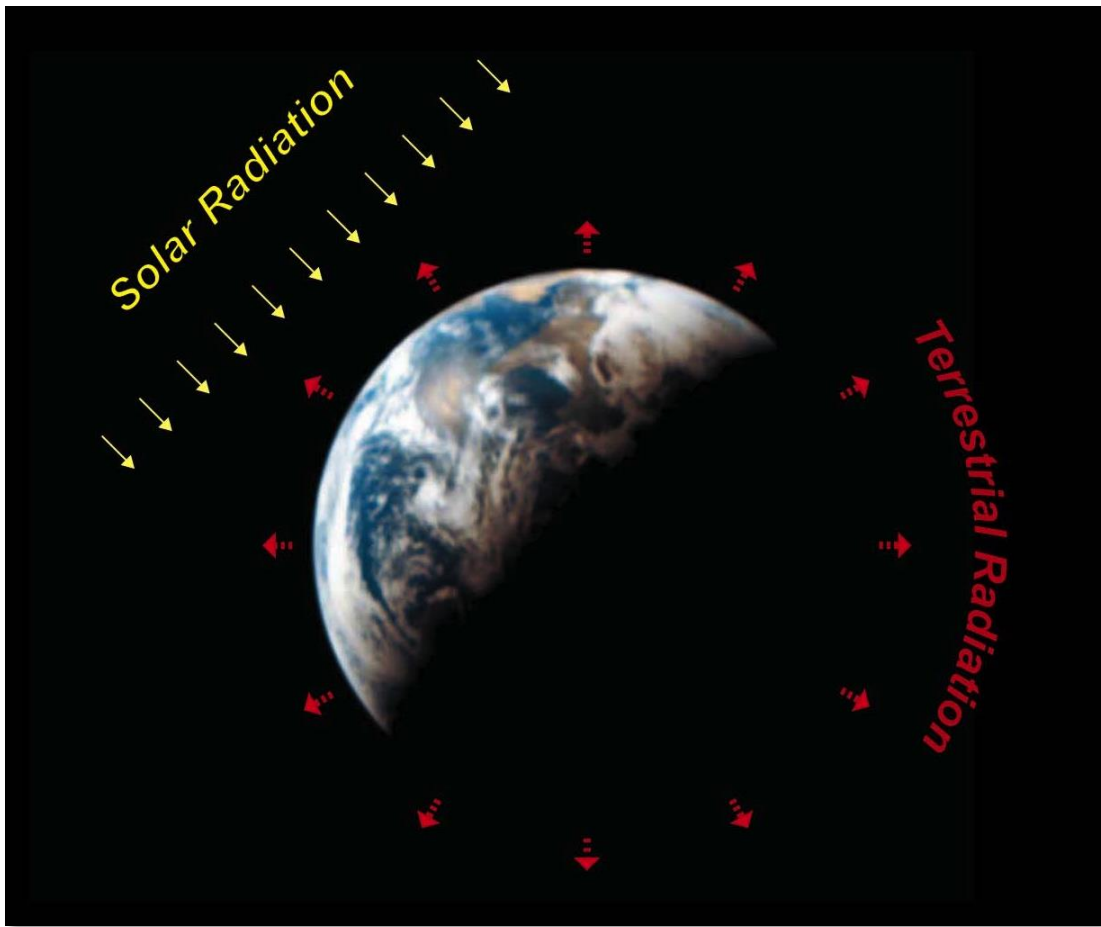
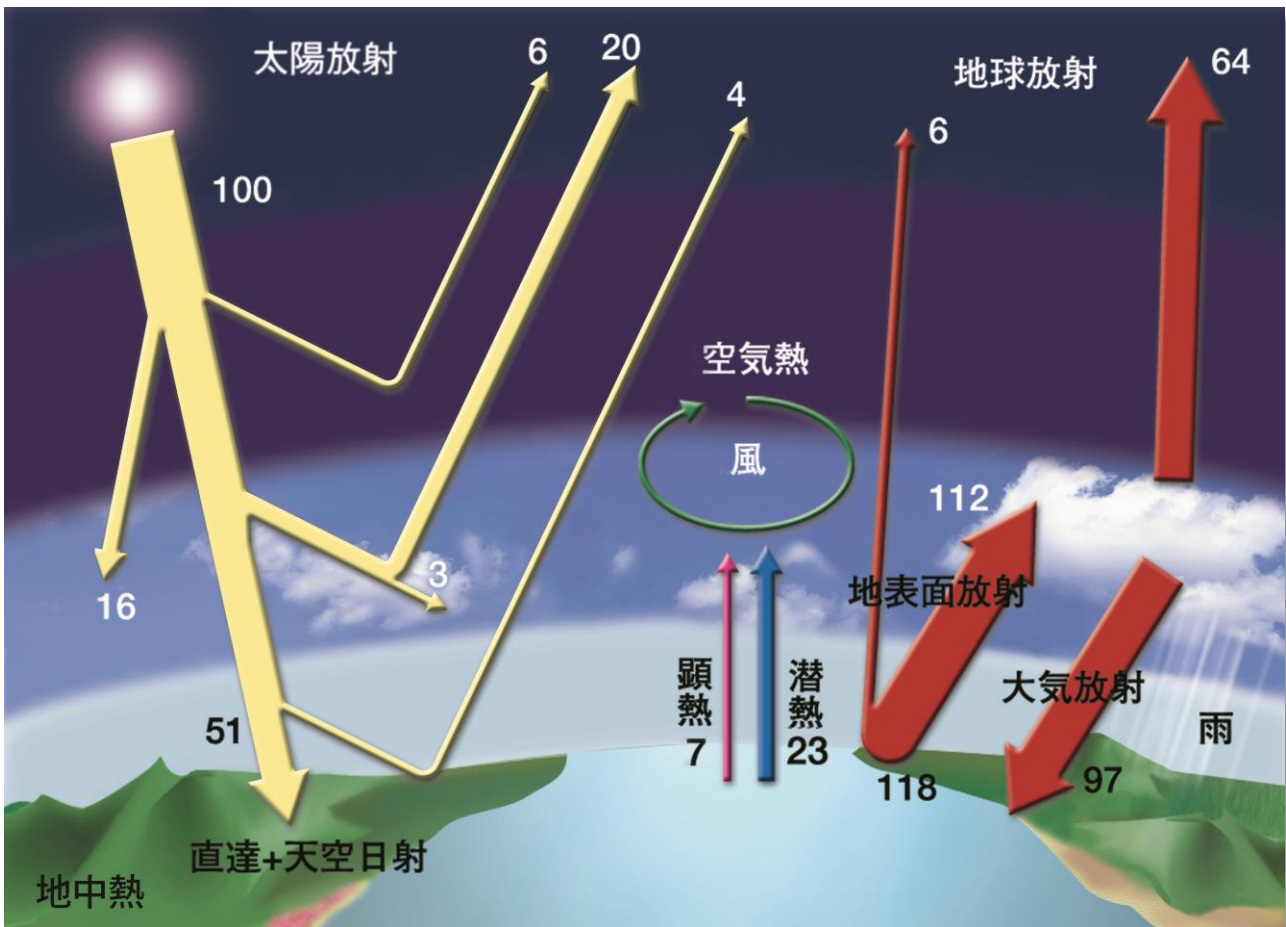


システムコンセプト



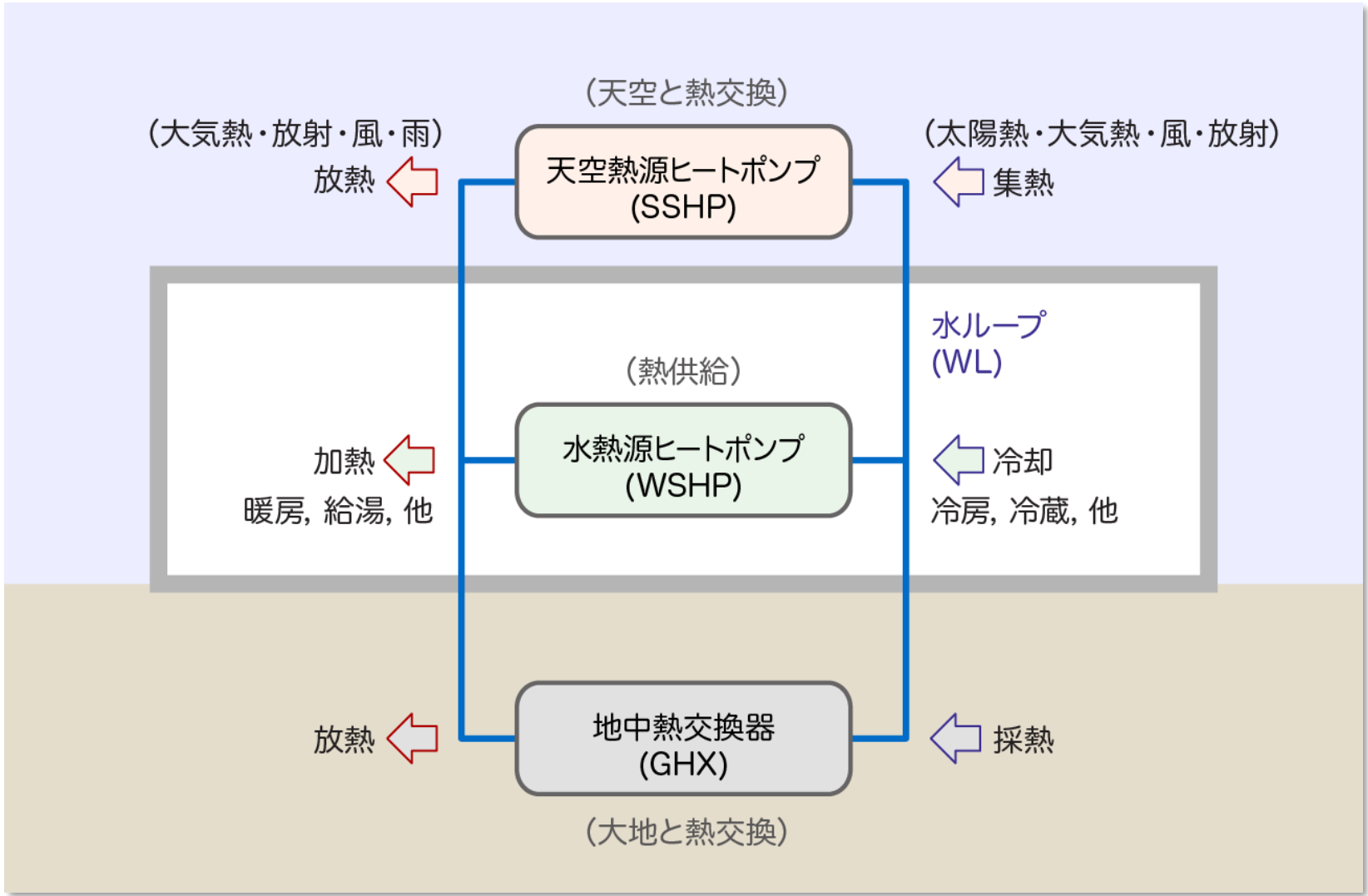
Solar Radiation and Terrestrial Radiation are sole Input and Output of the Earth.



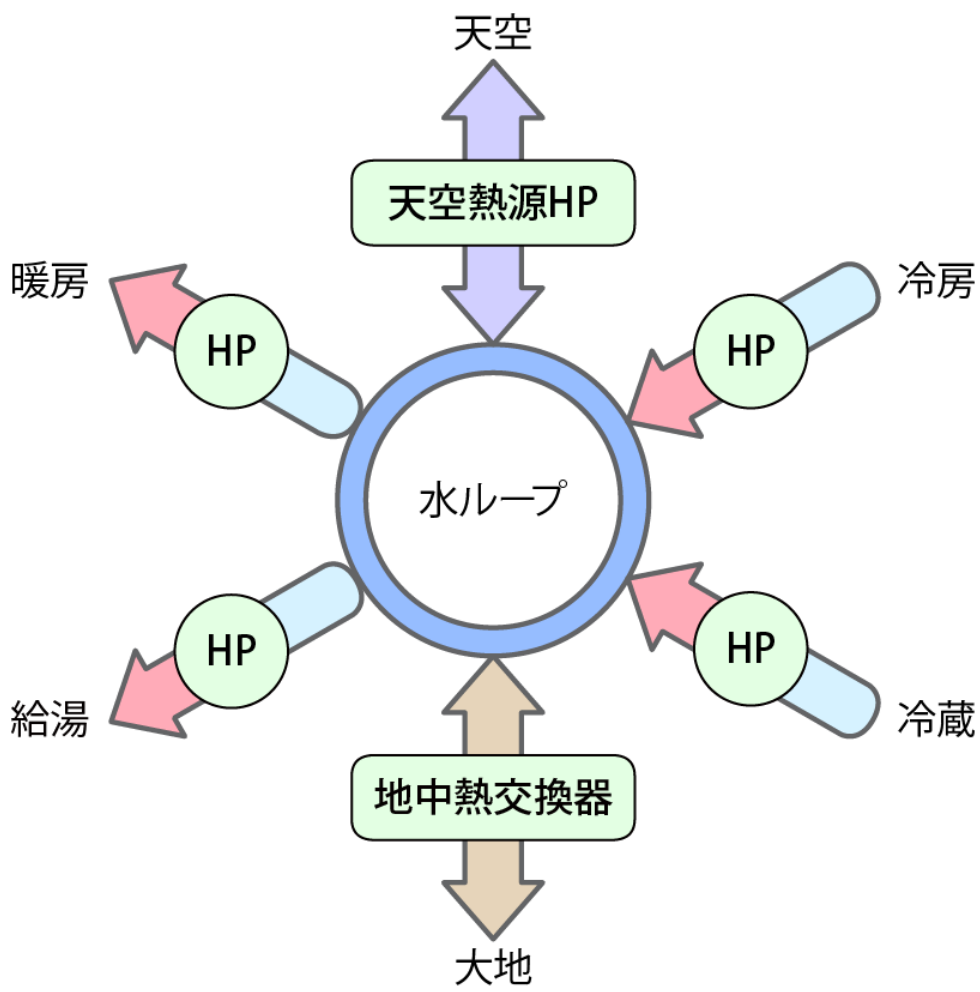
Both Radiations Cause Energy Flows in the Atmosphere and Generate Various Kinds of Renewable Energy.

要素	利用	特性
太陽放射	集熱・電力	○豊富 ●間欠性
地中熱	集熱・放熱	○安定 ●熱量有限
夜間放射	放熱	夜間に顕在化
大気熱	集熱・放熱	○簡便 ●冷暖房と逆
風	熱伝達改善	変動
雨	放熱	蒸発冷却（散水）

Each Renewable Energy has its own Advantages and Disadvantages: Intermittency of Solar Radiation, Limited Availability of Ground Heat, etc.



Renewable Ground Loop (ReGL) System is Multiple-Source and Multiple-Use.



Hot or Cold rejected by Heat Pump is Recovered, Stored, and Adjusted.

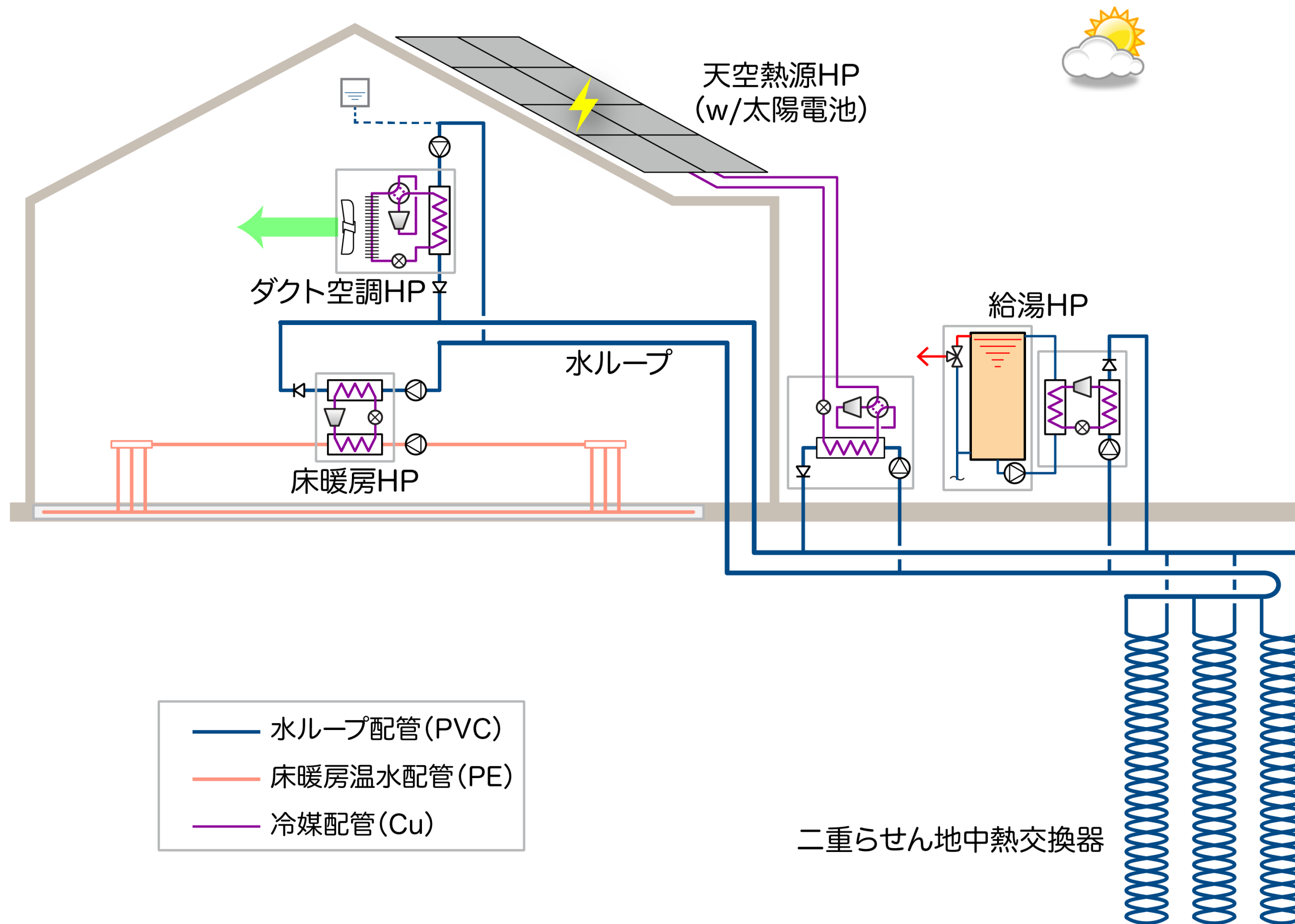
目標

- ◎ 地球温暖化防止
- ◎ 省エネルギーとZEB対応
- ◎ デマンドレスポンス適合
- ◎ ランニングコストは低廉
- ◎ 長期の耐久性
- ◎ 快適な室内環境
- ◎ 地方創生

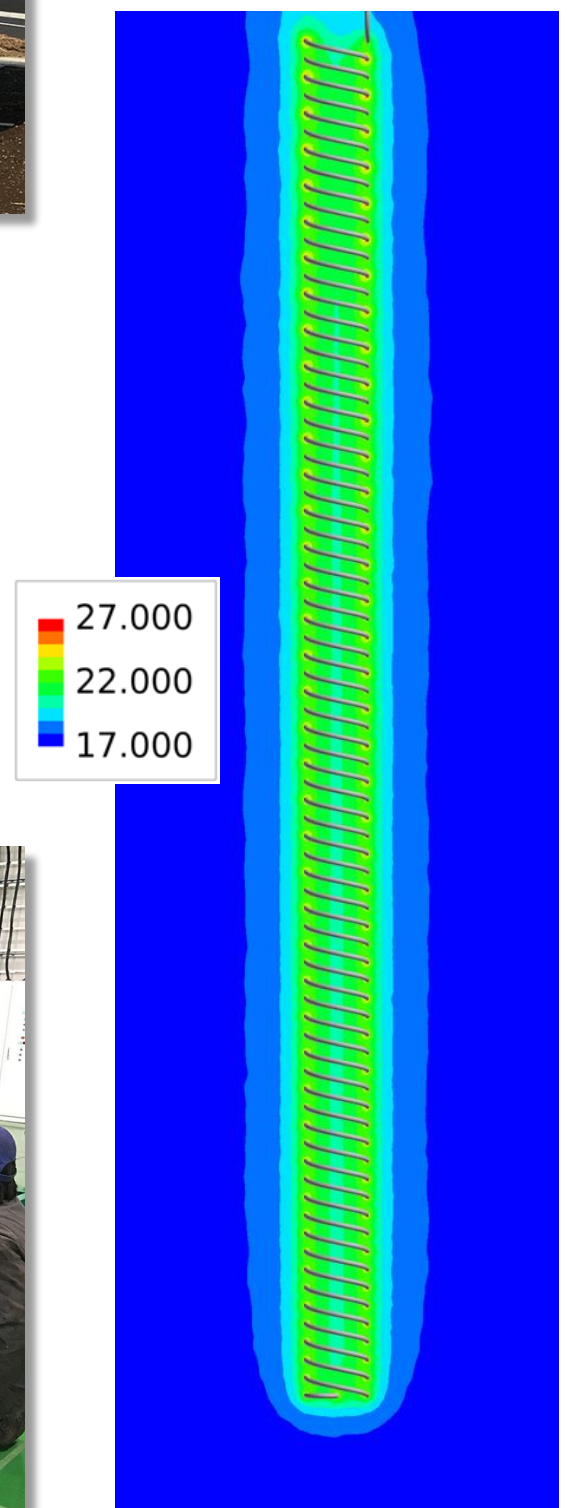
The ReGL System may have Multidimensional Advantages.



技術開発



RE House for Technology Verification



Test System of the RE House System is composed of a Sky-Source Heat Pump, Helical Ground Heat Exchangers, Water-Source Heat Pumps for Room Heating and Air Conditioning, Floor Heating, and Domestic Hot Water Supply.

Double Helix is Advantageous in Manufacturing (left) and Heat Exchange with Ground (right).