Figure 61 - Temperature Ranges of Industrial Heat Application and Nuclear Reactor Designs

Temperature Ranges of Industrial Heat Application and Nuclear Reactor Designs

Process and Supply Temperature Range

Heat Application Processes

- Glass and Cement Manufacture
- Direct Steelmaking
- Thermochemical H2 Production
- Steam Electrolysis
- Methane Reforming
- Petrochemical (Ethylene, Styrene)
- Petroleum Refining
- Shale and Tar Sands Oil Production
- Pulp and Paper Production
- District Heating
- Seawater Desalination

Existing Fleets
- LWR
- HWR

Developing Reactors
- SMR (LWR)
- LMR
- HTGR

Future Reactors
- SCWR
- GFR
- MSR

Type of Reactors:
- **GFR**: Gas-cooled Fast Reactor
- **HTGR**: High Temperature Gas Reactor
- **HWR**: Heavy Water Reactor
- **LMR**: Liquid Metal Reactor
- **LWR**: Light Water Reactor
- **MSR**: Molten Salt Reactor
- **PWR**: Pressurized Water Reactor
- **SCWR**: Supercritical Water Reactor
- **SMR**: Small Modular Reactor

Source: IAEA, 2017