



# District Energy

## World's Largest Medical Center

Thermal Energy Corporation (TECO) supplies the heating and cooling to the World's Largest Medical Center Campus. Gilsulate® 500XR is the long-term energy efficient solution which has helped TECO save energy and costs on their 48 MW CHP system. In 2011 the U.S. Department of Energy declared TECO's system to be among the most energy efficient.



Gilsulate flowing out of its Mega Bag

*For nearly 30 years, Gilsulate®500XR has been used on every new expansion project and retrofit/repair to insulate and protect their steam, condensate and pump condensate system to their continually growing 47 year old campus.*

"Insulation has long been recognized as a low-cost method of conserving natural resources. What is not as well known is that insulation is considered one of the best sustainable technologies available. In fact, insulation can be considered effectively 'greener than trees.'"<sup>1</sup>

Gilsulate®500XR is unique. Its patented product and formulation is the only product which contains insulating minerals; providing clients with the most efficient system available.

"TECO's CHP plant now operates efficiencies of 80 percent, more than twice as efficient as a typical utility generating station."<sup>2</sup> ***Gilsulate®500XR is providing the most energy efficient steam & condensate system available.*** This coupled with a contractor's perspective that the installation is very easy and cost effective too provides TECO with the ***best system available in the marketplace!***



Compaction under varying static loads doesn't impact G500XR's density

"Our thermal energy production will be some of the ***most cost effective and efficient in the country.***"

***"Failure is not an option for TECO."***<sup>3</sup>

Gilsulate®500XR's patented particle engineering allows the product to be dimensionally stable and well-graded; these properties enable TECO'S critical infrastructure to be installed effectively.

Whether the challenge is ground water or stray currents Gilsulate®500XR high electrical resistivity and hydrophobic properties prevent corrosion to their direct buried steel systems. Over the past couple of decades the facility has seen multiple major floods due to hurricanes. ***The nearly 30 year old Gilsulate®500XR systems were unaffected and are still in operation today.*** Underground water, wet soil or high water tables are not a problem for Gilsulate®500XR.

There are 14 hospitals, 21 academic institutions, 3 medical schools and 6 nursing schools within the Texas Medical Center. Construction schedules are well orchestrated and done quickly and efficiently by contractors to assure minimal patient disturbance. Work schedules are often tight and require timely completion; one of the benefits of G500XR is once you install it and compact it it's done and you can start backfill immediately. Most infrastructure work is done during evenings and weekends and often has very short lead times; Gilsulate®500XR allows the contractors to deliver success.

The global economy and environmental demands have dramatically impacted the energy generation and distribution marketplace trifold. Owners are experiencing the skyrocketing maintenance and operating costs coupled with dwindling budgets; Gilsulate®500XR is the proven solution. Gilsulate®500XR offers a multitude of benefits with key points such as: use of industry ASTM standards, long-term reliability, no maintenance system, product warranty, superior BTU reductions, cost-effectiveness, flexibility, simplistic design & installation making it the overall value and choice owners are seeking today!

1 Christopher P. Crall "Insulation: Greener Than Trees" *Insulation Outlook Magazine*, January 2009

2 "Energy Secretary Steven Chu Visits Thermal Energy Corporation" *PRWEB* February 3, 2012

3 Steve Swinson, TECO President/CEO U.S. Dept of Energy. "TECO Dedication Unveils 48MW CHP." *Clean Energy Digest*. 24 August 2010:14

Case Study is approved for publication/distribution by Thermal Energy Corporation (TECO)



Project contractor: "The system is very easy to install"