Thermal Energy Grid Storage

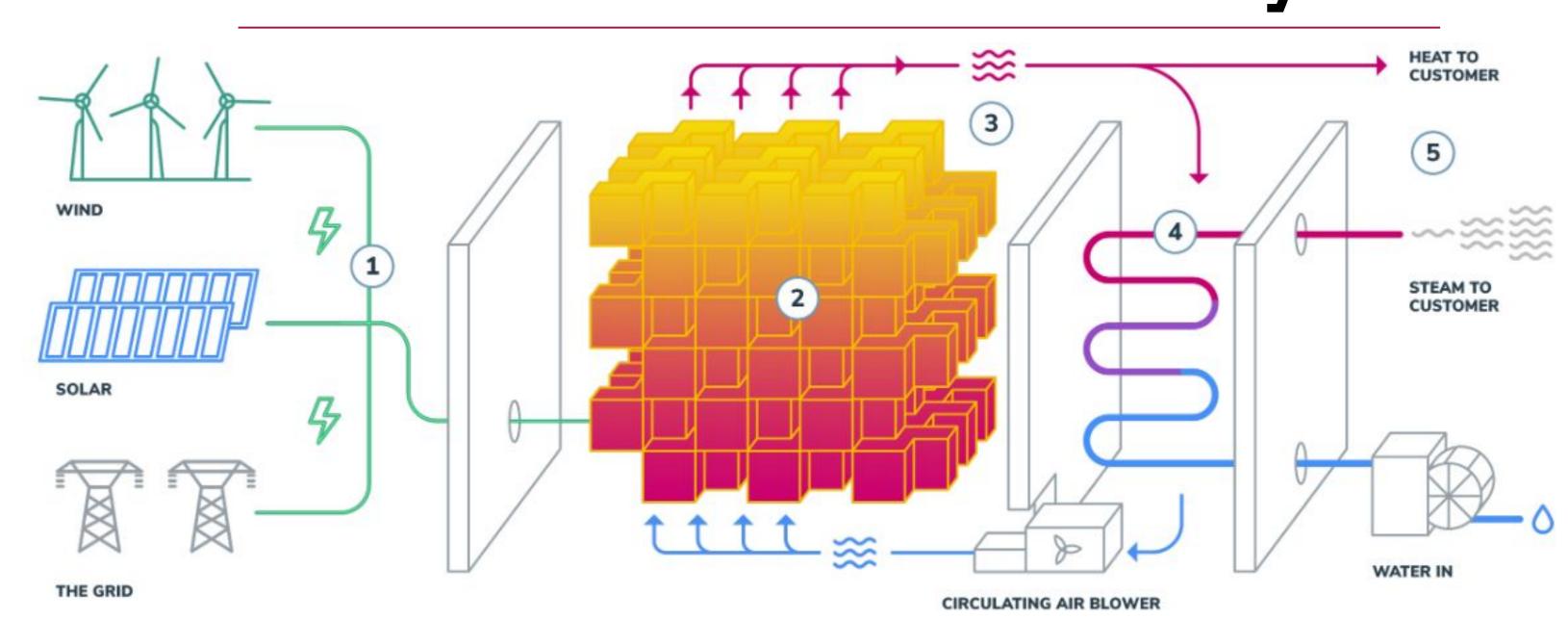


Will Lukach, Will Smart, Belinda Wang, Tristan Threatt, Mikin Patel, Jiayi Miao

Industry in Heating the

Index y leavily reliant on fossil fuels for heat and power.	30%	Of Global GHG Emissions from Industry
Manufacturing processes are slow to adopt clean energy sources	65%	Of Industrial Heat Relies on Fossil Fuels Today
Economics favor industrial heat continuing to burn fossil fuels	5 x	Grid Electricity Cost Compared to Fossil Fuel Cost at Plant

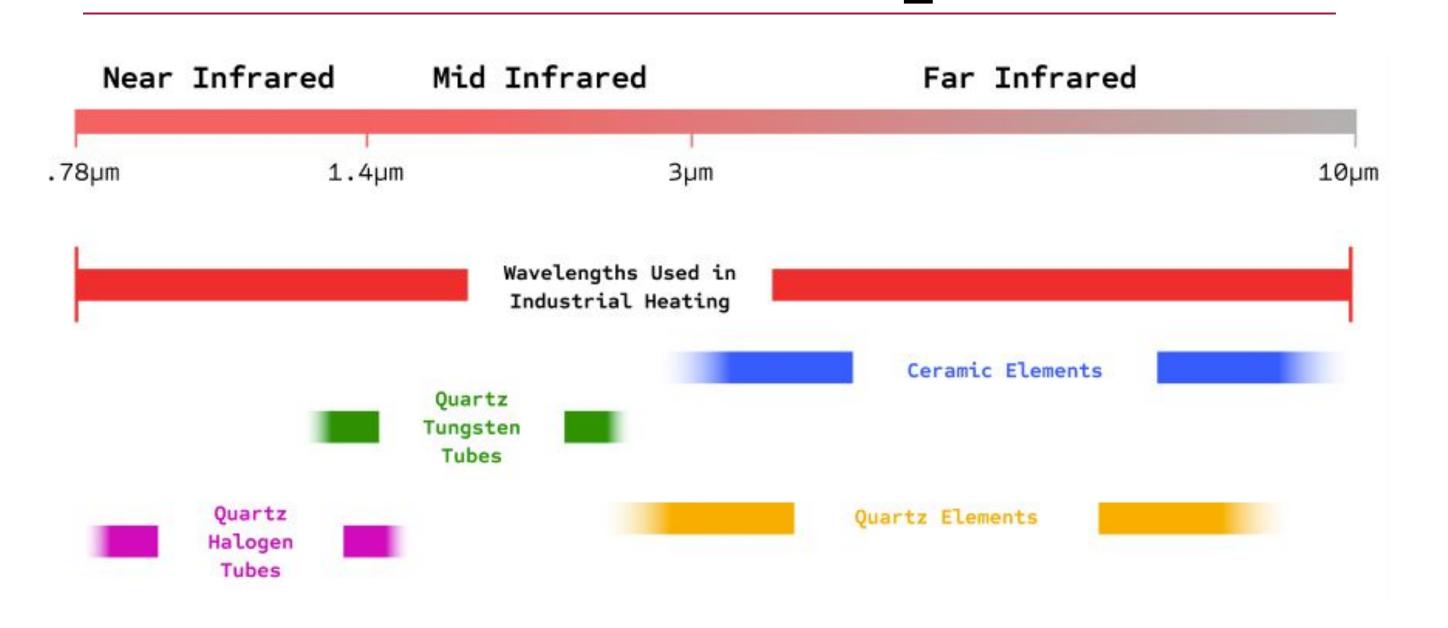
The Thermal Battery



Current Market Leaders

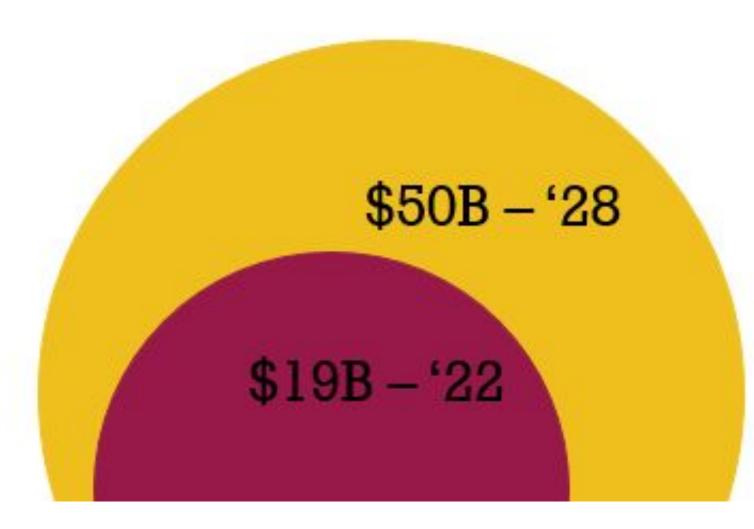


Industrial Heat Spectrum



Market Size and Growth

Thermal Storage: \$19B in 2022. \$50B in 2028 (17% CAGR)



Industrial Uses:

Chemical Production
Oil Refineries
Cement Production
Steelmaking

Patent Landscape

Category	Patents	Growth	Top Applicants
Thermal Energy Storage and Management Systems	2470	18x	Omnitek Partners Rondo Energy Eaglepicher Technologies
Photovoltaic Conversion of IR, Visible, and UV Radiation	983	11x	7ac Technologies Mtpv Power Corporation Emerson Climate Solutions
Thermophotovoltaic Emitter Technologies	677	8 x	Solaero Technologies Rondo Energy Emcore Solar Power
Laser Fabricated Emitters for Thermophotovoltaic Applications	82	10x	M.I.T. University of Pennsylvania Lockheed Corporation