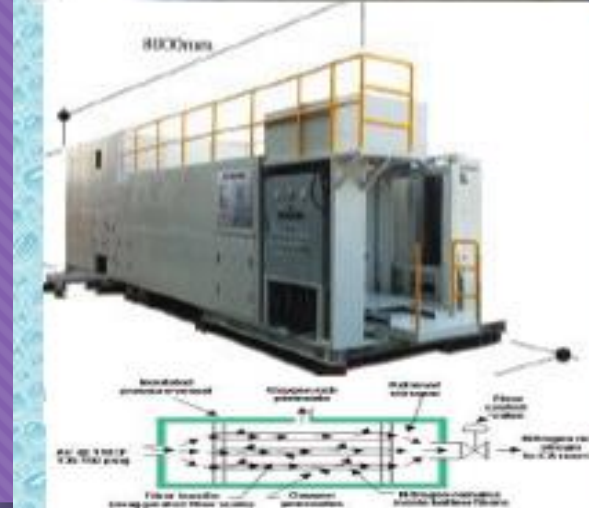
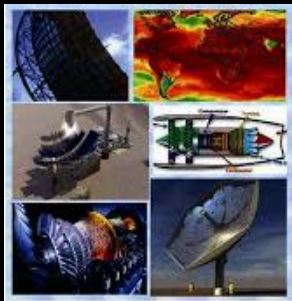




Red Sun MSR a new approach for Energy



EGG RED SUN MSR

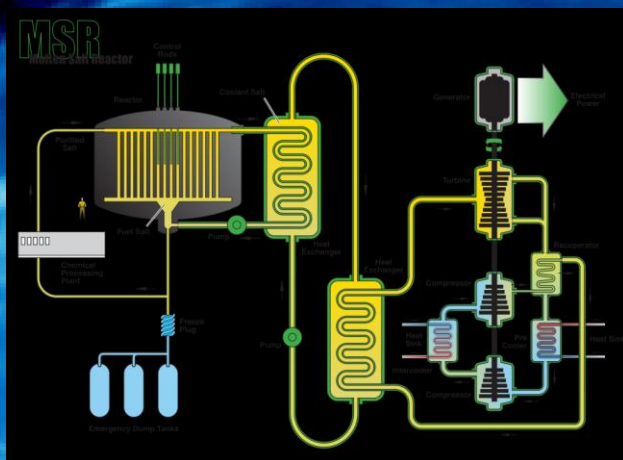
March 8th 2023



WIRELESS ~ Energy ~ Battery System

Distant plants
can be connected

Powersource Batteries



PowerSource - under the covers



PowerSource
Home
in its
enclosure



Inside is a
Thermal
Storage Cell
w/ induction
charger



System
controls

Under the skin, contained in attractive encasement, the basic PowerSource "Home" System includes the ceramic thermal cell, induction heater, controls, and steam turbine (with composite non-corroding pressure vessel, stainless steel expansion tank & return drive fluid container).



High pressure tank
w/ integrated boiler



5 kW steam turbine
& alternator



Expansion
stank

**11 MW Energy Storage gives 120 MWh
to run desal, ice, steam & heat at 6 tons**

New Approach to Energy and Industrial Process Heat:

A paradigm shift in Energy, is going from unaffordable to affordable Energy. A fundamental change in approach to Energy production and storage. Molten Salt Reactors (MSR) with RED SUN thermal batteries turns back the clock one hundred years. To when gasoline was pennies per gallon.

The molten salt reactor is not a new nuclear reactor, but was discarded in the fifties and sixties by the Oakridge National Laboratories because it did not make radioactive bomb materials and plutonium that was needed by the US Military for its arms race.



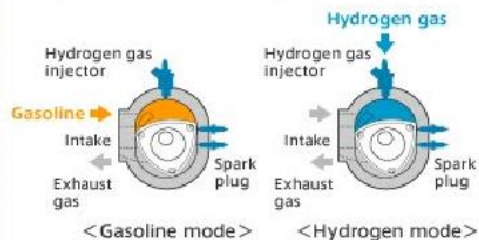
Rx-8 MAG GAS ~ H2 Engine

Rx-8: MAG GAS runs Rx-8
Longer cycle = high
Efficiency+ safe!

250 kW MAG GAS Gensets

Hydrogen Rotary Engine

Hydrogen injectors are located at the top of the rotor housings. A dual-fuel system enables the engine to run on either hydrogen or gasoline.

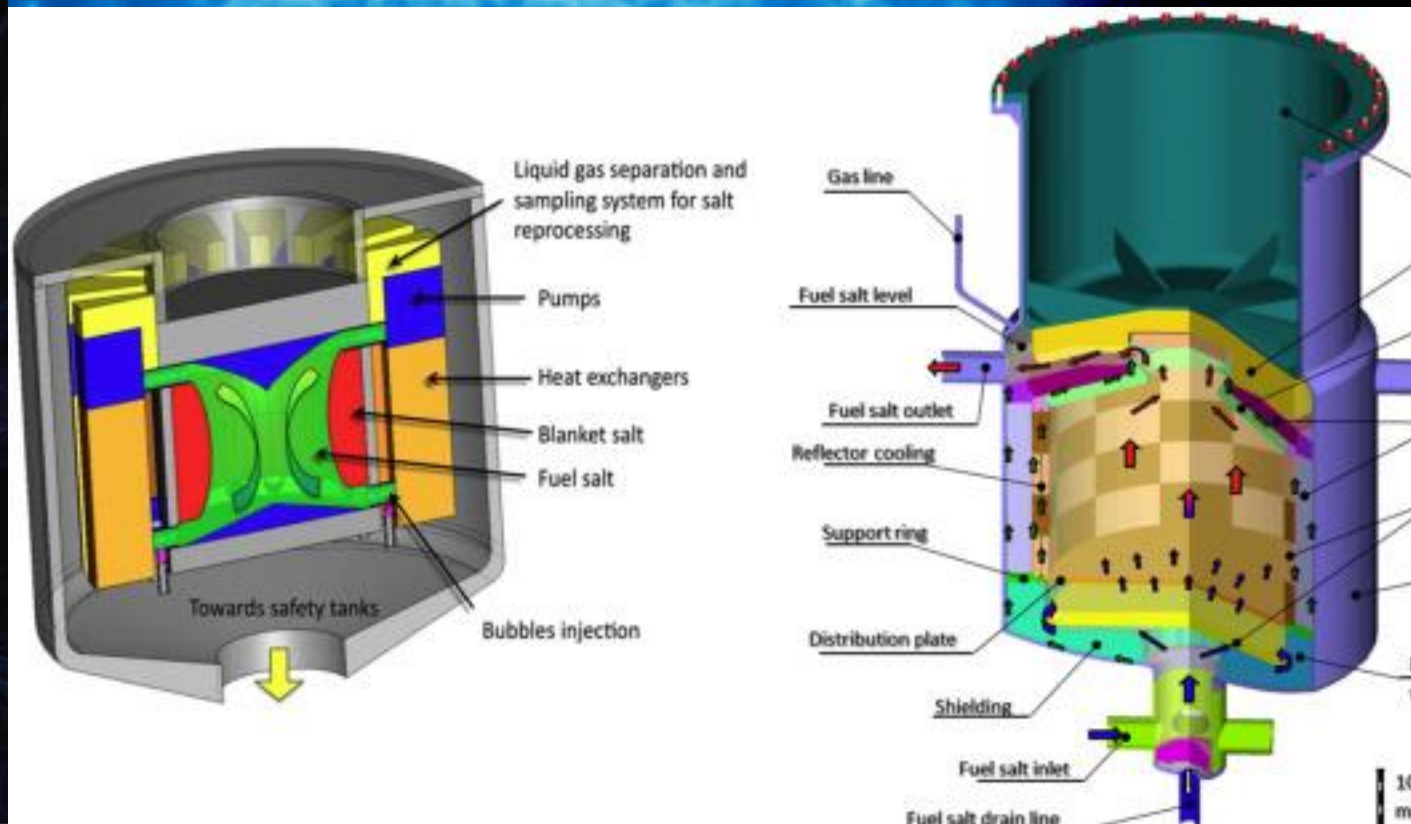


Combined use of direct injection and premixing

Aiming to achieve a high output in hydrogen fuel mode, a direct injection system is applied by installing an electronically-controlled hydrogen gas injector on the top of the rotor housing. Structurally, the RE has considerable freedom of injector layout, so it is well suited to direct injection.

Further, a gas injector for premixing is installed on the intake pipe enabling the combined use of direct injection and premixing depending on driving conditions. This produces optimal hydrogen combustion.

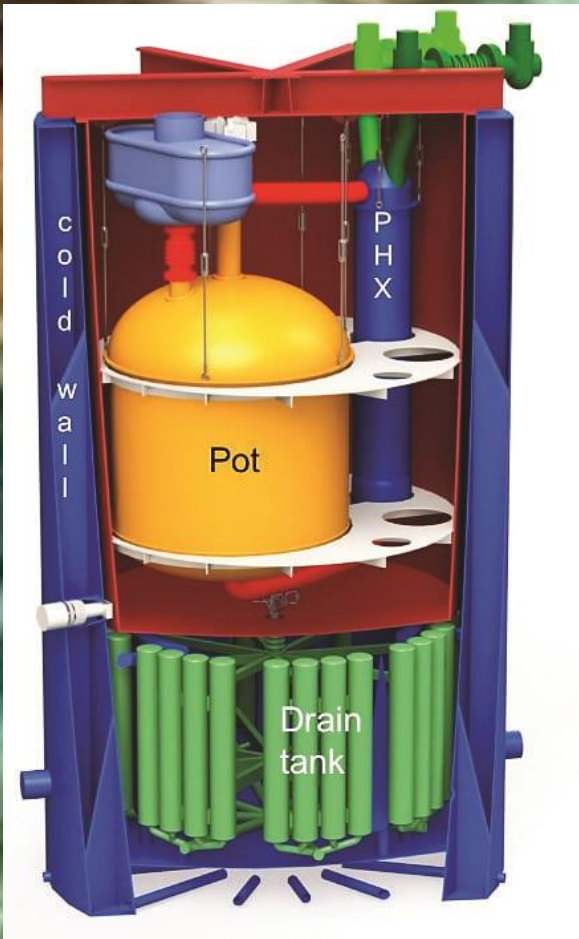
MAG MAS has OXYGEN so reduced intake for high altitude flying or underwater submarine propulsion



New Approach to Nuclear Energy

Instead, it runs on Thorium and makes a benign radioactive material that is radioactive for 300 years, vs the 300,000 years standard light water reactors make all over the world today. Furthermore it makes 1/200th the amount of waste as these conventional reactors that require very high pressure at 3,000 psi because they use water as the heat transfer medium.

MSR uses molten salt as heat transfer medium and coolant and ionically (magnetically) traps the radioactive materials in the salt so they can never escape vs the conventional light water reactor that wants to explode at all times and requires very very large containment buildings and can only produce heat at 300 degrees centigrade which barely runs steam engines inefficiently.



RED SUN & MAG GAS H2 Platform

The Molten Salt Reactor runs up to 800°C and runs high performance and high efficiency turbines at 65% and needs almost no maintenance for decades and is modelled after the earth's core, a molten thorium and nickel iron core that has run perfectly for billions of years!

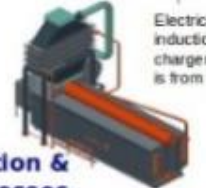
Once available at the airport, liquefied hydrogen is used for many purposes, including ground logistics; baggage tractors, forklifts, pods, super tugs, shuttle buses, etc. For example, at Gatwick International Airport, Air Liquide provides recharging stations for airport vehicle fleets with filling times of under 5 minutes. The environmental impact of all these vehicles is considerably reduced by using hydrogen to power them. Finally, thanks to high-performance trucks capable of storing up to 300 liters of liquid hydrogen, refueling can be done directly on the tarmac in a few minutes. One of the Group's projects is also winner of the AMI "H2 Hub Airport" to develop an airport hydrogen industry. Low-carbon hydrogen is produced in gaseous form, particularly by using renewable energies for water electrolysis, as is already the case at our Bécancour site in Quebec. The numerous pipelines deployed by Air Liquide will soon mean that it can be transported in large quantities to a transfer located near each airport. Thanks to its expertise spanning more than 50 years in the aerospace industry and extreme cryogenics



Heated Compressed Air 3x's Torque



Electrical induction charger. Power is from the Grid



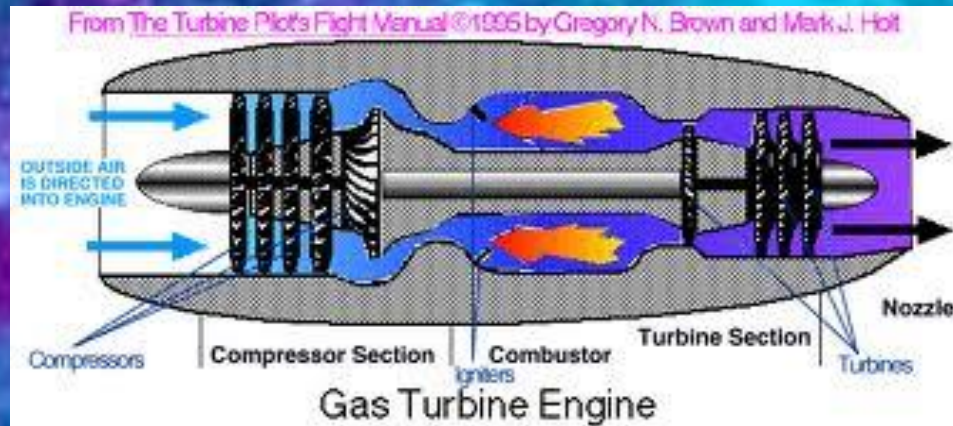
RED SUN ARBITRAGE Location & Transport Go / Another Location Go / Use for Industrial Processes



New approach to Turbines

ICE
REFER
RED SUN
Renewable
Energy

The RED SUN battery is the first mobile thermal battery modelled after the earth, that uses a molten nickel iron core at 1700 °C centigrade to run diesels and turbines better than Energy fuel with higher efficiency and lower noise and vibration and produces no carbon, soot or GHG. Furthermore, it is charged by induction like the sun charges the earth at 98% efficiency and can run power plants large and small, giving a whole new way to run ships, trains and transportation. It is scalable to large 500 MW TO 1000 MW powerplants and can last 40 years or more with millions of cycles. It has a 10 year warranty from Thyssenkrupp and is insured by Lloyds Syndicate.



RED SUN runs turbines with pure heat at 1100°C to 2200°C on Low pressure 1-2 Atmospheres

Turbines operate cleanly on RED SUN & last 50% longer!

Non-Combustion Brayton Cycle

Patented non combustion brayton cycle turbine runs on pure heat of the RED SUN Thermal battery. Zero emissions, zero carbon, zero greenhouse gases and 65% efficiency.

RED SUN MOBILE Thermal Battery

Based on *Energime Green Group's Exclusive* Infrared Focusing
Collection & Solid Heat Transfer and Storage Medium with a
Combined Cycle Steam Power Plant – *97% of Sun's Energy used!*

Phase I: Building wind farms/Charging stations & Stationary power

Phase II: Converting Solar Thermal into Large-scale power that
runs power plants, and sold in mobile system for running diesel
engines off-site *without fuel + AC/Steam/heat using advanced
technology* to transform the energy sector of Latin America & Asia!

Trains: Two **RED SUN
Thermal Batteries**

Gives 10,800 million BTU's
And weighs only 40 tons
Perfect for railroads

Trams & Buses:

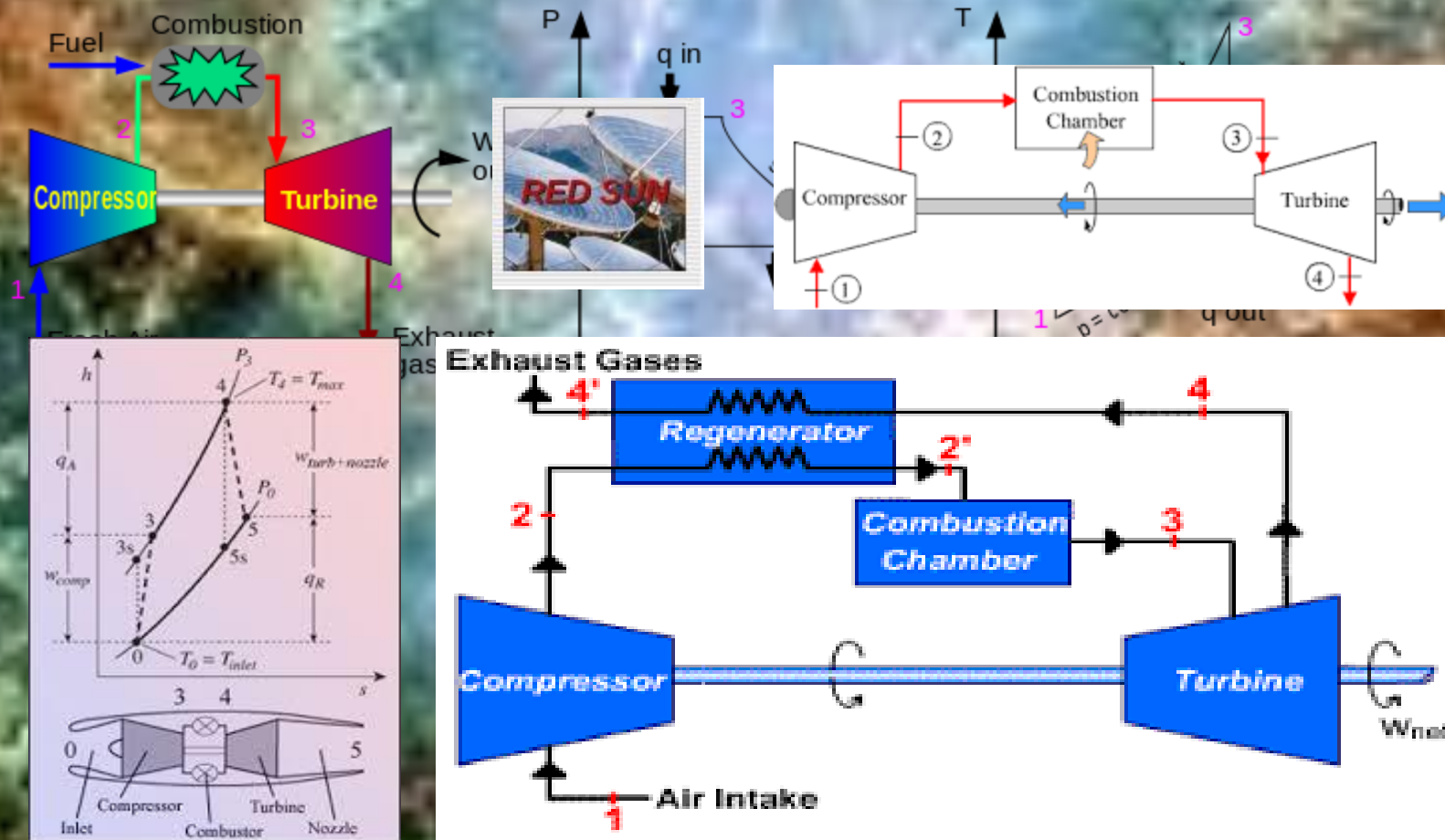
PowerSource 4 MW

Weights 2 ton

PowerSource 3.2 MW - 2 tons



Idealized Brayton cycle
is a pure heat cycle invented 165
years before kerosene & jet fuel



New Approach to Desalination:



Polished Aluminum
dish reflects
solar radiation



fluxo em hora



* Acumulador de calor
(metais fundidos)

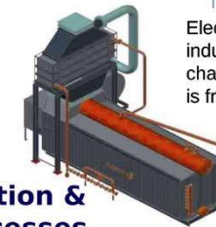


26,000 MMBTUS of transportable thermal energy per 90 MW nominal thermal capacity. This is equivalent to over 1,000 ST of steam coal.

Thermal Energy storage units once charged can travel by rail to a load center for use. Energy can be stored for over 1 month



Superconductor for heat (900°C to 1600°C)



Electrical induction charger. Power is from the Grid

Other Applications to develop: Create Heat in One Location & Transport to Another Location to Use for Industrial Processes

**MOBILE
RED SUN**
Renewable
Energy

MOBILE RED SUN CYLINDERS

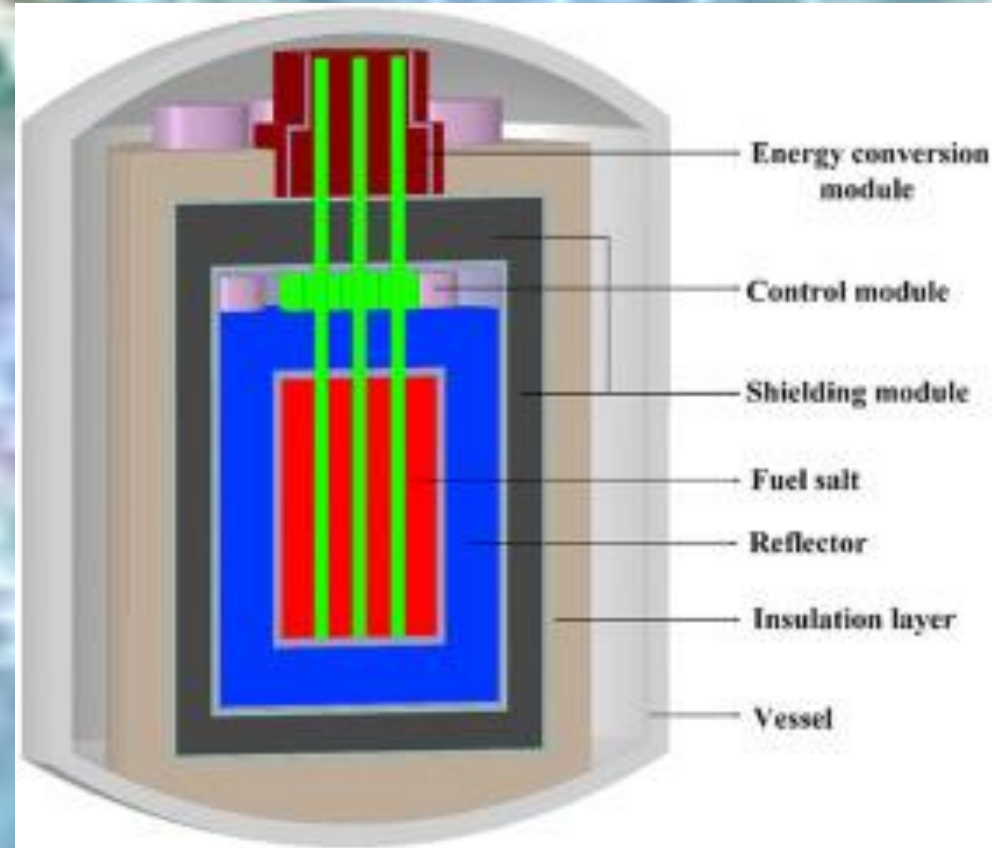
Fill in 4hrs-32 MW (26 tons) and run
Up to 30 MM Liters H₂O per day wirelessly
up to 30 days & run all industrial processes



MSR Power Plants for trains, ships and land + 99% of existing nuclear waste can be eliminated through MSRs

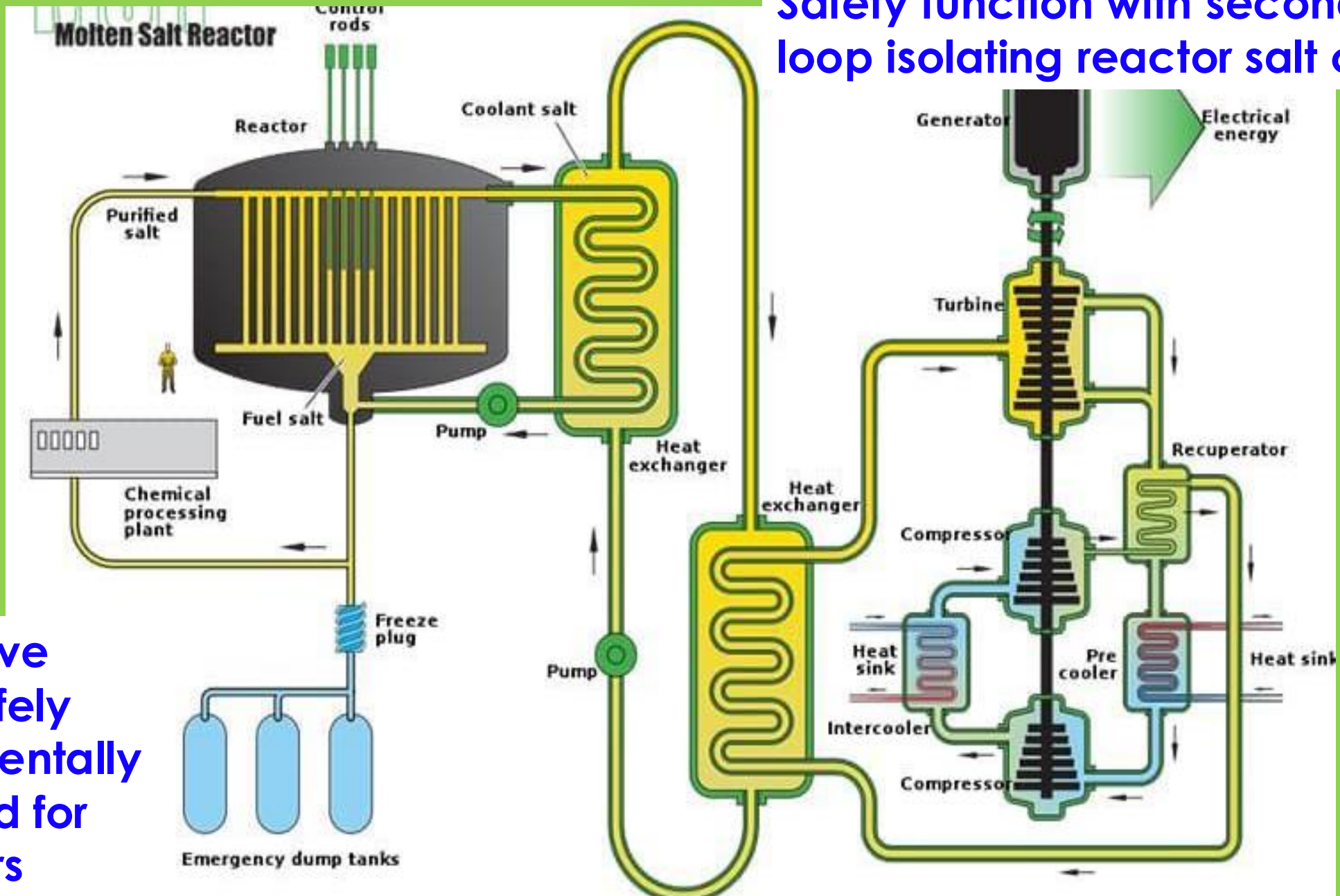
Molten salt reactor (MSR) (chlorine salt 550 -600 C) vs (fluorine salts 800 C) The fourth generation of the MSR works at atmospheric pressures vs the light water reactors such as the one built at the bataan plant, operates at 3,000 psi, requiring 3,000 times larger containment domes to prevent the escaping steam from spreading radioactive contamination.

MSR uses liquid salt fuel and operates on Thorium. Burn 99 % of the fuel vs the light water reactor which burns half of 1%, discarding the remaining fuel after only a few years. 1 GW results in 100 kg of waste/year



The light water reactor makes plutonium and other highly radioactive materials, that are radioactive for 300,000 years. This compared to MSR material which is only radioactive for 300 years.

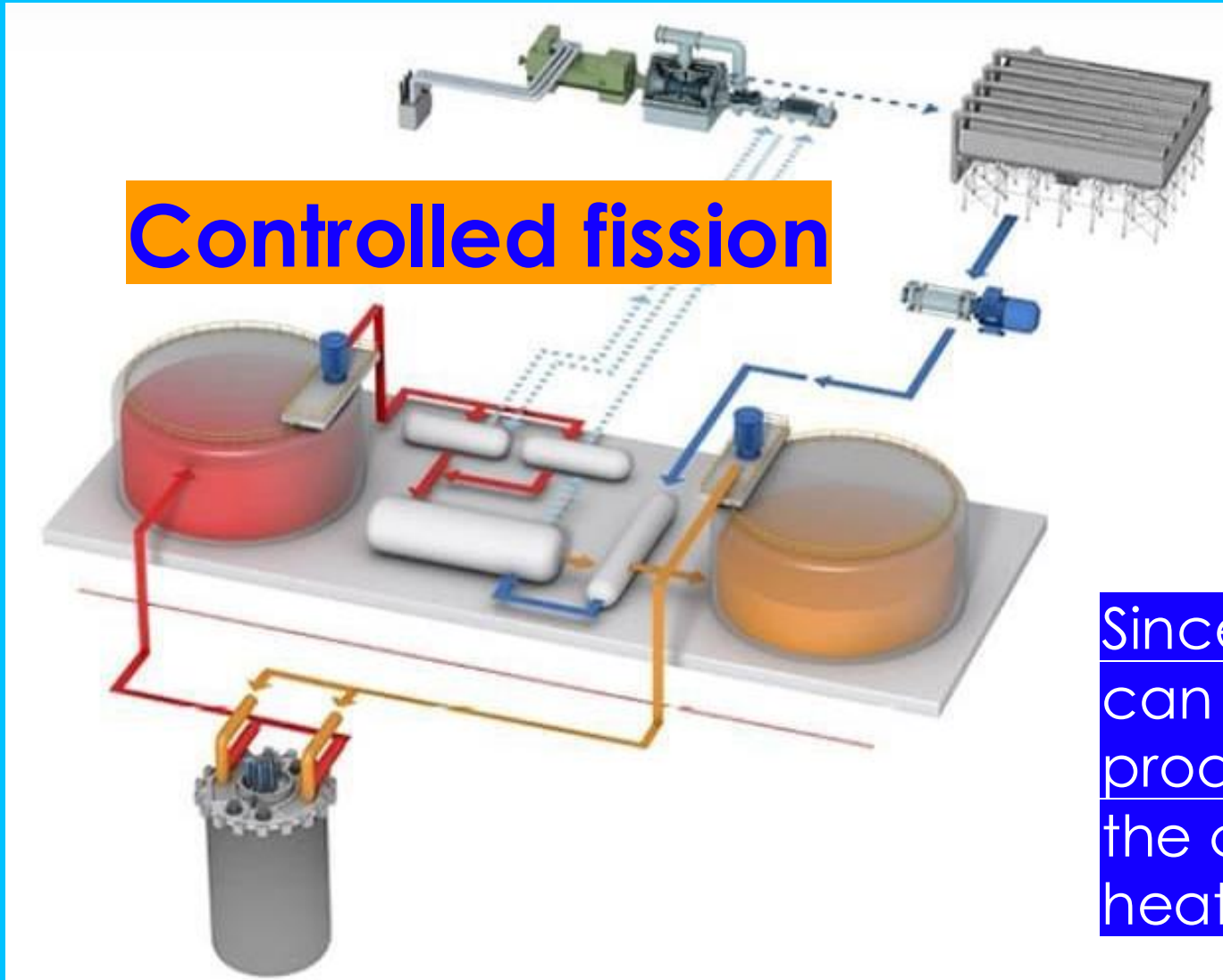
Safety function with secondary loop isolating reactor salt coolant



MSRs have been safely experimentally operated for 400 years

MSR = Radioactive waste removal + non-proliferation + safety

Controlled fission



Use of fluid fuel in the form of very hot fluoride or chloride salt rather than the solid fuel used in most reactors.

Since the fuel salt is liquid, it can be both the fuel producing the heat and the coolant transporting the heat to the power plant.

Since the MSR operates at atm. pressure it can't explode!

ICE
REFER
RED SUN
Renewable
Energy

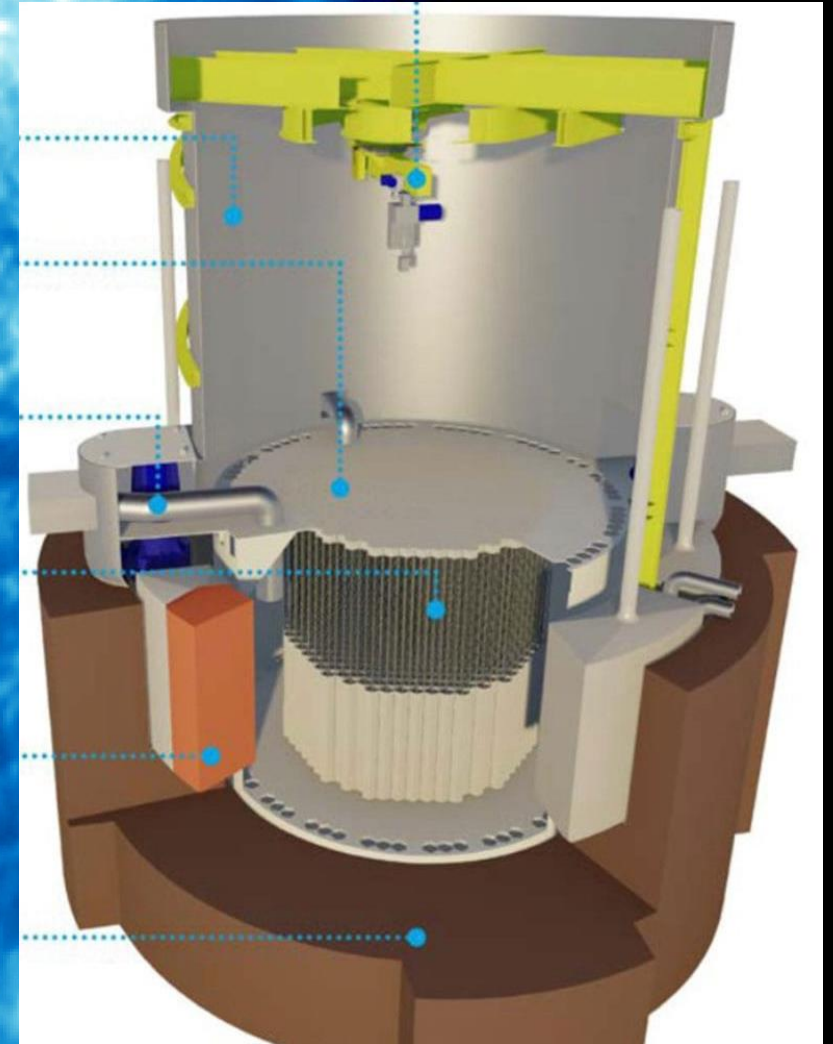


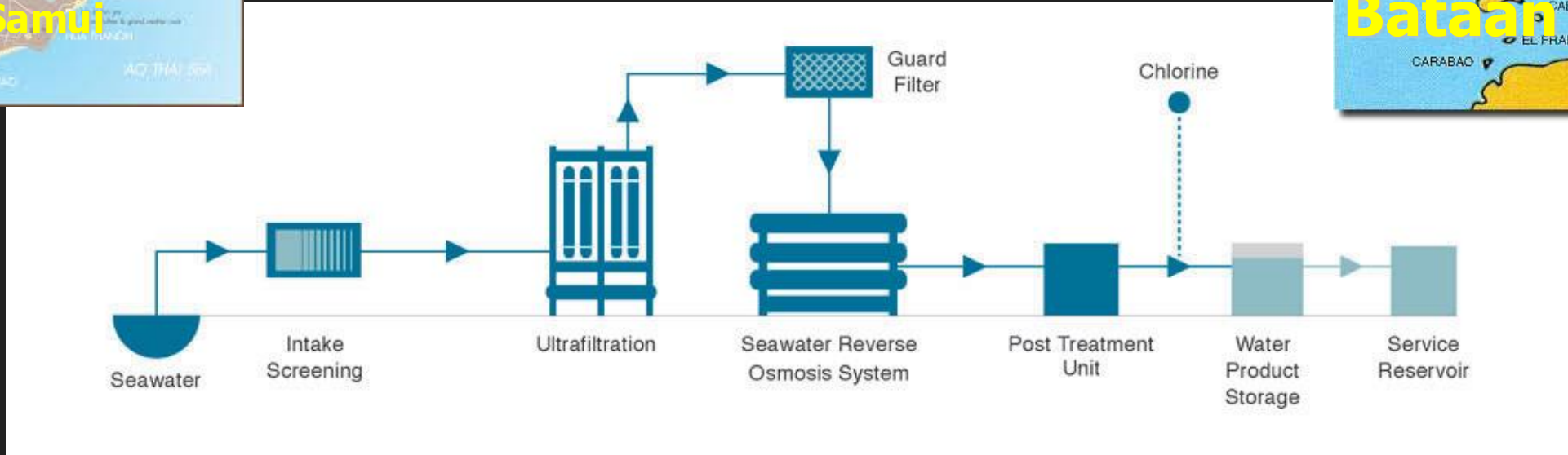
**Innovative
Material
& Design
Tech**

Above - MSR Heat exchangers with multiple heat pipes designed to transfer heat primary coolant to power cycle, secondary loop, environment; safety function for secondary loop isolates reactor salt coolant to prevent radioactive release

A New Approach for Industrial Process Heat

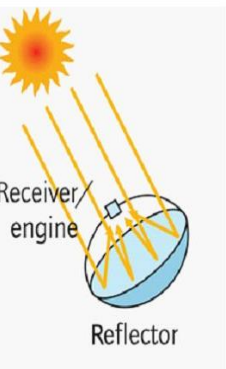
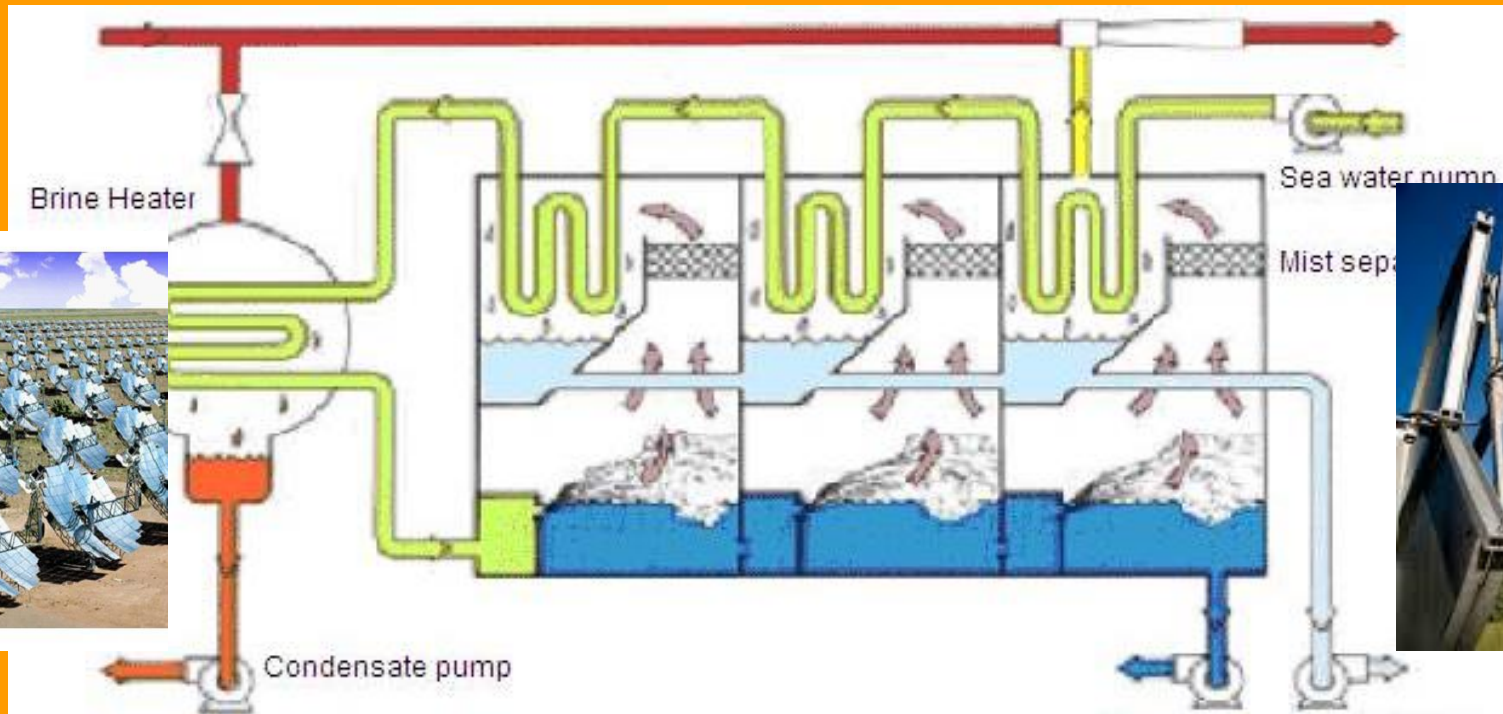
- The cost of the electricity with the MSR is only 3 cents/kWh.
- Almost every mine in the Philippines has Thorium as byproduct and therefore no fuel needs to be imported and no waste exported.
- The MSR is extremely safe because the fuel is imbedded in the Thorium salt and will not dissociate. The experimental Thorium breather reactors have a combined running time of 400 years including 10 years at Oak Ridge National Laboratory in Tennessee.
<https://www.ornl.gov/>
- The cost of building a MSR is only US \$ 1000 per installed kW
- MSRs are clean solution for all industrial processes including refining, metallurgy, desal, nitrogen production and electricity.



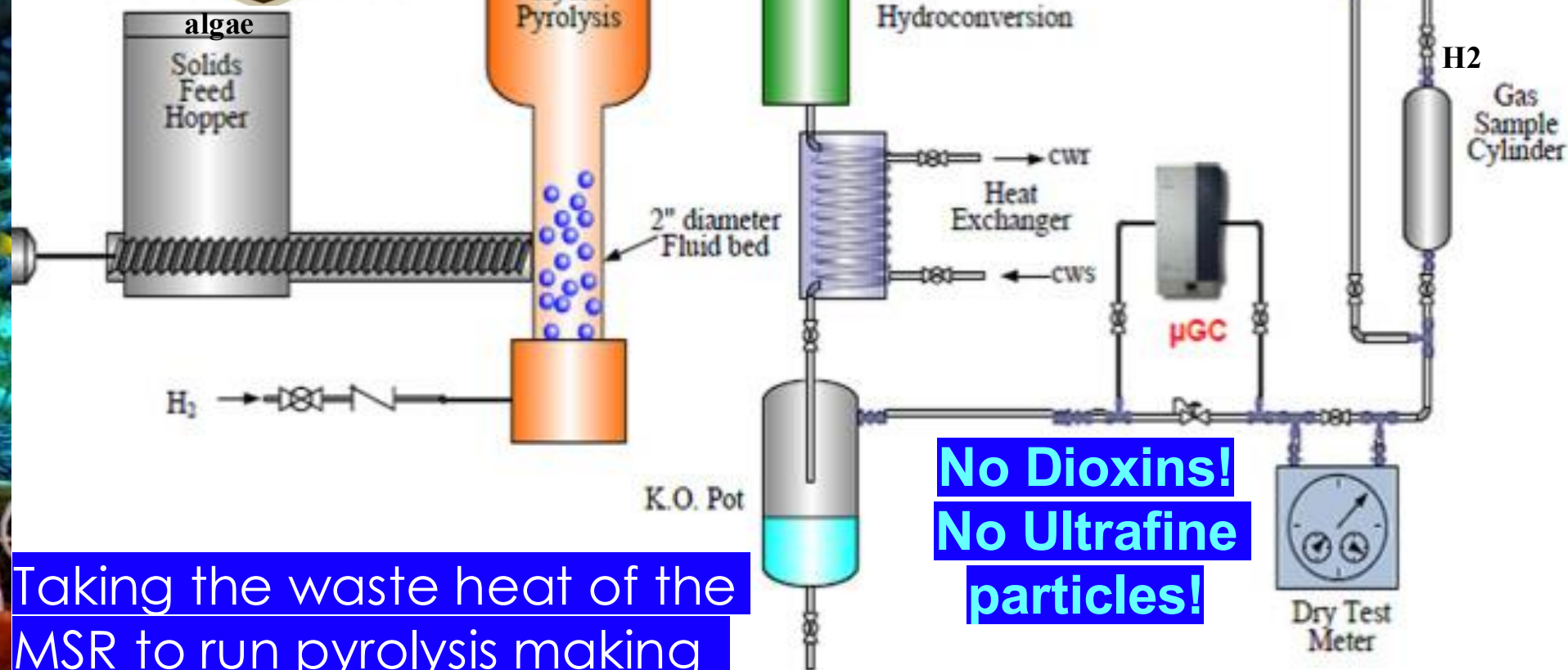


Multi-Stage flash

- Steam is used to heat tubes of saline water
- Heated water flows into "stages" that are at lower pressure
- Water boils rapidly and "flashes" into steam



RED SUN PHILIPPINES



- Taking the waste heat of the MSR to run pyrolysis making 18 t/d hydrogen and syngas.

4) Pelletized dry algae fed in high Temp. 950°C 2-stage Fast Pyrolysis to make H2

RED SUN & MAG GAS H2 Platform

RED SUN CHARGING STATIONS:

Heating compressed air in modified Man, GE and Cummins diesel runs generators without fuel with Combined cycle low pressure steam gives overall 53% efficiency!



Highly efficient & safe
 • Fuel efficient
 • 60 MW output
 • 10 MW output stations
 up to 20000 MW
 and 10000 MW
 and 10000 MW
 and 10000 MW



Charging Train Stations



Heated Compressed Air 3x's Torque

1000 MW power station 1000 MW power station 1000 MW power station 1000 MW power station



1000 MW power station 1000 MW power station 1000 MW power station 1000 MW power station



RED SUN ARBITRAGE

1000 MW power station 1000 MW power station 1000 MW power station 1000 MW power station



Electrical induction charger. Power is from the Grid

Location & Processes

Transportation:

MSRs can run trains and train stations

- MSR reactor is only 6 m3 and fits on trains and ships.
- MSR can produce Ice, refrigeration and HVAC for train stations and ports.
- MSR hubs can distribute to local housing and industrial parks.
- RED SUN batteries can be charged at train stations and distributed throughout the Philippines.
- Highways and railroads are transformed into energy corridors.

1400 km Range Per Charge – 64 MW on Budd Car

New Approach to Transportation

RED SUN Energy Systems



Thermal



Thermal

Scania, Cummins & VW
(All Diesels) Bus/truck



Mechanical



32 MWp
RED SUN

Thermal



GE LM
2500 jet
turbine

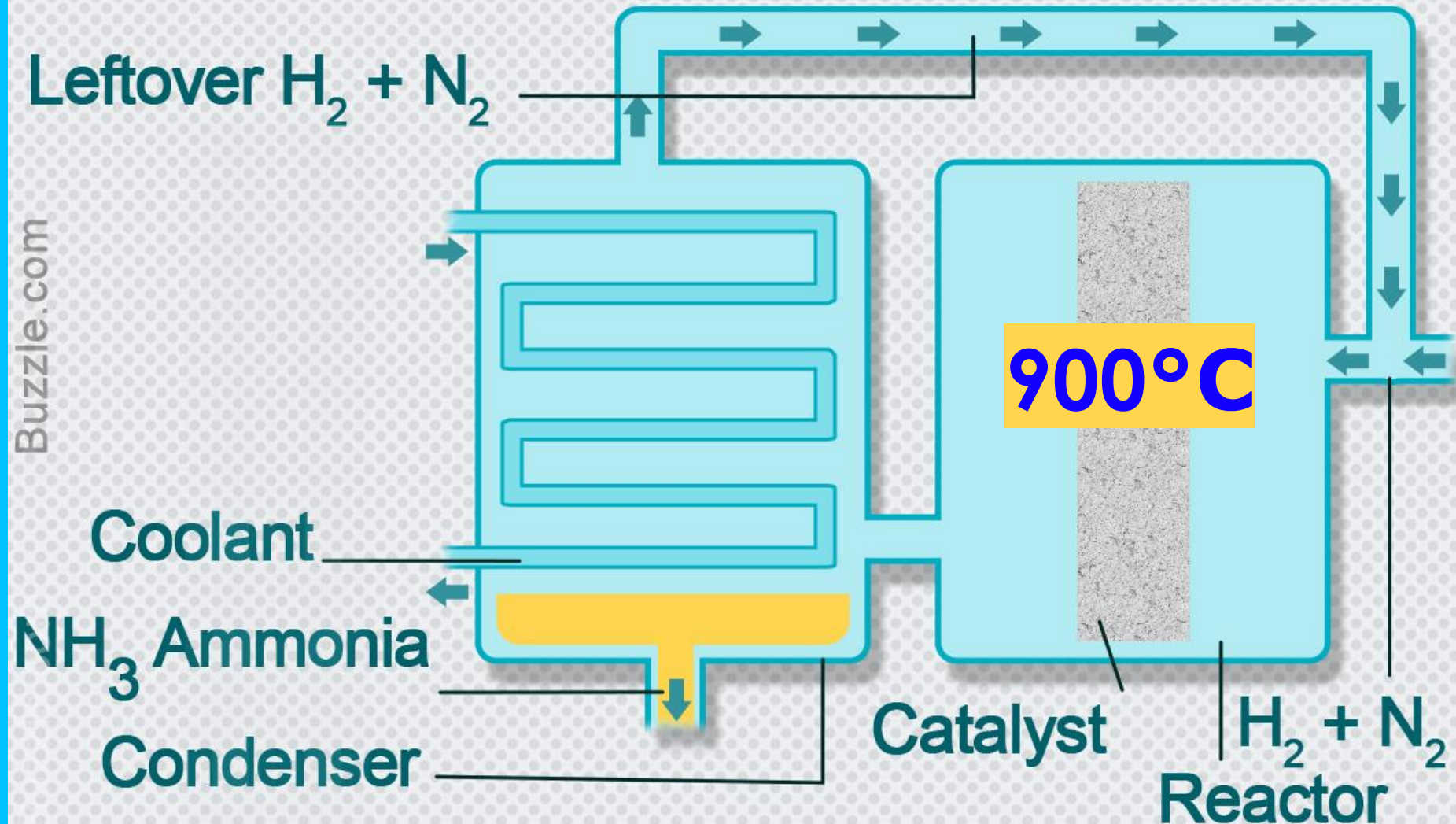
Never store
Hydrogen in
Tanks again!



Run jet turbines & diesels

- Artificial nitrogen fixation process that is the main industrial procedure for ammonia today. It is the most important industrial process ever developed, making ammonium fertilizer at 900 °C.
- The Haber Process is used in the manufacturing of ammonia from nitrogen and hydrogen.
- This process combines nitrogen from the air with hydrogen made from MSR hydrogen pyrolysis through MSR

New Approach to Nitrogen Fertilizer: Haber-Bosch Process

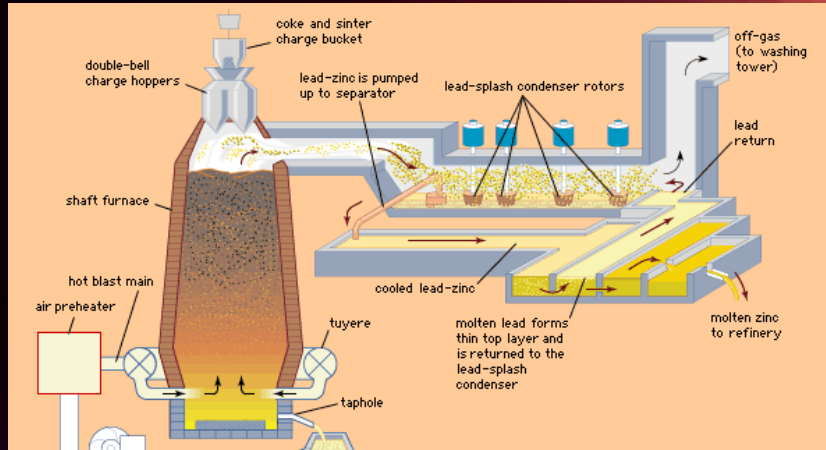




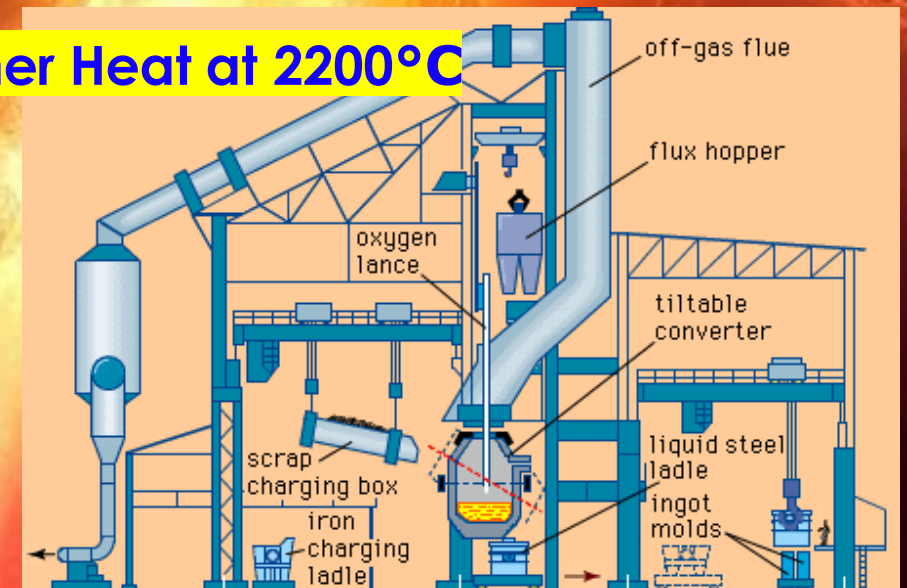
New Approach to Metal Refining

Red Sun increases the MSR heat to 2200°C for roasting, smelting and converting the nickel bearing ore to a matte containing nickel and copper sulfides.

Upon cooling the matte forms nickel and copper sulfide alloy. The nickel sulfide is roasted to form nickel oxides, which can be further processed to nickel and nickel alloys.



RED SUN makes Higher Heat at 2200°C



Engineering Team

Dan Winter – Chief Electrical Eng

Www.fractalfield.com

Paul Harris- Electrical Engineer

Www.theraphi.net

Victor Chang – Chief Operating Officer

Www.fibonaccimotors.com

www.theimploder

Mark Rohrbough – Electronics Eng

Dr Andrejs Zagars – Prof. of Chemistry

Elizabeth Donovan – Chemical Engineer

Jay Dubinsky – Bio Engineer & CEO

Administration

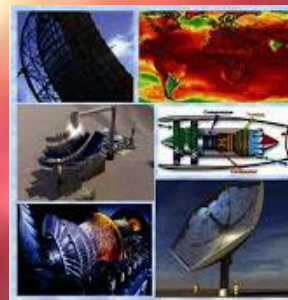
Daniel Winter – Chief EE

Jay Dubinsky – Managing Eng

Dr Andrejs Zagars – Trainer

Dr Jack Wong – Prof. Civil Engineer

MAG POWER Transport



RED SUN MSR Thermal Electric Platform Modular Molten Salt Reactors



Jay Dubinsky, CEO/Managing Eng

Tel: +63 945 186 98 16/ +66 618 485 949

E-mail: doctorredsun48@gmail.com

E-mail: alexanderpaurom@gmail.com

E-mail: victor.chang.swe@gmail.com

Skype: drredsunsun, live:victor.chang.swe