



Business Overview Presentation May 15, 2021

www.brilliantlightpower.com

Safe Harbor Statement

This presentation contains forward-looking statements, including statements regarding the company's plans and expectations regarding the development and commercialization of our technology. All forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. The forward-looking statements speak only as of the date of this presentation. The company expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any such statements to reflect any change in the company's expectations or any change in events, conditions or circumstances on which any such statements are based.

About Brilliant Light Power

- We have developed a new zero-pollution, primary energy source applicable to essentially all power applications.
- The theoretically predicted energy breakthrough is based on reacting atomic hydrogen with a catalyst to cause the atom's electron to transition to a lower-energy orbital forming Hydrino®, a more stable chemical form of hydrogen that we have isolated and characterized by multiple spectroscopies.
- The proprietary SunCell® has been validated by experts at an excess power scale of 300 kW producing blackbody radiation and 100 kW cooled, continuously producing steam.
- We are running internal thermal field trials at a scale of 100-250 kW continuous power production and an extraordinary power density of up to 5MW/liter.



Reinventing
thermal and
electric power:
*safe, accessible,
affordable,
clean*

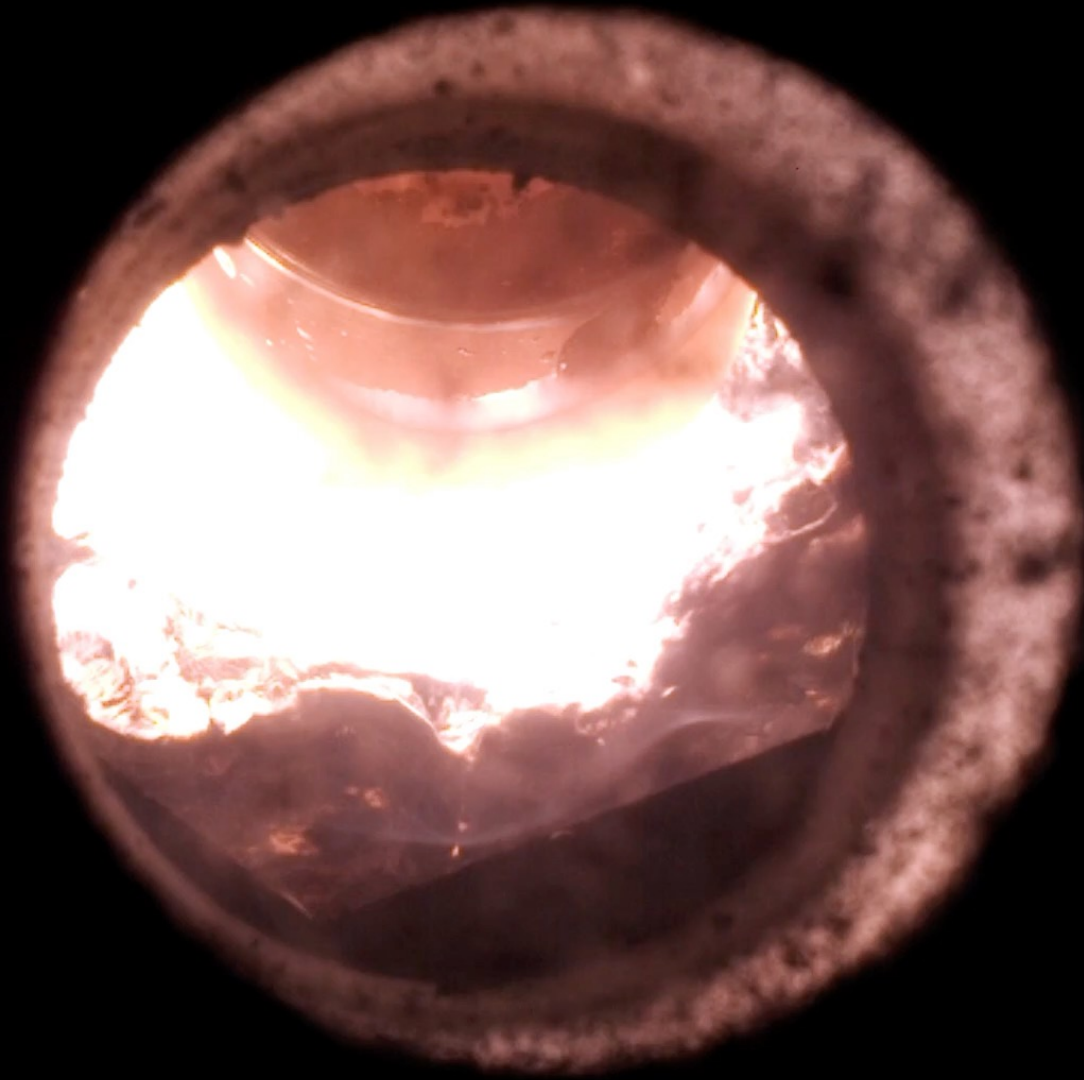
About Brilliant Light Power cont'd

- The SunCell® comprises a hydrogen and catalyst injector and an electromagnetic pump that serves as an electrode that further injects molten gallium against a counter electrode to form a Hydrino®-reaction plasma with an energy release of 200 times that of burning the hydrogen obtained from water.
- We have Hydrino® “In a bottle” and spectroscopic methods achieved that identify Hydrino® in a dispositive manner by characteristic signatures that do not match any other known species.
- Extensive proprietary methods and systems with patents issued worldwide.



Reinventing
thermal and
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New Fire



New Fire Commercial Scale Power



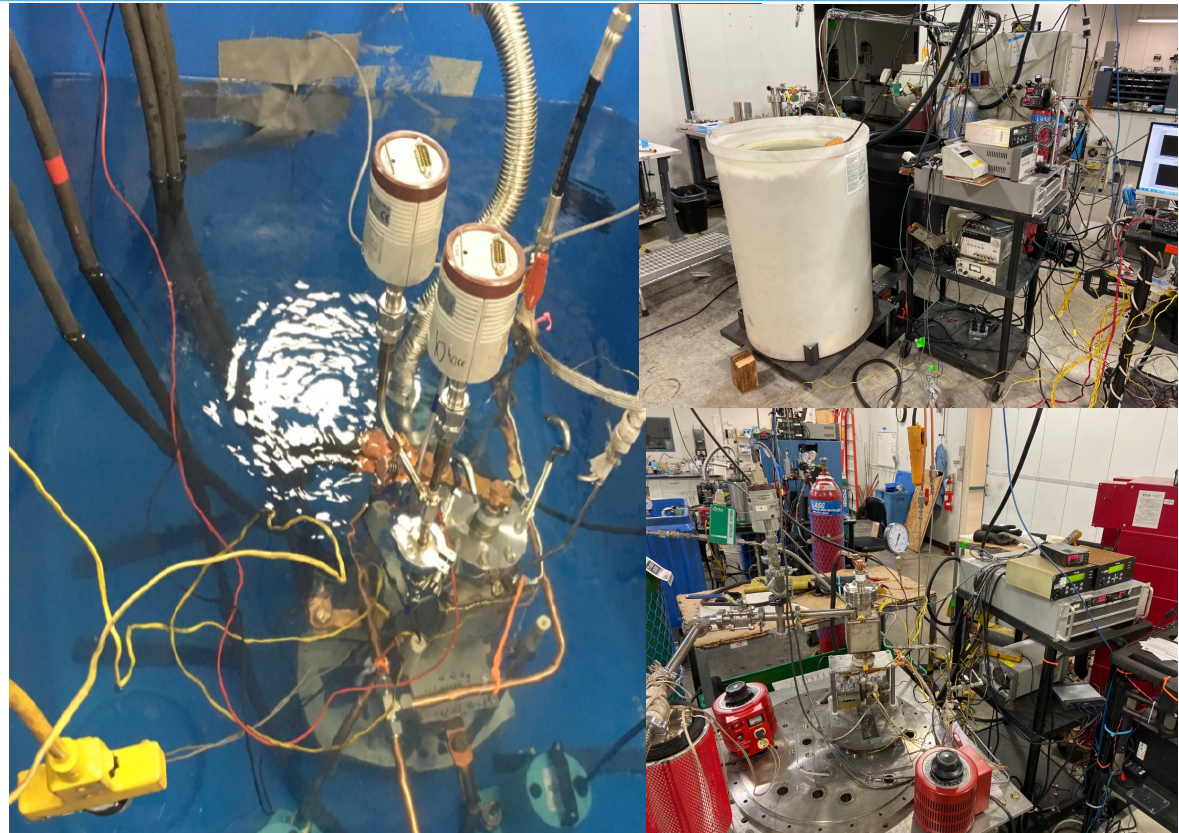
New Fire
Commercial
Scale Power
cont'd



Validation: SunCell Run in Air to 1200°C and Submerged in Water Bath Calorimetry that Measured 340 kW of Hydrino Power Production from Heat Inventory



Stephen Tse, Ph.D. Department of Mechanical and Aerospace Engineering, Rutgers University validated up to 340 kW of power produced by BrLP's proprietary hydrino plasma reaction maintained in its SunCell® using molten metal bath and water bath calorimetry. (<https://brilliantlightpower.com/pdf/Tse-Validation-Report-Brilliant-Light-Power.pdf>)



Calorimeter	Duration (s)	Input energy (kJ)	Output energy (kJ)	Input power (kW)	Output power (kW)	Power Gain	Net Excess Power (kW)
Water Bath	2.115	192.95	915.35	91.2	432.8	4.74	341.6


Existence of Hydrino Confirmed by Over 22 Methods

There are multiple techniques wherein some alone can prove the existence of hydrino or the hydrino reaction.

- Electron paramagnetic resonance (EPR) spectroscopy: electron spin flip with spin-orbital coupling and fluxon coupling energies. [Princeton University, Delft University of Technology, Bruker Scientific LLC, Billerica, MA]
- Raman spectroscopy: molecular hydrino rotational transitions with spin-orbital coupling and fluxon coupling energies, and rotational-vibrational transitions. Deuterium shifted rotational transitions with spin-orbital coupling and fluxon coupling energies. Raman peaks matching those of the **Diffuse Interstellar Bands (DIBs)**. [Duke University, Princeton University, ThermoFisher Scientific, University of Texas El Paso]
- High resolution visible spectroscopy of $H^-(1/2)$ binding and fluxon coupling energies. [Brilliant Light Power, Inc.]
- Infrared spectroscopy: application of a magnetic field permits molecular rotational infrared excitation by coupling to the aligned magnetic dipole of $H_2(1/4)$. [Princeton University]
- Electron beam emission spectroscopy: rotational-vibrational energies of molecular hydrino with spin-orbital coupling and fluxon coupling energies. [Rutgers University, Brilliant Light Power, Inc., University of Illinois]
- Gas chromatography: faster migration than any known gas, higher thermal conductivity than that of any known gas. [Brilliant Light Power, Inc. on three instruments]

Existence of Hydrino Confirmed by Over 22 Methods cont'd


- X-ray photoelectron spectroscopy: total bonding energy of hydrino of 496 eV with only a single peak corresponding to a single molecular orbital. [Lehigh University, Brilliant Light Power, Inc., Duke University, North Carolina State University]
- Extreme ultraviolet (EUV) spectroscopy: extreme ultraviolet continuum radiation with a 10.1 nm cutoff corresponding to the hydrino reaction transition H to H(1/4) and optical power of 20 MW. [Brilliant Light Power, Inc.]
- ToF SIMs shows $K(K_2CO_3:H_2)_x^+$ polymers and intense H⁻ due to the stability of hydrino hydride ion. [Charles Evans & Associates, MRL Lab, Brilliant Light Power, Inc., Case Western University]
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- Electrospray ionization time of flight (ESI-ToF) novel inorganic hydrides in aqueous media [Rowan University, Brilliant Light Power, Inc., Ricerca]
- Nuclear magnetic resonance (NMR) spectroscopy and vibrating sample magnetometry: upfield shifted NMR peak and superparamagnetism due to the unpaired electron of molecular hydrino. [Spectra Data Services, Shell, University of Delaware]
- High performance liquid chromatography (HPLC): inorganic hydrino compounds behaving like organic molecules. [Ricerca, Inc., Rowan University]
- Vibrating sample magnetometry: super-paramagnetism of hydrino molecules in a diamagnetic matrix [University of Oregon].



Existence of Hydrino Confirmed by Over 22 Methods cont'd

Energetics of hydrino reaction:

- High resolution visible spectroscopy of extraordinary H Doppler and Stark line broadening [Brilliant Light Power, Inc., Technical University of Eindhoven, many other universities worldwide]
- H excited state line inversion [Brilliant Light Power, Inc.,]
- Shock wave development much greater than that of TNT [Brilliant Light Power, Inc.]
- SunCell® fully ionized energetic plasma and electromagnetic pulse [Brilliant Light Power, Inc.]
- Solid fuels calorimetry [Brilliant Light Power, Inc., University of Illinois, Auburn University, University of Norte Dane, Setaram, Perkin Elmer]
- Electrochemical power [Brilliant Light Power, Inc., Enser]



Existence of Hydrino Confirmed by Over 22 Methods cont'd

Energetics of hydrino reaction:

- Electrochemical power [Brilliant Light Power, Inc., Enser]
- Chemically produced hydrogen plasma [Brilliant Light Power, Inc., Ruhr-University Bochum]
- Plasma afterglow [Brilliant Light Power, Inc., Ruhr-University Bochum]
- 340 kW level SunCell® power development [Brilliant Light Power, Inc.]
- 210 kW SunCell® continuous steam production [Brilliant Light Power, Inc.]

The validators for these results are or were professors at or received their PhD from prestigious universities such as the California Institute of Technology, Massachusetts Institute of Technology, University of North Carolina, Rutgers University, INP Greifswald, University of California Berkley, University of Wisconsin-Madison, University of Pennsylvania, and others. Companies such as Samina SCI, ARA, Enser, and others were validators. Dates of results, journal references, and validation reports:

https://brilliantlightpower.com/pdf/Analytical_Presentation.pdf

https://brilliantlightpower.com/pdf/Hydrino_States_of_Hydrogen.pdf

Initial Hydrino® Markets are Staggering



Thermal

- **\$4.8 T market**
- Leverages years of process and engineering development
- Platform for earlier products and revenue
- *Internal field trails of 250 kW-scale SunCells® ongoing, continuous long-duration operation on demand*



Electric Power Generation

- **\$3.5 T electricity market**
- Leverages thermal SunCell® experience
- Innovative TPV and MHD SunCell design
- *Lease power versus capital purchase*



Novel Compounds

- **Market: \$TBD**
- Analytical identification completed for Hydrino® gas and a Hydrino® compound
- Hydrino® exhibits prior unknown magnetic and other properties
- Samples available today and are being validated
- *Exploring applications with specialty firms*



Passenger Car

- **Market \$0.5-1.0 T**
- Total addressable market of 87.3M units
- Typical ICE \$2K to Battery \$10K per vehicle
- Strong value for weight savings, range improvement, and operating costs
- *Direct OEM sales of TPV SunCell*

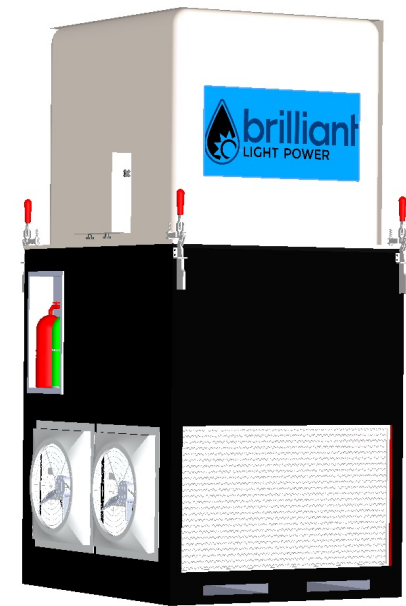
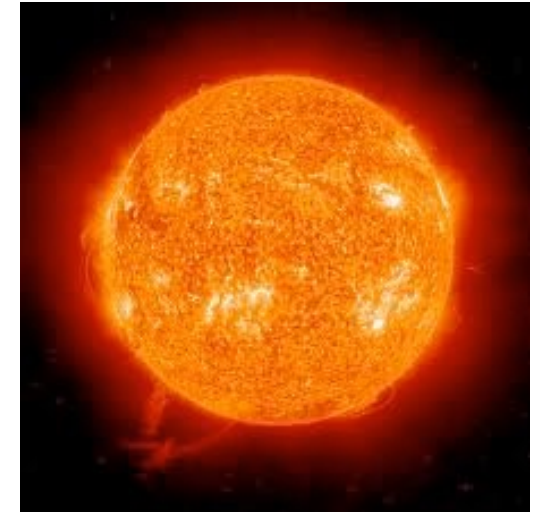
Brilliant Light Electric Power

- Power in a Box
- Reinventing electricity, independence of being completely off grid and independent of fuels infrastructure
- New, sustainable, nonpolluting energy
- Sales of electric power sources for electric vehicles
- Electricity company, sales via lease agreement, no metering
- Partnership & outsource business model
- Profound implications for electric and motive power – accessible, affordable, clean



The Electric Power Solution: SunCell®

- Continuous power source
- Non-polluting by-product Hydrino®, lighter than air, vents to space or isolated for commercial applications
- System is sealed with H₂ fuel obtained from H₂O as a less than 1% parasitic load
- Low operating cost, only consumable is minimal amounts of water
- Operates under vacuum, absolutely safe materials and operation
- Thermophotovoltaic (TPV) or magnetohydrodynamic (MHD) electricity conversion
- Scalable from 10 kW to 10 MWs, SunCells may be ganged
- Applications include stationary on-site electric, automotive, trucks, rail, marine, aviation, and aerospace
- Most Applications: No metering with electricity sold at about \$0.05 per kWh on site via a per diem lease fee.
- Automotive: autonomous electric power source sold to vehicle OEM for the replacement value of fuel ~\$20 k for a 250 kW unit.



SunCell Economics



Current Annual Gross Earning Capacity of Any Electrical Generator:

- \$1/W

Capital Cost:

- \$50/kW

Life Span:

- 20 years

Capital Cost Annually:

- \$3/kW

Solar Capital Cost (2021):

- \$1000/kW^a

Maintenance Cost:

- \$1.20/kW

Generation Cost:

- \$0.001/kWh



<https://www.nrel.gov/solar/solar-installed-system-cost.html>

Solar Power

Solar cells have been optimized over five decades at a cost of more than one trillion dollars to convert sunlight into electricity. The capital cost of solar power is high due to the low power density of sunlight at the Earth's surface. Acres of land need be covered by panels to harvest a meaningful amount of power; thus, the appropriate namesake: "solar farm".

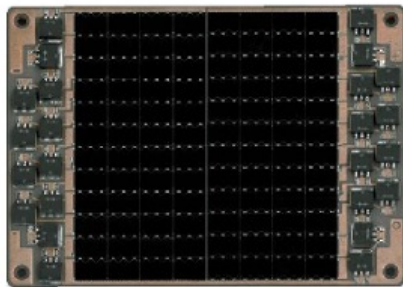
Jasper Power Project, South Africa's Northern Cape
96 MW on 247 acres (about 1 million m²)



Concentrator Solar Power

To reduce costs by reducing the solar panel coverage area, less-expensive sunlight concentrators are employed to increase the sunlight intensity to a thousand times natural intensity. Concentrator solar cells of a dense receiver array typically comprise three layers or junctions of III-V elements engineered to be responsive to a selected wavelength region of the Sun's spectral emission such that the triplet set covers a substantial portion of the total emission, and the conversion efficiency is greater with higher concentration.

Due to the same low incident light concentration from the Sun, the typical scale is 100 MW on 250 acres (about 1 million m²)



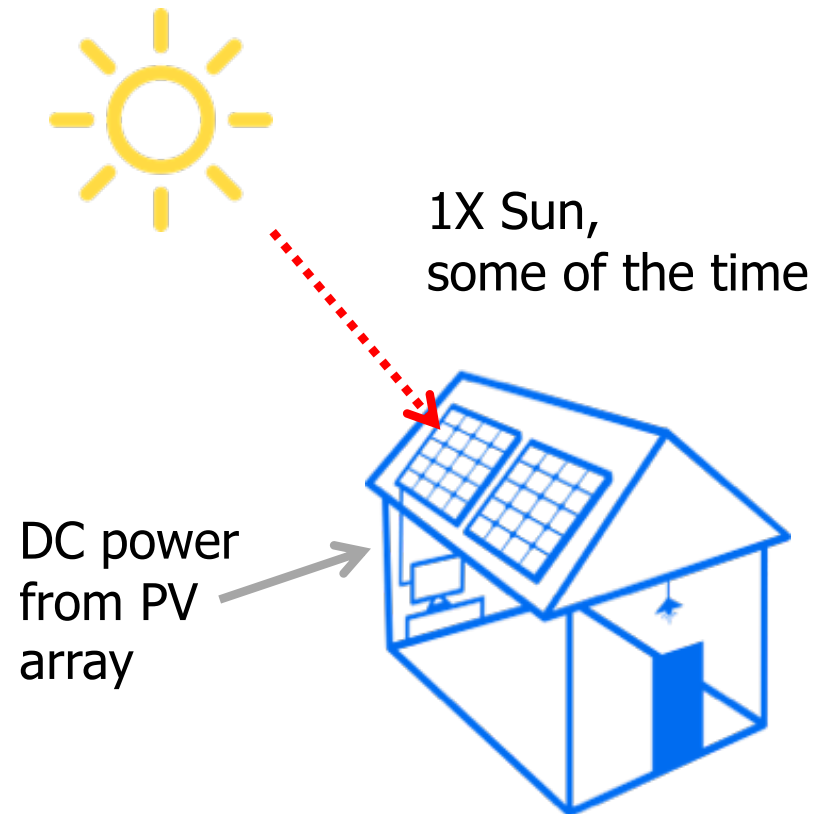
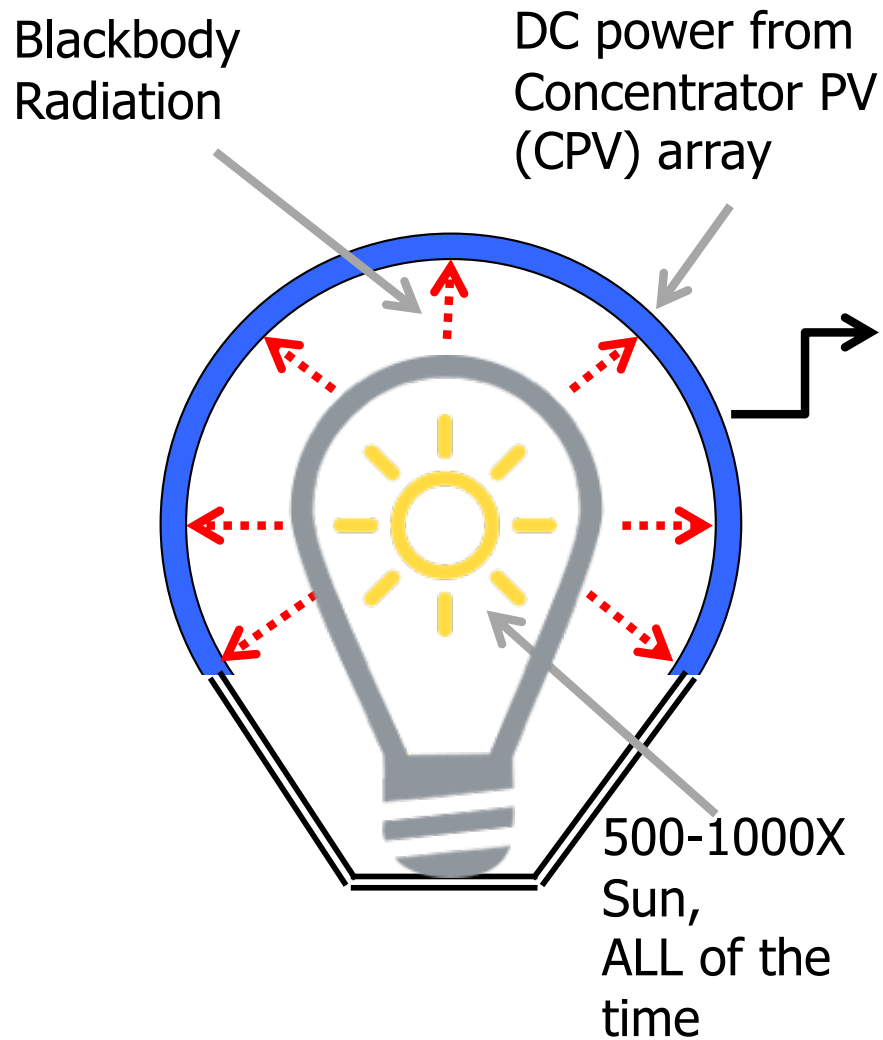
Front of Dense Receiver Array



Back of Dense Receiver Array
With Cooling Water Inlets and Outlets



SunCell® vs Solar PV



Thermophotovoltaic SunCell® vs Solar PV



An autonomous SunCell operating at up to 1000 Suns requires 5000 times less area and complexity than a matched conventional solar power station.

44 ganged 250 kW SunCells

11 MW



15 m²

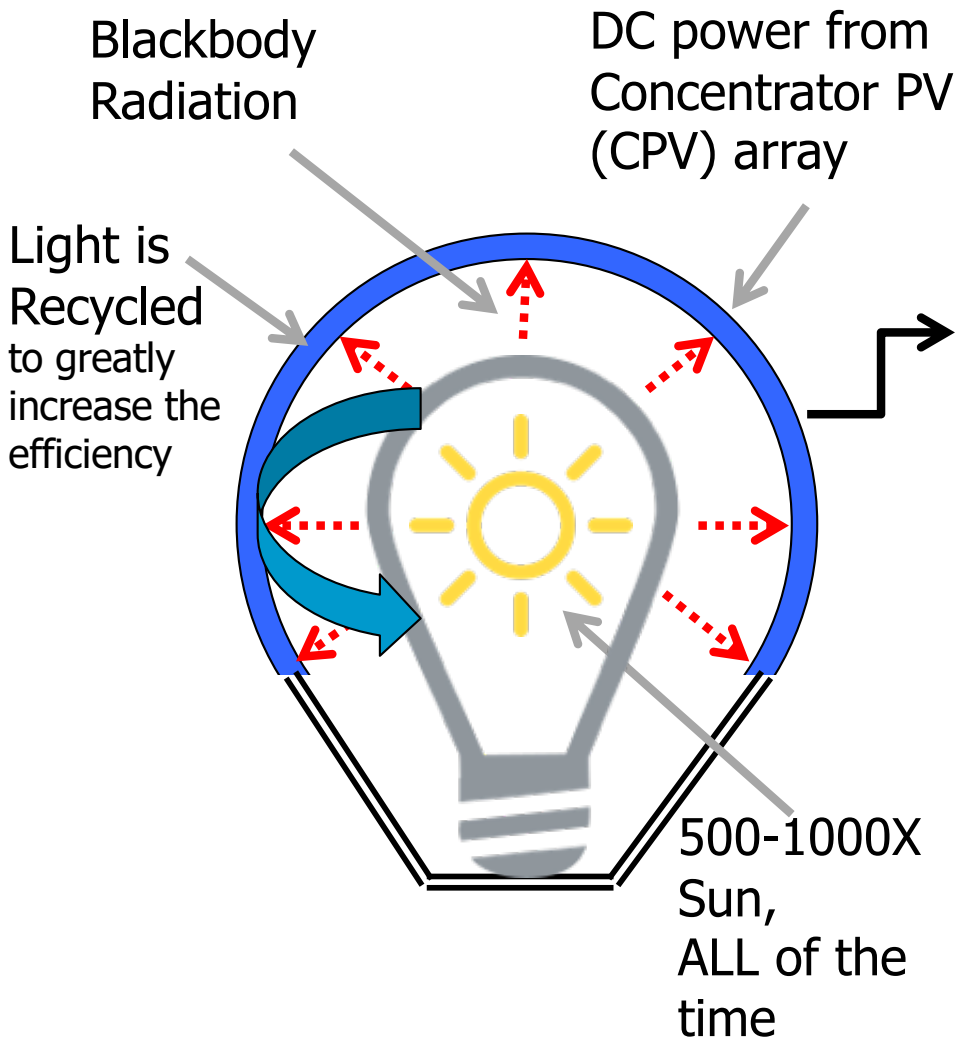
Planta Solar 10, Sevilla, Spain

11 MW



75,000 m² (nrel.gov)

SunCell® ThermoPhotovoltaic with Light Recycling

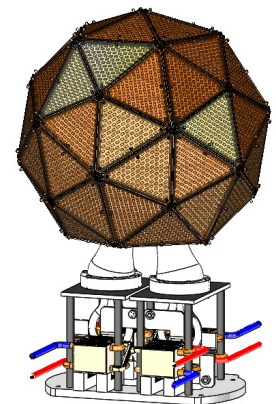
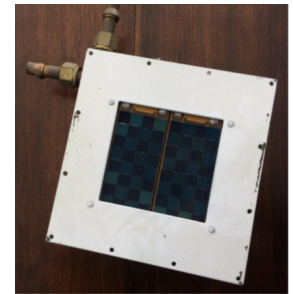
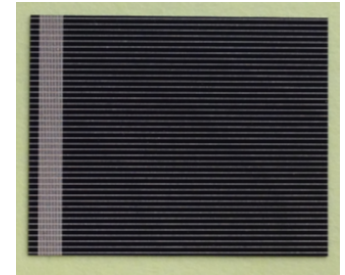


- Infrared light from the SunCell that is too low energy to be PV converted to electricity is reflected back to the SunCell and recycled.
- With light recycling the thermophotovoltaic efficiency radically increased by a factor of over 3.5 times, and with cell optimization the increase is projected to be about six times^a

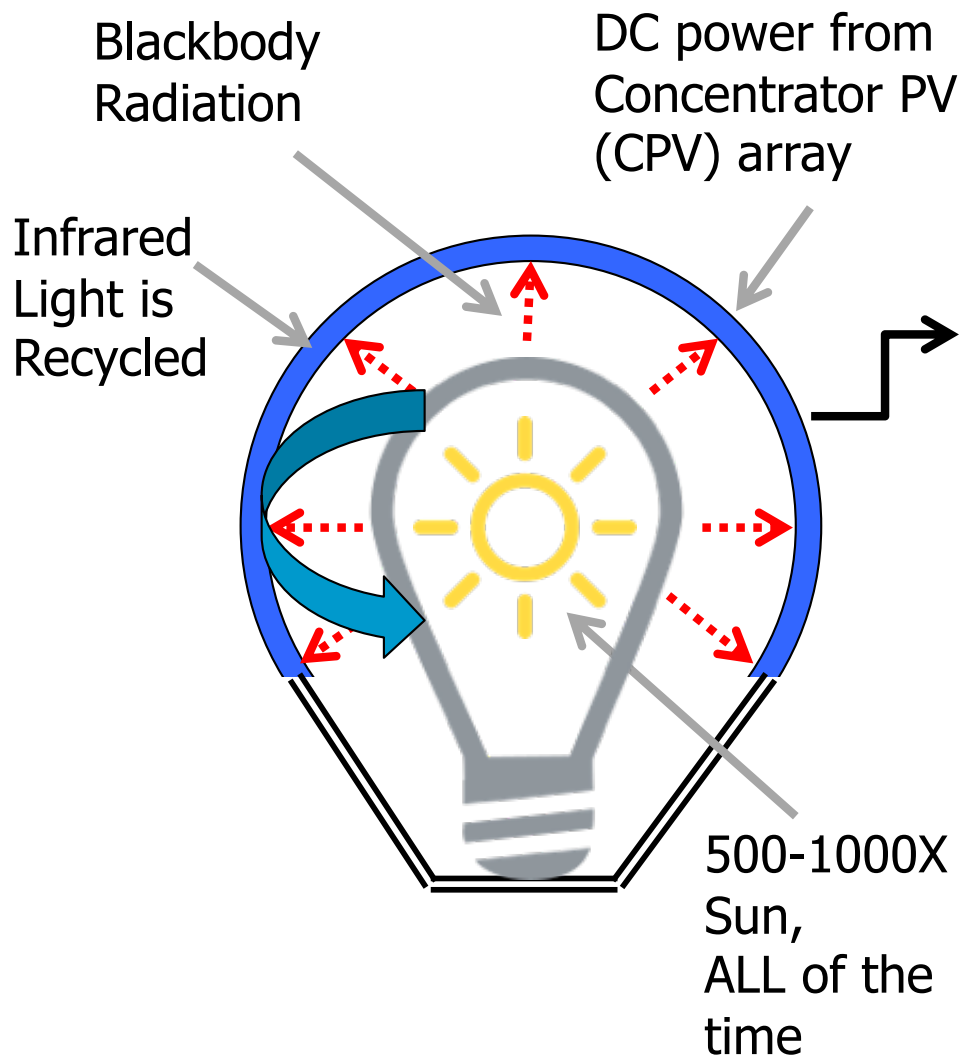
^a Test of infrared light recycling: Z. Omais, et al., "Ultraefficient thermophotovoltaic power conversion by band-edge spectral filtering", PNAS, Vol. 116, No. 3, (2019), pp. 15356-15361.

Silicon Concentrator Cells and DRAs

- Single junction (1J) silicon concentrator cells with light recycling can replace three junction (3J) III-V cells
- Si technologies are best choice; widely available
- Si-ideal band gap of 0.86 eV at the ideal operating temperature for cooling of 140°C (Cooling technology readily exists)
- Si paradoxically becomes more efficient at higher temperatures, due to collecting more of the 3000K blackbody radiator light
- The conversion efficiency for 3000K SunCell emission by a single junction concentrator silicon PV cell operating at 120 °C was calculated to be 84% with a practical expectation of 50%
- Commercially available cells
- Concentration- 500 Suns
- Better fit with SunCell Generator System Requirements
 - Less demanding cold plate solutions and cooling complexity
 - Higher operating temperature (smaller and less costly cooling equipment)
 - Lower cost PV cells
 - Existing mass production Si cell manufacturing capacity



How the SunCell® Works



The Process....

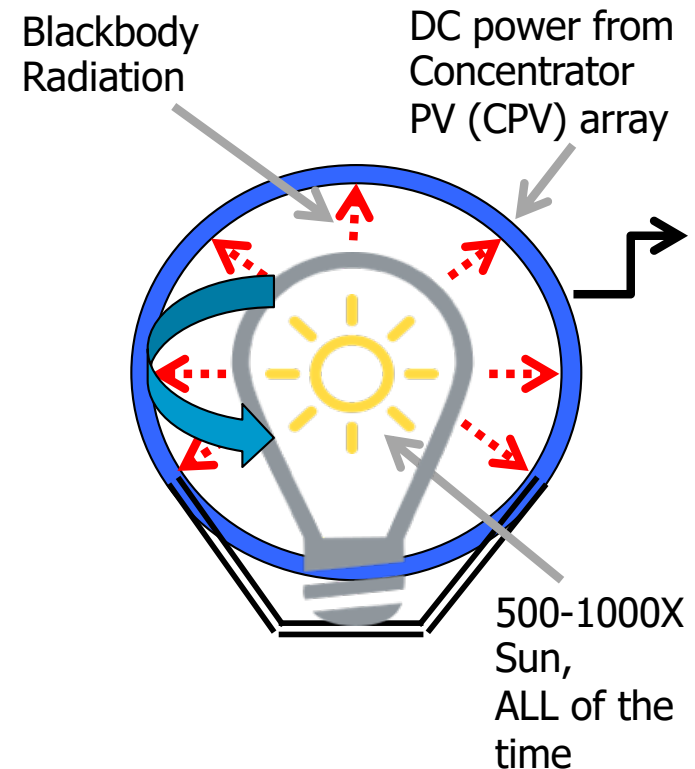
- Plasma is generated through Hydrino® process.
- Plasma comprises a 3000-5000 Kelvin blackbody radiator or heats a blackbody radiator to between 3000 and 3500 Kelvin. Alternatively, the reactor chamber wall at 1475K-2275K serves as the blackbody emitter.
- Blackbody radiator emits brilliant light, similar to the operation of a tungsten filament in a halogen bulb.
- Light emitted is converted by dense receiver array of concentrator PV cells delivering the power output.
- Infrared light that is PV inactive is reflected back to the blackbody, absorbed, and recycled as more blackbody radiation to greatly increase the efficiency.

Product Development Foundation

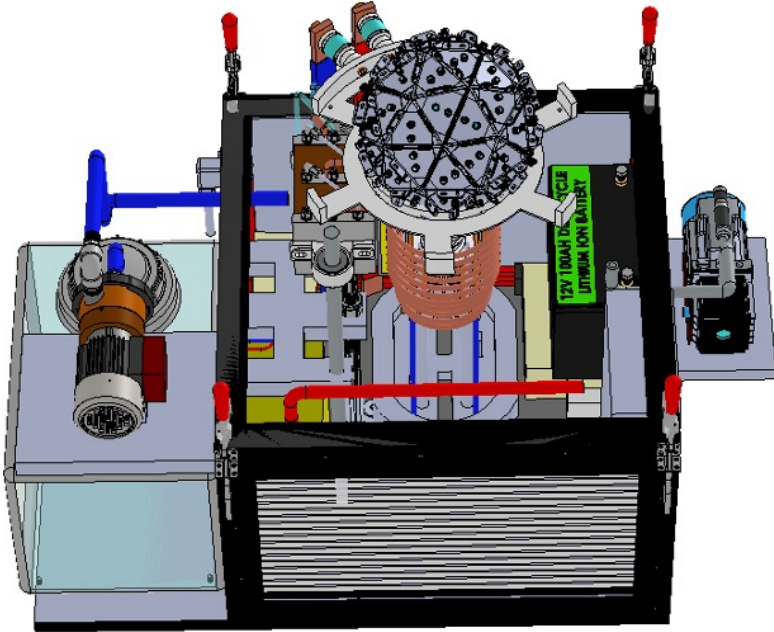
- SunCell blackbody radiation replaces the emission of the Sun
- Blackbody temperature and response spectrum of commercial PV is adjusted to more closely match each other
- Rapid, low cost development approach

Established Foundation

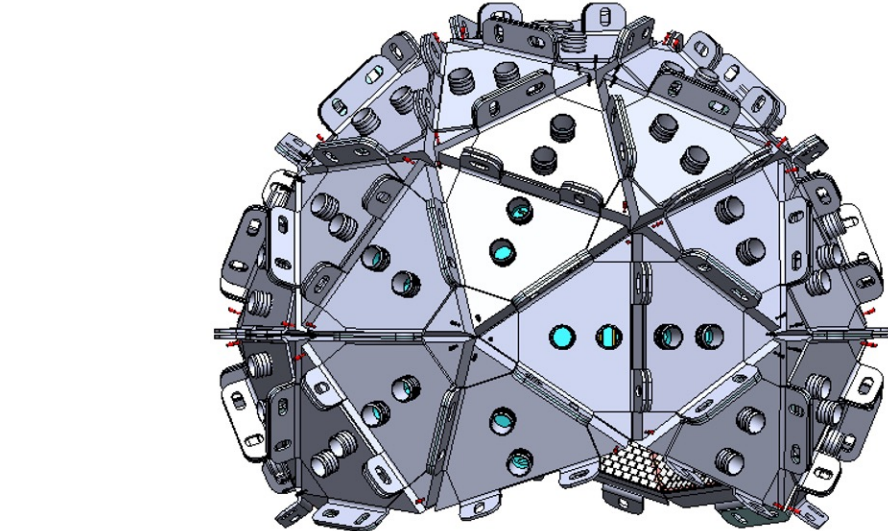
- Theory solved, IP issued
- Light source demonstrated
 - Internally certified
 - Externally certified
- Advanced thermophotovoltaic (CPV)
 - Suppliers selected
 - CPV cell design
 - Dense receiver array design
 - Cooling design
- SunCell radiator design
- Costed bill of materials
- Continuous 100-200 kW SunCell prototypes



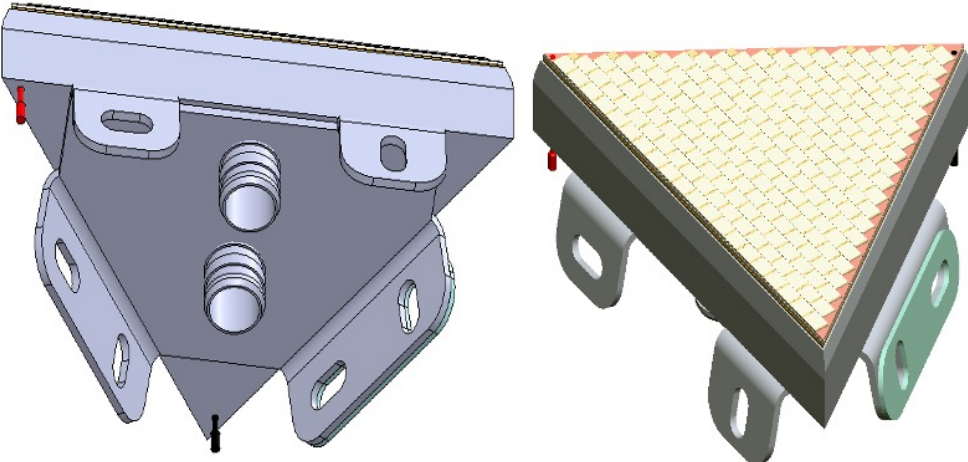
ThermoPhotovoltaic (TPV) SunCell®



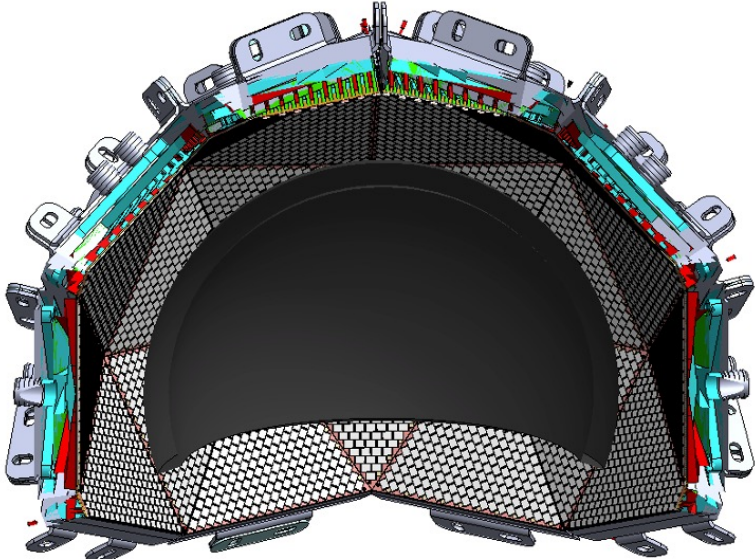
SunCell ® with TPV Converter



Cooling Side of Geodesic-Dome TPV Converter



Dense Receiver Array Element



Dense Receiver Array Side of Geodesic-Dome TPV Converter

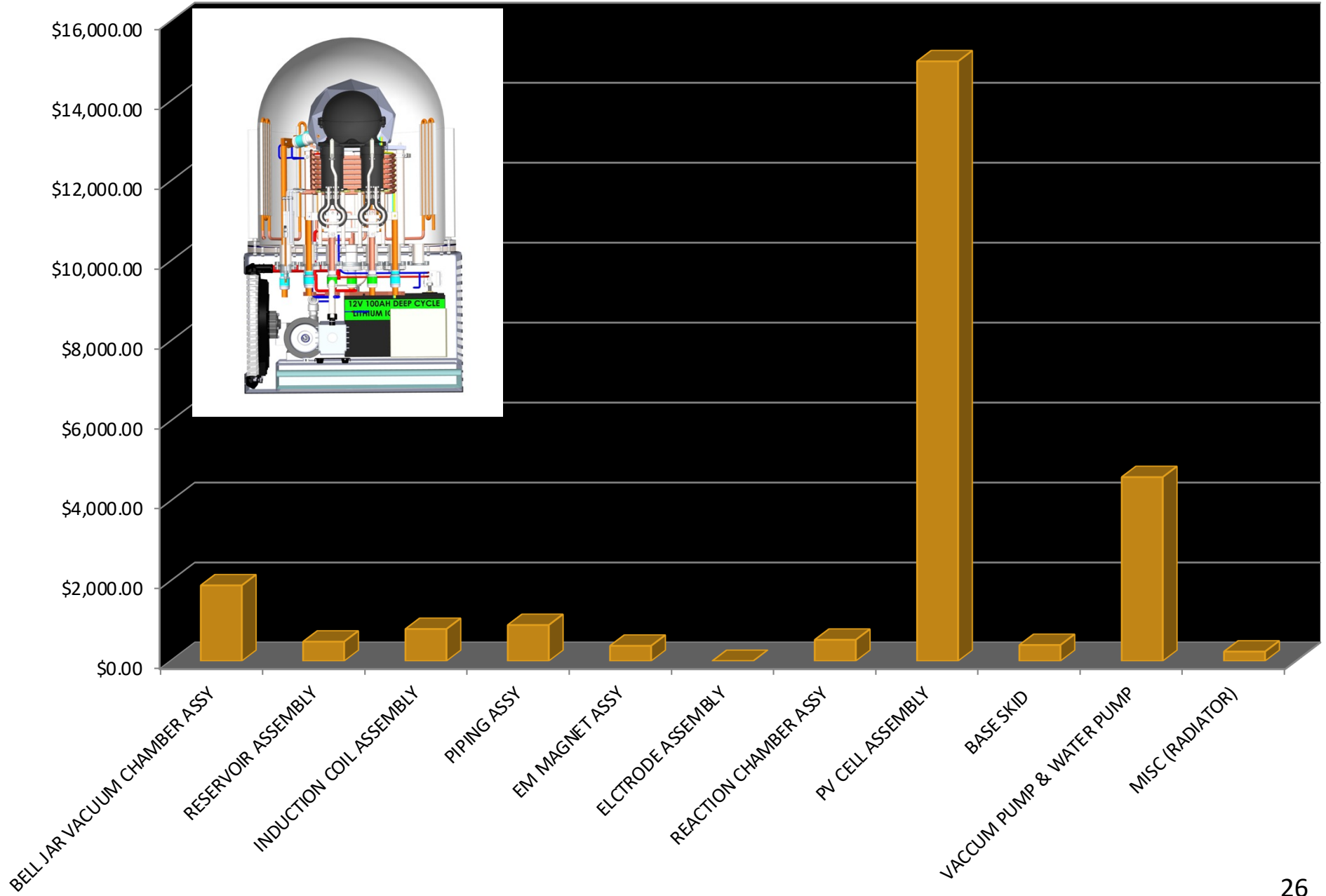
SunCell® CPV Cost Drops Dramatically with Scale

- At a volume of ~ 100 MW/yr, a three junction (III-V) SunCell® CPV converter is estimated to cost less than \$75 per kW (1000 Suns concentration, 60% efficiency with light recycling of 3000K blackbody emitter).
- At 10 GW annual production which is equivalent to the global annual deployment of c-Si solar, the cost of SunCell® CPV converter is estimated to cost less than \$32 per kW.
- The cost of single junction concentrator silicon at 500 Suns is estimated to be \$60 per kW with a dramatic drop with large production volume.



(Cost: Kelsey Horowitz, "A Bottom-up Cost Analysis of a High Concentration PV Module", CPV-11, 2015; NREL/PR-6A20-63947)

TOTAL COST 250KW SUN CELL AT SUB ASSEMBLY LEVEL



COST ANALYSIS FOR FIRST OF A KIND 250KW (500 Suns)



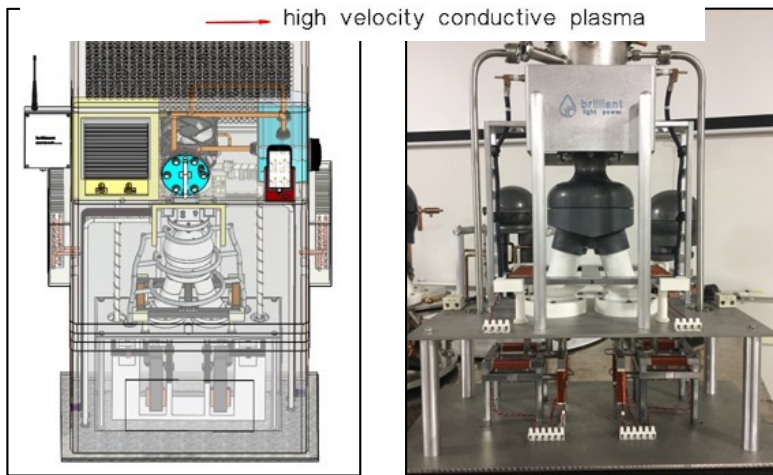
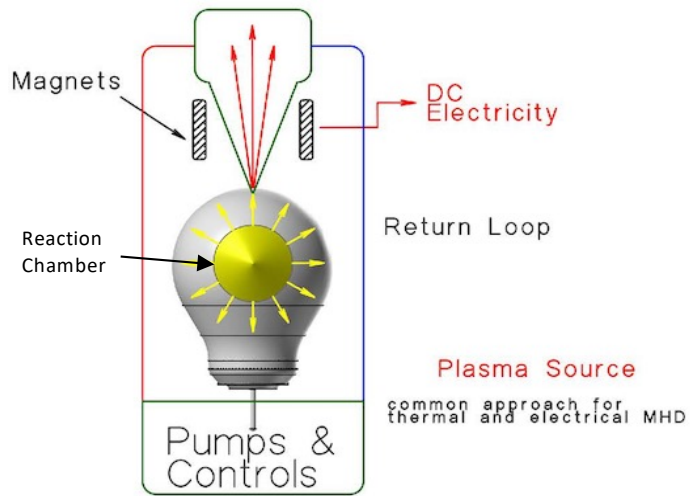
250KW SUN CELL COST ANALYSIS	
DESCRIPTION	TOTAL COST AT SUB ASSY LEVEL
BELL JAR VACUUM CHAMBER ASSY	\$1,891.47
RESERVOIR ASSEMBLY	\$484.17
INDUCTION COIL ASSEMBLY	\$800.00
PIPING ASSY	\$900.00
EM MAGNET ASSY	\$380.00
ELCTRODE ASSEMBLY	\$0.00
REACTION CHAMBER ASSY	\$530.00
PV CELL ASSEMBLY with PV WINDOW	\$15,000.00
BASE SKID	\$400.00
VACCUM PUMP & WATER PUMP	\$4,600.00
MISC (RADIATOR)	\$236.00
DESCRIPTION	TOTAL COST 250KW
TOTAL COST	\$25,221.64



Future Development: How the MHD SunCell® Works

Revolutionary DC Power Solution Potential for Even Higher Power Densities

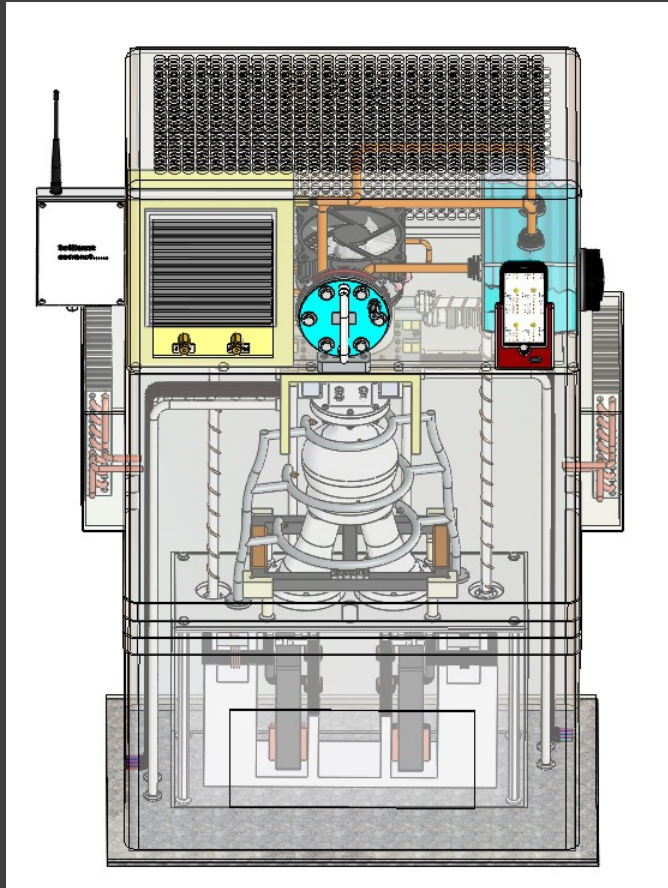
Direct power extraction (DPE) with no moving parts: breakthrough MHD cycle technology enabled by the SunCell® to directly convert thermal & kinetic power to electrical power



- We have invented a proprietary liquid metal nanoparticle magnetohydrodynamic (MHD) technology that has the prospect of power conversion at 23 MW/liter at near unity efficiency and costing less than 1/10 that of convention power conversion hardware.
- Oxygen absorbed by molten silver is released by the high temperature of the Hydrino®-reaction plasma.
- Oxygen causes molten silver to form molecular-like nanoparticles which in combination with released oxygen develop a high reaction chamber pressure.
- Expansion through a nozzle converts the power of the plasma into an extremely highly conductive kinetic flow at nearly unity efficiency.
- Supersonic flow through a magnetized channel with perpendicularly positioned electrodes converts the flow's kinetic energy into electricity at near unity efficiency.
- The silver reabsorbs oxygen and is pumped back to the reaction chamber as a liquid to close the power cycle.
- Prototype engineering design, drawings, and models have been developed.

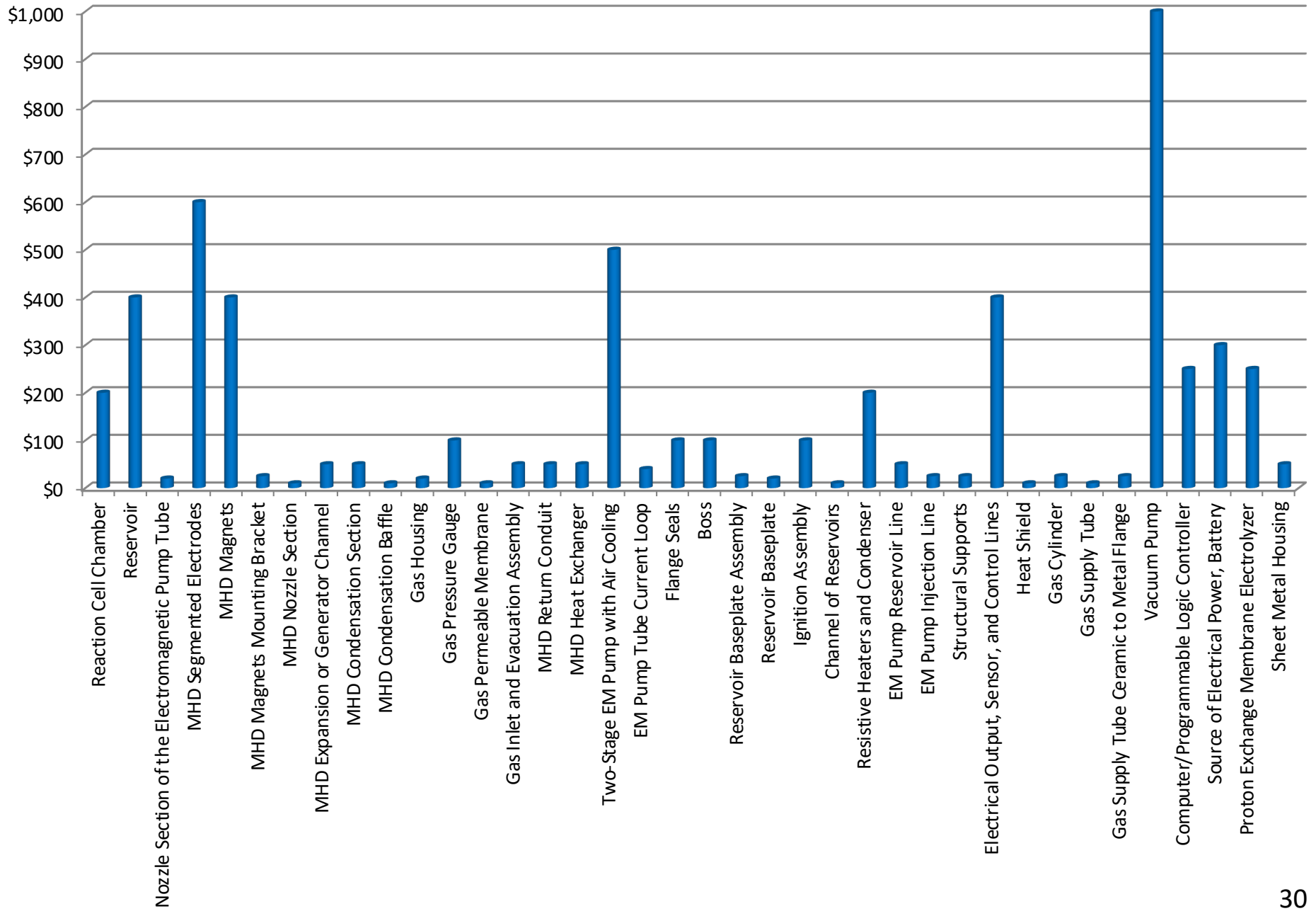
Development Models of MHD Electrical SunCell® Units

https://brilliantlightpower.com/pdf/MHD_Paper.pdf

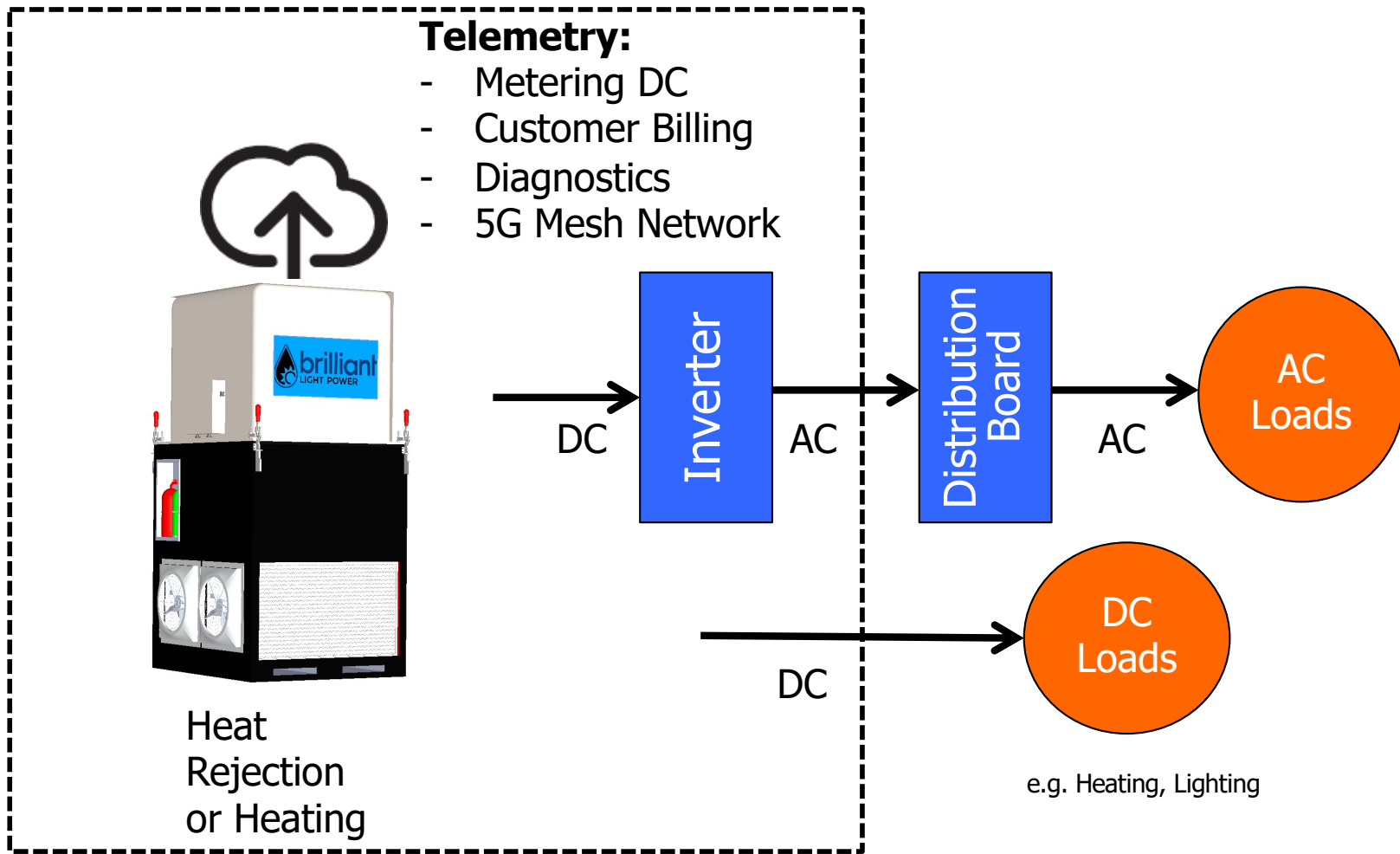


SunCell[®] with MHD Converter

FIRST OF A KIND MHD COMPONENT COST (<\$25/kW electric)



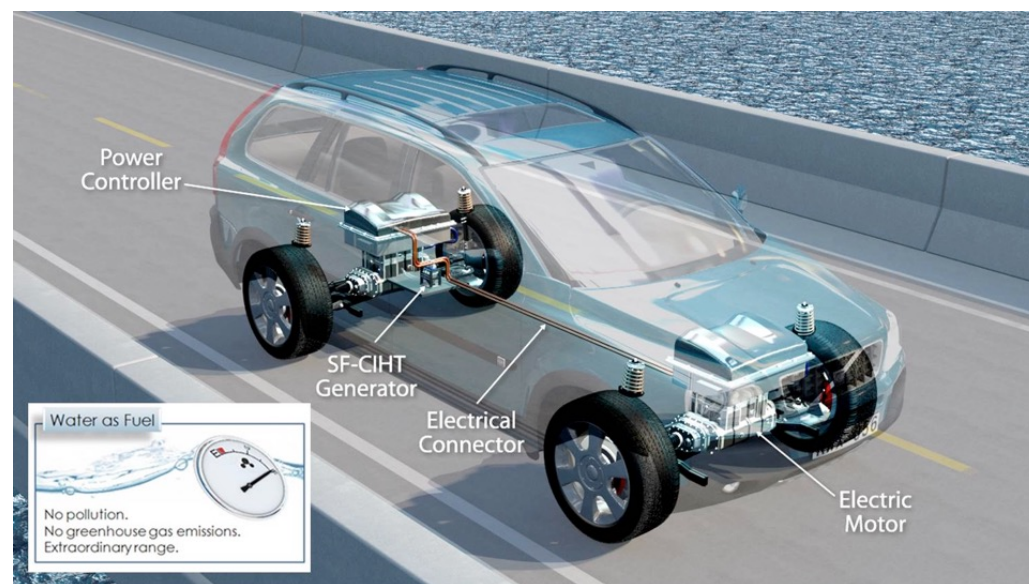
SunCell-TPV Turnkey System (Basic)



The SunCell® with an TPV converter can support either direct DC loads or AC loads with the addition of standard inverter technology as used by the solar industry today.

Motive Car Market Launch

- Over 2200 miles per liter of water.*
- Projected cost of \$~20 per kW electric.
- One third the weight of an internal combustion engine (ICE).
- Projected 250 kW (333 HP) SunCell and electric drive system is less than that of a comparable combustion system.
- Has the potential of unsurpassed capability in terms of range, capital cost, power, logistics, and pollution abatement to zero including zero carbon dioxide emission.



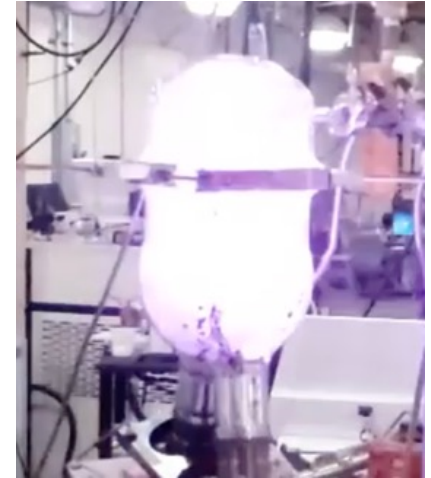
Given that cars only use about \$20k in fuel (\$2000/y), it makes more sense to sell with restrictions on use. Using the cost of the electric car battery, \$20k **which is also the fuel savings to the buyer**, as a reasonable price for a car SunCell and given the volume of 100M cars/year, the projected annual revenue is 100M x \$20k = \$2T/y.

***Calculations:** H_2O to $\text{H}_2(1/4) + 1/2\text{O}_2$ (50MJ/mole or 2.78 GJ/kg, 2.78 GJ/liter); Model S energy consumption rate of 291 Wh/mile (<http://www.teslamotors.com/goelectric#savings>)

1 Whr = 3600 J; Model S energy consumption rate of 1 MJ/mile; 2780 MJ/liter / (1 MJ/mile) X 0.8 (PV efficiency) = 2224 miles/liter

Thermal

- We have developed a 250 kW, direct SunCell[®] to steam boiler to produce hot water and steam for the corresponding thermal markets. The steam boiler is also capable of powering refrigeration, air conditioning, and cooling of data centers using absorption chillers to serve those markets.
- We have developed 250 kW, direct SunCell[®] to air heat exchanger to produce variable heated air in the range of 100 °C to 400 °C to service the balance of the \$4.8T/y thermal markets which corresponds to 1/2 of the world's power market with elimination of 1/3 of the world's CO₂ emissions.



World's First Closed SunCell 8/2018



250 kW Commercial Design

We believe that Brilliant's SunCell[®] is the most important energy technology ever.



Validation: Steam Loss Calorimetry Measured 210 kW of Continuous Steam Production by the Hydrino Reaction Maintained in a SunCell[®] Operated as a Boiler

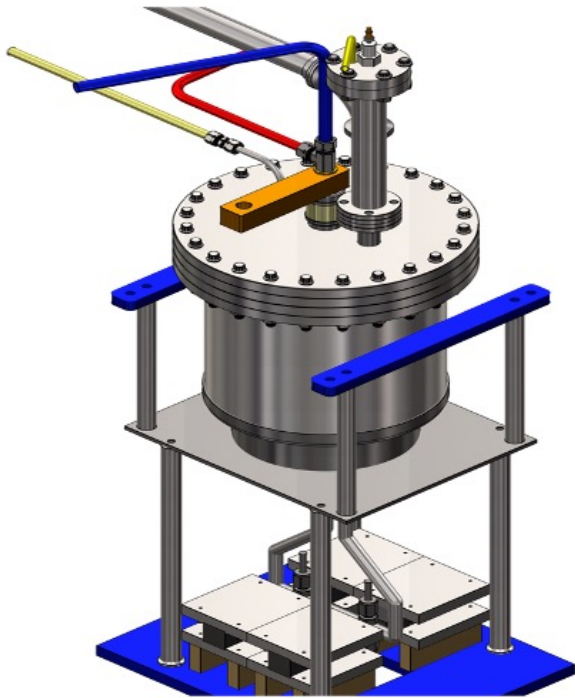


Dr. Mark Nansteel, Ph.D. University of California, Berkeley and heat transfer expert validated 210 kW of excess power produced by a hydrino plasma reaction maintained in a SunCell[®] using mass balance in the production of steam. The hydrino reaction was shown to be dependent on operating temperature and activation of the gas reactants by a glow discharge plasma. (https://brilliantlightpower.com/pdf/Report_on_Water_Bath_Calorimetry_12.04.20.pdf)



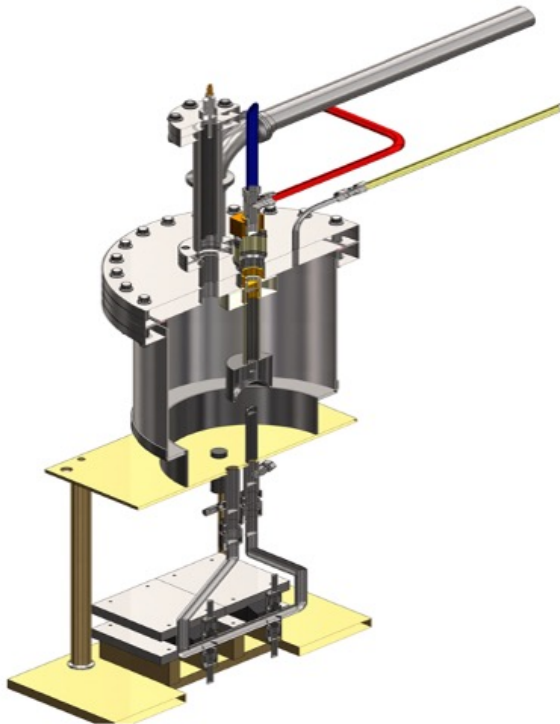
Steam production was maintained over a 100-hour duration in an internal field trial demonstrating the utility of SunCell[®] towards the goal of a commercial heater of over hundred kilowatts to service the greater than \$4.8T/y thermal market.

Discharge	Gallium Temperature (°C)	Duration (s)	Input Energy (kJ)	Output Energy (kJ)	Input power (kW)	Output Power (kW)	Power Gain	Net Excess Power (kW)
Yes	196	302	10,346	16,480	34.26	54.57	1.59	20.3
Yes	177	296	9341	18,708	31.56	63.2	2	31.7
No	458	167	6951	16,264	41.62	97.39	2.34	55.8
Yes	425	200	7800	26,392	39	131.96	3.38	93
Yes	716	50	3232	10,480	65	274.2	4.22	210



250 kW SUNCELL BOMS & COGS

Magnet Assembly	\$200
Pump tube	\$11.81
EM Pump tube Brackets	\$0.11
CF Flange Blank	\$82.61
CF Flange Bore Through	\$67.35
Reactor Chamber	\$27.12
Carbon/Tungsten Double Liner	\$400
Tungsten Electrode	\$118
Feedthrough	\$175
Nozzle	\$15
Gallium	\$150
Controller	\$150
Vacuum Pump	\$500
EM Pump Power Supply	\$1000
Ignition Power Supply	\$2000
Insulation	\$20
Total	\$4917



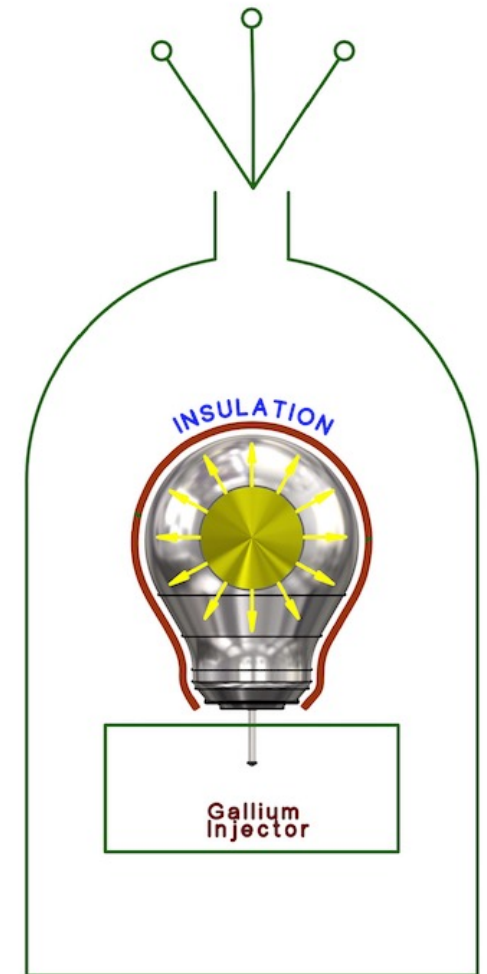
No moving parts, all parts are reusable or recyclable.



How the Thermal SunCell® Works

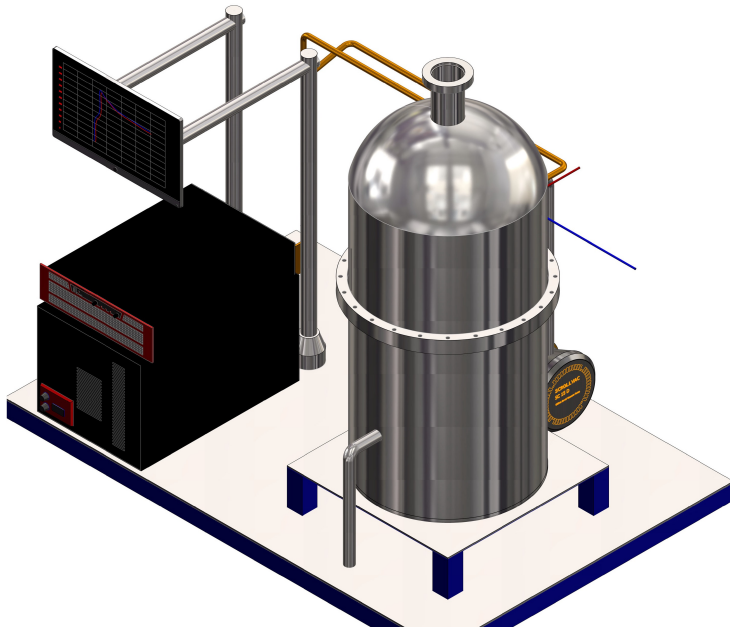
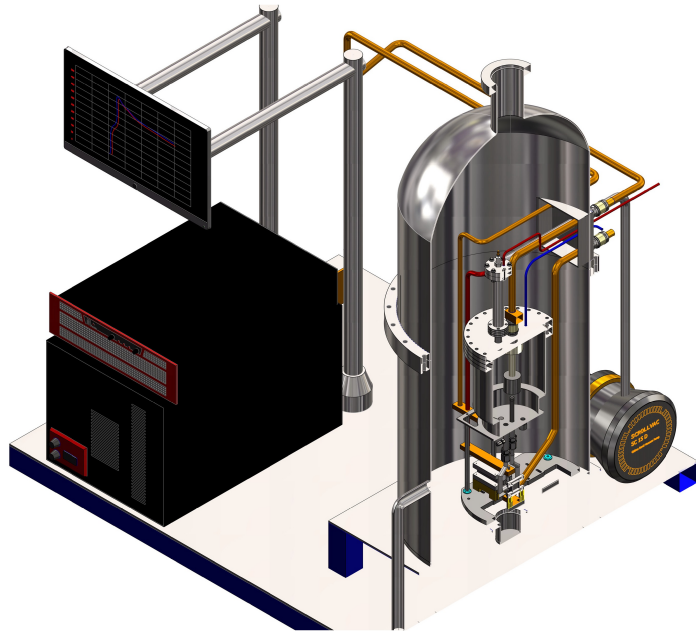
Thermal SunCell® Units with Steam Boiler

- A hydrogen and catalyst injector and an electromagnetic pump serves as an electrode that further injects molten gallium against a counter electrode to form a Hydrino®-reaction plasma in a reaction chamber that heats the gallium inventory in a reservoir to a high temperature such as 1000 °C.
- The gallium is recirculated internally to distribute the heat in the reaction chamber and the reservoir.
- The plasma and gallium become very elevated in temperature due to the power release with the reaction chamber thermally insulated.
- Heat exchange occurs at the outer surfaces of the reaction chamber and reservoir to cause water to boil to steam.
- The steam in a controllable pressure range of 0.5 to 15 atm exits a pipe at the top of the steam boiler pressure vessel containing the SunCell®.



250 kW SunCell with Steam Boiler (0.5-15 atm)

250 kW SUNCELL Steam Boiler BOMS & COGS



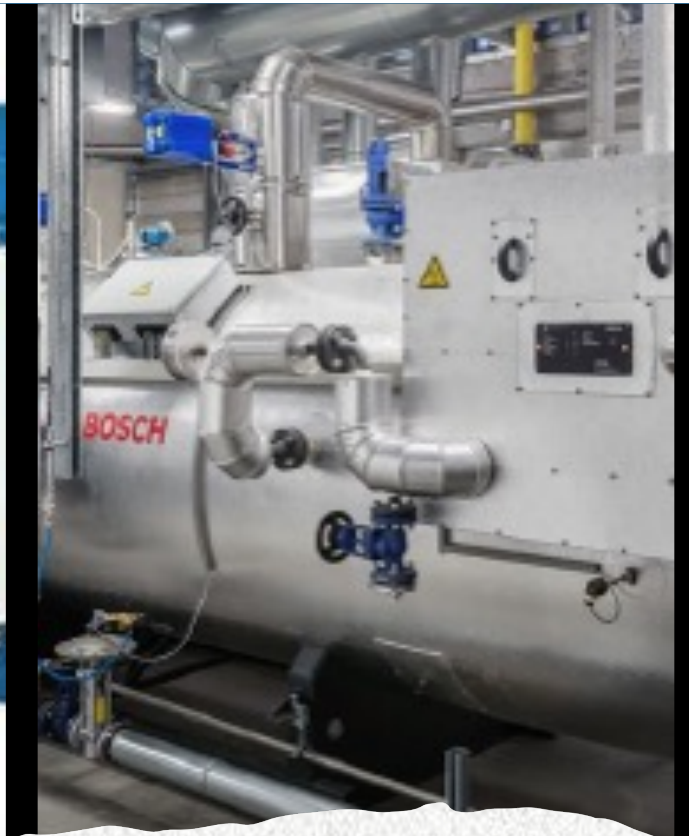
Frame	\$551
SS Steam chamber	\$1000
Electrical Connection Assembly	\$200
Magnet Assembly	\$200
Pump tube	\$11.81
EM Pump tube Brackets	\$0.11
CF Flange Blank	\$82.61
CF Flange Bore Through	\$67.35
Reactor Chamber	\$27.12
Carbon/Tungsten Double Liner	\$400
Tungsten Electrode	\$118
Feedthrough	\$175
Nozzle	\$15
Gallium	\$150
Controller	\$150
Vacuum Pump	\$500
EM Pump Power Supply	\$1000
Ignition Power Supply	\$2000
Insulation	\$20
Total	\$6668

No moving parts, all parts are reusable or recyclable.

+
◦

Commercial Pilot Steam Boiler





Cooling Market

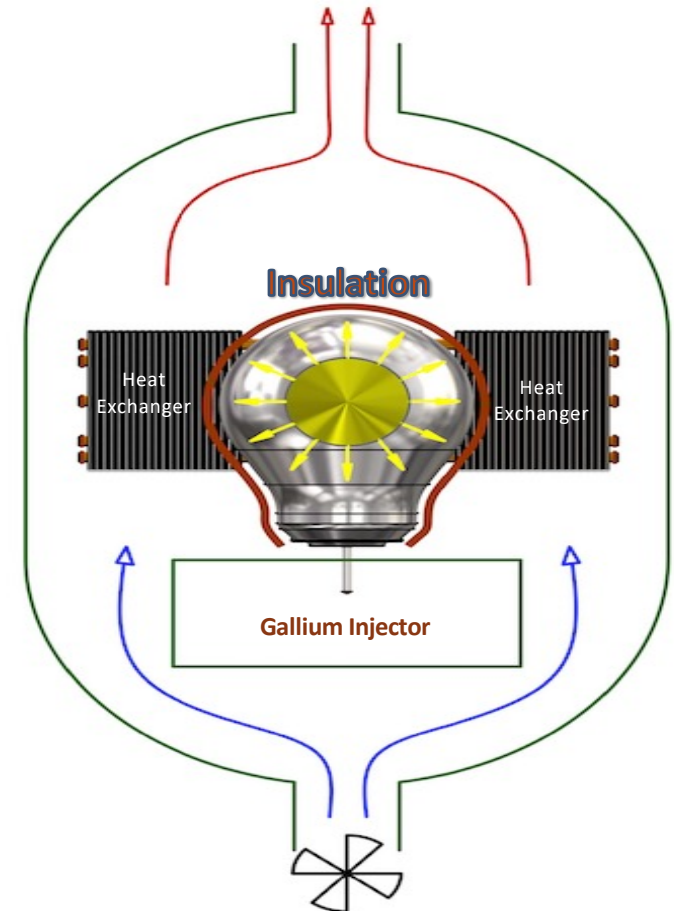
- Beyond direct thermal, the heat from the SunCell® can serve cooling markets.
- A low pressure (1 -3 atm) steam boiler thermally powered by a SunCell® has cooling applications such as refrigeration, air conditioning, and cooling data centers by mating the boiler to a commercial absorption chiller.
- The economics, maintenance, logistics, and environment aspects may be superior compared to electrical-powered chillers.



How the Thermal SunCell[®] Works

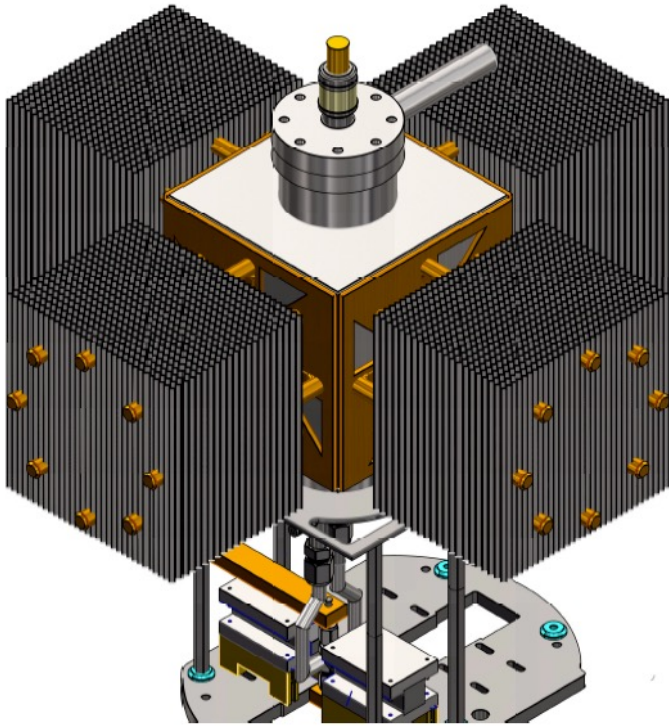
Thermal SunCell[®] Units with Surface-Mounted Heat Pipe Heat Exchanger

- A hydrogen and catalyst injector and an electromagnetic pump serves as an electrode that further injects molten gallium against a counter electrode to form a Hydrino[®]-reaction plasma in a reaction chamber that heats the gallium inventory in a reservoir to a high temperature such as 1000 °C.
- The gallium is recirculated internally to distribute the heat in the reaction chamber and the reservoir.
- The plasma and gallium become very elevated in temperature due to the power release with the reaction chamber thermally insulated.
- Heat exchange occurs at the outer surfaces of the reaction chamber and reservoir wherein plasma and molten metal transfer heat to the surfaces at very high rates.
- Heat is removed from the surfaces by surface-mounted heat pipe heat exchangers
- The heat is transferred to air flowed through the heat exchangers by a blower.
- Variable temperature heated air in the controlled temperature range 100 °C to 400 °C exits a pipe at the top of cowling containing the SunCell[®] and heat exchangers.

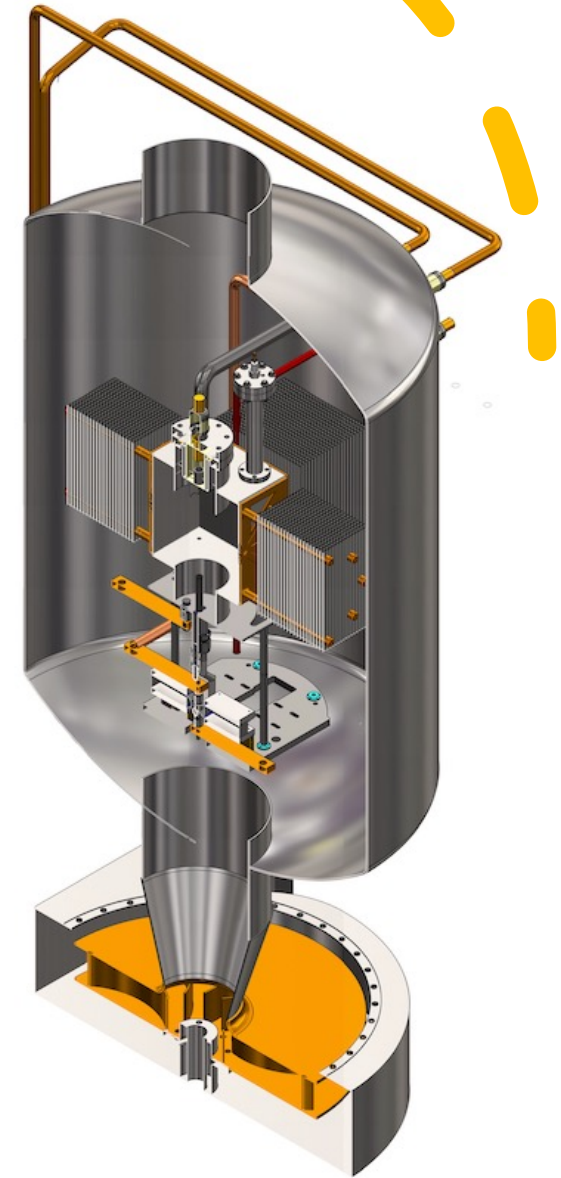


250 kW SunCell with 100°C to 400 °C variable temperature air

250 kW SUNCELL-Heat Pipe Heat Exchanger BOMS & COGS



Aluminum Sheet	\$482.32
Copper Plate	\$378
Alloy 600 Tube	\$500
Capillary Wicks	\$2,165
Potassium Working Fluid	\$10
Frame	\$551
Chamber	\$250
Electrical Connection Assembly	\$200
Magnet Assembly	\$200
Pump tube	\$11.81
EM Pump tube Brackets	\$0.11
CF Flange Blank	\$82.61
CF Flange Bore Through	\$67.35
Reactor Chamber	\$27.12
Tungsten Double Liner	\$300
Tungsten Electrode	\$118
Feedthrough	\$175
Nozzle	\$15
Tin	\$20
Controller	\$150
Vacuum Pump	\$500
EM Pump Power Supply	\$1000
Ignition Power Supply	\$2000
Insulation	\$20
Total	\$9,223.32



No moving parts, all parts are reusable or recyclable.

Brilliant Light Power's Path Forward

- Our first goal is to pursue commercial thermal and absorption chiller power sources and electrical power sources for essentially all power markets at the modular scale of 100-250 kW.
- SunCell-Boiler, SunCell-Air Heat Exchanger, and SunCell-TPV Electric Power systems are capable of being commercialized using known vendor-supplied components given in the corresponding bill of materials.
- The commercial packaging is being performed internally while incorporating changes from a certification company such as Intertek to be contracted to process UL approval.



We believe that Brilliant's SunCell® is the most important energy technology ever.



Brilliant Light Power's Path Forward

- We are outsourcing control systems to a service automation company such as Beckhoff.
- We plan to outsource fabricated parts and assembly to large contract manufacturers such as Sanmina and Jabil.
- To launch commercialization, we are pursuing validation through industry testing of the steam boiler.
- Theory resistance will be addressed by further independent Hydrino analytical validation.



We believe that Brilliant's SunCell® is the most important energy technology ever.

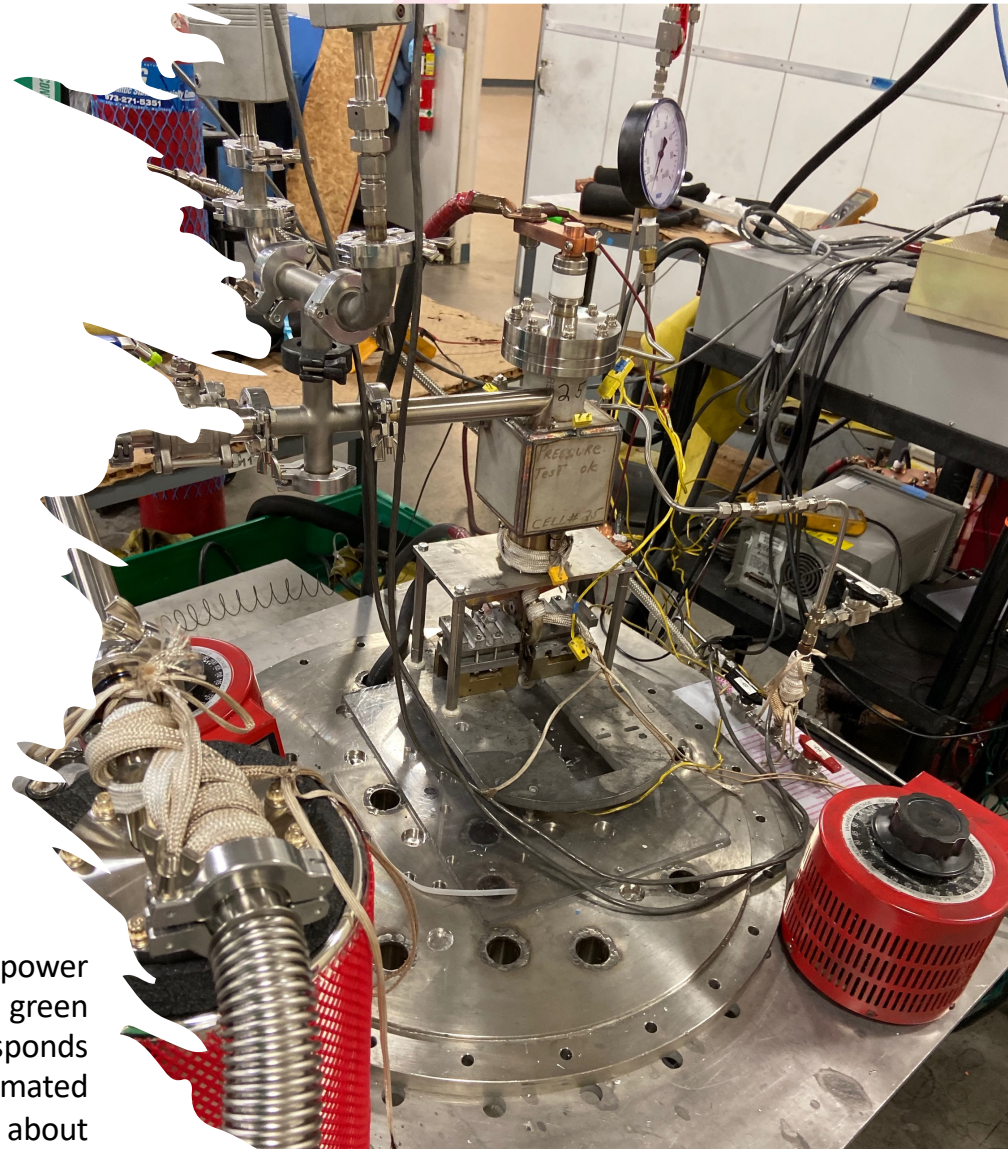


THE SUNCELL® can Revolutionize Renewable Power Prices and Deployment

Drop-in and Pay for Itself in a Week of Operation

- The SunCell® is dirt cheap, (\$20-200 per KW depending on the application), the fuel is water, there is no pollution, no fuel infrastructure connection, and no grid connection which means no Federal regulation. With a time-based lease and no metering, a local installation permit is all that is needed.
- The formula for revenue is Cell power in kilowatts X 24 h/day X 365 d/y X \$/kWh
- So take our cells that make 300 kW at a typical \$0.1/kWh for either heat or electricity, the corresponding projected revenue is
 - $300 \times 24 \times 365 \times 0.1 = \$263,800$ per year
 - In the case of \$0.12/kWh, the projected revenue is
 - $300 \times 24 \times 365 \times 0.12 = \$315,360$ per year
 - In Hawaii, Japan, Germany, Caribbean, power cost can be \$0.35/kWh, and the corresponding projected revenue is
 - $300 \times 24 \times 365 \times 0.35 = \$919,800$ per year
 - As an approximate rule, the SunCell is projected to generate a dollar per watt per year.
 - We believe that 100 M cells can be manufactured per year.

An interesting aspect of the SunCell when considering that the world power capacity is about 15 terawatts is that the cost to convert the world to green power is inexpensive and can occur quickly since world capacity corresponds to only 60 M SunCells which can be manufactured in a year at an estimated cost of \$210 B. (cost of thermal and electrical are expected to be about equivalent using an TPV converter).



Patent Portfolio Summary

International Application No.	National Phase Countries Pending/Granted	Currently Granted In
PCT/US08/61455	AU, GC, HK, ID, IN, KR, MX, SG, TW, US, ZA	AU, HK, IN, ID, KR, MX, SG, ZA, TW
PCT/US09/52072	AR, AP, AU, BS, CN, CG, EA, GC, HK, ID, IN, IL, JM, JP, KR, MO, MX, PA, PK, SG, US, TH, VE	AP, AU, CN, EA, GC, HK, ID, KR, MO, MX, PA, TW, ZA
PCT/US10/27828	AP, EA, HK, ID, IN, MX, SG, US, ZA	AP, EA, ID, MX, ZA
PCT/US11/28889	AU, CN, EP, HK, ID, IN, IL, KR, MX, SG, US	CN, EP (DE, ES, FR, GB, IR, IT, ND), HK, ID, IL, MX, SG
PCT/US12/31639	CN, EA, AW, EP, GC, HT, HK, ID, JM, SG, US	AW, GC, ID
PCT/US2013/041938	CN, EA, JP, TW, US, ZA	EA, JP, TW, ZA
PCT/US2014/032584	AU, BR, CA, CN, EA, EP, HK, ID, IN, IL, JP, KR, MX, TW, US, ZA	CN, EP (DE, DK, CH, ES, FR, GB, IR, IT, ND), TW, ZA
PCT/IB2014/058177	AR, BR, CA, CN, EA, EP, HK, ID, IN, IL, JP, KR, MX, TW, US, ZA	CN, HK, TW, US
PCT/US2015/033165	AU, BR, CA, CN, EA, EP, HK, ID, IN, IL, JP, KR, MX, PK, SG, TW, US, ZA	CN, HK, ZA, US
PCT/US2016/012620	AE, AU, BR, CA, CN, EA, EP, HK, ID, IN, IL, JP, KR, KW, MX, OM, QA, SA, SG, TW, UE, US, ZA	JP, ZA
PCT/US2017/13972	AU, BH, BR, CA, CN, EA, EP, ID, IN, IL, JP, KR, KW, MX, OM, QA, SA, SG, TW, US, ZA	ZA
PCT/US17/35025	CA, CN, EP, JP, KR, MX, US, TW	
PCT/US18/17765	AU, BR, CA, CN, EA, EP, ID, IN, IL, JP, KR, MX, SG, TW, US	
PCT/IB2018/059646	AR, AU, BR, CA, CN, EA, EP, ID, IN, JP, KR, MX, SG, TW, US, ZA	
PCT/US04/010608	EA, JP, KR, SG, ZA	EA, KR, SG, ZA
PCT/US02/06955	AP, EA, KR, MX, TR, ZA	AP, EA, MX, ZA, TK
PCT/US04/035143	US	US
PCT/US01/09055	AU, IN, ZA	
PCT/US18/12635	US, EP, HK	
PCT/IB20/50360	TW, 30 Month Date in June 2021	



brilliant

LIGHT POWER

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- Reinventing thermal and electrical power:
- *safe, accessible, affordable, clean*