

Data Center Overview

Grimes Carbon Tech (GCT)

A net negative green technology company changing the world

January 2025

 **Increasing efficiency of energy production**

 **Reliable, green, baseload power for Data Centers**

Grimes CarbonTech (GCT): Developer and Operator

Providing cheap, distributed, on-demand green energy to data centers

Energy demand for data centers can't be met

- 4 “Miamis” worth of energy required by 2030 *for data centers alone*
- Renewables can't provide enough reliable electricity
- New renewables projects take 4+ years to develop. They only work when the wind is blowing or the sun is shining
- Natural gas, coal and nuclear are too expensive to build
- Transmission lines and gas pipelines require trillions of dollars of investment to bring energy to data centers



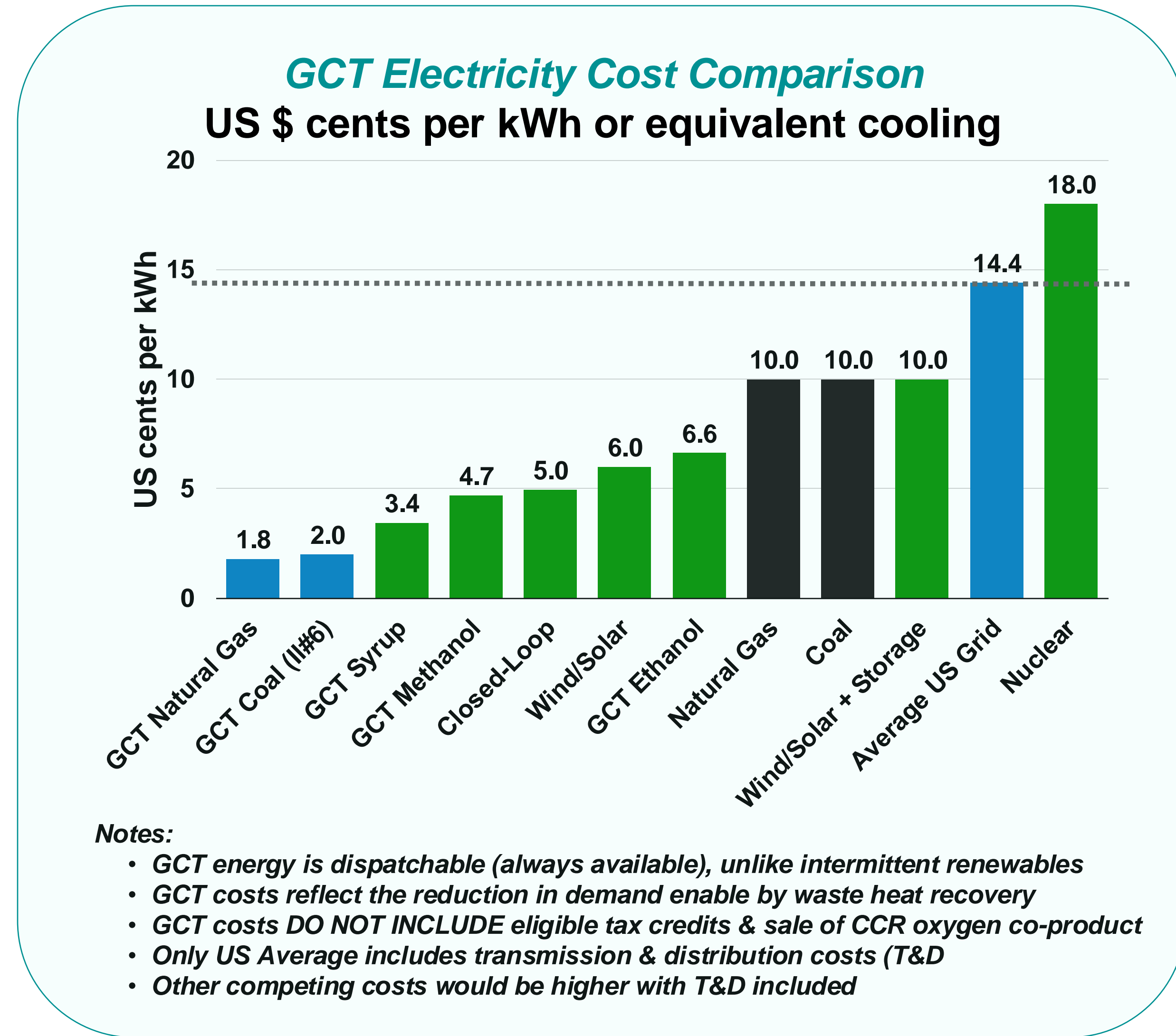
Data Centers need reliable energy onsite and on-demand

🌱 GCT: US Hydrogen market expected to grow by 70% by 2052

GCT energy is only cheap green energy solution for Data Centers

GCT's Cheap, Distributed Power

- Cheap, on demand (reliable) green energy
- Energy produced directly on-site - no need for transmission or distribution systems
- Scales quickly (add containers) to meet Data Center demands
- Data Center waste heat recovered and used to drive cooling (CCP) reducing energy by 50%
- Requires limited space (1,100 racks per acre). 76MW of power fits on one acre of land



CAPEX creates affordable Green & Blue electricity from multiple feedstocks

Electrical efficiency can increase as much as 50% over conventional plants

Feedstock Solutions

Syrup

Ethanol or Methanol*

Natural Gas or Biogas

Coal and/Coal Fines

Closed Loop Solution

Wind &
Solar

Electrolyte - Methanol

**Methanol can be made from renewable electricity by recycling the carbon in a closed-loop*



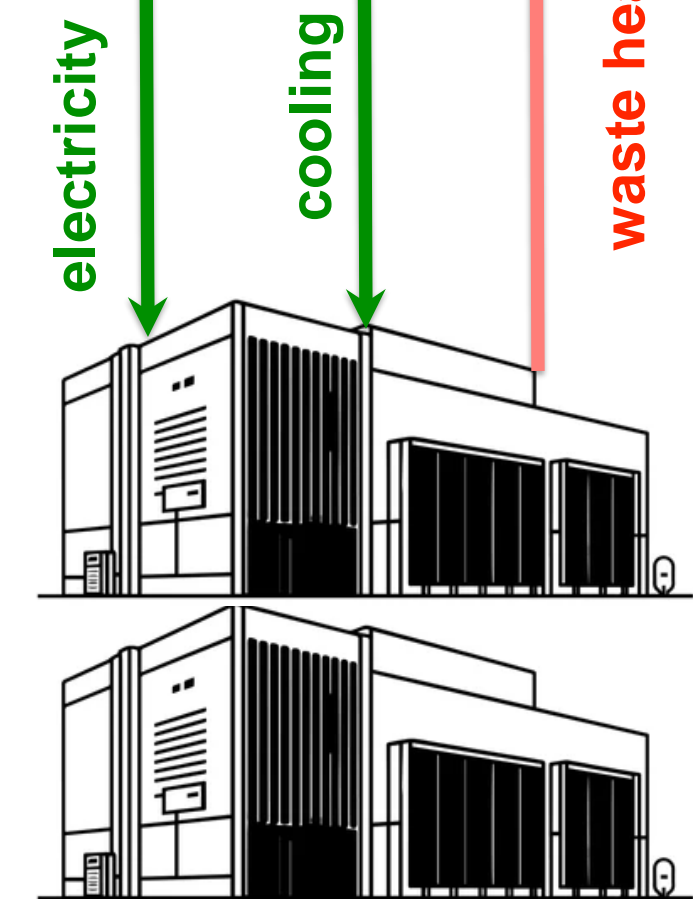
Combined Cooling & Power Module reduces energy required by 50% reducing cost to

2.5 to 5.0 cents/kWh equivalent

76 MW/acre compared to ~0.25MW for solar

hydrogen

waste heat



Data Centers

- Prefabricated shipping containers
- Never produce bigger units - just produce more - easy to scale
- Multiple, readily available, logistic-compatible feedstock options
- No need for grid connection. Uses waste heat from servers.
- Electrochemical reaction creates hydrogen, which can generate electricity with fuel cells, turbines or engines