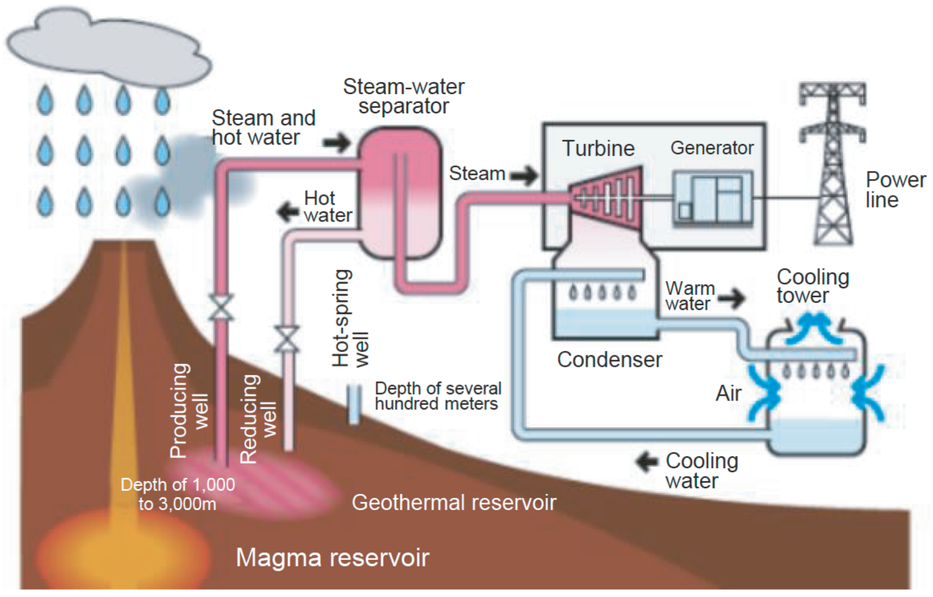
Geothermal Power

Geothermal power generation in Japan

Geothermal power generation has been attracting attention again as a renewable energy baseload power source.

Geothermal power generation is a stable style of power generation which is not affected by climate or weather and does not rely on imports.
Japan has the world's third richest geothermal resources (over 20 million kW) and is expected to expand the utilization of such resources.

Recently, the Wasabizawa geothermal power plant, the first large-scale geothermal power plant in 23 years, started operation in 2019.



[Mechanism of geothermal power generation] Source: Website of JOGMEC

Policy for early realization of an increase in geothermal power generation

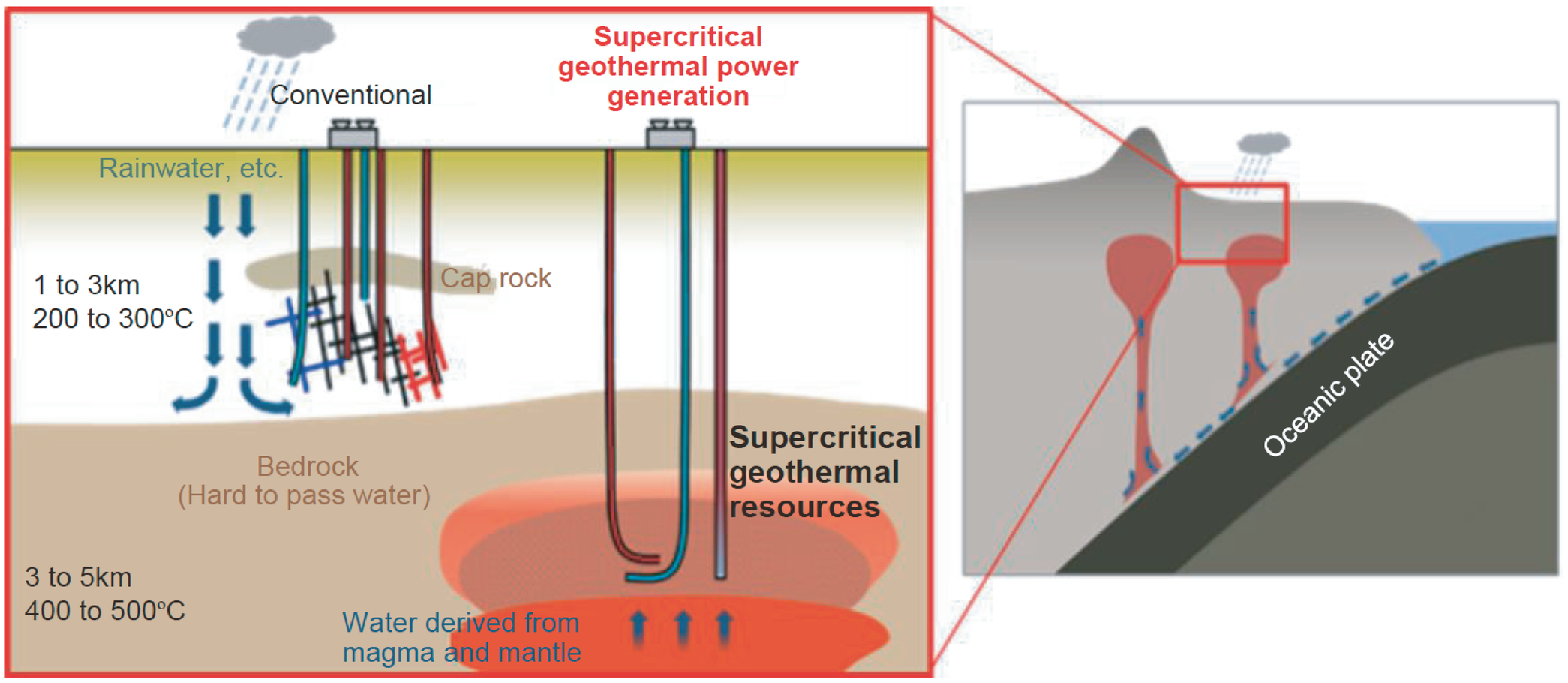
NEDO is engaged in technology development with (1) to (3) as the priority items.

Expansion of geothermal resource potential	Reduction of power tgeneration costs	Local symbiosis and environment preservation
↓	↓	↓
(1) Supercritical geothermal resources	(2) Sophistication of utilization	(3) Environment preservation measures

(1) Overview of supercritical geothermal resources

Next-generation geothermal power generation, which utilizes new resources, to achieve carbon neutral by 2050.

Ilt is considered that water derived from seawater drawn underground as a result of the movement of oceanic plates exists as a supercritical geothermal resource above the magma reservoir. Utilization of this new conceptual geothermal resource is expected to dramatically increase geothermal power generation capacity, and resource amount evaluations are currently being conducted in four regions.



[Concept of supercritical geothermal resources and difference from conventional geothermal resources]