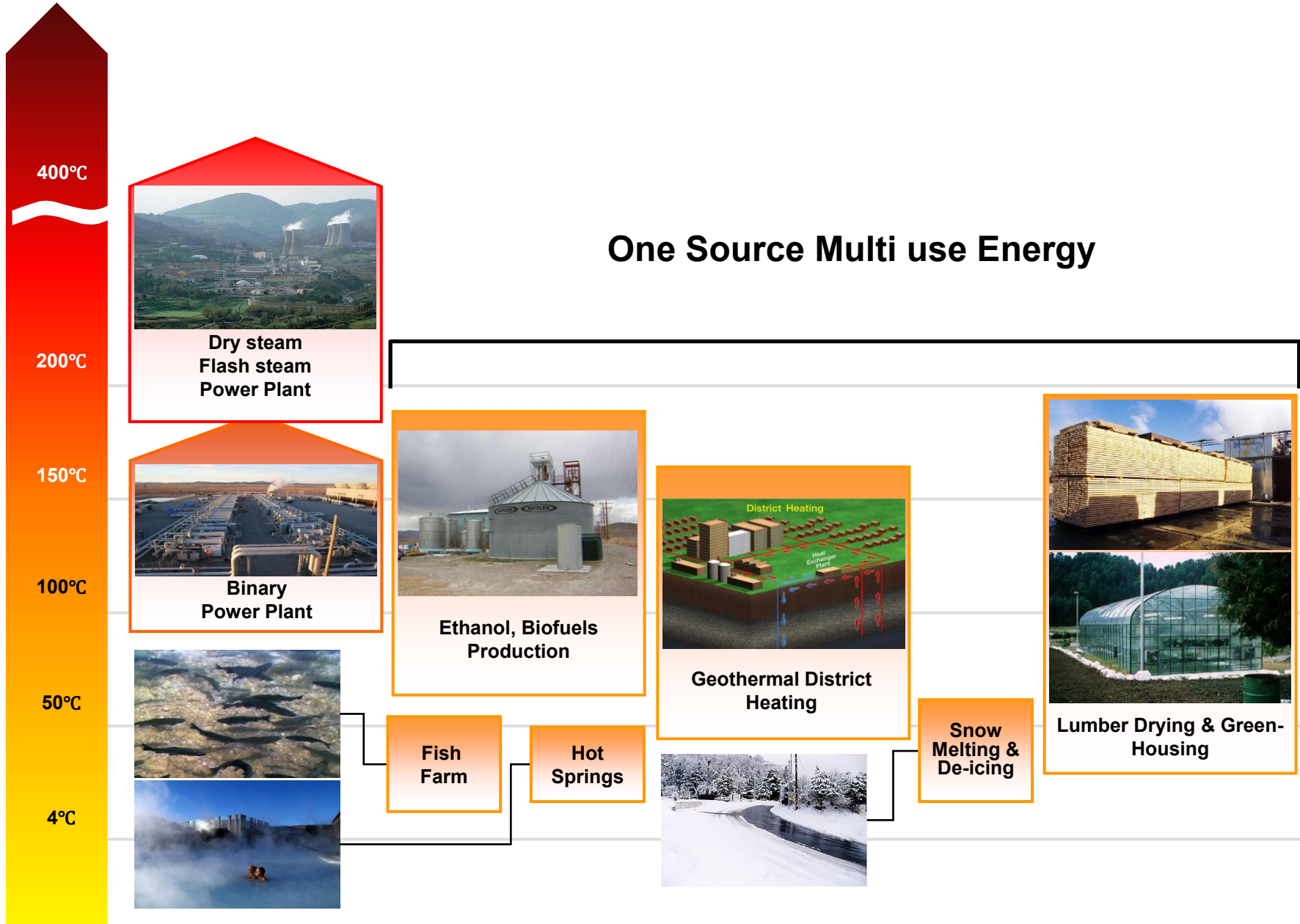


Base-Load

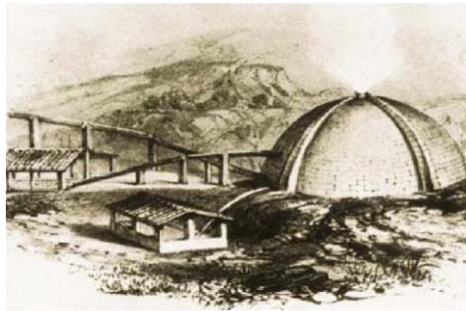


Estimated Levelized Cost of Electricity Generating Technologies (Source: Institute for Energy Research, 2010)





“The oldest and most proven technology “



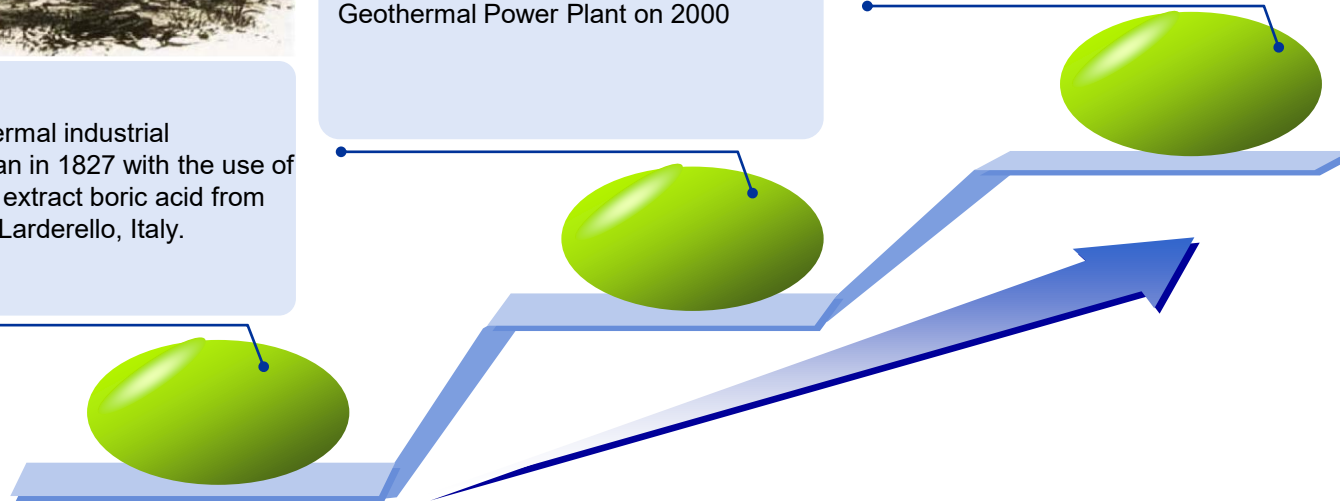
**19C**  
The first, Geothermal industrial exploitation began in 1827 with the use of geyser steam to extract boric acid from volcanic mud in Larderello, Italy.



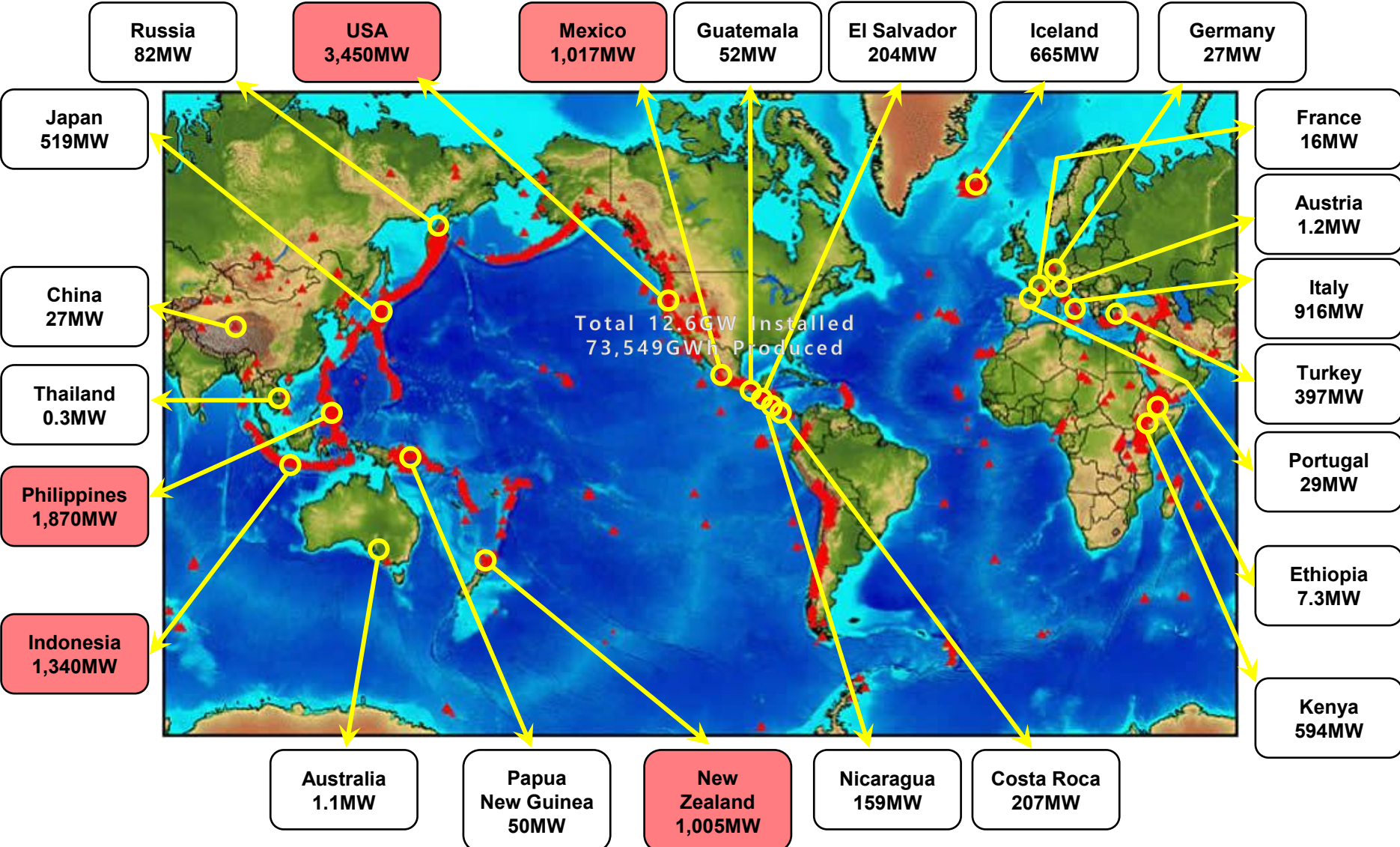
**20C**  
At the Larderello, Italy dry steam field, first proved the viability of geothermal power plant technology in 1904. 24 countries installed 10,897 MWe Geothermal Power Plant on 2000



**21C**  
Now, Non-Volcanic area Geothermal Power system technology (EGS, HDR, HFR) development in competition

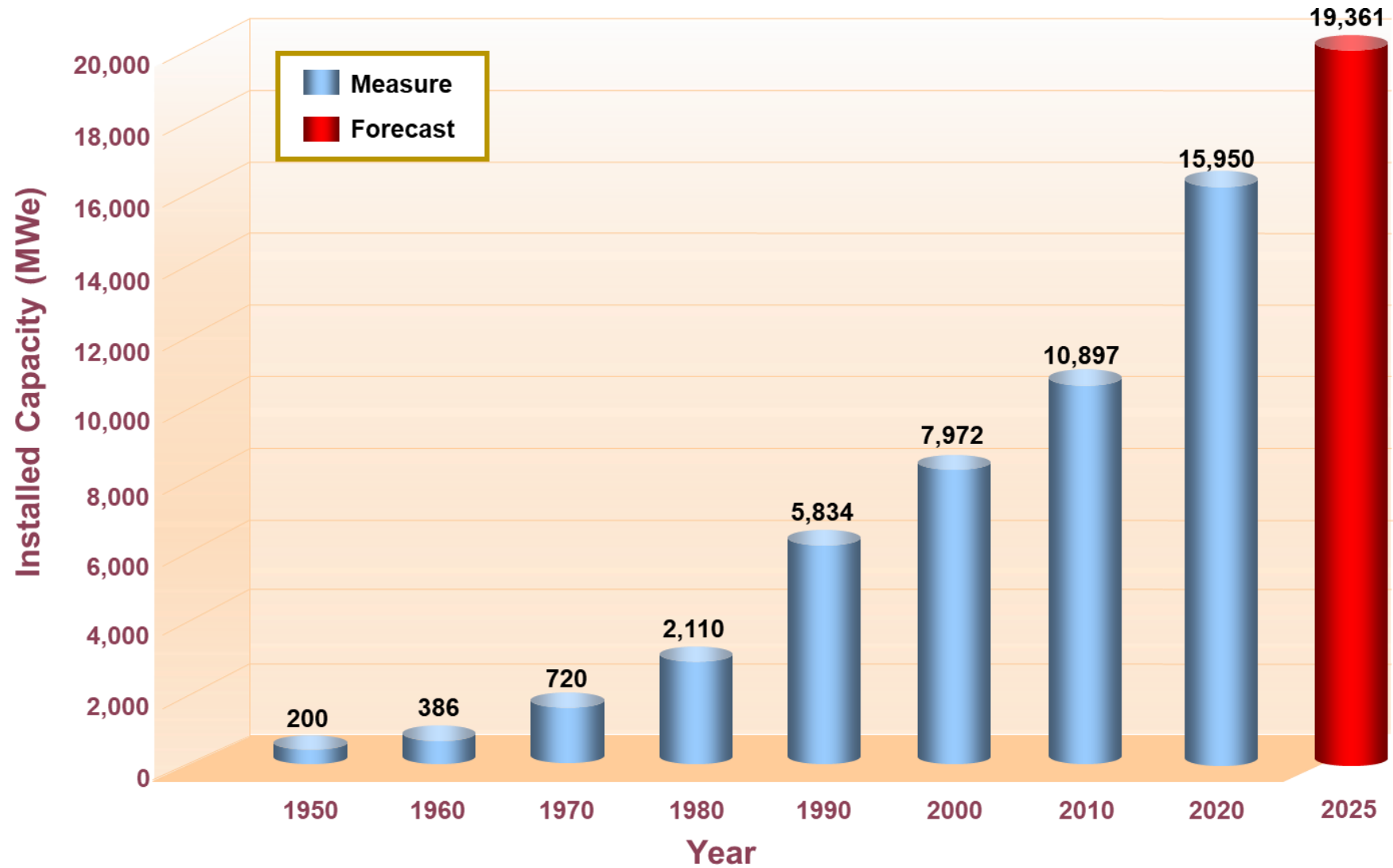


# Geothermal Power Market Current Status



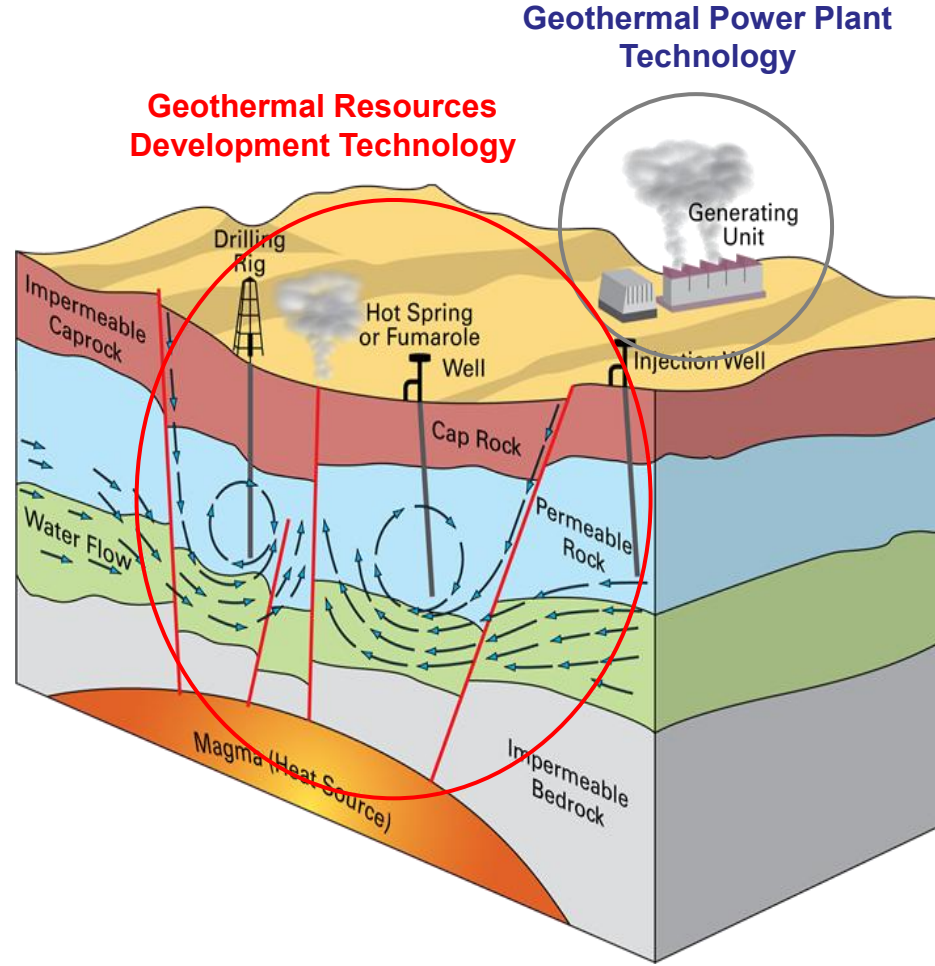
# Geothermal Power Market Current Status

## GEOHERMAL POWER MARKET GROWTH TRENDS



# Deep Geothermal Power Technology

Underground geothermal water contains about 40 different types of minerals, including lithium, manganese, zinc, and potassium.



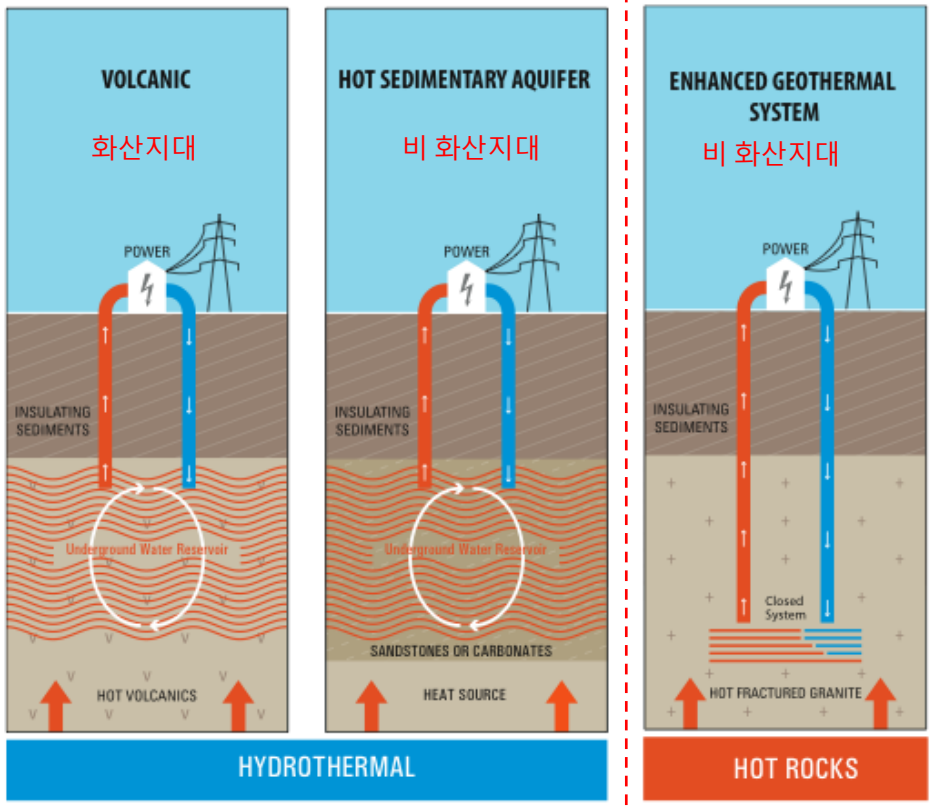
Source: British Geological Survey

The technology McKinley possesses is world-class.



The safest technology. Hydrate mining technology.

## Deep Geothermal Resources Development Technologies

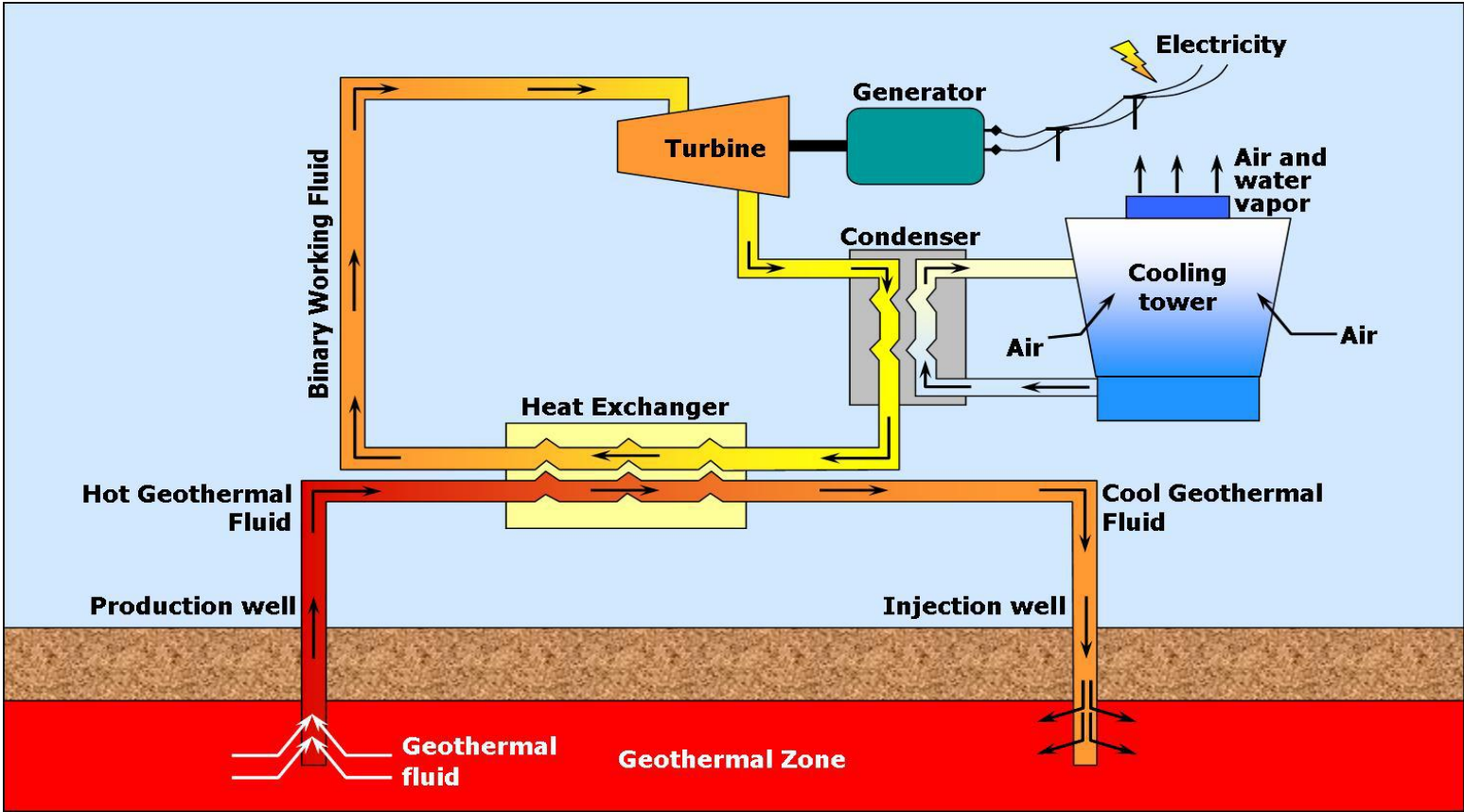


Source: Australian Geothermal Energy Association

Proposer's Technology (EGS)

# BINARY GEOTHERMAL POWER PLANT

Among the technologies owned by McKinley, the technology for manufacturing generators capable of generating power at temperatures above 70 degrees Celsius.



### Binary Plant ?

Binary plants use an ORC or Kalina cycle system, which uses geothermal water to heat a second liquid that boils at a lower temperature than water, such as isobutane or pentafluoropropane or Ammonia-water mixture.

THANK YOU FOR YOUR INTEREST.



Kenny Jang



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