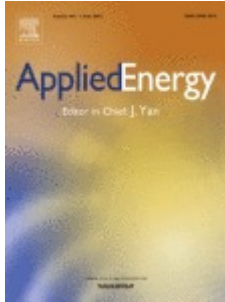


Load Intensive Structures: Research and Test labs Summaries



- Latent heat storage unit prototype for telecommunications base stations using PCM resulted in
 - Average energy savings of 50%
 - Average annual operating time that this unit replaced traditional AC use is 83%
- PCM along with a system of innovative elements in new building reduced
 - Energy use by 40%
- PCMs in telecom data center, server room or shelter
 - reduce energy consumed by the cooling and heating system by up to 30%
- PCM in IT rooms and data center reduced
 - Energy consumption of 13.24%
 - Cooling load by 22.36%

ENRG Panel[®] Case Studies

Phase Change Solutions
**ENRG
PANEL**
powered by BlüPCM



- The ENRG Panel[®], currently installed at 4,608 telecom shelters across the U.S, reduces energy HVAC consumption HVAC by 30%
- ENRG Panel[®] Enables Telecom Shelters to Reduce HVAC Consumption by 16% in Dallas TX.

Case Study - ENRG Panel[®]

- One of the largest telecommunication companies in the world partnered with PCS
- Studied the advantages of introducing PCM to a 24/7 heat load facility
- 2016-2019 → >7000 sites installed with ENRG Panel[®], powered by BioPCM[®]

Utility Bill Analysis Results



43M kWh electricity consumption reduction



\$6.2M energy cost reduction



30,000 metric tons of CO₂ emissions reduction

Sustainability Impact Equivalency



3.4M gallons of gasoline consumed



70k barrels of oil consumed



33.5M pounds of coal burned



1.3M trash bags of waste recycled instead of landfilled



1.2M incandescent lamps switched to LEDs



40k acres of U.S. forests sequestered in one year

Overall Application Numbers

- Telecom / ENRG Panel

# of sites	# of customers	Sq. feet of products deployed	Product Count (8 sf ² / Blanket)	Sq. feet of facilities
9680	3	1,077,216	323,188	~1,693,858