



BUILT
FOR THE FUTURE

THERMAL ENERGY STORAGE TANKS

AWWA D110 Prestressed Concrete Tanks



MAKE THERMAL ENERGY STORAGE PART OF YOUR SUSTAINABLE OPERATIONS

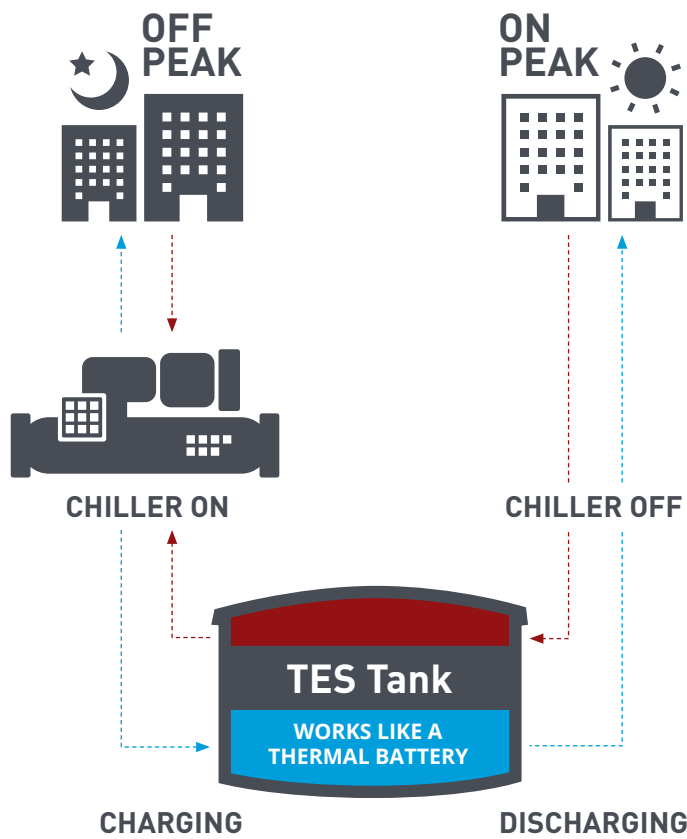
Thermal energy storage (TES) can be an innovative and economical part of your overall energy strategy. It uses the temperature differentials of stored water to help contribute to your overall cooling and heating systems. Taking advantage of usage patterns between peak and off-peak hours, a TES tank effectively serves as a “thermal battery” – storing cool or warm water and distributing it for use when it’s needed most. This approach can be especially cost-effective for businesses and institutions with multi-building campuses.

As with all of DN's liquid storage solutions, the promise of a DN TES tank is its ability to create immediate benefits today, while also standing the test of time. A DN tank requires little to no maintenance over decades, delivering the best long-term value possible. And behind each of these tanks is the power of our people. We draw on decades of proven expertise to deliver productive relationships that are as enduring as our tanks themselves.



DN THERMAL ENERGY STORAGE A MORE SUSTAINABLE COOLING AND HEATING SOLUTION

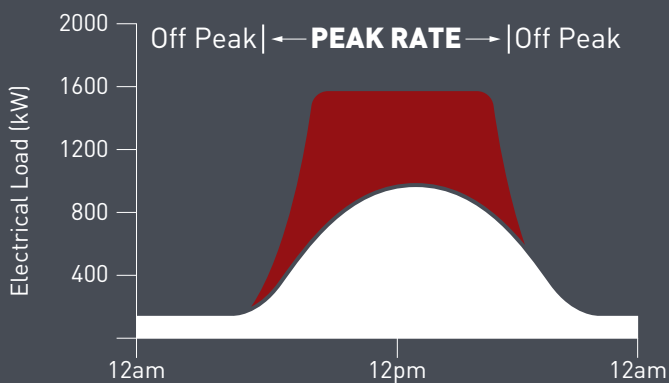
- **Tank Capacities** — from 40,000 gallons to 50 million gallons (MG) and more.
- **Custom Dimensions** — liquid heights from 8' to over 100' and diameters from 25' to over 500'.
- **Siting Options** — at grade, partially buried, differentially back-filled and fully buried (with multi-use capabilities).
- **Seismic Resilience** — designed with an anchored flexible base for enhanced ductility and seismic performance.
- **Durability** — proven reliability through weather extremes, including fire and freeze thaw events, tornadoes and hurricanes.
- **Prestressed Wall Compression** — provides longevity, durability and watertightness.
- **Reinvesting in the Local Economy** — use of materials, labor and equipment from within the community.
- **Economic Architectural Enhancements** — concrete TES tanks utilize EIFS insulation with many economic exterior options.
- **Best Long-term Value** — our tanks speak for themselves. No coatings required, which eliminates routine maintenance costs and downtime. Request a lifecycle cost analysis today.



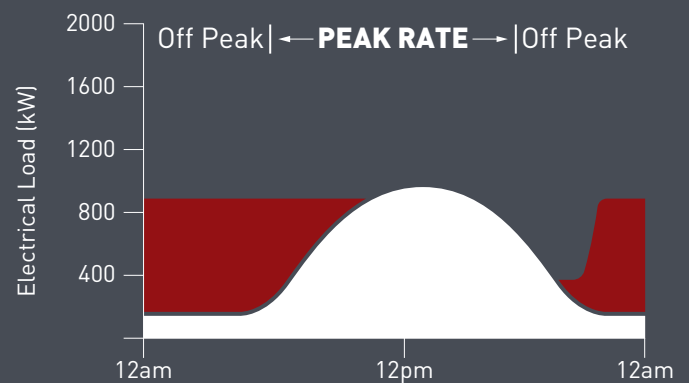
HOW TES WORKS

By producing chilled water during off-peak hours and then utilizing the stored water during peak periods, the peak electrical load is permanently reduced. This lowers energy cost by reducing peak electric demand and energy consumption, saving owners thousands of dollars each year. ASHRAE research concludes that TES can increase the utilization of renewable generation.

**Electric Load
Without TES**



**Electric Load
With TES**



OWNERS RELY ON TES TO REDUCE ENERGY COSTS AND INCREASE EFFICIENCY

DN constructs prestressed concrete tanks for thermal energy storage. Typical owners include: airports, schools and universities, hospitals, government and military bases, power plants and private industries. For expansion projects, owners can avoid the capital cost of adding an additional chiller by instead utilizing a TES tank. TES is also used as a backup for chilled water systems that require 24/7 cooling — such as mission critical data centers.





DN ADVANTAGE

- **Maximum Storage Capacity:** The DN specially designed diffuser minimizes turbulence and creates a stable thermocline — effectively stratifying the warm return and cold supply water within the tank.
- **Unparalleled Reliability:** DN prestressed concrete tanks are designed and constructed to perform reliably for decades. In fact, every one of the TES tanks we've ever built is still in service today.
- **Lower Cost of Ownership:** A DN prestressed concrete tank will last for generations — with no scheduled maintenance. This makes it a superior choice for long-term value and cost of ownership.
- **Construction Flexibility:** Because of inherent characteristics of concrete, the TES tank can be partially or fully buried underground.



ARCHITECTURAL ENHANCEMENTS

The exterior of a DN prestressed concrete TES tank can be customized to blend in with its environment, match the surrounding buildings or become an iconic landmark.

- Custom Logo
- Faux Brick
- Partially or Fully Buried
- Customized Finish
- Matches Buildings

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RESOURCE SAFE.

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