Industry Day October 26, 2016
SunCell® Power Source

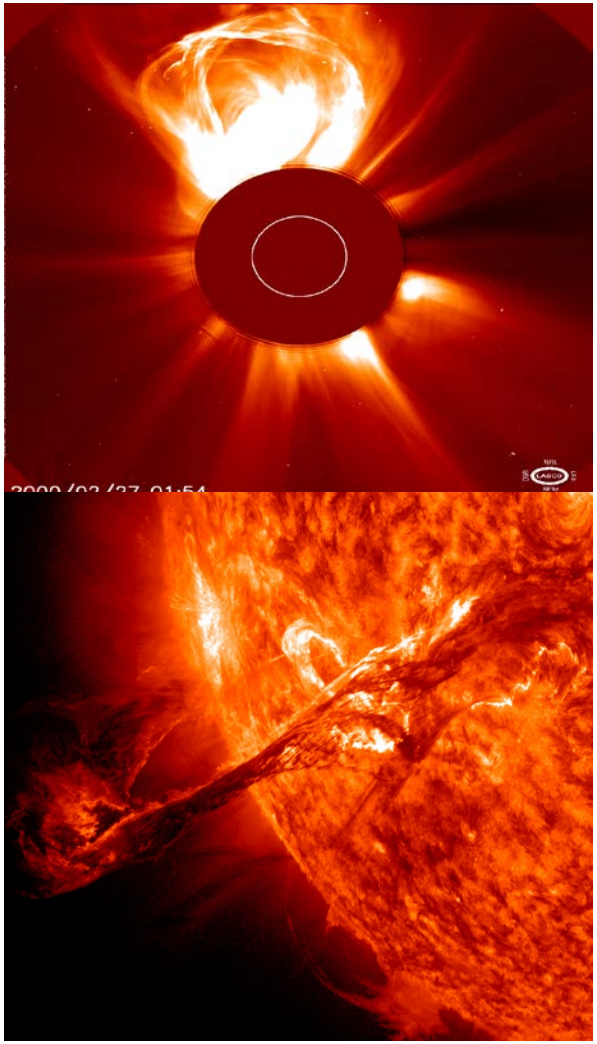
Safe Harbor Statement

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.

A for Astrophysics

The Power of the Sun and Mysteries Solved

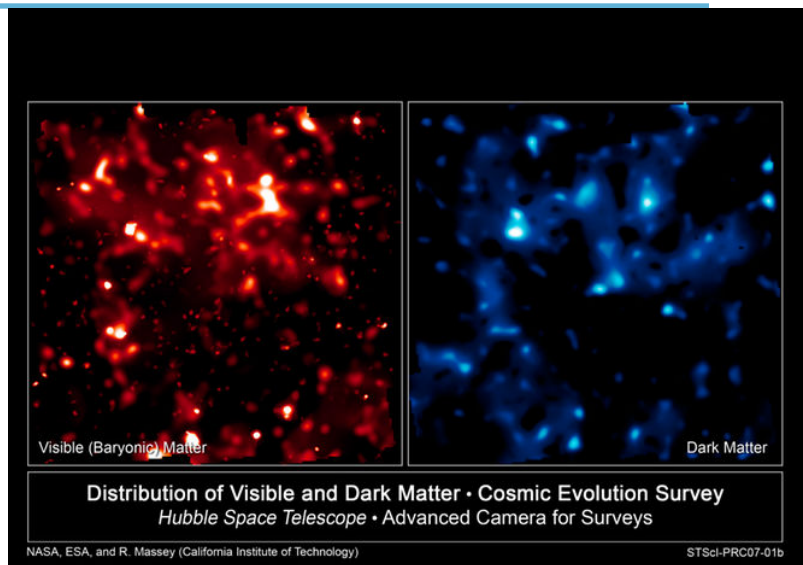
- The Sun is almost entirely comprised of hydrogen. Conventionally, the power of the Sun derives from nuclear fusion at its core.
- However, the gaseous atmosphere surrounding the Sun called the corona and extreme events called solar flares are capable of emitting power that dominates the total power that the Sun is capable of outputting.
- Moreover, the corona comprises plasma with ions that require temperatures of millions of degrees to form in contradiction to other temperature measurements indicating that the corona is cooler than the Sun surface temperature of 5600K as it should be.

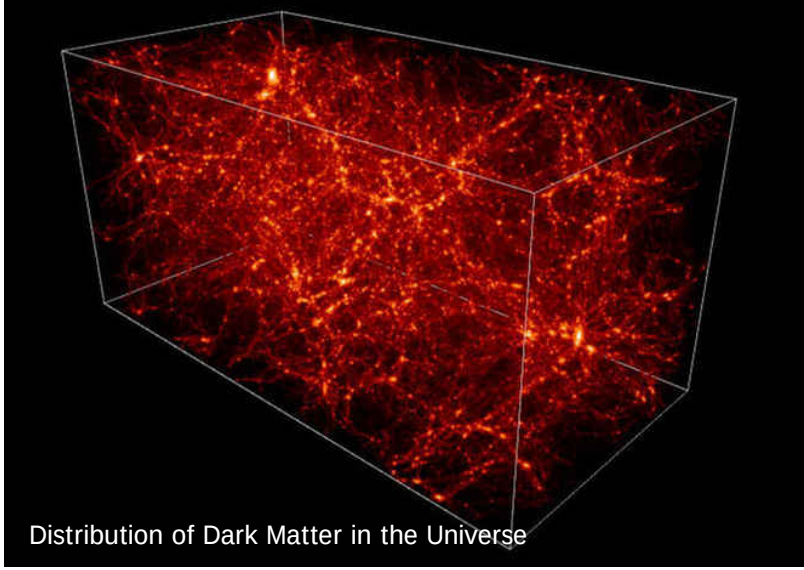


The Power of the Sun and Mysteries Solved

- The basis is the formation of hydrinos, a more stable energy state of hydrogen atoms formed by a catalytic process called the BlackLight Process, that release extraordinary power in the form high energy light in the extreme ultraviolet region that ionizes the corona gas to form the highly charged ions.

- On Earth Brilliant Light Power, Inc. is using water as the source of hydrogen to form hydrinos as a new primary energy source being developed commercially. The hydrino product of the reaction in the celestial and terrestrial cases comprises the pervasive “dark matter” of the universe.





Distribution of Dark Matter in the Universe

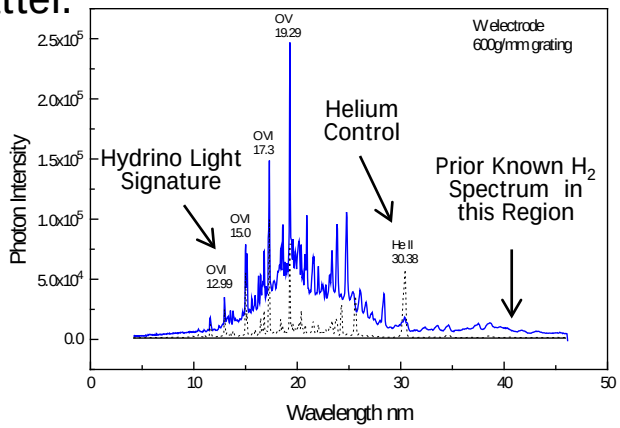
Dark Matter Ring in Galaxy Cluster

This Hubble Space Telescope composite image shows a ghostly "ring" of dark matter in the galaxy cluster Cl 0024+17. The ring is one of the strongest pieces of evidence to date for the existence of dark matter, a prior unknown substance that pervades the universe.

Characteristic EUV continua of hydrino transitions following radiationless energy transfer with

cutoffs at $\lambda = \frac{91.2}{m^2}\ nm\ (m = \text{integer})$ are

observed from hydrogen plasmas in the laboratory that match significant celestial observations and further confirm hydrino as the identity of dark matter.



M. J. Jee et al., Discovery of a ringlike dark matter structure in the core of the galaxy cluster C1 0024+17, Astrophysical Journal, 661, (2007) 728–749.

R. L. Mills, Y. Lu, K. Akhar, Spectroscopic observation of helium-ion- and hydrogen-catalyzed hydrino transitions, Cent. Eur. J. Phys., 8, (2010) 318–339, DOI: 10.2478/s11534-009-0106

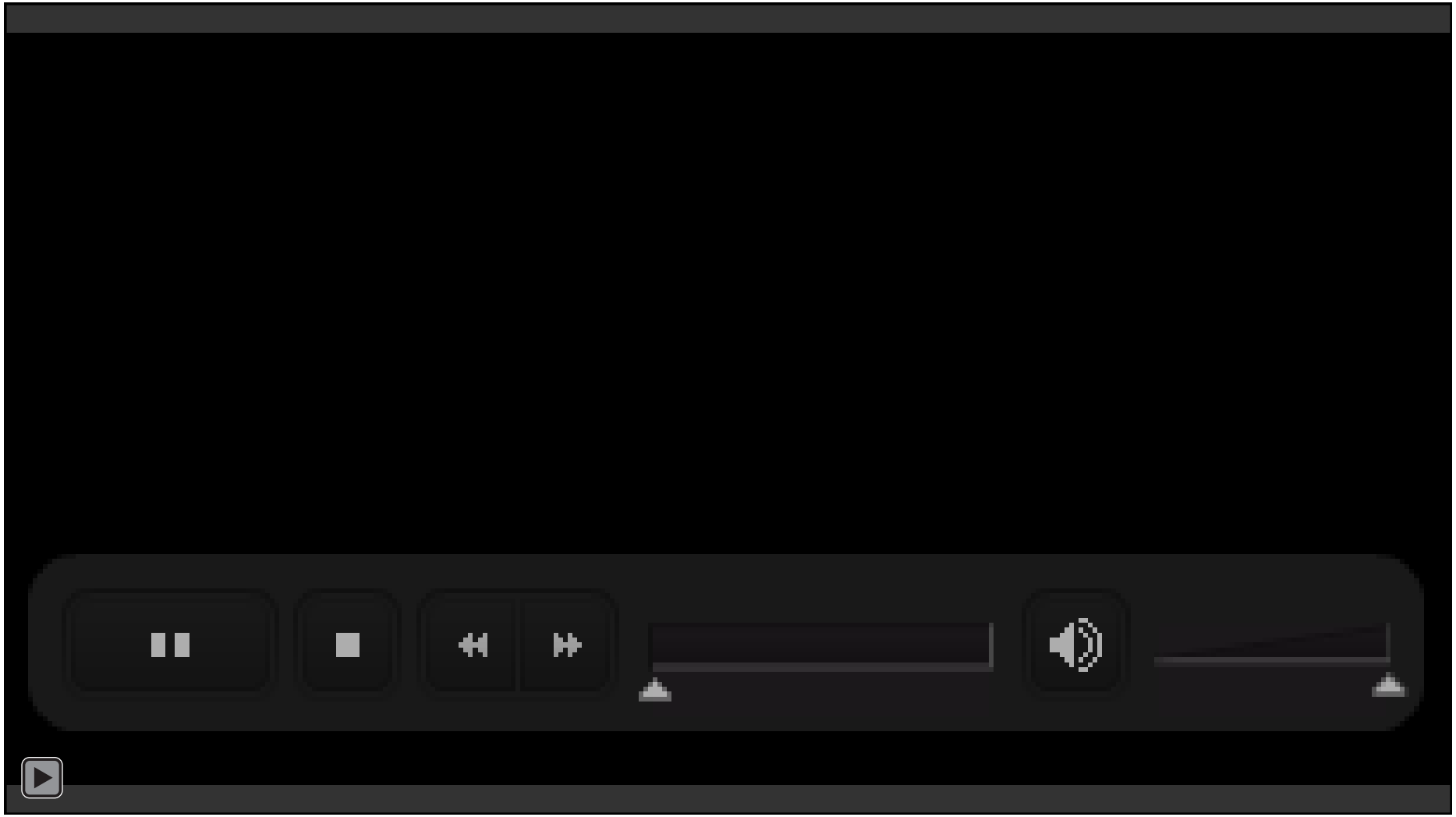
R. L. Mills, Y. Lu, "Time-Resolved Hydrino Continuum Transitions with Cutoffs at 22.8 nm and 10.1 nm," Eur. Phys. J. D, 64, (2011), pp. 65, DOI: 10.1140/epjd/e2011-20246-5.

R. L. Mills, Y. Lu, Hydrino Continuum transitions with cutoffs at 22.8 nm and 10.1 nm, Int. J. Hydrogen Energy, 35 (2010) 8446–8456, doi: 10.1016/j.ijhydene.2010.05.098.

F. Bournaud et al., Missing mass in collisional debris from galaxies, Science, 316, (2007) 1166–1169.

B for Blackbody Light Output

Hydrino Reaction is More Powerful than any Known Energy Source



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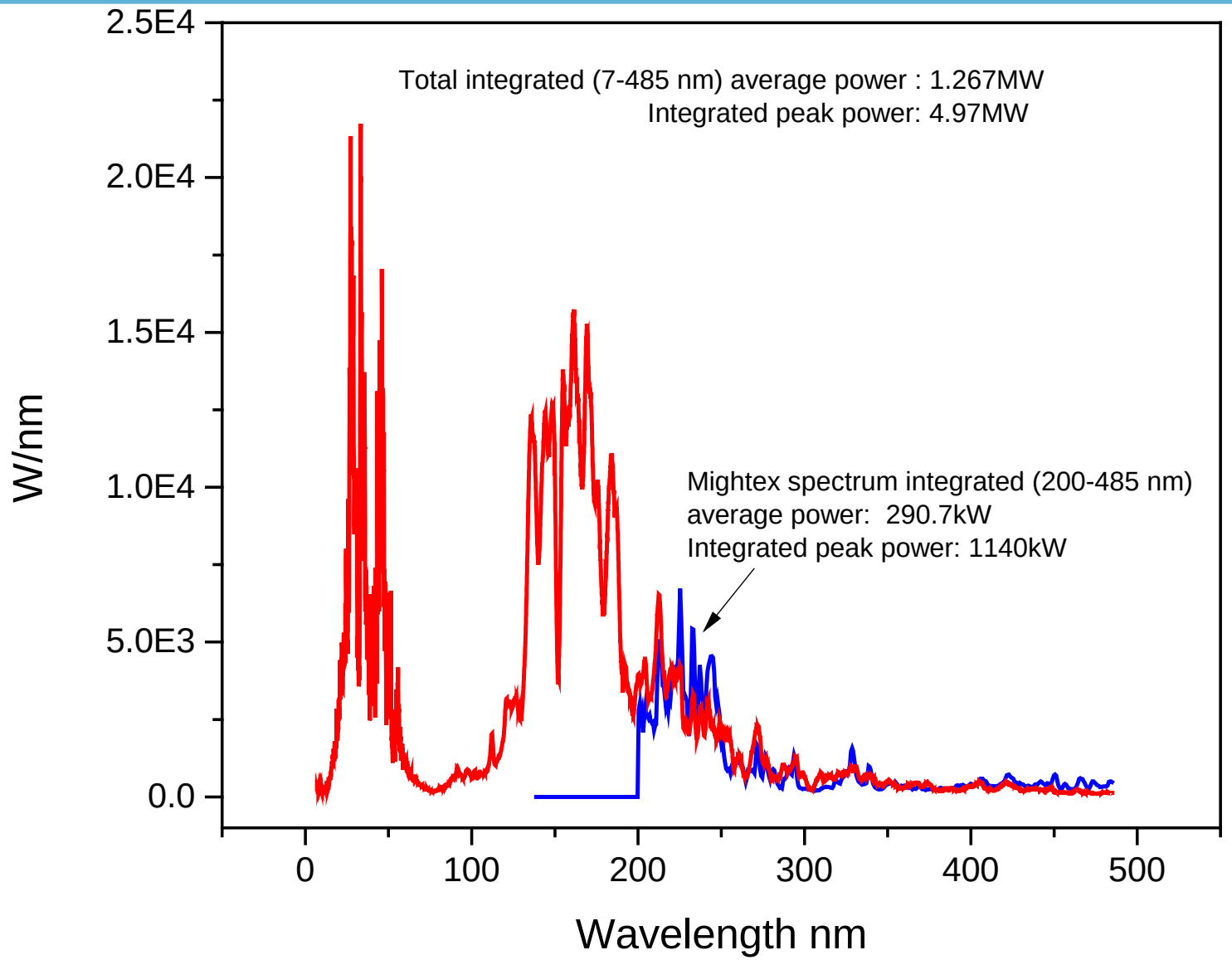
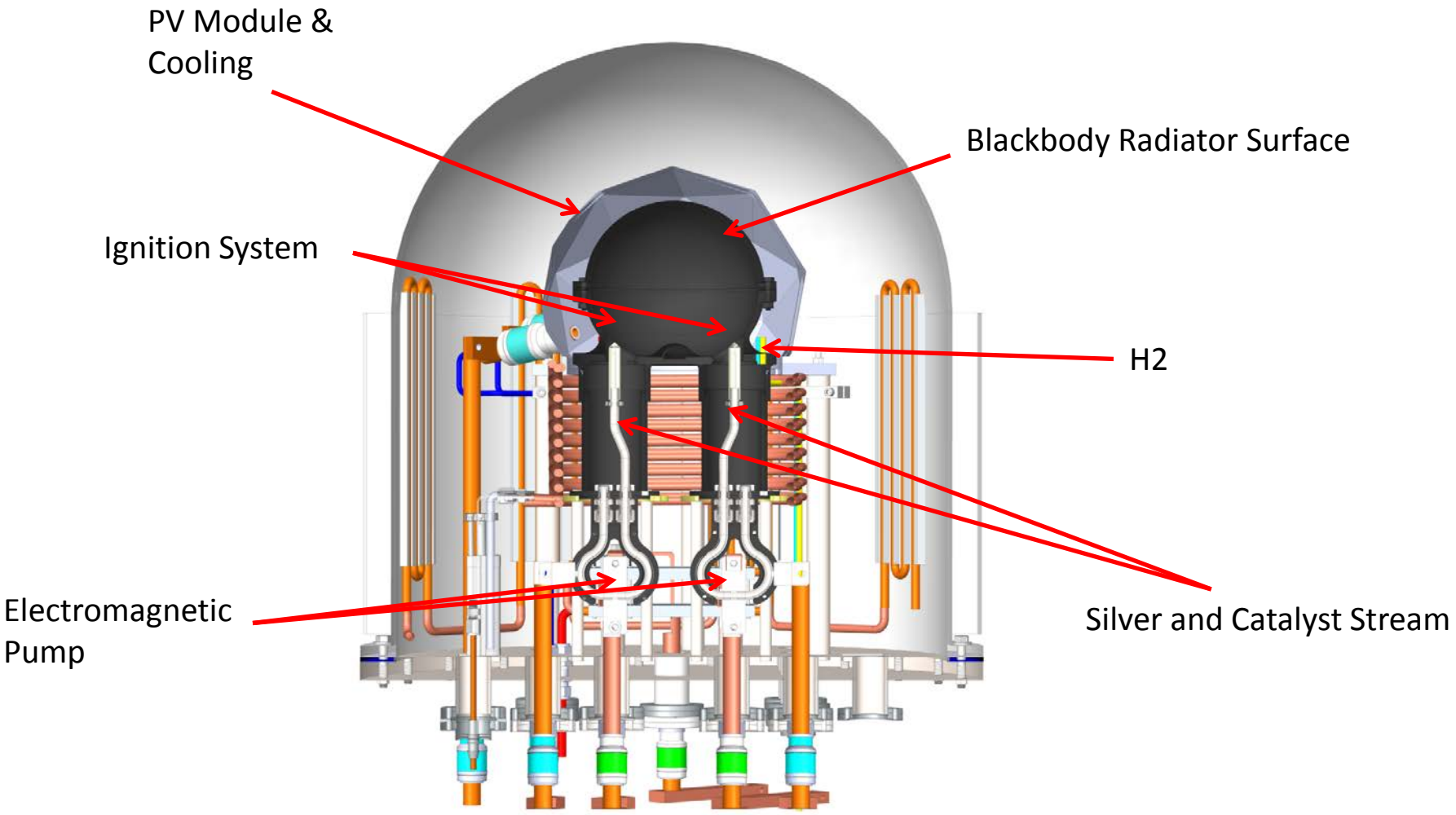
Optical Power Measurement Using NIST Standard Over the UV Region

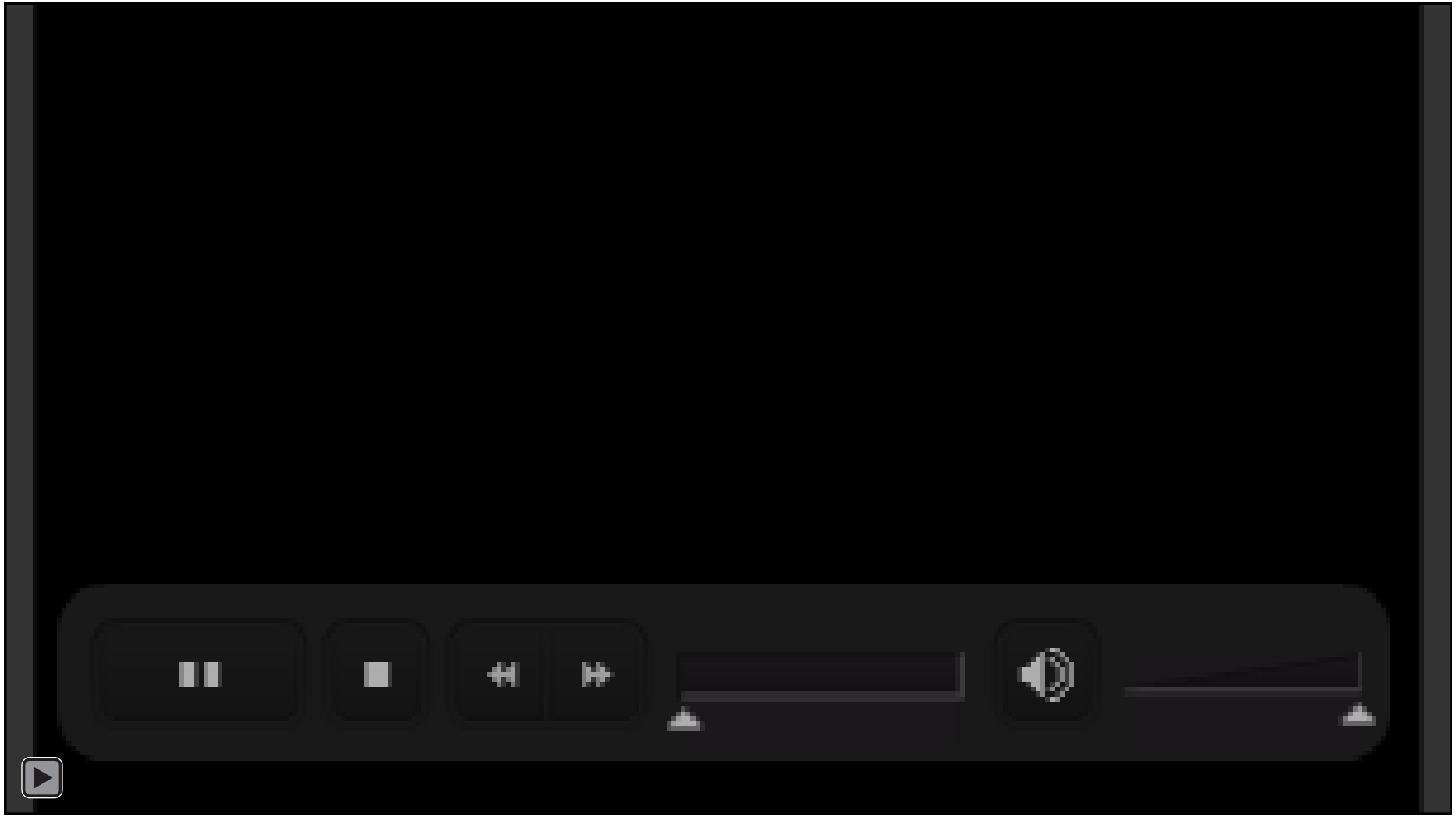


System Design of SunCell®

- The SunCell® was invented and engineered to harness this clean energy source of optical power of thousands of Sun equivalents that can be directly converted to electrical output using commercial photovoltaic cells.
- The SunCell® comprises six fundamental low-maintenance commercially available systems, some having no moving parts and capable of operating for a decade or more: (i) a start-up inductively coupled heater to first melt silver; (ii) a gas injector to inject hydrogen derived from water and an injection system comprising an electromagnetic pump to inject molten silver and a very stable solid source of oxygen that reacts with the hydrogen to form the hydrogen to hydrino catalyst; (iii) an ignition system to produce a low-voltage, high current flow across a pair of electrodes into which the molten metal and fuel are injected to form a brilliant light-emitting plasma; (iv) a blackbody radiator heated to incandescent temperature by the plasma; (v) a light to electricity converter comprising so-called concentrator photovoltaic cells that receive light from the blackbody radiator and operate at light intensity of over one thousand Suns; and (vi) a fuel recovery and a thermal management system that causes the molten metal to return to the injection system following ignition.


PV Module &
Cooling
Blackbody Radiator Surface
Ignition System
H2
Electromagnetic
Pump
Silver and Catalyst Stream

SunCell Demonstration at Columbia Tech July 20th (Side View)



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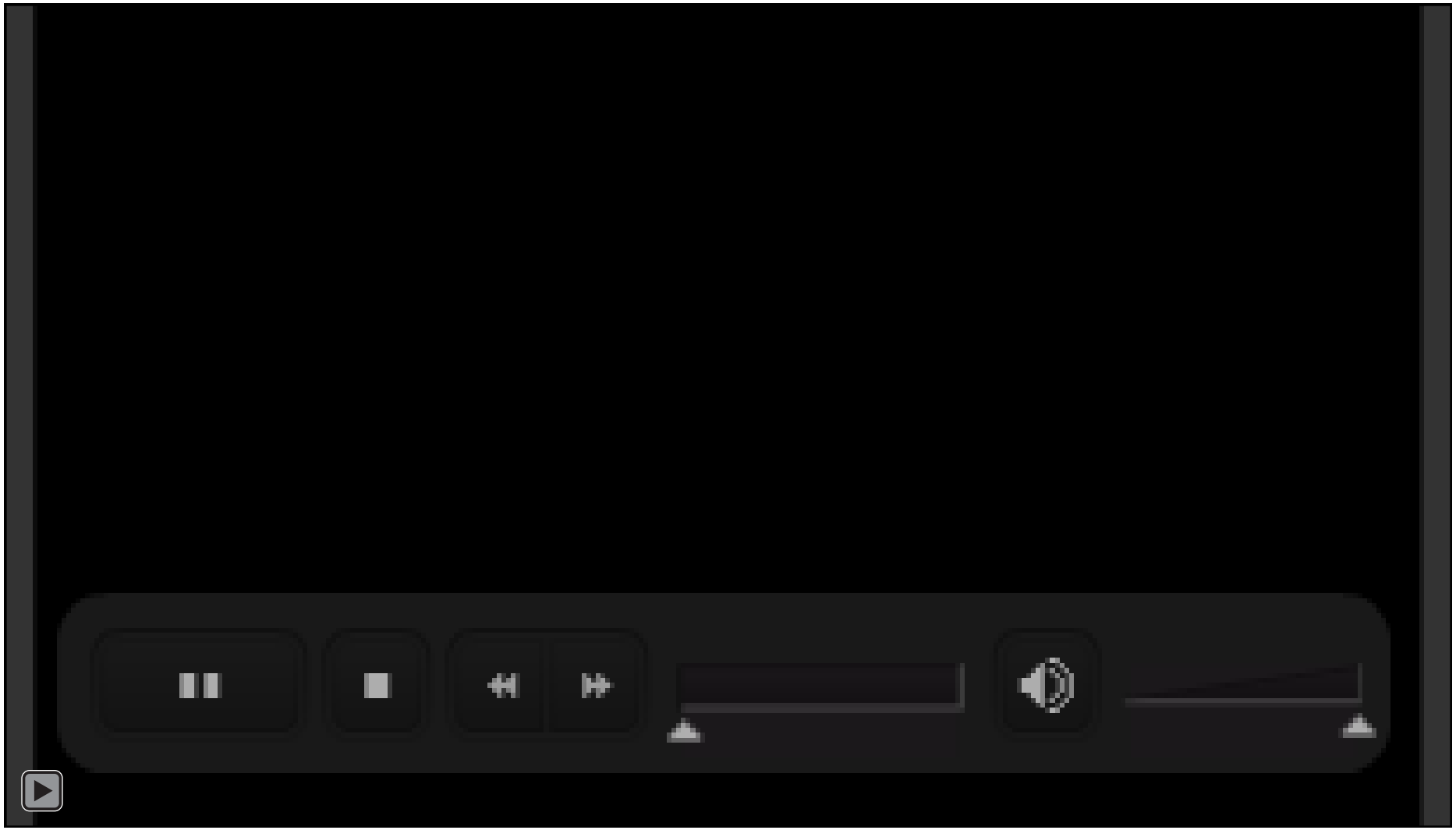
SunCell Demonstration at Columbia Tech July 20th (Top View)



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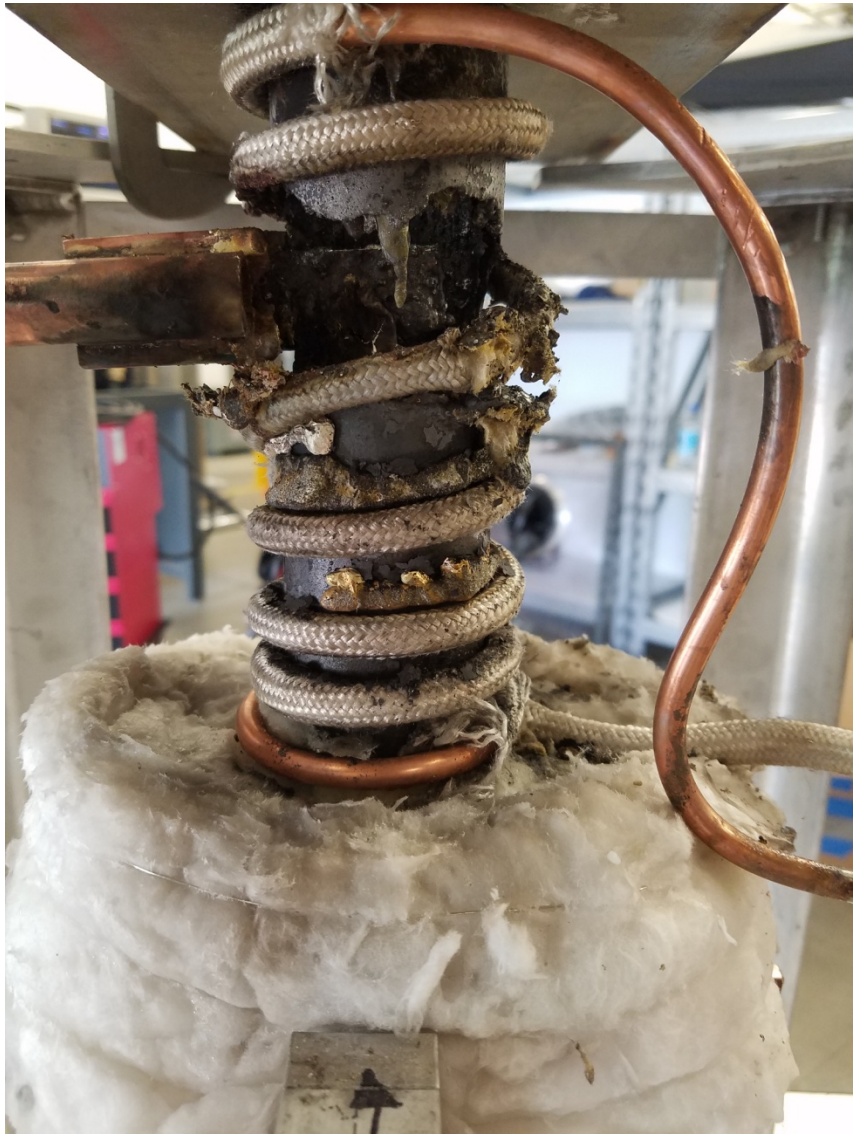
SunCell Demonstration at Columbia Tech July 20th



Plasma Created by the SunCell is Hotter than the Surface of the Sun

The extraordinary power density and plasma temperature of the hydrino reaction is capable of heating a blackbody radiator to the temperature of an incandescent tungsten halogen light bulb over an area of thousands of times that of a light bulb. The light is incident a photovoltaic converter comprising a geodesic dome, dense receiver array comprising packed triangular photovoltaic cell elements.

C for Conversion to Electricity

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".

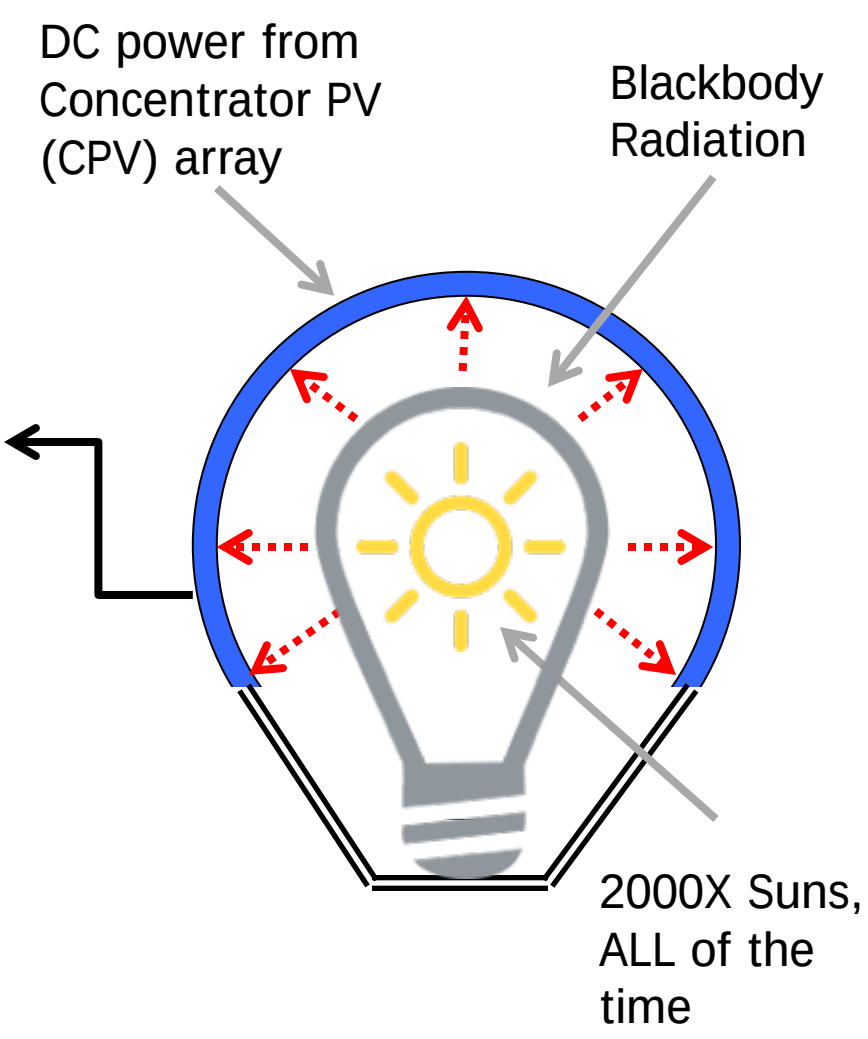
Jasper Power Project, South Africa's Northern Cape
96 MW on 247 acres (about 1 million m^2)

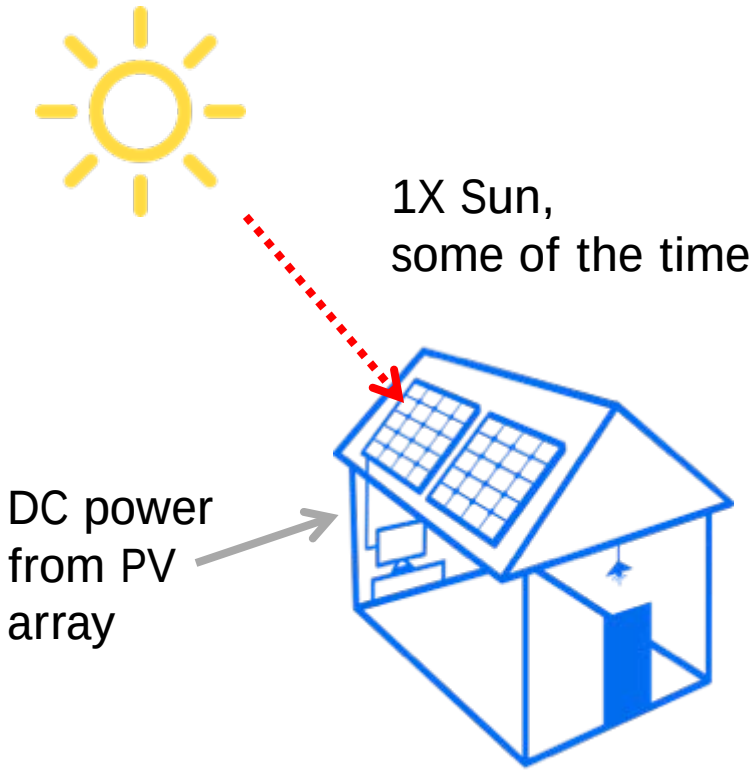
Solar Power

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 typically comprise three layers or junctions 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 m^2)

SunCell® vs Solar PV



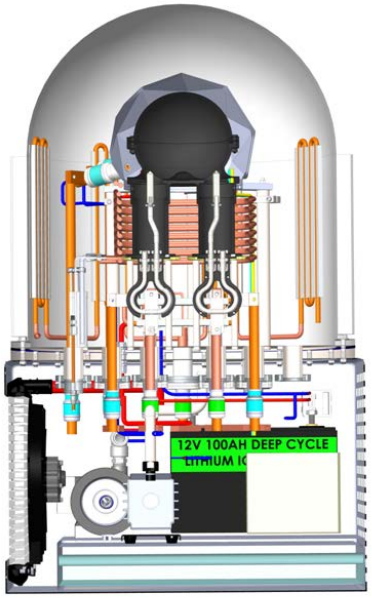


SunCell® vs Solar PV

An autonomous SunCell operating at up to 10,000 Suns requires 75,000 times less area and complexity than a matched conventional solar power station.

SunCell

11 MW



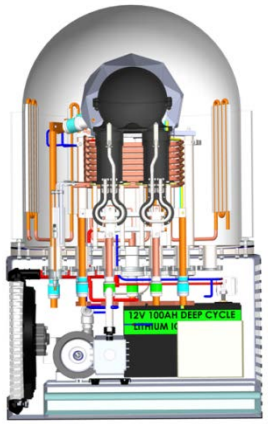
1 m^2

Planta Solar 10, Sevilla, Spain

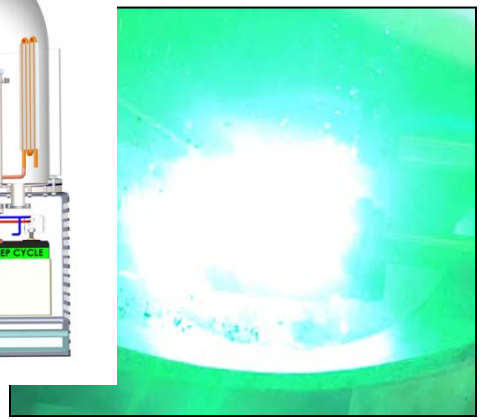
11 MW

75,000 m^2 (nrel.gov)

Spectral Emission in the High Energy Region Only

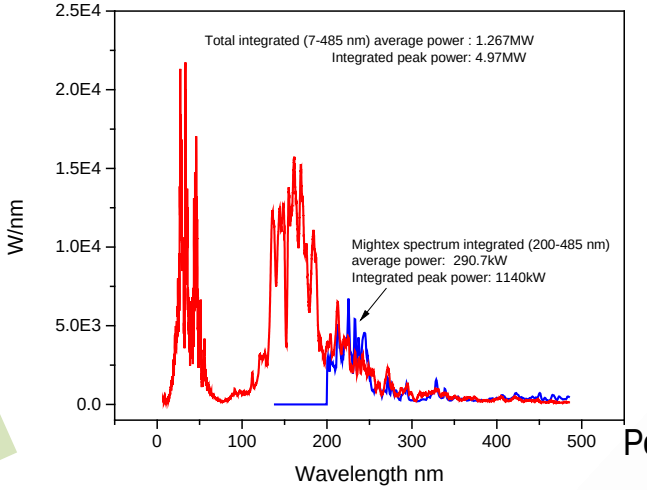


Plasma Ignition



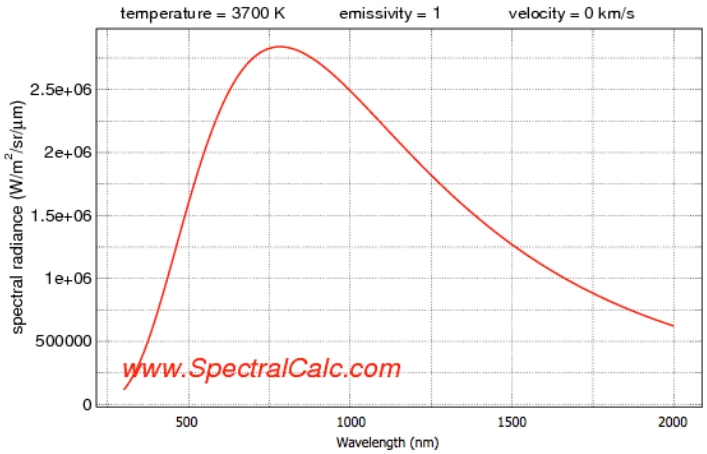
Measurement

Plasma Emission
(Power Calibrated Spectrum)



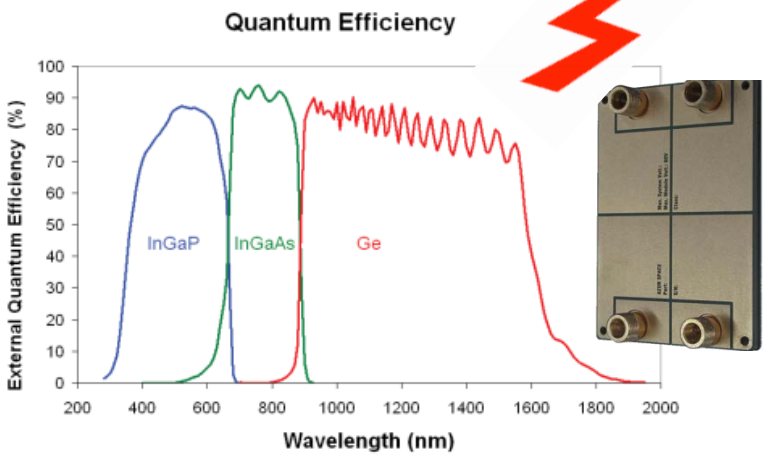
DC Power

Absorb to BB

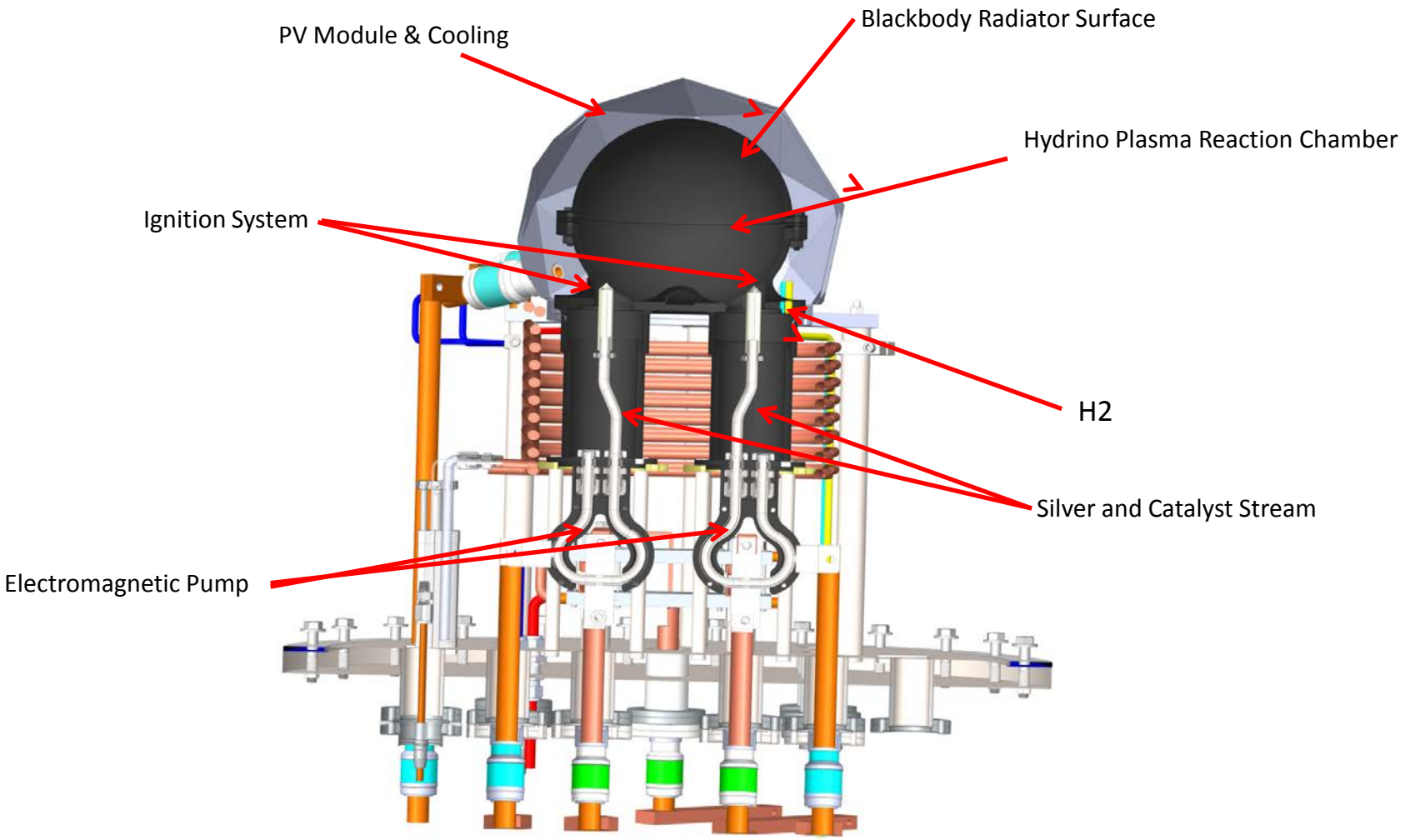


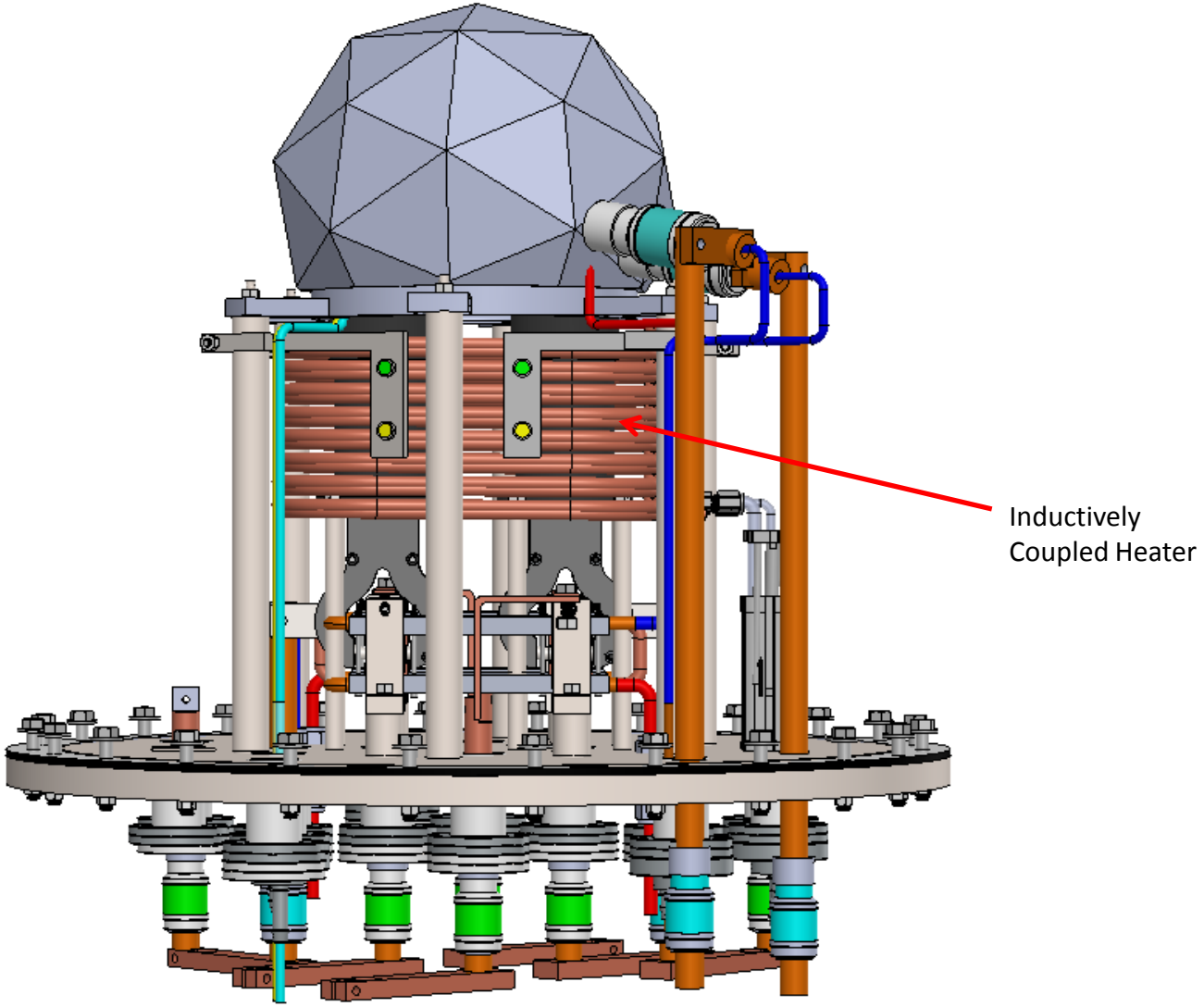
SunCell Blackbody Radiator

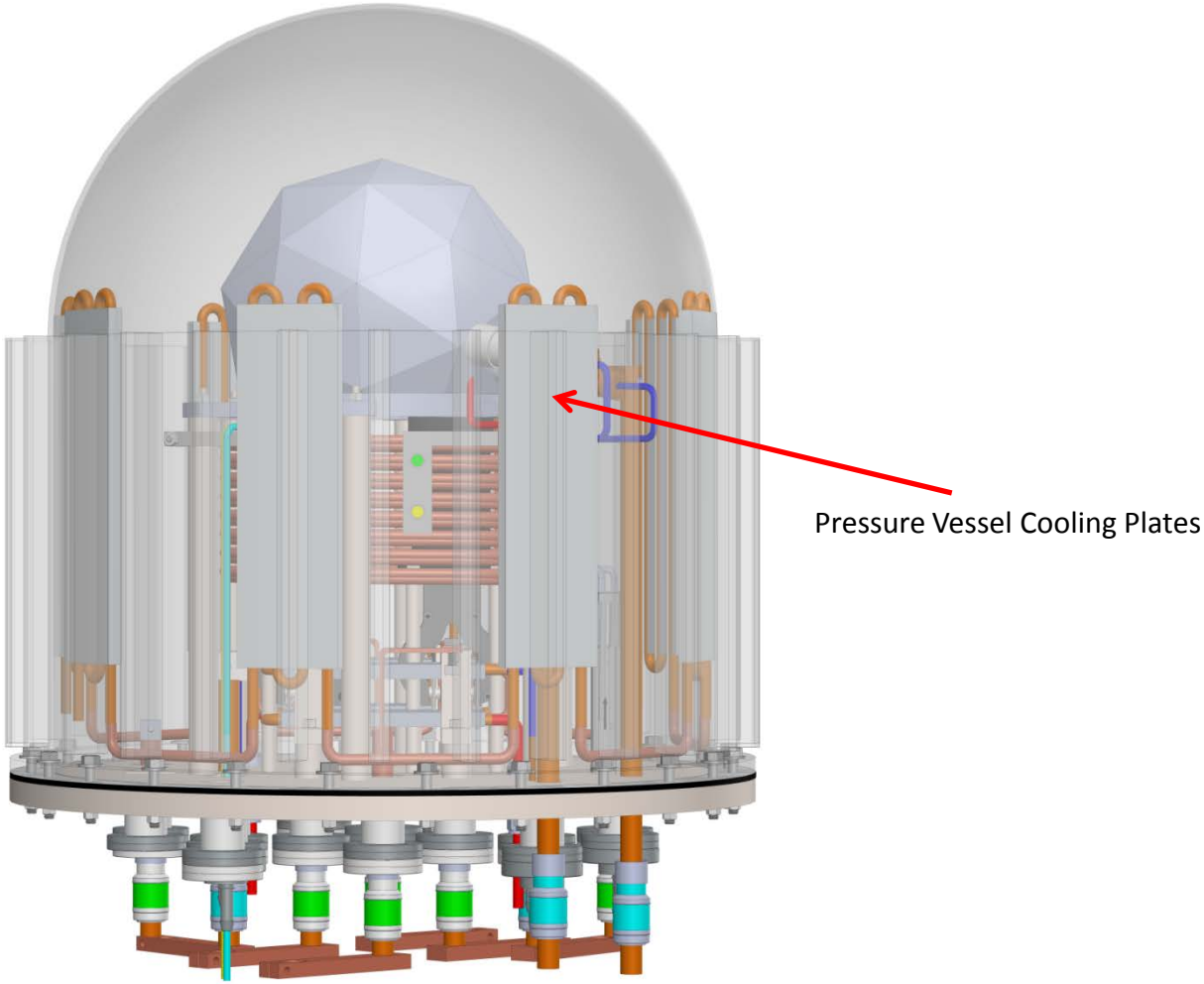
Re-emit to CPV

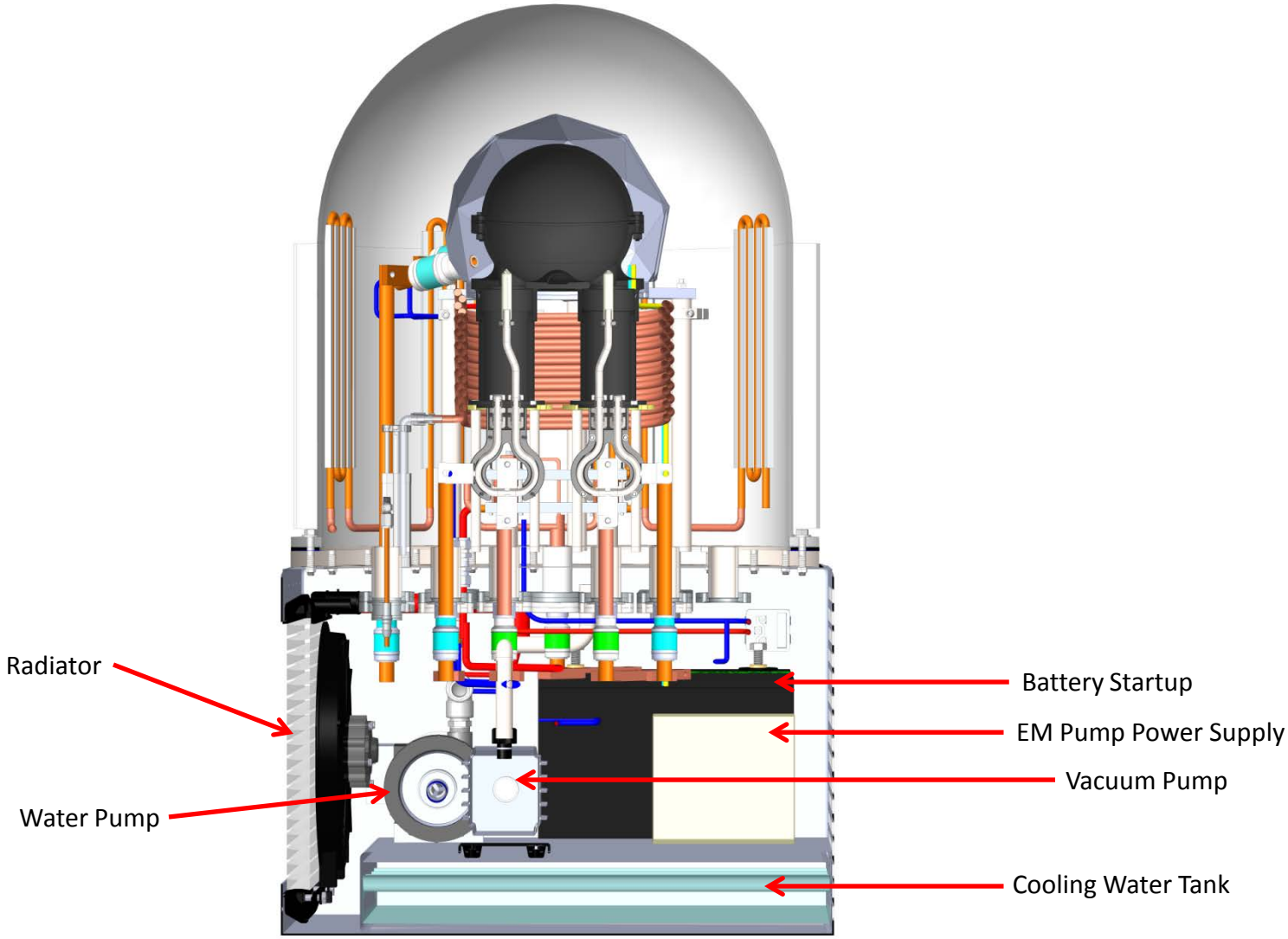


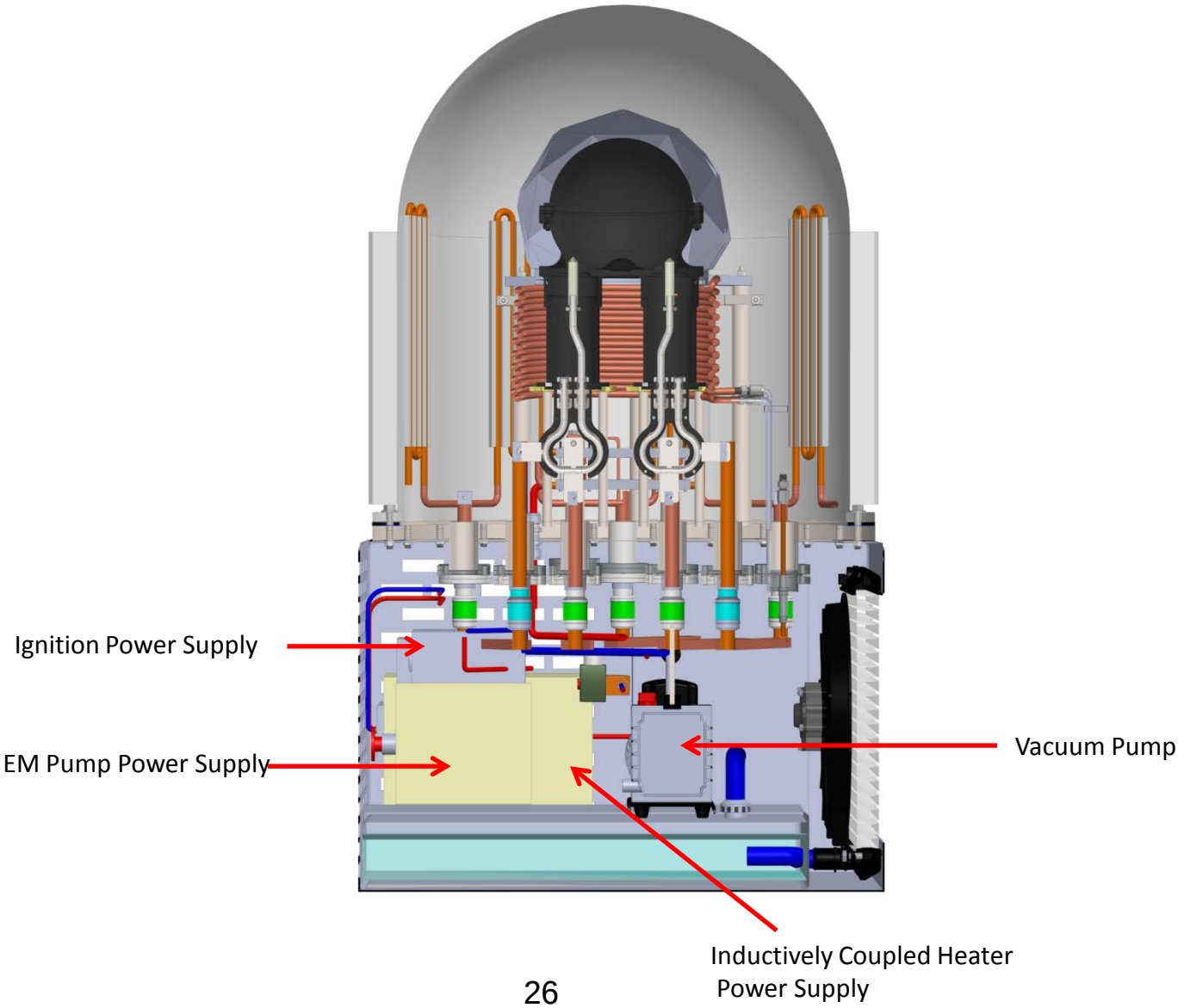
Concentrator PV
Power Conversion Spectrum

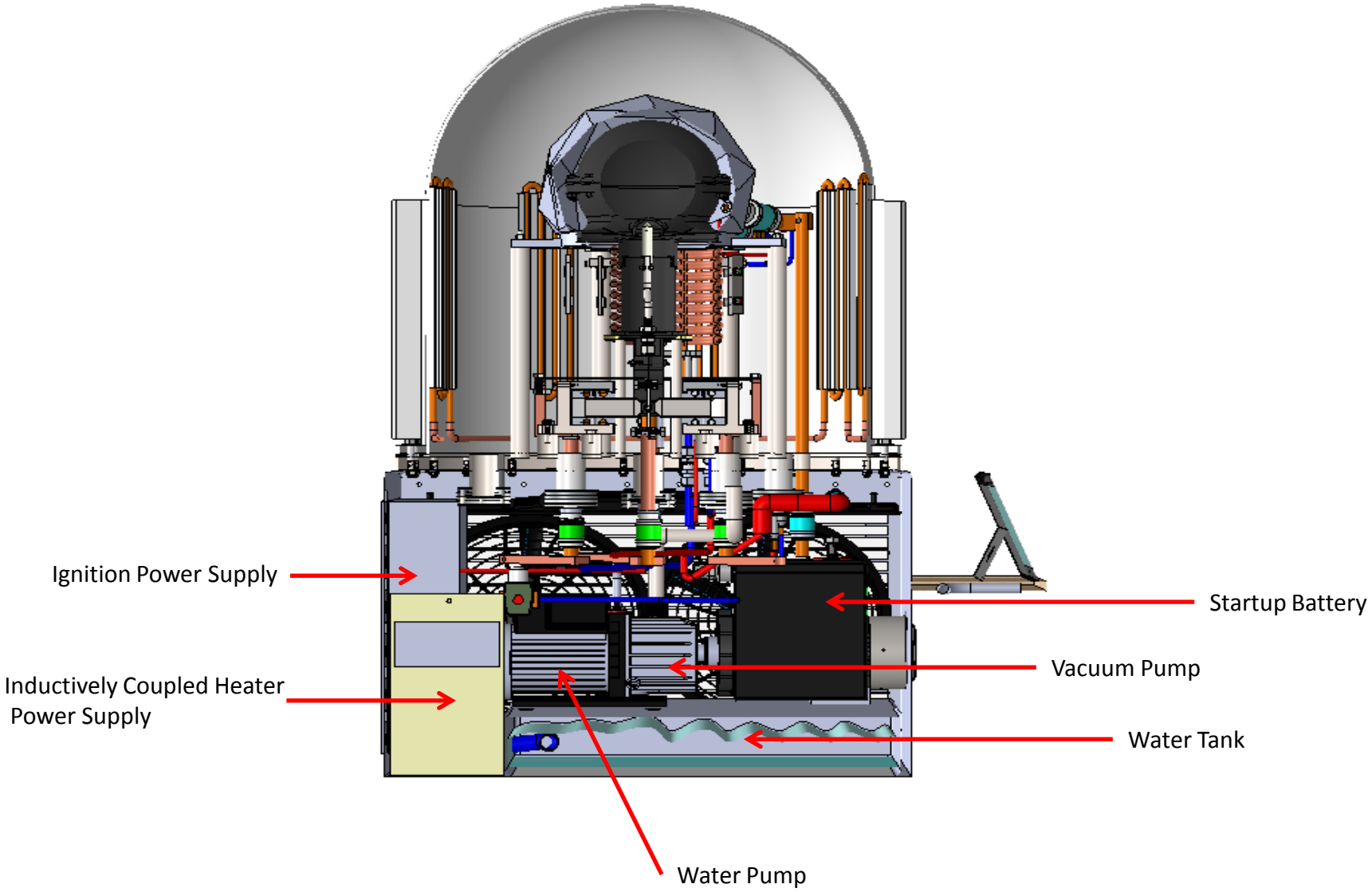

PV Module & Cooling
Blackbody Radiator Surface
Hydrino Plasma Reaction Chamber
Ignition System
H2
Silver and Catalyst Stream
Electromagnetic Pump

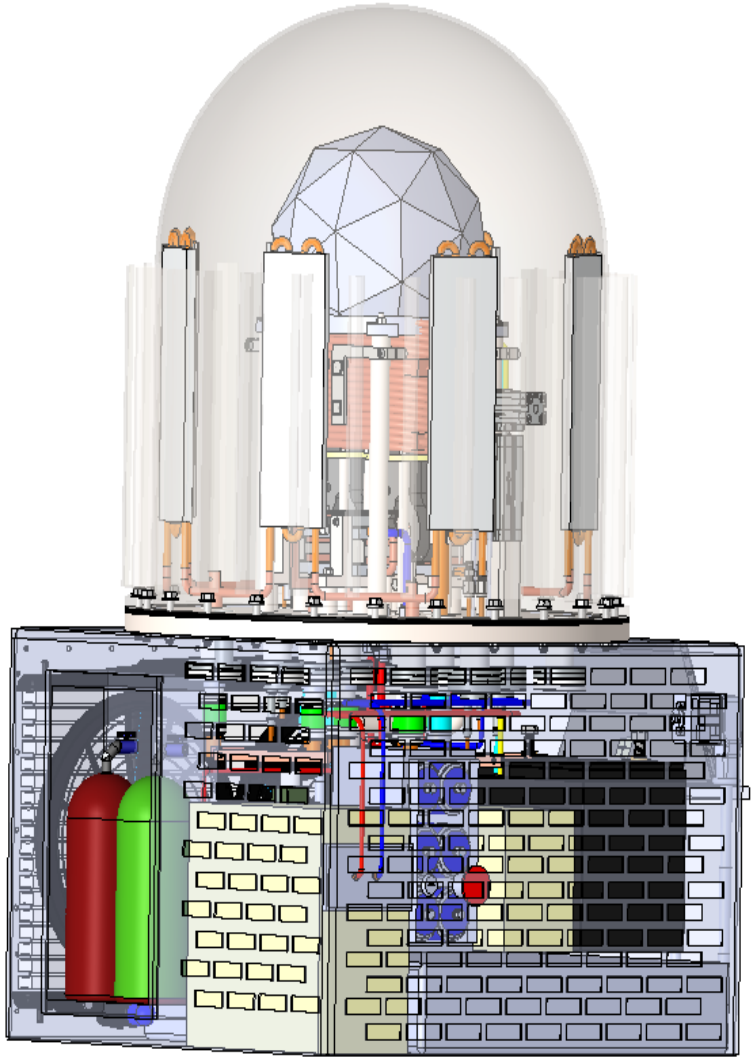

Inductively
Coupled Heater

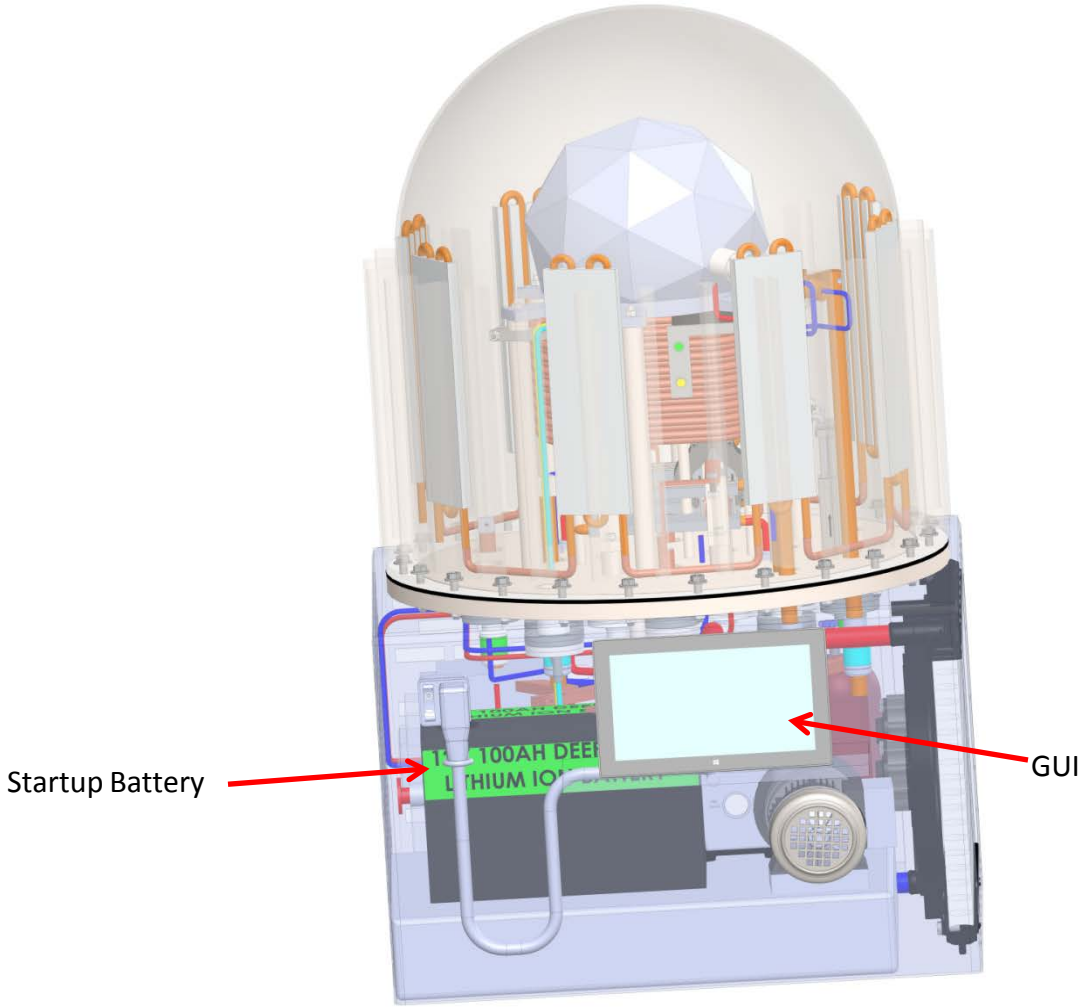

Pressure Vessel Cooling Plates

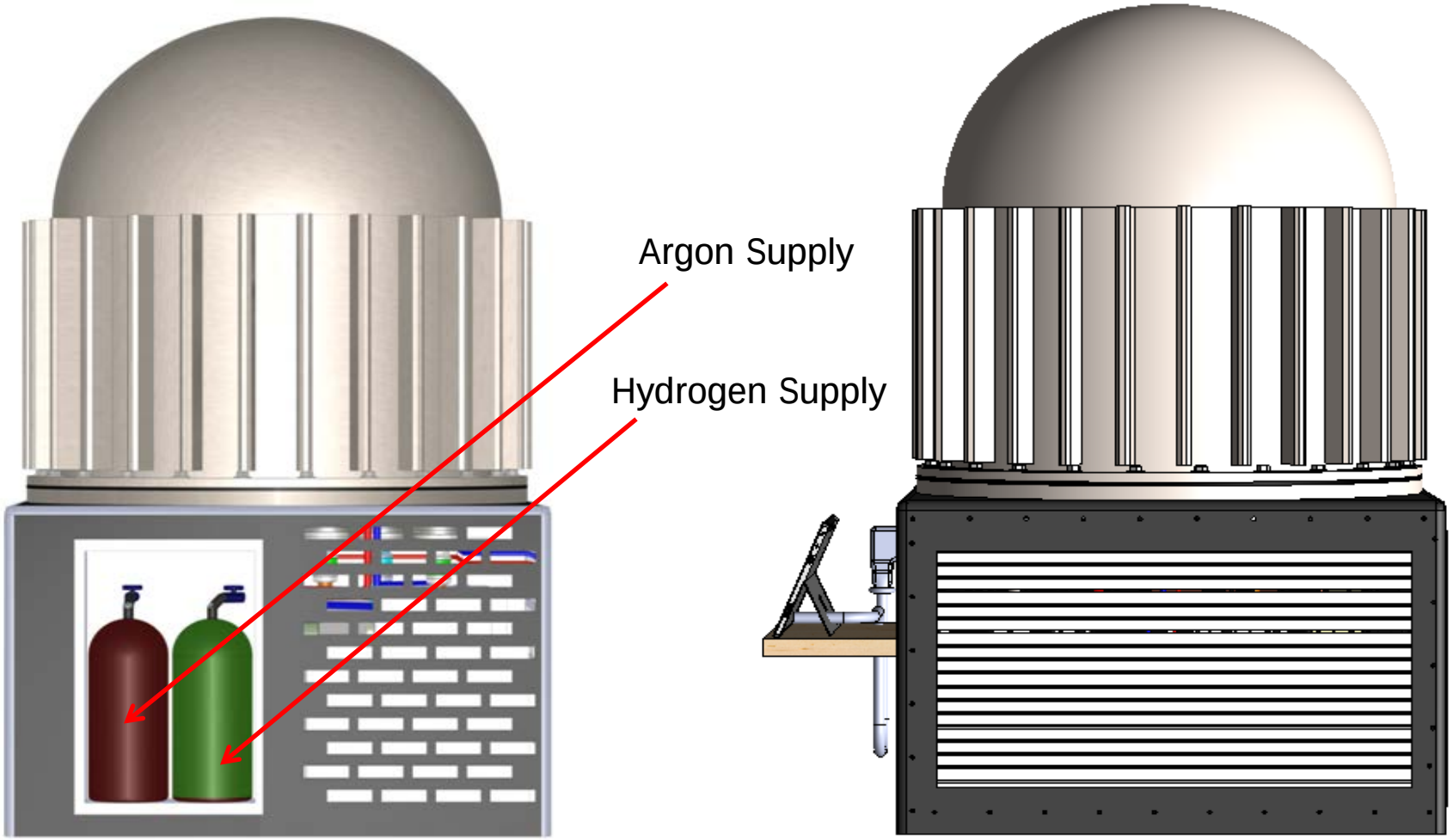

Radiator
Water Pump
Battery Startup
EM Pump Power Supply
Vacuum Pump
Cooling Water Tank

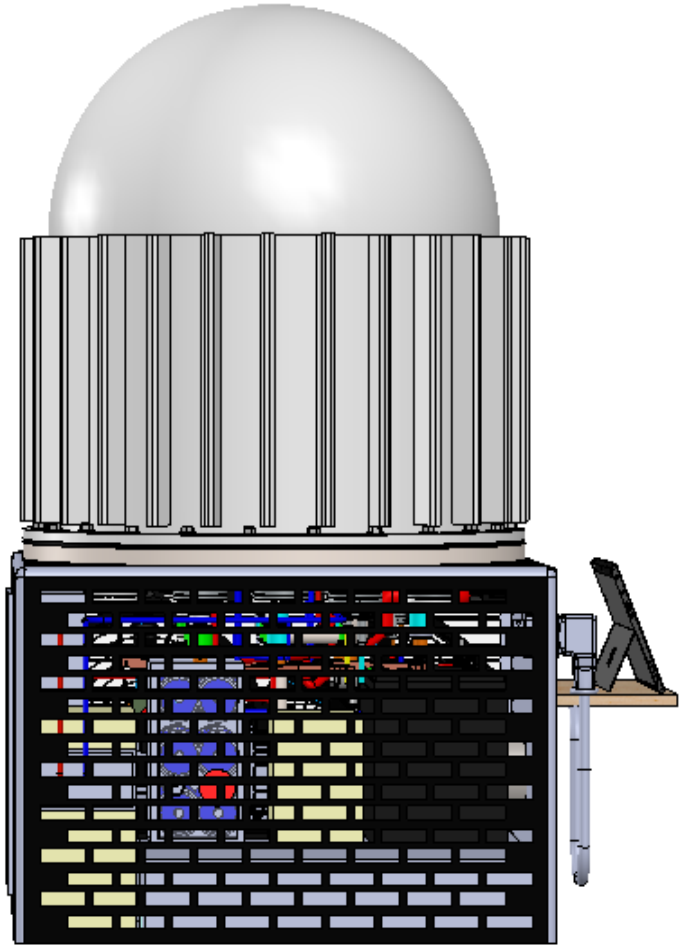

Ignition Power Supply
EM Pump Power Supply
Vacuum Pump
Inductively Coupled Heater Power Supply


Ignition Power Supply
Inductively Coupled Heater Power Supply
Startup Battery
Vacuum Pump
Water Tank
Water Pump




Startup Battery
GUI

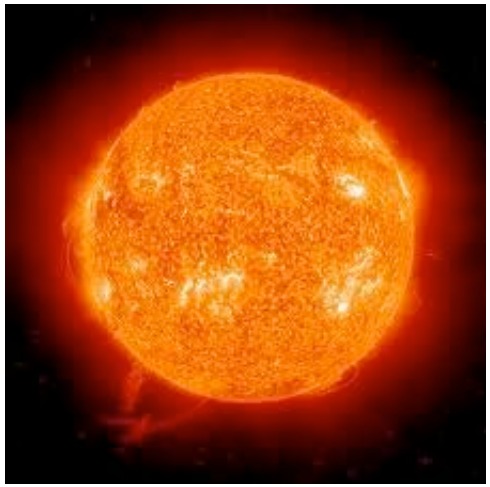

Argon Supply
Hydrogen Supply

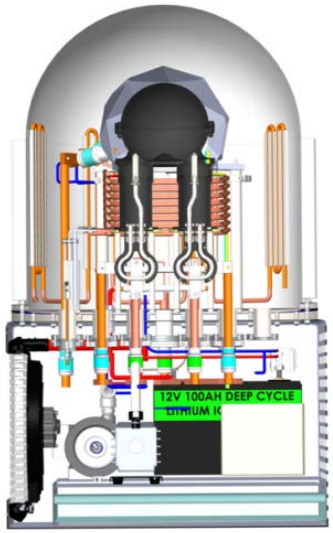


C is also for Commercialization

Miracle Energy Source Solution: SunCell®

- Continuous power source, developed with proprietary technology
- Non-polluting: by-product is harmless lower energy state of hydrogen called Hydrino®, lighter than air, vents to space
- System is sealed with H_2O fuel injected with nonreactive, recirculated silver, absolutely safe materials and operation
- Capital cost estimated at $50 to $100 per kW at production power & scale, versus $3,463 for solar
- No Metering: Electricity sold at about $0.05 per kWh via a per diem lease fee.
- Low operating cost, only consumable is minimal amounts of water
- Scalable from 10kW to 10 MWs
- Initially stationary, developing to motive
- Field test in 1H 2017
- Commercial launch in 2H 2017





SunCell Economics

Current Annual Gross Earning Capacity of Any Electrical Generator:
- o $1/W

Capital Cost:
- o $60/kW

Life Span:
- o 20 years

Capital Cost Annually:
- o $3/kW

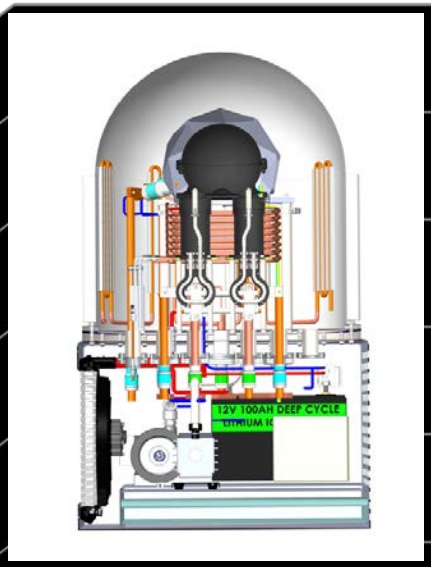
Solar Capital Cost (2013):
- o $3,463/kW[a]

Maintenance Cost:
- o $1.20/kW

Generation Cost:
- o $0.001/kWh

[a]http://www.nrel.gov/analysis/tech_lcoe_re_cost_est.html

TOTAL COST 250KW SUN CELL AT SUB ASSEMBLY LEVEL



$16,000.00
$14,000.00
$12,000.00
$10,000.00
$8,000.00
$6,000.00
$4,000.00
$2,000.00
$0.00

BELL JAR VACUUM CHAMBER ASSY
RESERVOIR ASSEMBLY
INDUCTION COIL ASSEMBLY
PIPING ASSY
EM MAGNET ASSY
ELCTRODE ASSEMBLY
REACTION CHAMBER ASSY
PV CELL ASSEMBLY
BASE SKID
VACCUM PUMP & WATER PUMP
MISC (RADIATOR)

COST ANALYSIS FOR FIRST OF A KIND 250KW (2000 Suns)

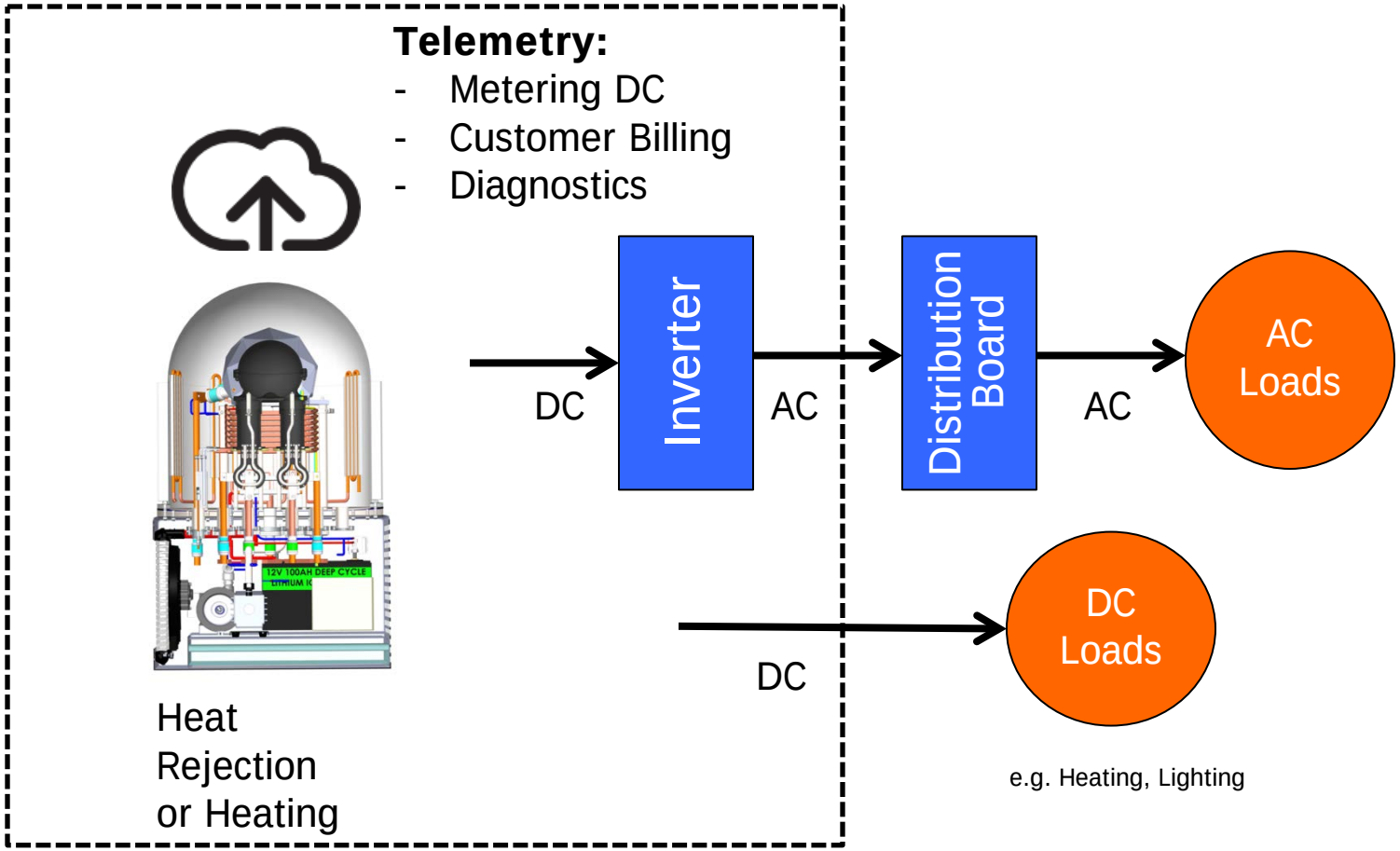
250KW SUN CELL COST ANALYSIS	
DESCRIPTION	**TOTAL COST AT SUB ASSY LEVEL**
BELL JAR VACUUM CHAMBER ASSY	$1,891.47
RESERVOIR ASSEMBLY	$484.17
INDUCTION COIL ASSEMBLY	$800.00
PIPING ASSY	$900.00
EM MAGNET ASSY	$380.00
ELCTRODE ASSEMBLY	$0.00
REACTION CHAMBER ASSY	$530.00
PV CELL ASSEMBLY	$15,000.00
BASE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

SunCell® CPV Cost Drops Dramatically with Scale

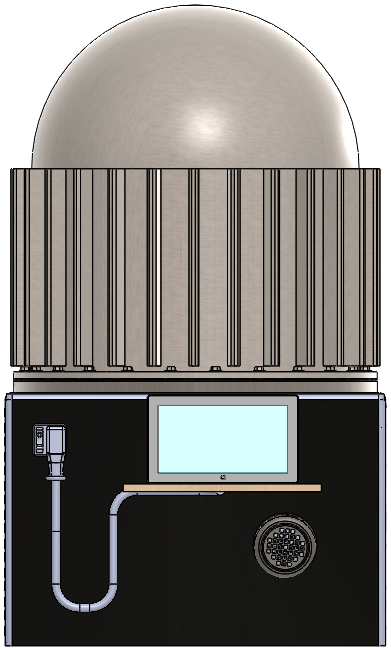
- For SunCell units of ~>100 kW, the cost per kW is essentially that of the PV converter component.
- At a volume of ~100 MW/yr, the SunCell® CPV converter is estimated to cost less than $75 per kW (2000 Suns concentration, 30% efficiency) and less than $20 per kW (10,000 Suns concentration)
- At 10 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 (2000 Suns concentration) and less than $6 per kW (10,000 Suns concentration)

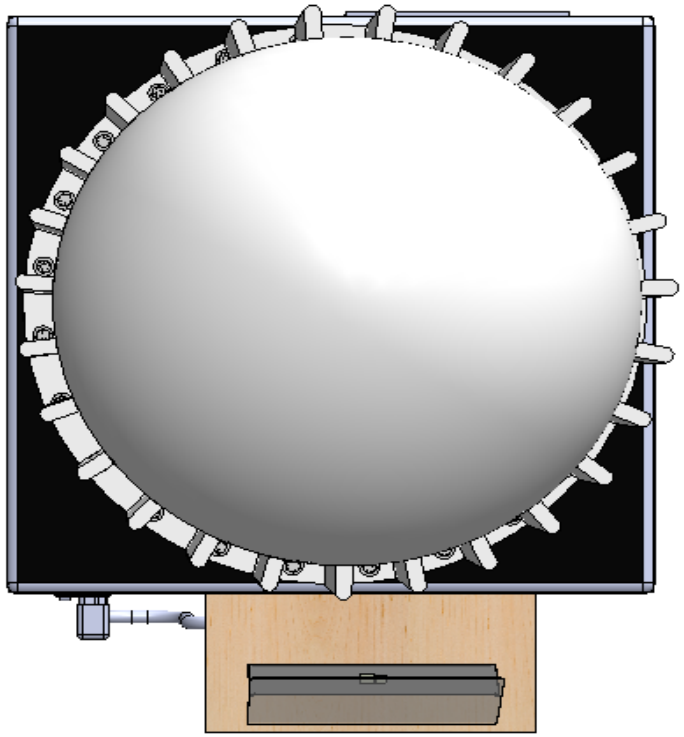
(Kelsey Horowitz, “A Bottom-up Cost Analysis of a High Concentration PV Module”, CPV-11, 2015; NREL/PR-6A20-63947)

SunCell Turnkey System (Basic)



250KW SUNCELL SURFACE AREA





SURFACE AREA = 27” X 27” =729 SQ.IN

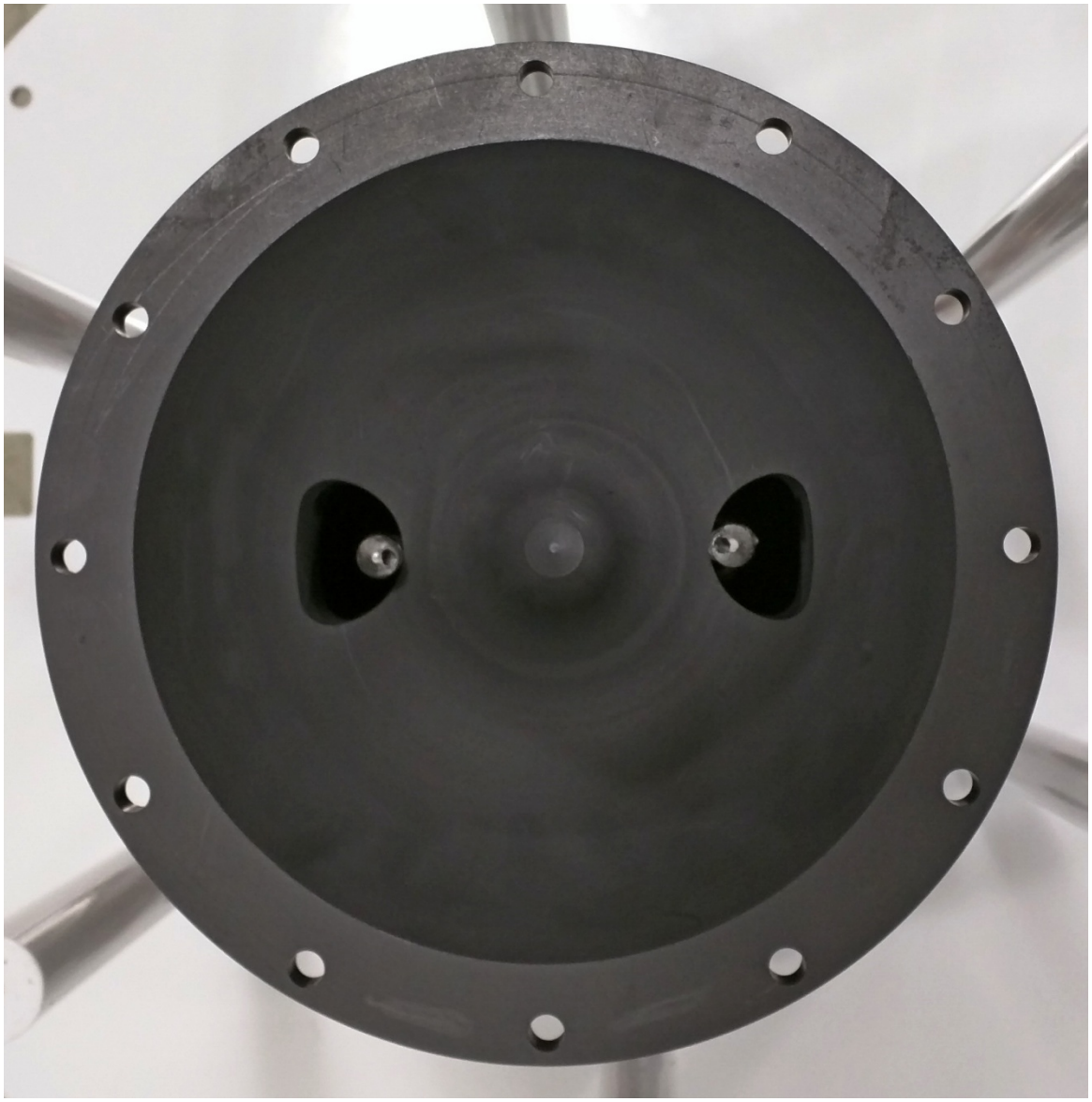
SunCell®

Feature	Est.
Power Output	10 kW, 100 kW, 250 kW DC or AC
DC Voltage	~380 or ~760
AC Inverter for 50/60 Hz	Option
SunCell dimensions (L,W, H)	0.5x0.5x0.5m
Photovoltaic Power Density	2000 Suns
Blackbody Radiator Power Density	10 MW/m2
Weight	100 kg
Warm-up Time	1 min
Self-consumption power	<3 kW
Response Time (standby to peak)	~100ms
Service Life	15 years
Noise Emission	Sound Proofed
Degree of protection (per IEC 60529)	
Climatic category (per IEC 60721-3-4)	

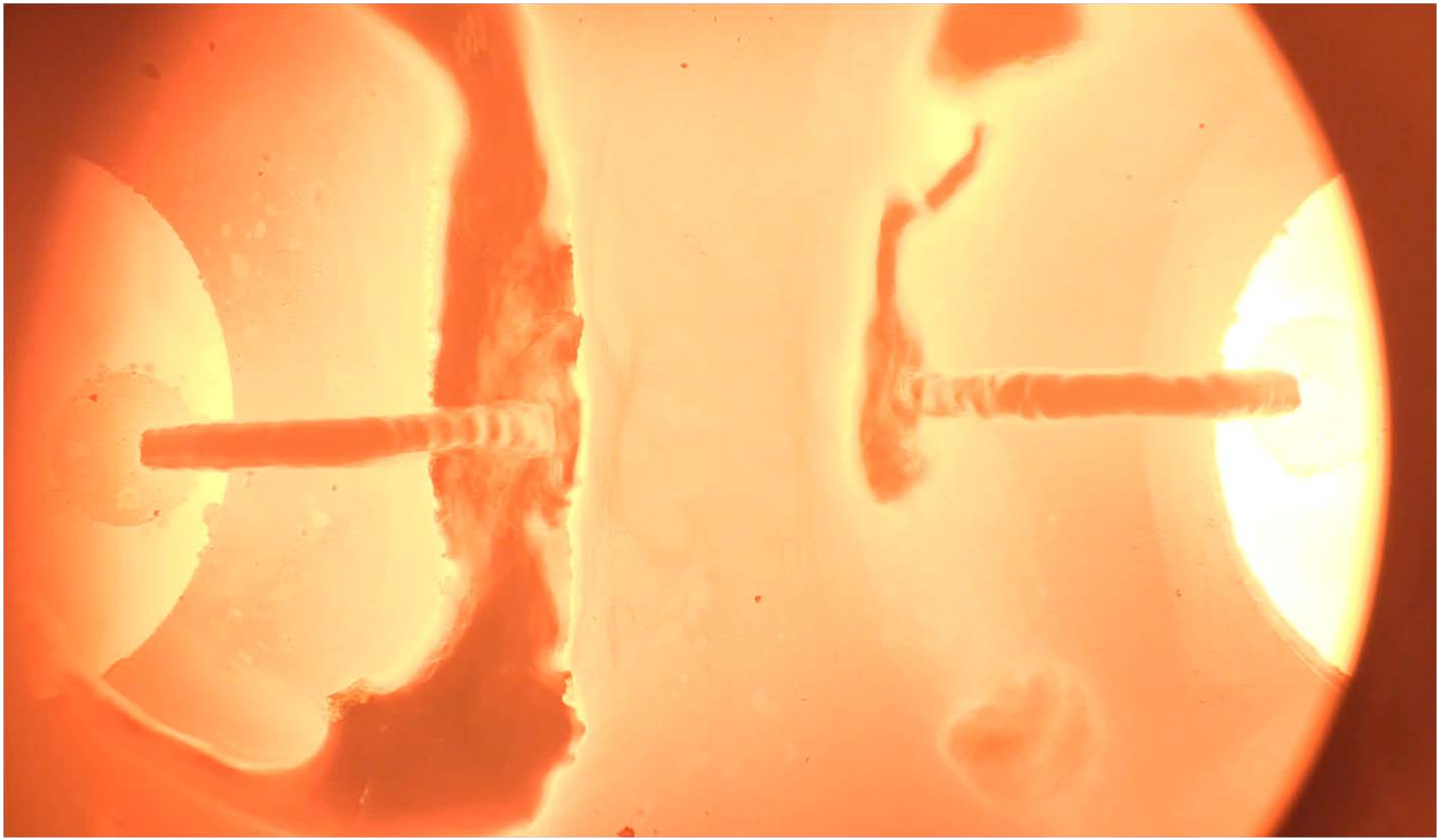
Global Established Accessible Market with Expansion Opportunities

- Reinvent electrification as autonomous, completely off grid, mass produced personal power.
- Flat per diem lease charge with no metering.
- Using cell redundancy being off grid is much cheaper than any grid connection and avoids all related utility regulatory leverage.
- Behind the meter during a short temporary learn out phase in the United States, then global push.

Commercial SunCell Design



Commercial SunCell Test



Click the above image to view the video on YouTube:
https://www.youtube.com/watch?v=jUBheBH9eio

Thank you!

For more information please visit us at www.brilliantlightpower.com