

Unlocking the power of Thermal Energy Storage

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PANTOKRATOR

A better way

Pantokrator is a leading advisory firm based in London focused on helping climate tech companies raise capital to scale to provide a better way



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Want more TES content?

Check out our **podcast series** with leaders in the space!



Coming soon



Attend our next webinar on 13 June

We will be discussing the next phase for EV Charging rollout

FIRESIDE CHAT

What's next for EV Charging?

Clean Growth Fund | Gridserve sustainable energy | ZOUK | TotalEnergies

The banner features a central illustration of various electric vehicles (a bus, a van, a car, and a scooter) being charged by stations. In the background, there are wind turbines and solar panels, symbolizing renewable energy. The text "What's next for EV Charging?" is prominently displayed in large yellow letters. At the top left, there is a fire icon and the text "FIRESIDE CHAT". At the bottom, logos for Clean Growth Fund, Gridserve, Zouk, and TotalEnergies are listed.

25% of GHG

from industrial heat¹

Everything Electric

\$1.5tn

Size of market²

\$800m+

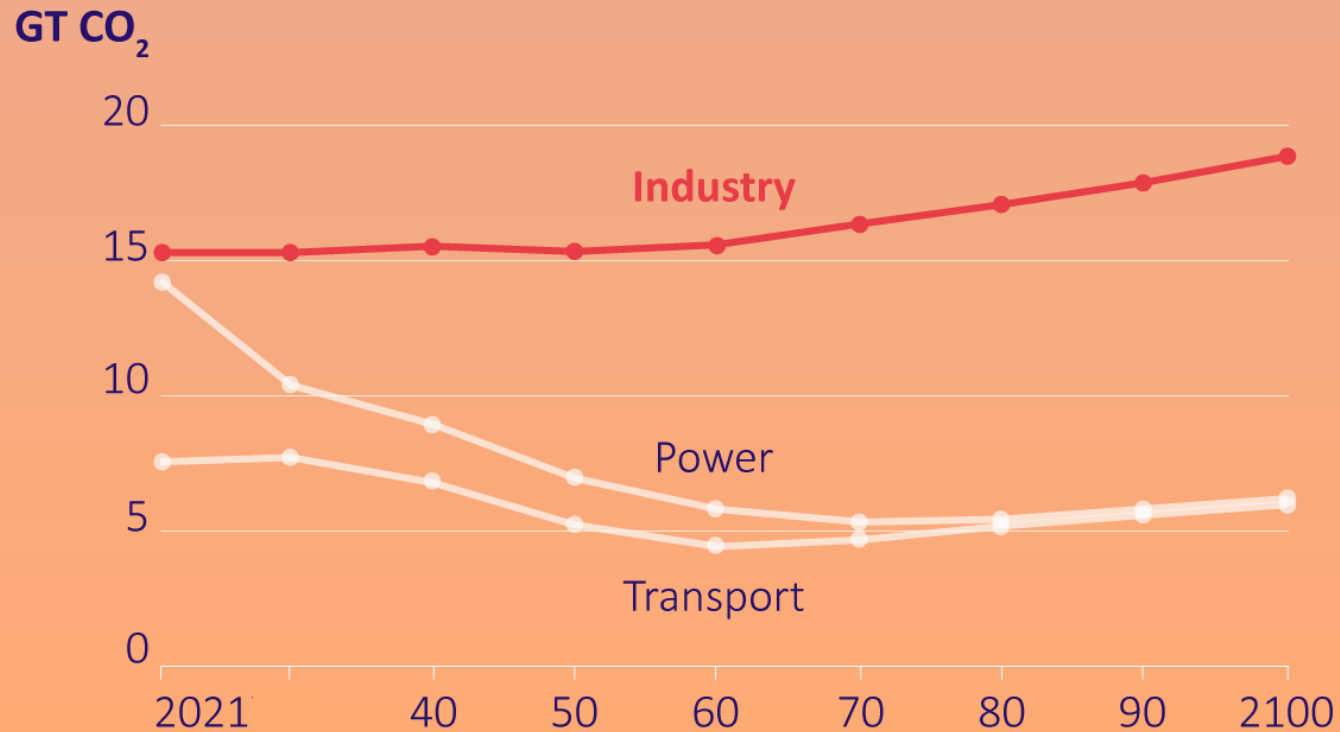
Invested since 2022

20+

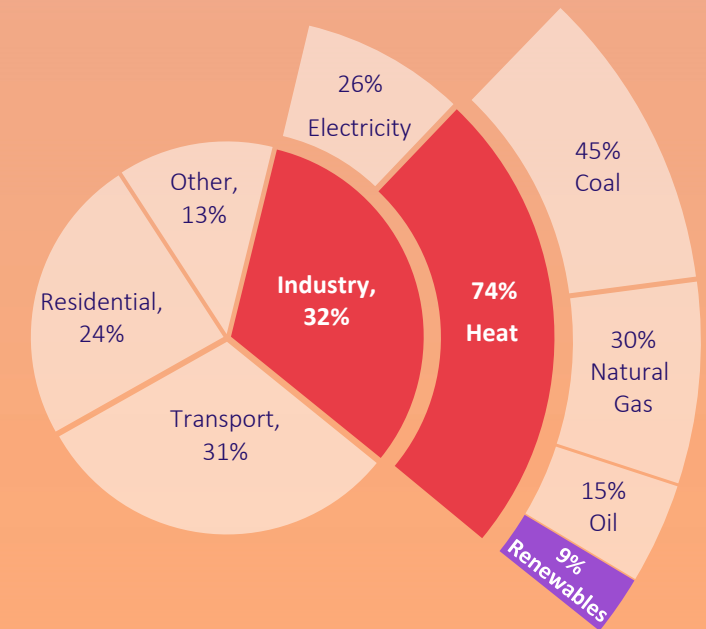
Companies

Industrial heat is an overlooked opportunity

Average **global emissions** forecast¹



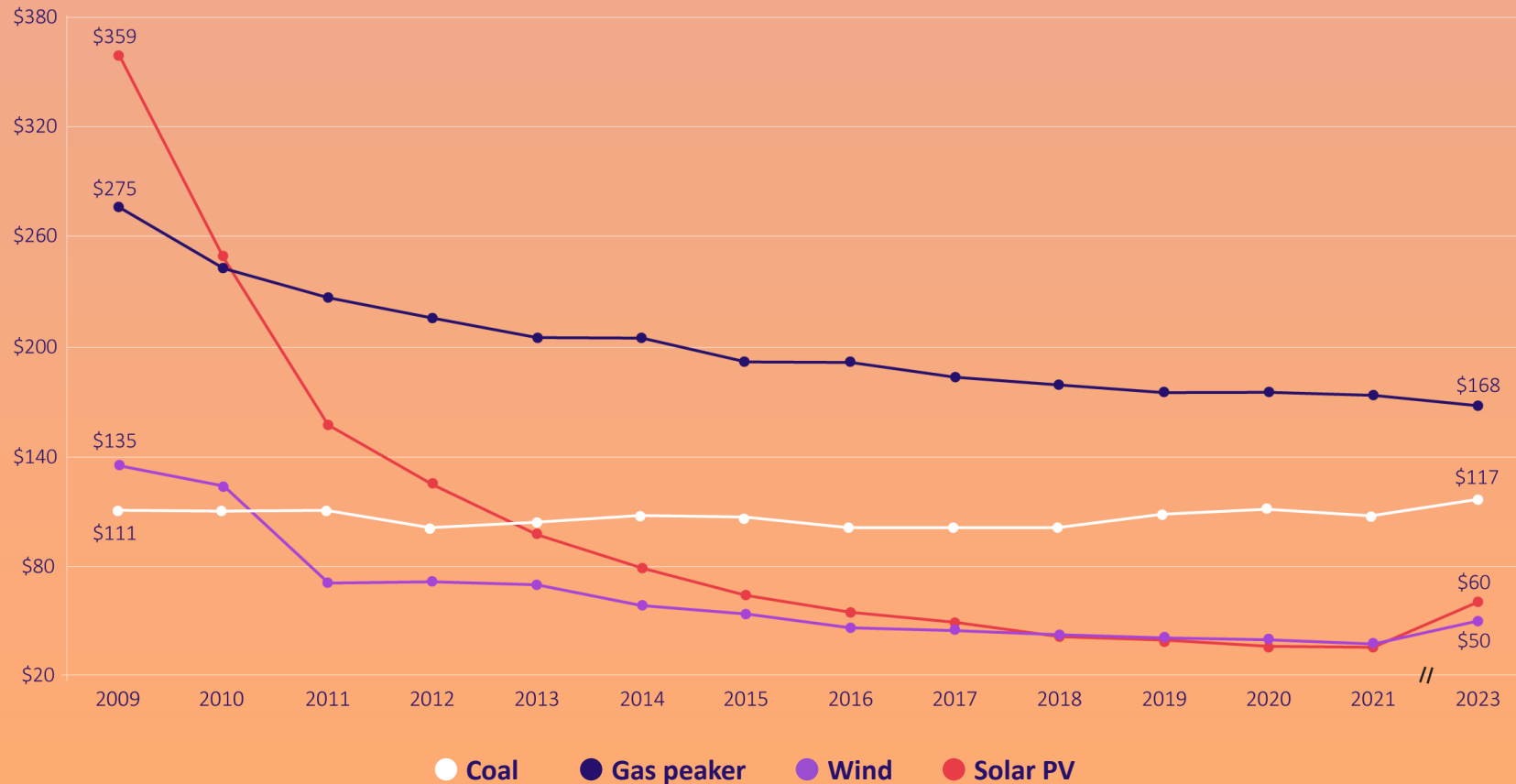
Industrial Heat: **90% fossil fuel based**²



Low-cost renewables enable the energy transition

Mean LCOE
(\$/MWh)

Renewables are the **cheapest** energy

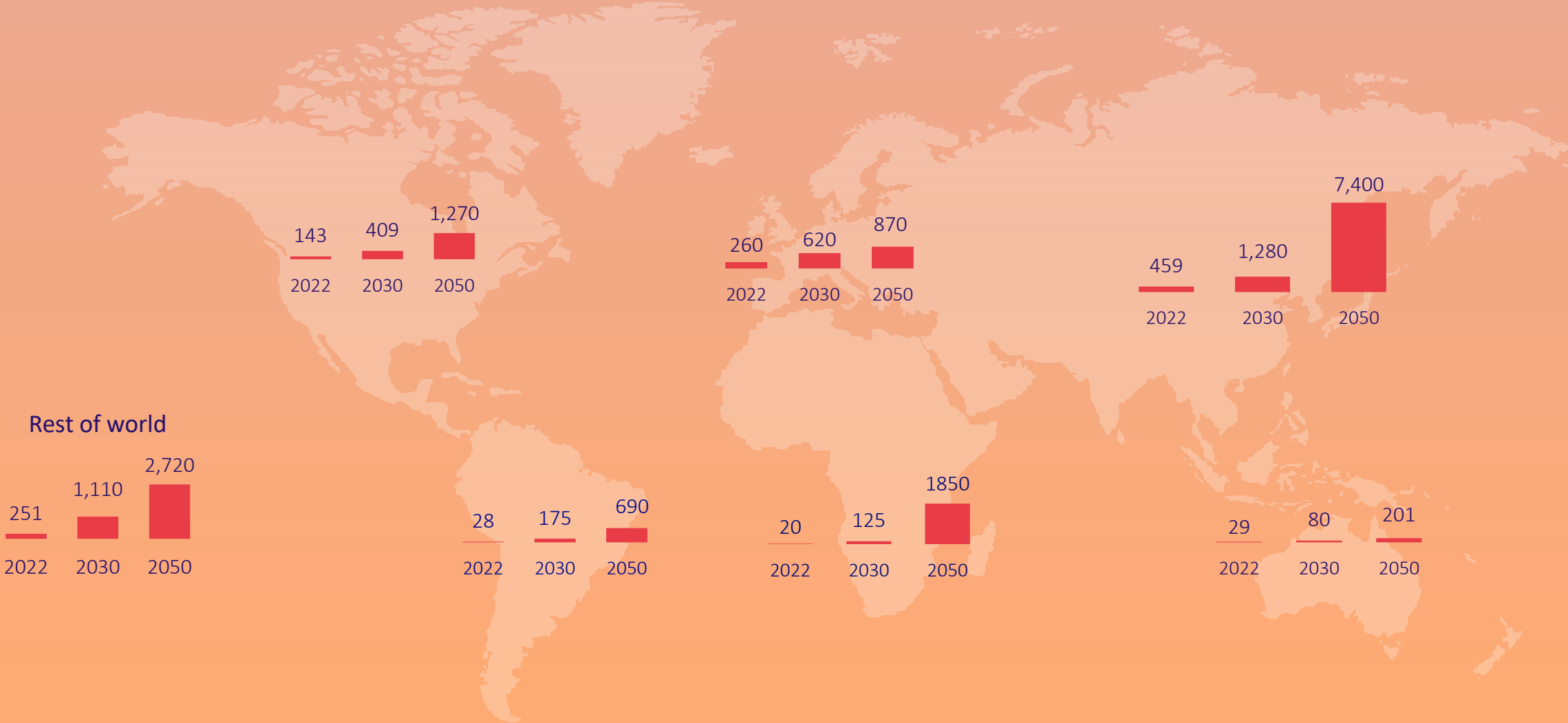


Power-to-heat

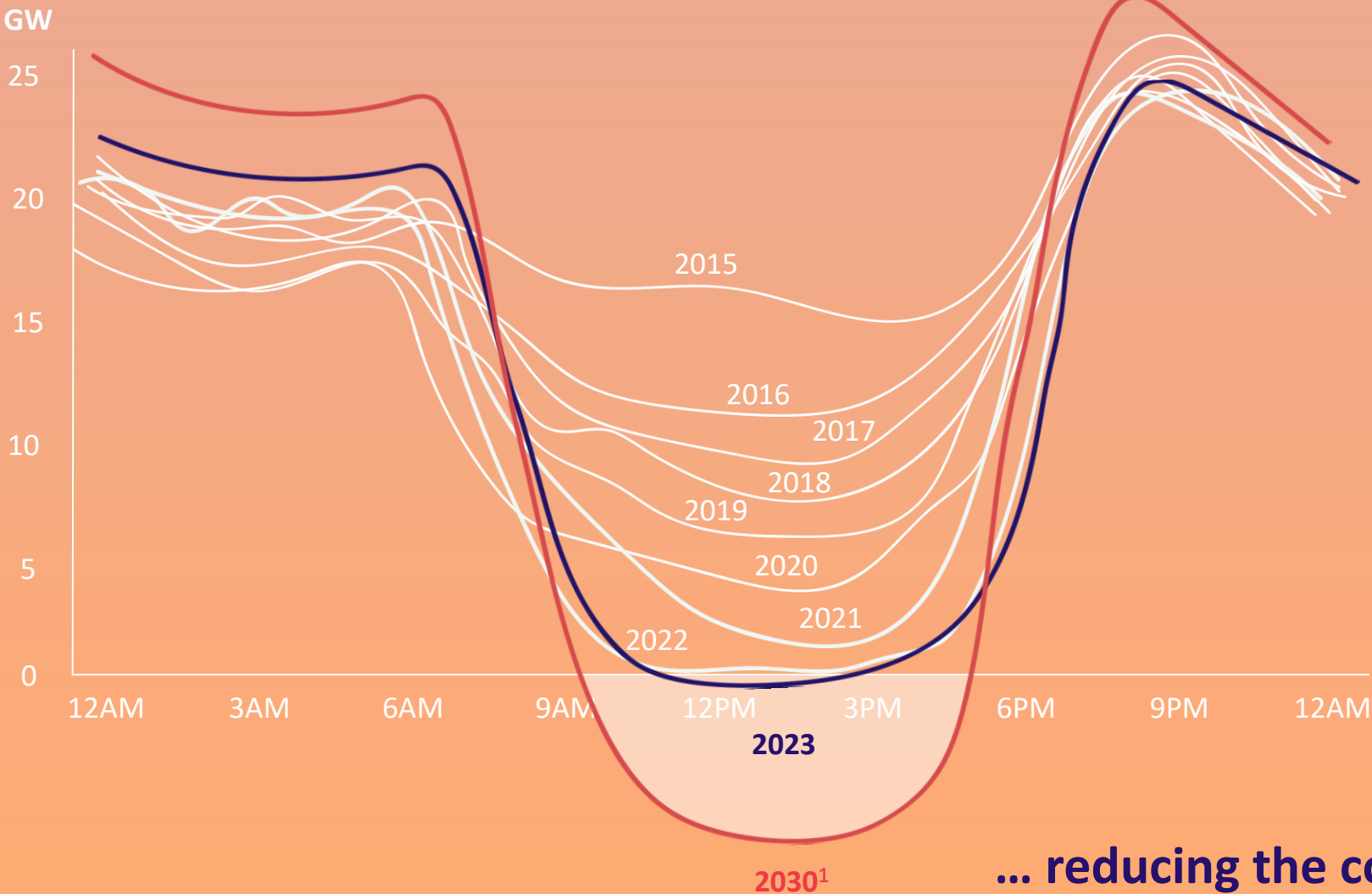
- 90%+ power-to-heat efficiency
- Cheap, scalable materials
- Dual power/heat flexibility
- Grid friendly

Solar: 3.8 TW by 2030

3x by 2030, 12.5x by 2050

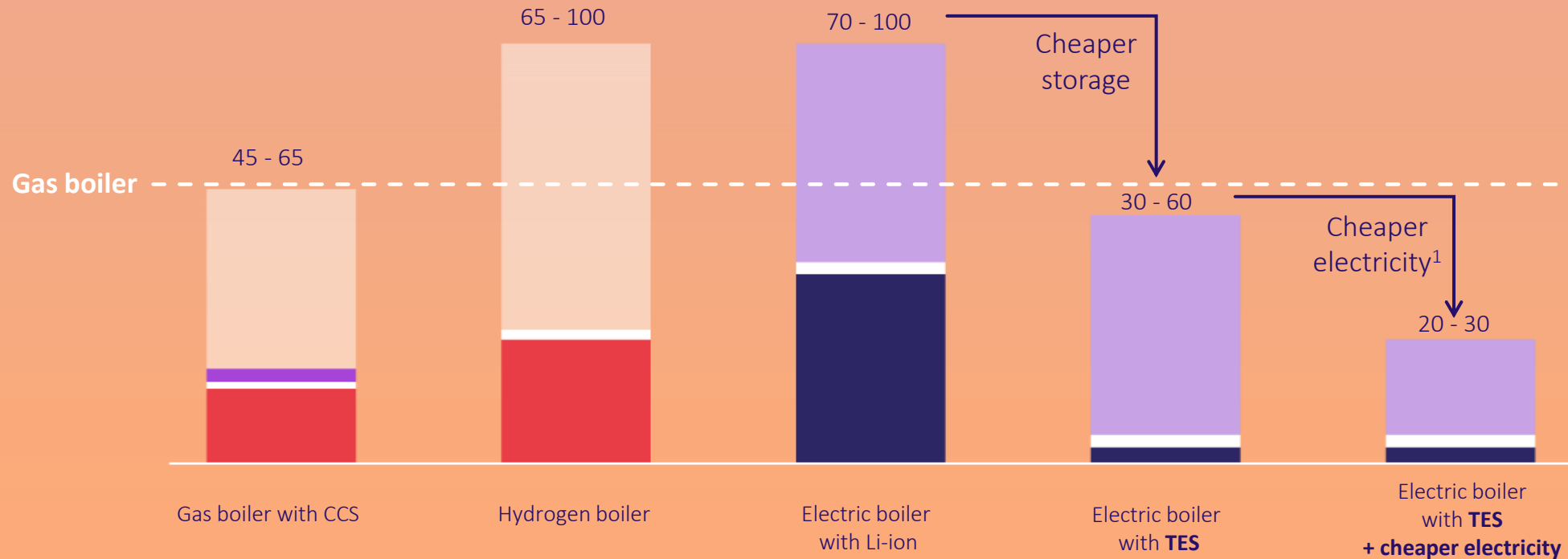


The growth in renewables will increase curtailment...



Renewables + Thermal Energy Storage is competitive now

Levelized cost of heat \$/MWh



Capex



Opex



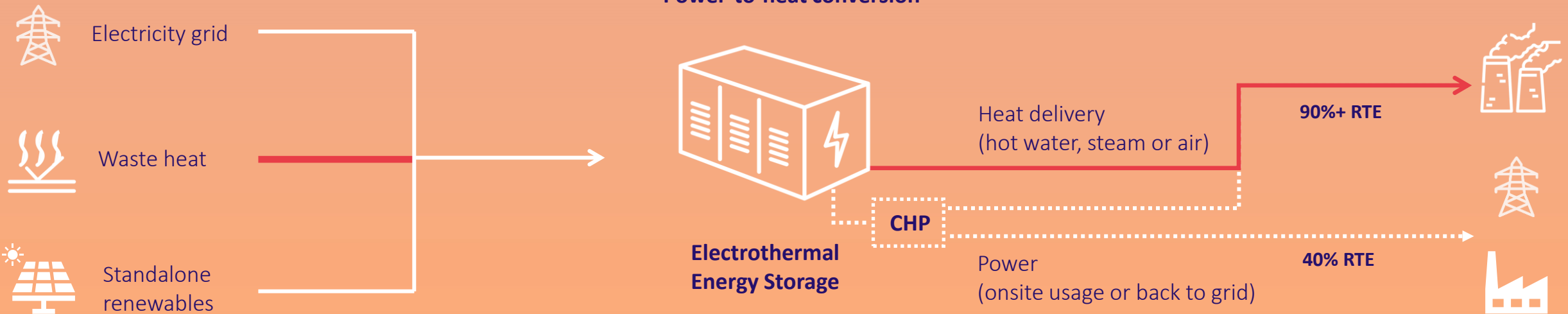
How does TES work?


→ Power → Heat → Alternative configuration for CHP¹


1 ETES charges when power prices are cheapest


2 ETES stores the energy as heat

3 ETES output = heat or power



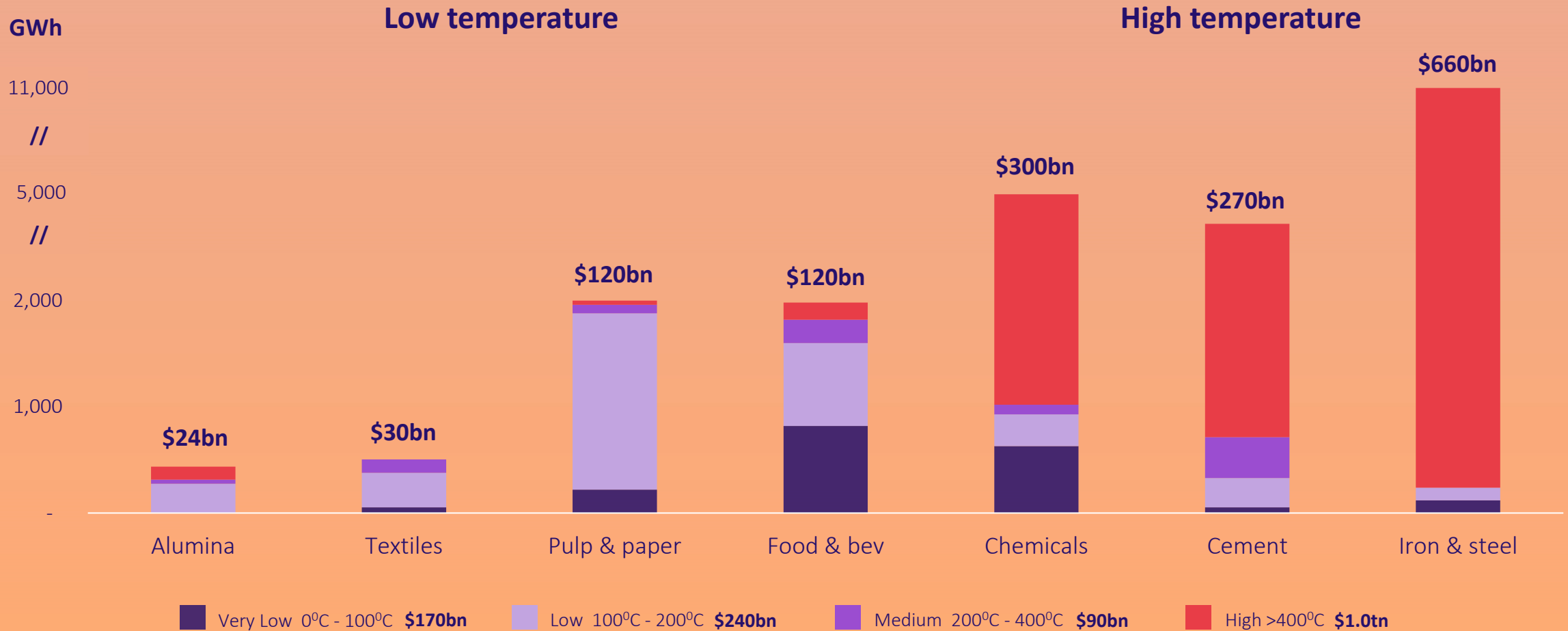
 **Opportunistic fast charging at off-peak prices**

 **High power-to-heat efficiency drives edge over fossil-fuel methods**

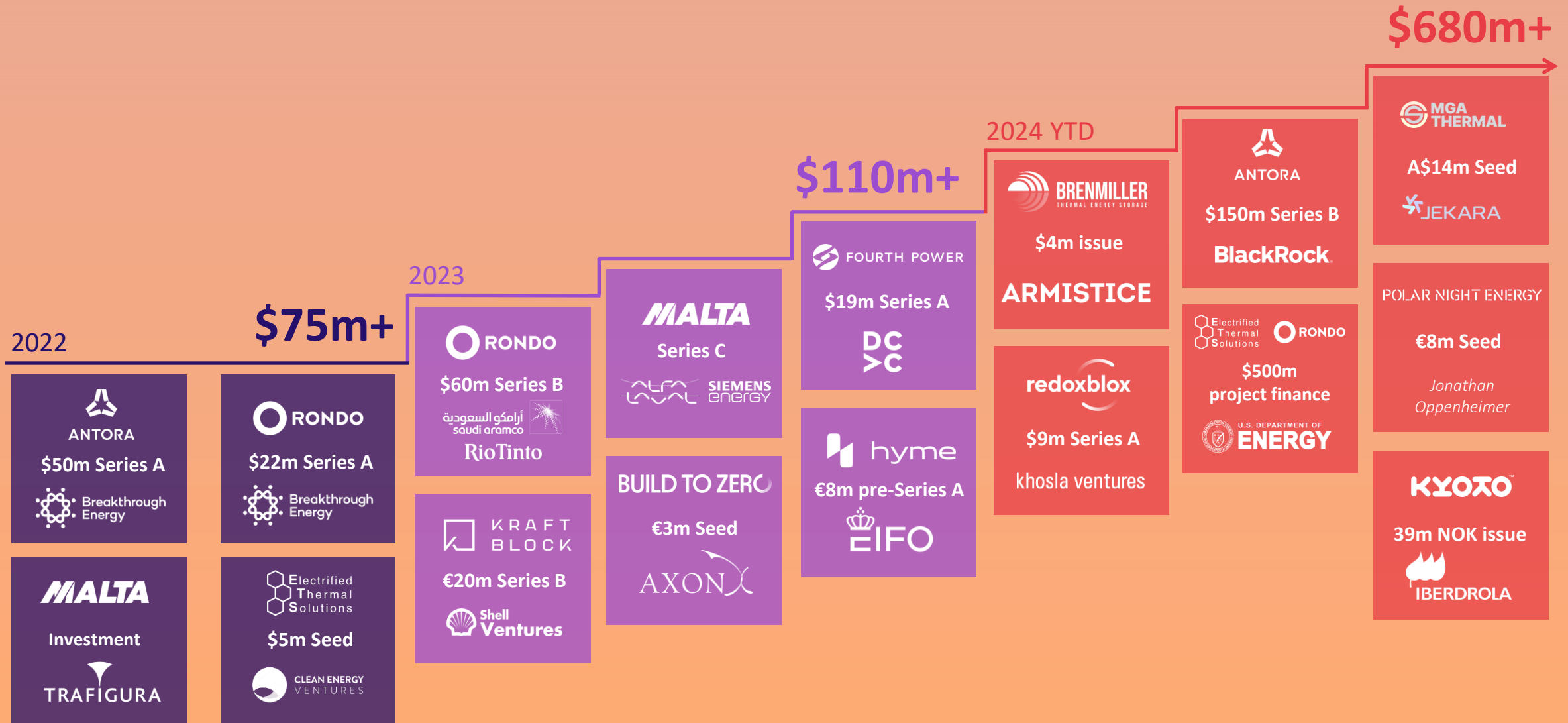
 **Multitude of solutions being explored, multiple winners to emerge**

Diversity of temperature needs by industrial sector

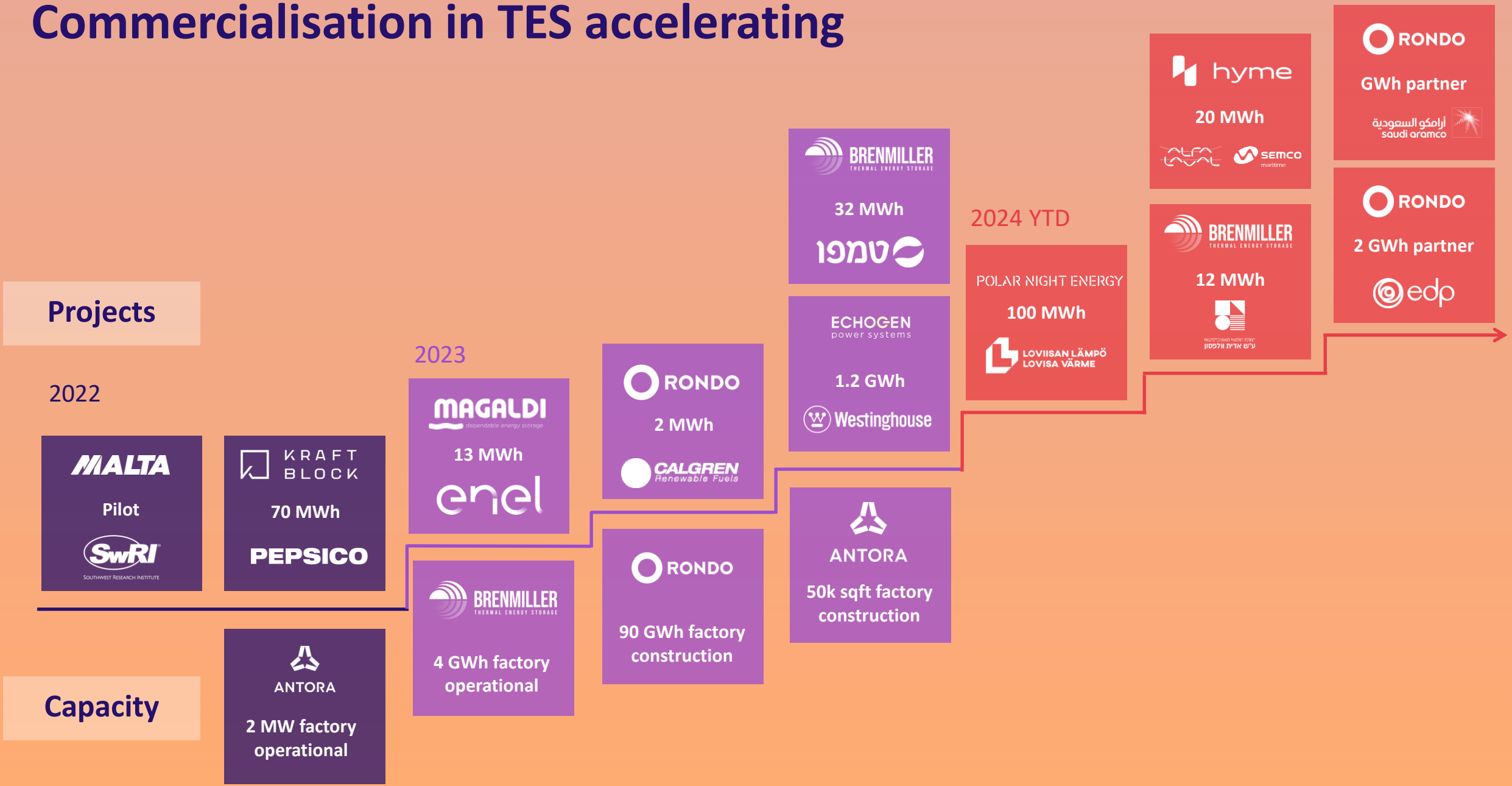
25.4 TWh annual heat demand by 2030



Investments in TES is just starting



Commercialisation in TES accelerating



Projects

Capacity

Speaker list



Martin Schichtel
CEO, Founder



Nir Brenmiller
COO



Nehali Jain
Chief of Staff



Albert Morales
CFO



Ask Emil Løvschall-Jensen
CEO, Founder



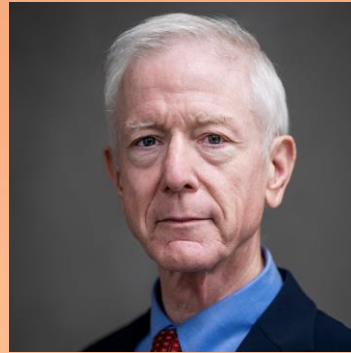
Dr. Ayman Al-Maaitah
Managing Director



Nicholaj Hansen
Business Partner
@ BLU NXT



Massimiliano Masi
Global Business Director



John O'Donnell
CEO



Alex Campbell
Director



Blaine Collison
Executive Director

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