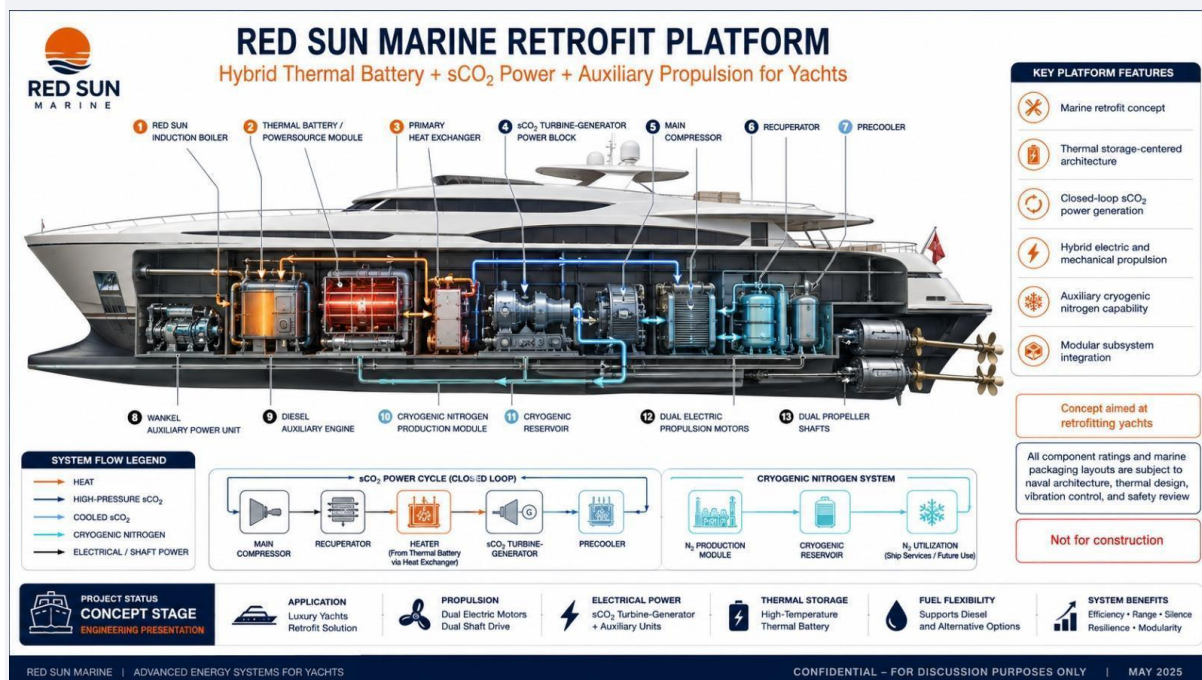


Red Sun 32 MW - 26 tons at 1500°C gives Output equivalent to 1000 tons of coal steam at 1000°C!



The paradigm shift for transport - Red Sun 60 year mobile thermal battery = city block filled with lithium ion at \$70/ kWh or an aircraft hanger's worth of salt batteries 4 stories high! Featuring nickel matte core- 65% in 20' shipping container with induction charger

50 MW Salt Battery – 150 Wh. per Kilogram

Lithium Battery – 270 Wh. Per Kilogram

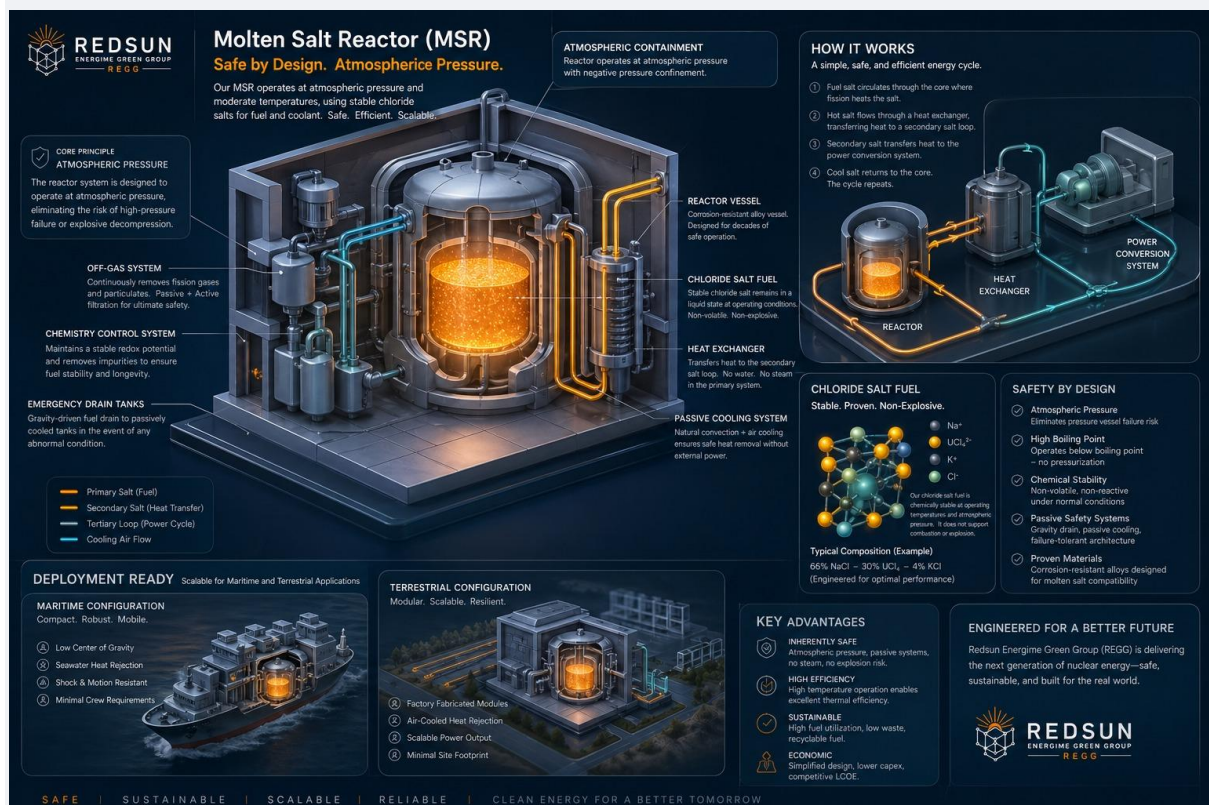
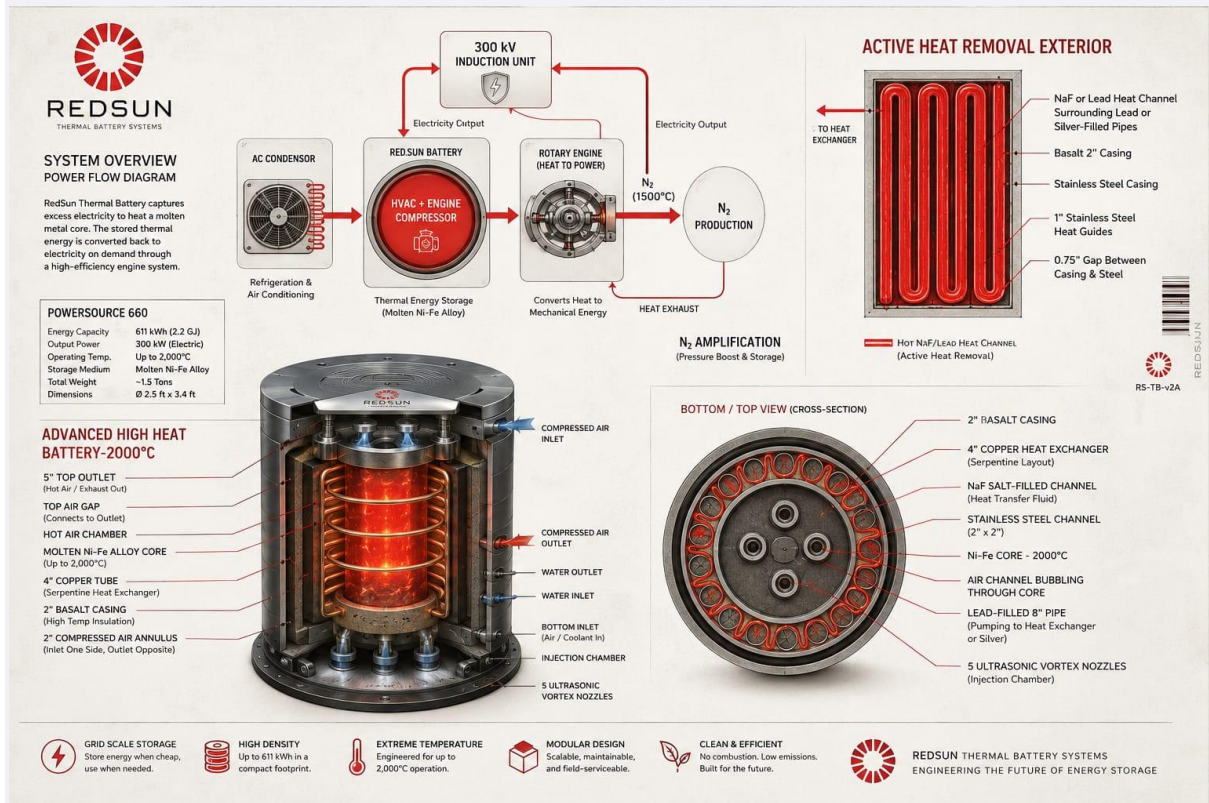
RedStar's Red Sun Thermal Battery Generator 2000 – Wh Hours per Kilogram with Steam Generator

18 Cubic Meter, 26 Tons - Transportable by truck ship and other locomotives in 20 foot Container

32 MW Red Sun Holds Total

power of 360 MWh capacity = equivalent to 1000 tons of supercritical coal steam at 1000°C + Red Sun nuclear, cryo nitrogen and **biomass to Hydrogen** charging systems at \$150/MWh delivered, gives \$150 x 360 MWh/ day = \$54,000/d income. **Total Energy**: contained in **1,000 metric tons** of supercritical steam at 1000°C is approximately **1.08 billion kilocalories, or 1256 MWh x 35% use = 360 MWh. Fuelless Propulsion**: Thermal Paradigm shift for Cost & Pollution/ Maritime SOx and Particulate Matter Sol'n: Red Sun thermal batteries run all diesels & turbines in retrofit, replacing fuel with expanding cryo nitrogen proven for heavy industry and large horsepower, running nitrogen trains of the 19th and 20th Centuries with 30 year runs on five continents running for 2 c/ mile. Cryo N2 Red Sun retrofits every type of transportation, house, factory & powerplant for pennies on the dollar as fuel resets higher. Currently 130 refineries & oil terminals are removed from service for several years due to ongoing wars on 4 continents diesel is €163/L doubling electricity and quadrupling the cost of cargo. **Red Sun** brings back cryo nitrogen from air for 3.5 cents/L saving our

oceans, skies, shippers, and long-haul cargo, which moves 90% of our goods by sea, which are switching to VLSF@ sulfur 0.1% under **IMO** regulations Mar 1, creating massive fuel bottlenecks. **Benefits: Cryo N2:** gives 15 to 20 kWh/ L vs diesel at 10 kWh/L. **No inverter loss:** charged by induction EMF heat crucibles of 98.6% efficiency, and hold for 12 mos; tested on all major thermal power plants; + cryo N2 retrofits all diesel, rotary & fuel injection engines incl. 80% of industrial processes. **Carbon Credits:** zero emissions and qualifies at \$95/t,



RED SUN THERMAL NEXUS™ X

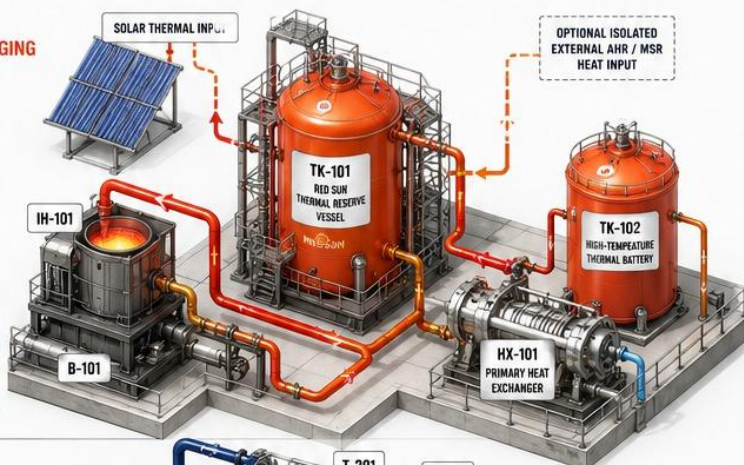
HYBRID THERMAL STORAGE, sCO₂ POWER & CRYOGENIC ENERGY PLATFORM

01 ZONE 01 — THERMAL CHARGING AND STORAGE

- TK-101 Red Sun thermal reserve vessel
- IH-101 Induction heating unit and crucible
- B-101 Induction boiler
- TK-102 High-temperature thermal battery
- HX-101 Primary heat exchanger

UP TO 1,800°C —
CONCEPT / MATERIALS TBC

32 MWth —
CONCEPT / TBC

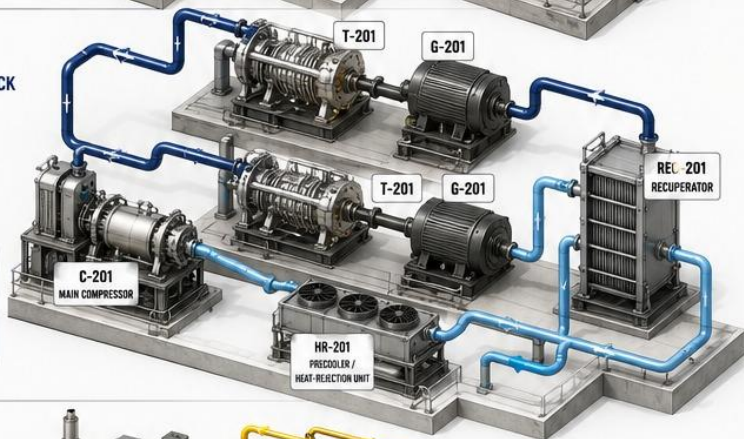


02 ZONE 02 — CLOSED-LOOP sCO₂ POWER BLOCK

- T-201 Turbine
- G-201 Generator
- C-201 Main compressor
- REC-201 Recuperator
- HR-201 Precooler / heat-rejection unit

2 x 15 MW —
CONCEPT / TBC

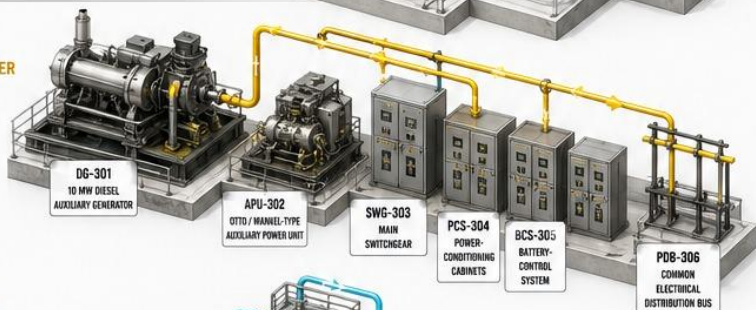
COMPRESSOR INLET
≈31°C / 7.6 MPa —
PRELIMINARY



03 ZONE 03 — AUXILIARY AND ELECTRICAL POWER

- DG-301 10 MW diesel auxiliary generator
- APU-302 Otto / Wankel-type auxiliary power unit
- SWG-303 Main switchgear
- PCS-304 Power-conditioning cabinets
- BCS-305 Battery-control system
- PDB-306 Common electrical distribution bus

RATINGS TBC

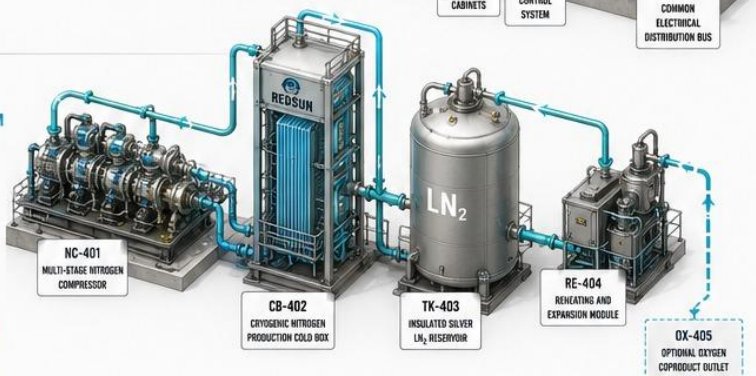


04 ZONE 04 — CRYOGENIC NITROGEN SYSTEM

- NC-401 Multi-stage nitrogen compressor
- CB-402 Cryogenic nitrogen production cold box
- TK-403 Insulated silver LN₂ reservoir
- RE-404 Reheating and expansion module
- OX-405 Optional oxygen coproduct outlet

≈31 MPa —
CONCEPT / TBC

LN₂ ≈ -193°C



— HIGH-TEMPERATURE HEAT — HIGH-PRESSURE sCO₂ — COOLED RETURN sCO₂ — GASEOUS NITROGEN AND LIQUID NITROGEN — ELECTRICAL POWER — MECHANICAL SHAFTS AND STRUCTURAL CONNECTIONS — OPTIONAL OR FUTURE INTERFACE



RED SUN

THERMAL STORAGE-
EXTERIOR ARCHITECTURE

CLOSED-LOOP
SUPERCritical CO₂ POWER

MULTI-SOURCE
HEAT CHARGING

AUXILIARY
DISPATCHABLE POWER

CRYOGENIC NITROGEN
CAPABILITY

MODULAR INDUSTRIAL
INTEGRATION

CONCEPTUAL SYSTEM —
ENGINEERING VALIDATION
REQUIRED

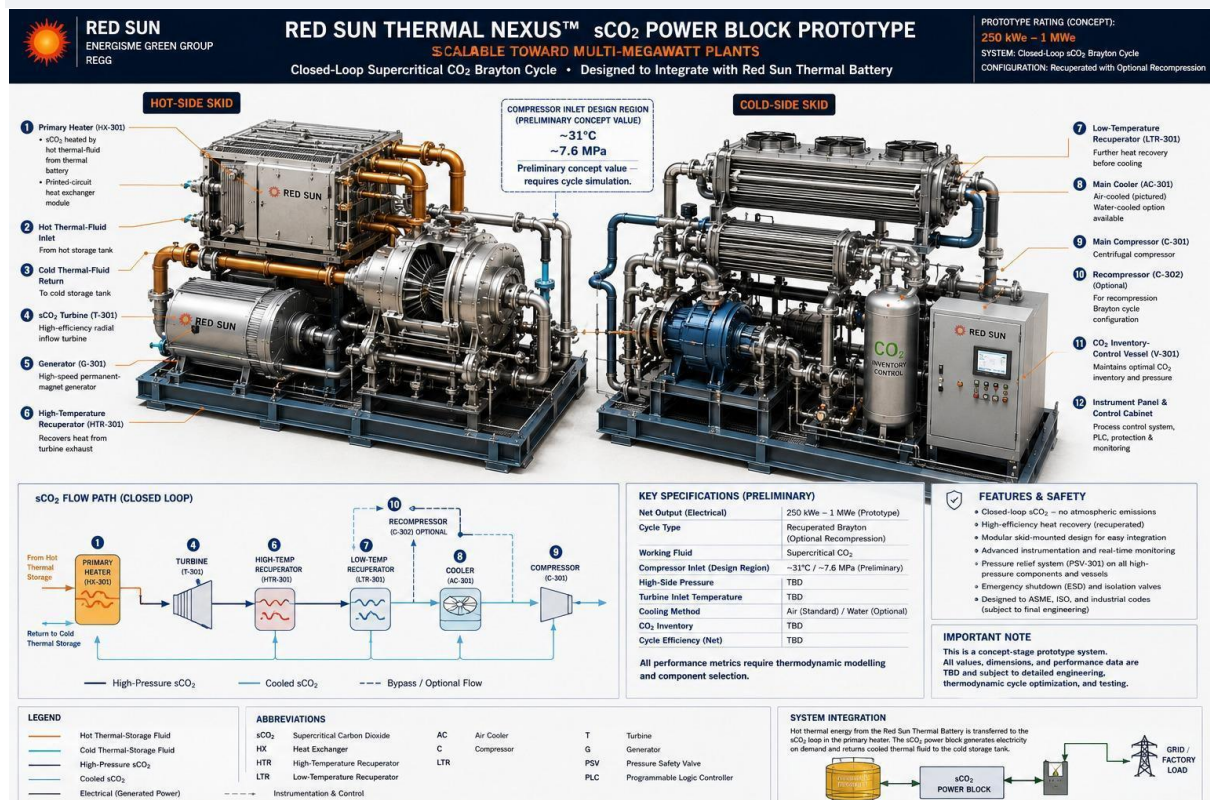
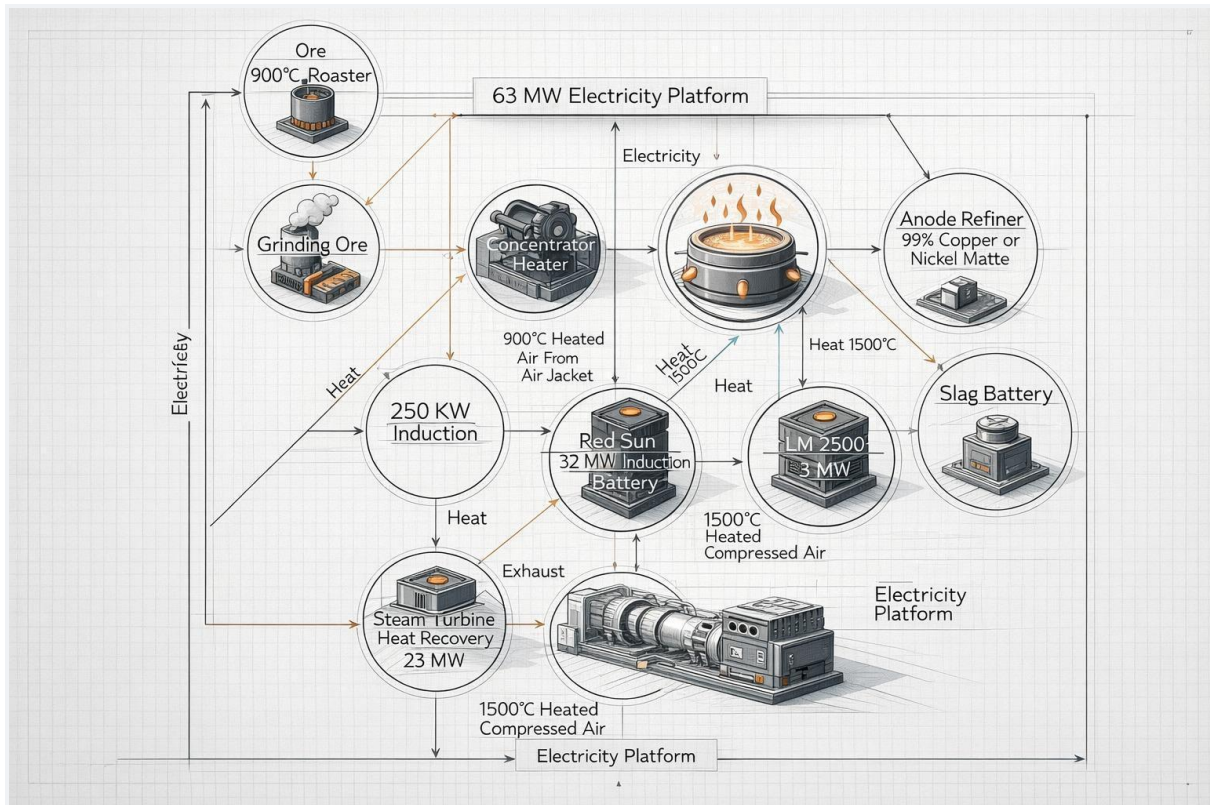
REDSUN

ENERGISME GREEN GROUP



CONCEPTUAL SYSTEM VISUALIZATION — NOT FOR CONSTRUCTION





Above: Red Sun sCO₂ 30 MW turbines are 15 x's smaller than steam + giving 51% efficiency; combined with **Red Sun Induction Boiler** they're state- of- the art for nuclear, biomass, pyrolysis, smelters & refineries. Combined with 2 x Red Sun batteries they run large ships or freight trains 1400 km/ charge; plus eliminating catenary wires & gas stations; plus, eliminating \$1 bn in catenary costs and 25% wire losses! Only **Red Sun** offers N2 triple torque amplifiers, expanding 1500 x's & 60-year-\$1/kWh battery as fuelless real paradigm shift for energy!

