

## **ENABLING A SUSTAINABLE FUTURE**

Malta has developed an innovative, utility-scale, renewably-fueled Clean Power Plant that serves as a one-for-one replacement for fossil-fueled power plants. It converts variable renewable energy into flexible, reliable, 24/7 baseload power.

The Malta system empowers leaders to achieve ambitious climate goals, diversify and decarbonize their economies, promote social and economic development, and strengthen energy security and independence.

## THE NEED FOR ENERGY STORAGE

Renewable energy is often the least expensive form of electricity available, but solar and wind power aren't reliably available. To enable more renewables, we must have the ability to store the clean electricity when it is generated and discharge it when needed. Malta's Clean Power Plant can store clean energy until needed and dispatch it for 8 hours to 8 days or longer.

### How the Malta System Works



- 1. Collects. Energy is collected from solar, wind, or the grid.
- **2. Converts.** The electricity drives a heat pump, which converts electrical energy into thermal energy both hot and cold.
- **3. Stores.** The heat is stored in molten salt, and the cold is stored in antifreeze coolant.
- **4. Regenerates.** The thermal energy is converted back to electrical energy by a heat engine.
- **5. Distributes.** Electricity and optional process heat is discharged to the end users when needed.

# Malta's innovative energy storage solution provides:



**Long Duration Energy Storage** 8-200+ hours



**Grid Scale** 100 MW



**Ancillary Services** Synchronous inertia, Load Following, etc.



Combined Heat and Power Applications



Load Following Reserves



Add-On Duration Capable to Meet Future Needs



Asymmetric Charge/ Discharge Capable



T&D Deferral



No Siting Constraints



### **Decarbonization and Diversification**

As society transitions toward greater electrification, significantly more cost-effective electricity will be required. Malta pairs highly efficient heat exchangers and coolant systems integral to the energy, power, and chemical industries with molten salt storage technology deployed globally at concentrated solar plants. It makes renewable energy available on demand and produces clean industrial heat that can be used to grow domestic manufacturing and augment fabricated metals, water distillation, food processing, and other sectors.

### **Built for Rugged Environments**

Climate change threatens to increase energy vulnerabilities. Extreme heat, violent storms, and water stress are among the risks that must be mitigated. Malta's clean power plant integrates widely deployed components that are well understood and relied upon by industrial operators around the world. Resilient to extreme temperatures and able to operate without water, the plant is built to last wherever it is needed.

# WHY MALTA?

**Flexible:** With independent charge and discharge cycles, the Malta system can be tailored to your energy storage needs.

**Cost-Effective Scaling:** Expanding the duration of storage is easy and allows the system to grow with the need. We simply add more salt and coolant with marginal cost increases.

**Zero Waste, Circular Solution:** Malta's solution has no waste by-products throughout its lifespan, poses no long-term disposal challenges, and is 100% recyclable.

**Long-Duration, Longer Lifespan:** Malta's solution can discharge stored energy back onto the grid from 8 to 200+ hours. Like other power plants, its lifespan is expected to be 30 years or longer.

#### **Reliable Supply Chains and Existing**

**Workforces:** The solution uses conventional components and abundant raw materials (e.g., salt, air, concrete, and steel) and established, reliable supply chains with trained labor forces in the energy and power industries.

### **World-Class Investors and Technology Partners**



#### **About Malta**

Malta, Inc. has developed a 100-megawatt Clean Power Plant, a like-for-like replacement for fossil fuelfired plants. It delivers affordable, reliable, on-demand, around-the-clock, clean energy. Malta's innovative technology stores electricity as thermal energy from eight hours to eight days or longer, later returning it to the grid to meet hourly, daily, and weekly needs. The Malta system also provides clean heat for industrial and district heating applications.

# **Contact Us**

info@maltainc.com



One Broadway, 14th Floor, Cambridge, MA 02142



www.maltainc.com