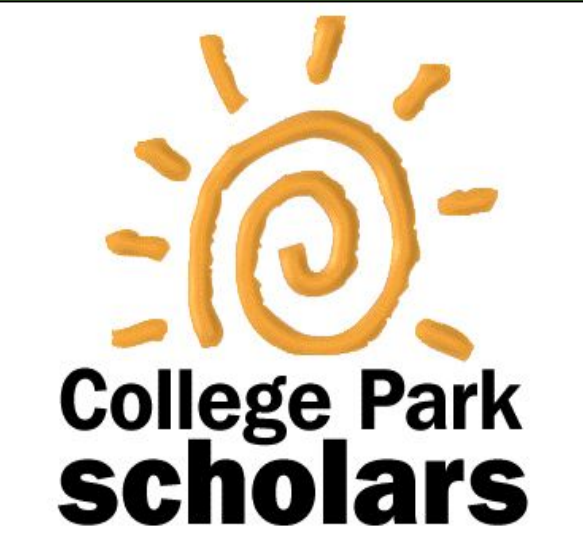




Search For Solutions: Geothermal Energy

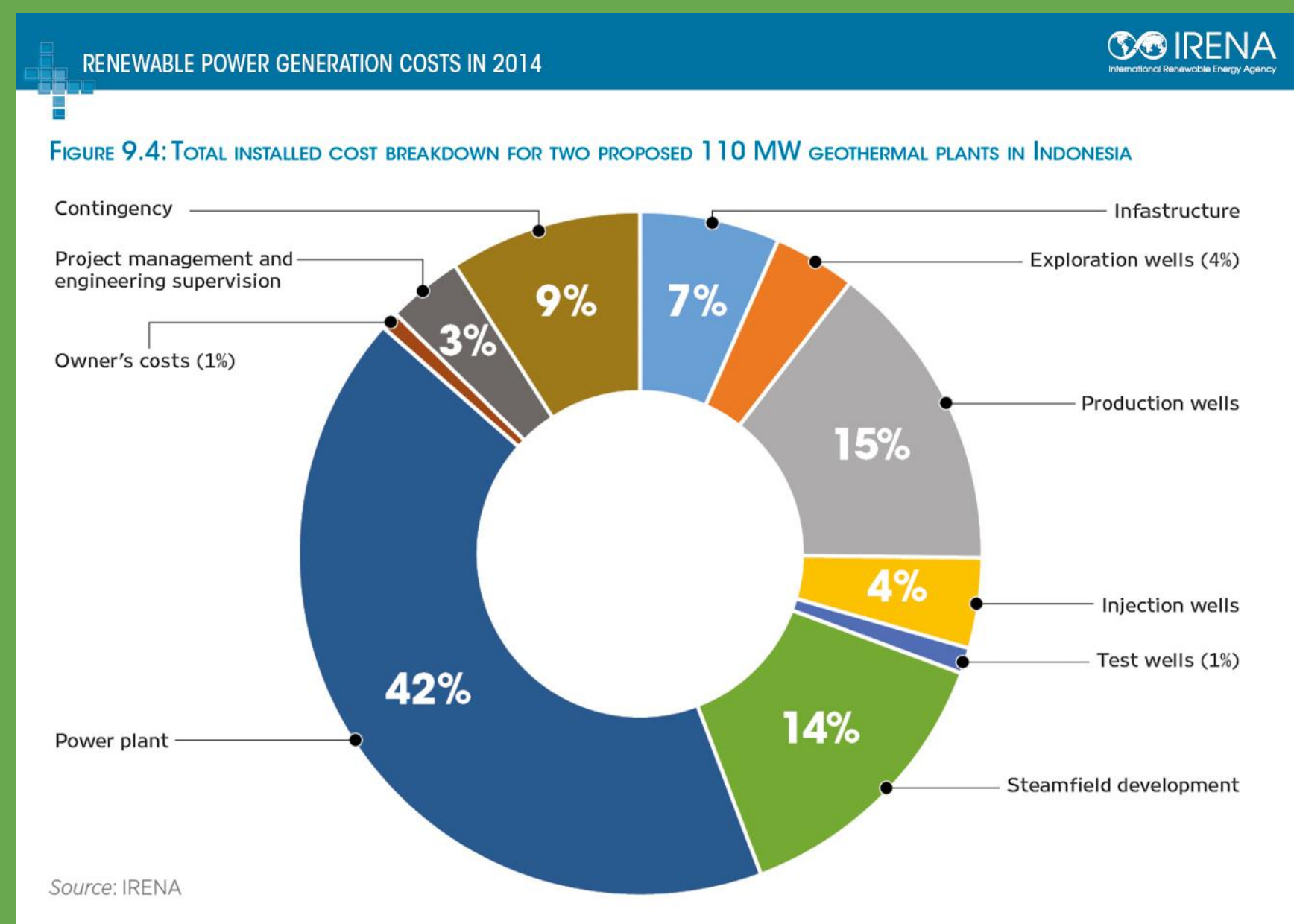
Edmund Park, Thea Bliss, Tara Wade

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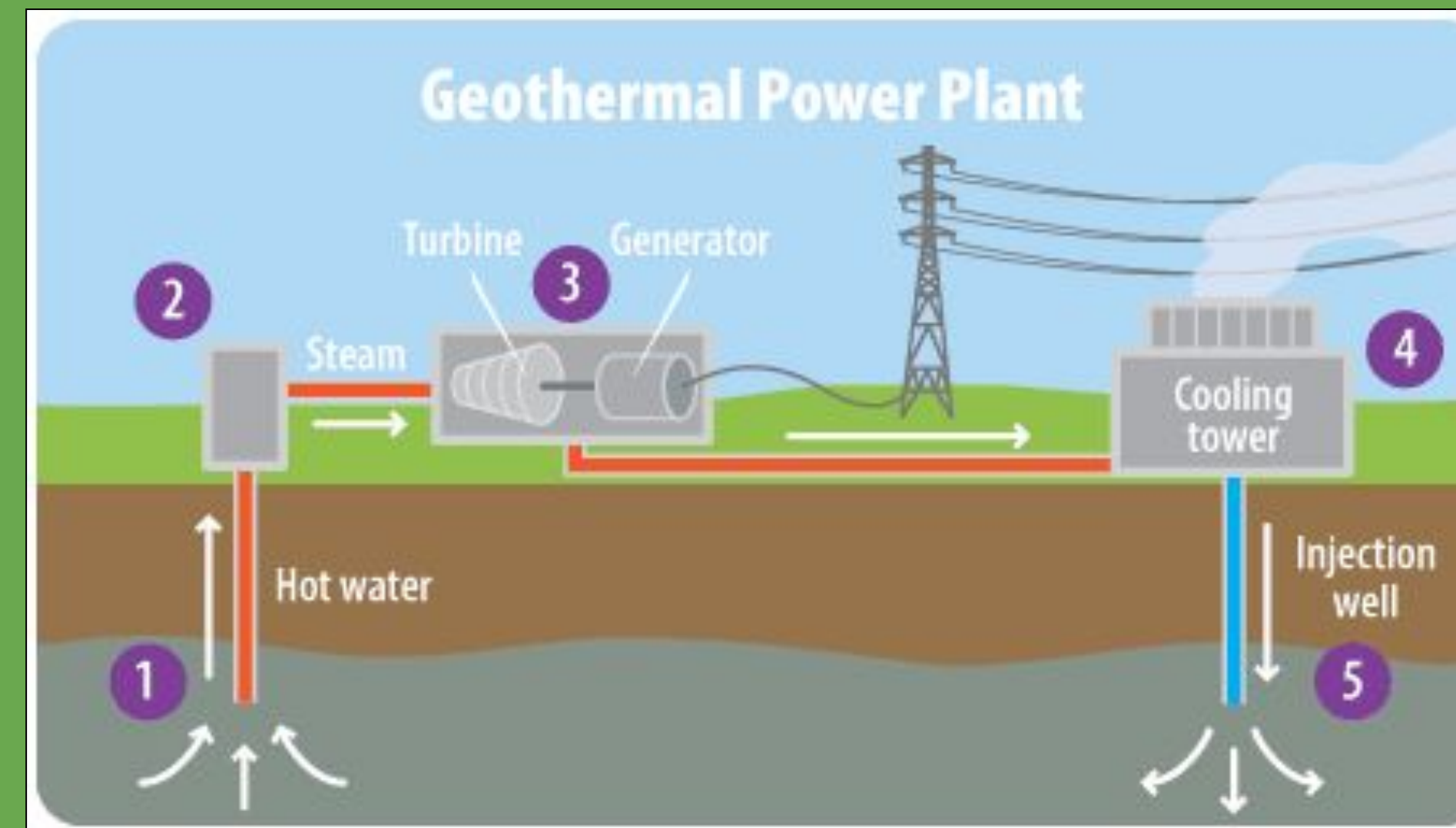


Introduction

“Geo” means Earth. “Thermal” means heat.
Geothermal is heat from the Earth.

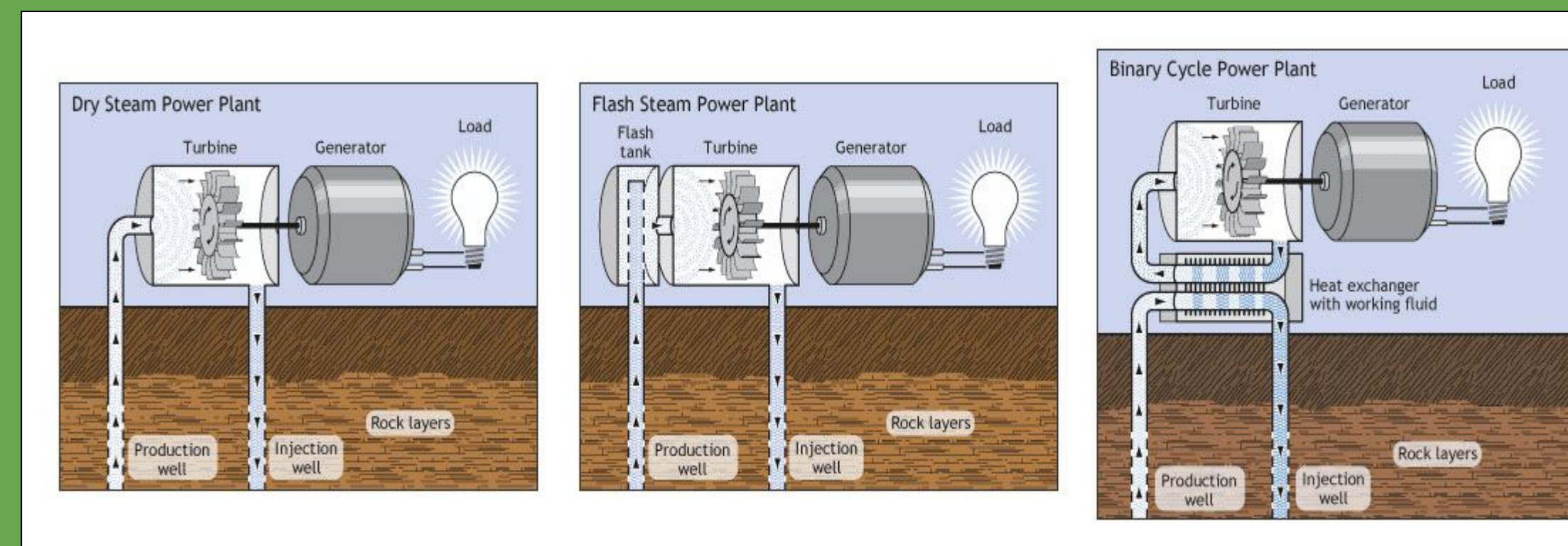


- Main costs of the new system are financial and environmental
 - Cost of production of the geothermal plant
 - Requires a lot of cleared space, and either must be near civilization (which can lead to problems such as noise pollution and unappealing and unnatural landscape) or have a costly system to transport the energy to the civilization
- System uses 0.24-4.21 gallons of water per kWh produced and some systems produce solid waste that must be safely disposed of



How does it work?

1. Uses steam accessed from reservoirs within the Earth
2. Steam spins a turbine, which powers a generator, which produces electricity
3. Used geothermal fluids are returned to the reservoir via Injection wells

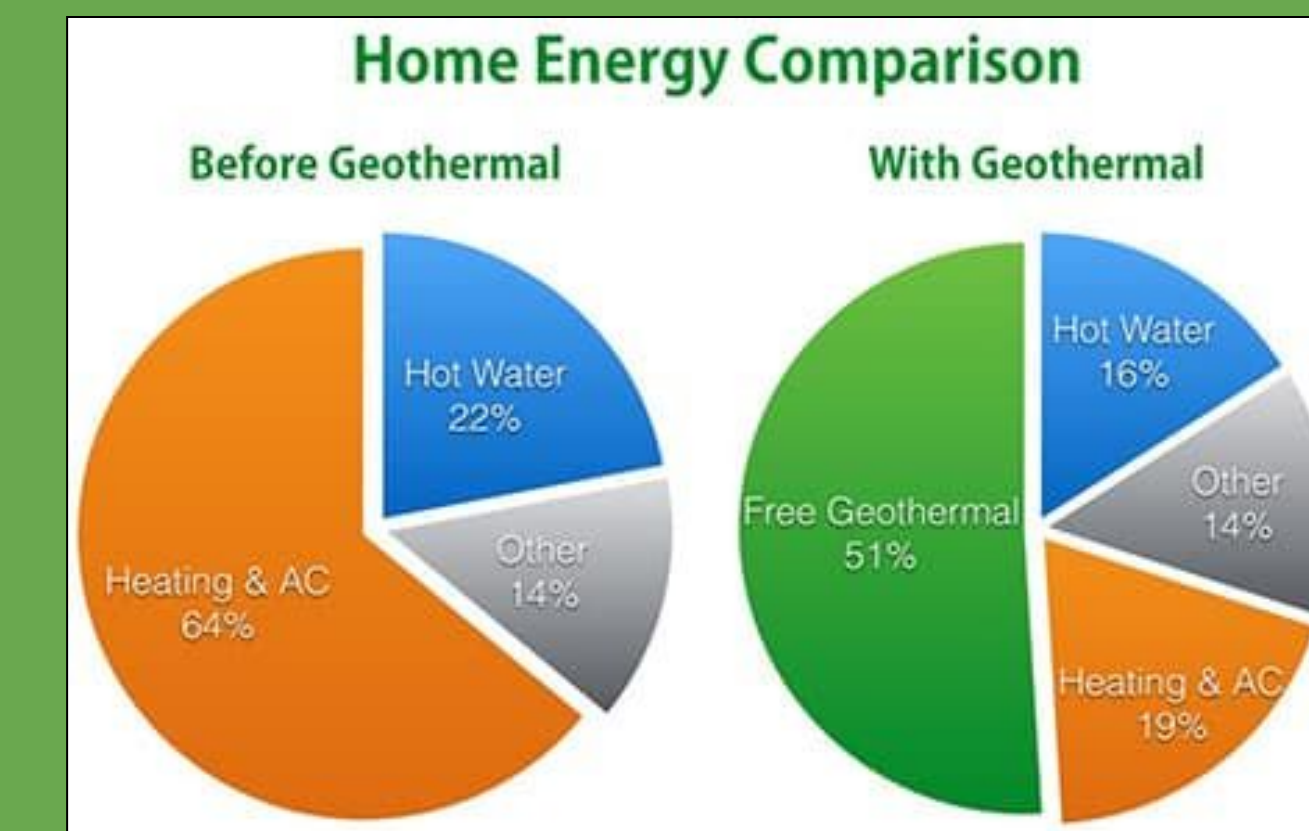


Types of Geothermal Power Plants

- Dry Steam
- Flash Steam
- Binary System

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Main Benefits of Geothermal Energy:

- It is a renewable resource, and it is infinitely available since it is essentially heat and energy from the earth itself.
- Unlike other renewable resources such as wind and water power, it is readily available to be extracted year-round, and is not dependent on the weather conditions through the seasons to be used.
- Costs less overall in terms of its use for heating and cooling systems
- Greenhouse gas emissions are minimal in its usage as energy, especially in comparison to fossil fuels, so pollution is reduced in its usage in the long term
- CO poisoning chances are reduced
- Systems have a strong reliability and will last many years and function for a very long time
- Very cost-efficient since it delivers 4 units of energy for every one unit of electricity used
- Lowers electric bills up to 70% as a result
- Sound-wise, geothermal systems operate relatively quietly.

