Thorcon meets Customer Needs

Power. 500 MW? 1000 MW? 2000 MW? Thorcon provides the same, low-cost electricity with multiple units, not multiple designs.

Low-cost power. Thorcon electricity will be supplied, full time, at costs competitive with coalfired power generators.

Load following. Power generation is flexible at 5% per minute within 50-100% range.

Industry power. The rotating turbine-generator provides the extra current required by powerful electric motors, electric arc furnaces, and other loads, unlike wind and solar sources.

Availability. 24 hours per day, 95% of days per year. Makeup fuel casks are onboarded annually in a 7-day outage. After 4 years the onboard fuel salt is transferred to a standby Can during a 14-day outage for turbine-generator maintenance. After 4 more years the entire nuclear module is exchanged for a fresh one from the maintenance center during a 30-day outage.

Unexpected load disconnect. Steam bypass allows reactor fission to continue until load restoration or fission power-down.

Blackstart. The Thorcon 500 plant does not require electric grid power to start up. In the event of a grid blackout, Thorcon can supply power needed for other power stations to restart.

Decommissioning. Nuclear module with fuel will be refloated and towed to maintenance center. The steam module refloated and repurposed or scrapped.

Containment. Radioactive fuel is contained within the primary loop, contained within the Can, contained within the cooling silo, contained in silo hall along with tanks of makeup fuel, all contained within the double hull.