The Korean Nuclear Power Plant was launched from Kori Unit 1 of 600MWe class in 1978. Twenty units have been constructed in the past three decades. As a result, six units of 600-700MWe class and fourteen units of 950-1000MWe class are now in operation. The construction of four additional units, which are 1000MWe, was recently initiated.

The Korean nuclear industry achieved technology self-reliance through this excellent performance and the Optimized Power Reactor 1000 (OPR1000), which was formerly the Korean Standard Nuclear Power Plant (KSNP), has been constructed. To improve public acceptance and enhance economics, Korea has been continuously developing a new reactor model for a long time along with the improvement of OPR1000. As a result of such an effort, Korea developed the Advanced Power Reactor 1400 (APR1400) as a Korean national R&D project spanning ten years and the standard design certification was issued in May of 2002. The APR1400 is an evolutionary PWR (Pressurized Water Reactor) with a thermal output of 4000MWth.

As the manufacturer of the Fuel Handling System, POWER MnC constitutes a key part of the supplier chain of APR1400, the 3rd generation NPP with revolutionary enhanced safety.
Fuel Handling System mainly consist of,
- Refueling Machine (RM): loading and off-loading fuel from the RV
- Fuel Transfer System (FTS): transports fuel between the RV and the spent fuel pool
- New Fuel Elevator (NFE): lower new fuel from the floor level of the fuel building into the spent fuel pool
- Spent Fuel Handling Machine (SFHM): move the fuel within the fuel building between FTS and NFE

All equipments of Fuel Handling System shall be totally integrated and tested under the same operation condition as the plant before delivery, which can reduce any kind of quality risk and minimize install commissioning period at site.