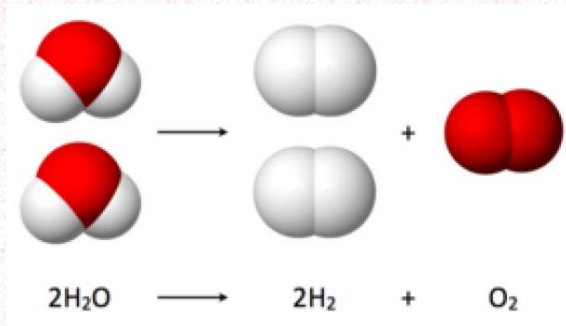




~44% Energy Efficient Solar PV Technology

Transformative Solar PV for H₂ Producers & Data Centers



The Solar PV Technology Future is Here Now.



"Discoveries are often made by not following instructions, by going off the main road, by trying the untried." - Frank Tyger.

NovelSolarPV is solving today's hydrogen production and data centers cost challenges.

- **NovelSolarPV** has a patent pending ~44% energy efficient novel solar PV technology system that will underpin hydrogen production and data centers compared to ~21% energy efficient conventional solar PV system.
- **NovelSolarPV** has launched the next-generation green power solution, ~44% energy efficient that generates excess electricity production with its proprietary HWC system.
- Lower CapEx and OpEx compared to conventional solar PV technology.
- 2x more renewable energy and 2x more profitable.
- Generates the most solar energy per m².
- Provides more energy output and long-term savings.
- Lowest price per kWh – Hydrogen producers and data centers can save a significant amount of money on their electricity costs compared to any competitor's solar PV.
- Consists of a series of layers that minimizes the thermal losses of the collector and maximizes electricity production.
- Obtains over two times more energy than conventional solar PV.
- Transformative novel solar PV system provides low-cost electricity for green hydrogen production and data centers.
- Simple, scalable, novel solar PV technology is more than double the efficiency of conventional solar PV.

INTRODUCTION – GOAL IS TO IMPROVE ENERGY ECONOMICS FOR GREEN HYDROGEN PRODUCTION & DATA CENTERS



A rise in environmental and anthropogenically induced greenhouse gas emissions has resulted in a top priority to address the climate crisis with clean energy to overcome these challenging concerns that achieves the Paris Climate Accord Agreement's priorities to net-zero by 2050.

The Department of Energy's Hydrogen Shot Initiative's goal is affordable clean hydrogen production at ~\$1/kg within the decade.

First-of-its-kind, transformative, novel solar PV technology system achieves ~44% energy efficiency for a much lower CapEx and OpEx compared to ~21% energy efficient conventional solar PV.

Achieves excess electricity production with its proprietary HWC system to operate an electrolyzer and data centers during day and nighttime hours.



NovelSolarPV's goal is to assist hydrogen producers and data centers to help achieves ESG standards to safeguard the environment.

NovelSolarPV has the potential to be an emerging solar PV technology.

NovelSolarPV is a novel solar PV technology system for data centers used to house computer systems.

NovelSolarPV's achieves much lower electricity costs to produce green hydrogen and operate data centers that saves substantial energy costs.

NovelSolarPV's mission is to introduce a game changing novel solar PV technology system to help hydrogen producers and data centers to be cost competitive with fossil fuels.

NovelSolarPV supports the Paris Climate Accords' goals to shift to greener fuels and green energy to achieve net zero emissions by 2050.

NovelSolarPV is a transformational ~44% efficient solar PV for green hydrogen production and operation of data centers that is in a "class by itself" and therefore "unique and innovative".

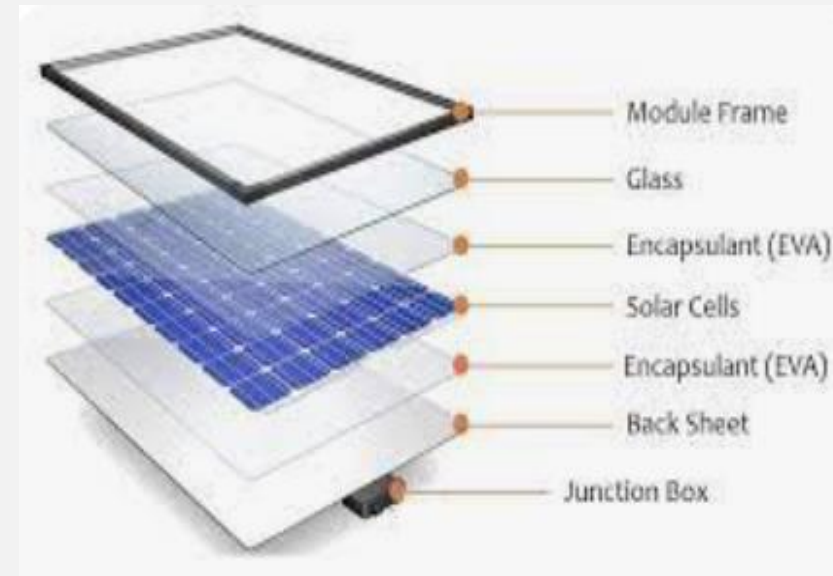
PROBLEM IS ~21% EFFICIENT CONVENTIONAL SOLAR PV

SOLUTION IS ~44% EFFICIENT SOLAR PV

- ✓ **Biggest problem conventional solar PV poses is it generates energy while the sun is shining. That means nighttime and overcast days can interrupt the operation and supply.**
- ✓ **A conventional photovoltaic panel converts 20% of incoming solar light into electricity and the rest of the energy (80%) is lost as heat.**
- ✓ **Only 15-22% efficiency with PV panels alone where the balance of solar radiant heat is lost.**



Conventional Solar PV has one single benefit that only produces electricity.



NovelSolarPV's solution obtains over two times more energy than conventional solar PV.

NovelSolarPV's proven PV significantly increases the electrical output that allows electrolyzers and data centers to operate during nighttime hours.

SOLUTION ~44% EFFICIENT SOLAR PV TECHNOLOGY



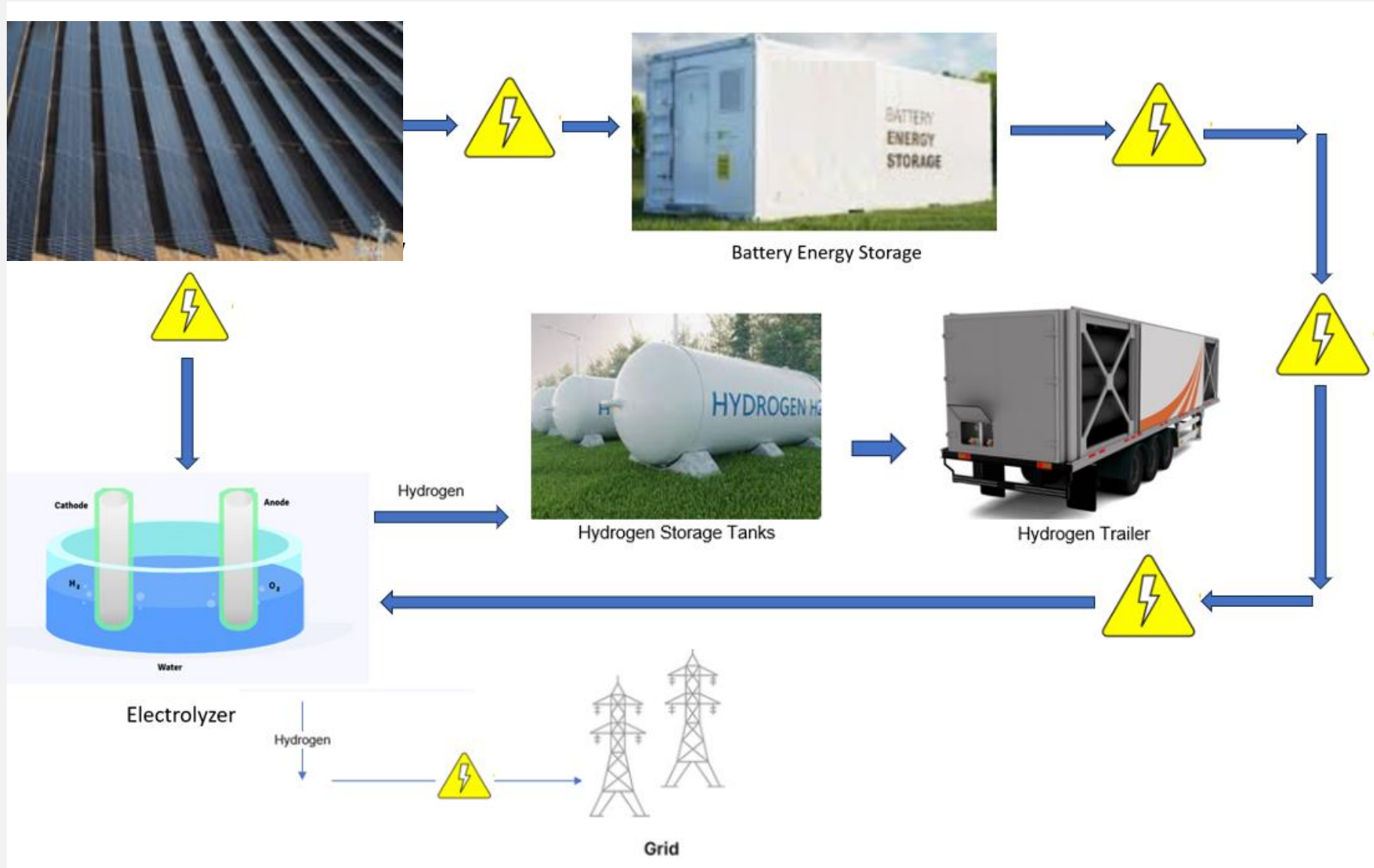
Innovation makes the difference

- ✓ World's most energy-efficient solar PV technology with an efficiency of ~44%.
- ✓ Provides more energy output and long-term savings.
- ✓ Lowest price per kWh – Hydrogen producers and data centers can save a significant amount of money on their electricity costs.
- ✓ Lowest per-kilowatt energy costs over any competitor's solar PV.
- ✓ Generates the most solar energy per square meter (m²).
- ✓ Consists of a series of layers that minimizes the thermal losses of the collector and maximize electricity production.
- ✓ Obtains over two times more energy than conventional solar PV.
- ✓ 2x more renewable energy and 2x more profitable.
- ✓ Obtains over two times more energy than conventional solar PV.
- ✓ Achieves up to 5x more energy production per sq. ft. of installation.
- ✓ Achieves excess electricity with its proprietary HWC system to operate an electrolyzer or data centers during nighttime hours.
- ✓ Competitive ROI and levelized cost of energy.
- ✓ Removes sensitivity to cost of energy.

NovelSolarPV's novel solar PV provides more energy output and long-term savings.



PROCESS FLOW DIAGRAM



VALUE PROPOSITION



NovelSolarPV technology is extremely profitable compared to conventional PV.

- ✓ Inflation Reduction Act provides a **hydrogen** tax credit of \$3/kg H₂ and 2.6 cents per kWh.
- ✓ Lowest per-kilowatt energy costs over any competitor's solar PV.
- ✓ 2x more renewable energy, and 2x more profitable.
- ✓ Technology is cost-effective with a ~44% efficiency that is 2x more energy per m².
- ✓ There are two tax credits available for businesses through 2033:
 - 1) Investment tax credit (ITC) is a 30% tax credit that reduces the federal income tax liability for a solar PV system;
 - 2) The production tax credit (PTC) is a per kilowatt-hour (kWh) tax credit for electricity generated by solar = \$2.75 kWh.
- ✓ Achieves significantly lower operating and production costs than conventional solar PV.
- ✓ There is no other solar PV technology for **green hydrogen gas** production and data centers that achieves ~44% efficiency compared to ~21% efficient conventional solar PV.

Lower Costs = Higher Profit Margins

- ✓ **NovelSolarPV** is committed to delivering best-in-class, novel solar PV that is significantly more efficient than conventional solar PV.
- ✓ World's most energy-efficient solar PV technology with an efficiency of ~44%.
- ✓ Mission Statement: Seamlessly integrate **NovelSolarPV** novel solar PV solution to produce **hydrogen and** operate data centers during the day and nighttime hours.
- ✓ Company's Motto: **NovelSolarPV's** goal is to help **hydrogen** producers and data centers achieve the lowest the lowest kWh cost in the solar PV industry.
- ✓ **NovelSolarPV's** long-Term Vision is to help the **hydrogen** industry and data centers accelerate a decarbonized economy with low-cost kWh electricity.



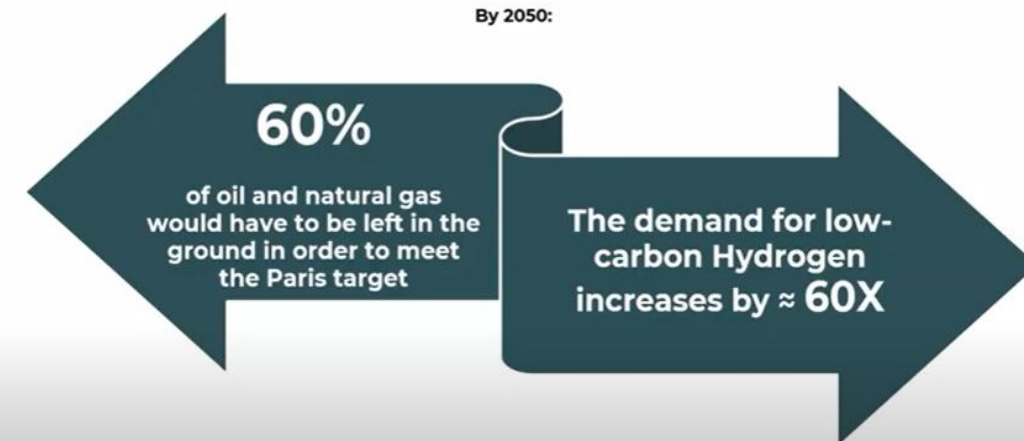
BENEFITS of NovelSolarPV FOR H₂ PRODUCTION and DATA CENTERS



- ~44% Efficient solar PV for hydrogen gas production and operate data centers during nighttime hours.
- Achieves low-cost excess electricity with its proprietary HWC system for hydrogen gas production and operate data centers during nighttime hours.
- Inflation Reduction Act's hydrogen tax credit of \$3/kg H₂ and 2.6 cents per kWh.
- Investment tax credit (ITC) is a 30% tax credit that reduces the federal income tax liability for a solar PV system.
- California's Low Carbon Fuel Standard tax credit is ~\$0.65/kg
- Economical and abundant electricity in a low-priced hydrogen market.
- Achieves the lowest cost of kWh electricity to operate an electrolyzer to produce green hydrogen and operate data centers during the day and nighttime hours.
- Best-in-class, low-cost, and efficient to operate electrolyzers to produce green hydrogen and operate data centers during the day and nighttime hours.
- No competition – NovelSolarPV has a patent pending for its technology system.
- End-to-end solar PV technology system that produces excess electricity with its proprietary HWC system..
- NovelSolarPV is the most energy-efficient solar PV technology.
- Achieves ESG standards that safeguard the environment.

NovelSolarPV is a Transformative ~44% Efficient PV Technology to Provide Low-Cost Energy for Hydrogen Production and Operate Data Centers.

What to do with the unextractable fossil fuels in a 1.5°C world



Getting to
NET-ZERO EMISSIONS by 2050

Solution

10,000 PV panels

Energy Performance

10,020 MMBtu (29,920,000 kWh) demand

47% provided by solution

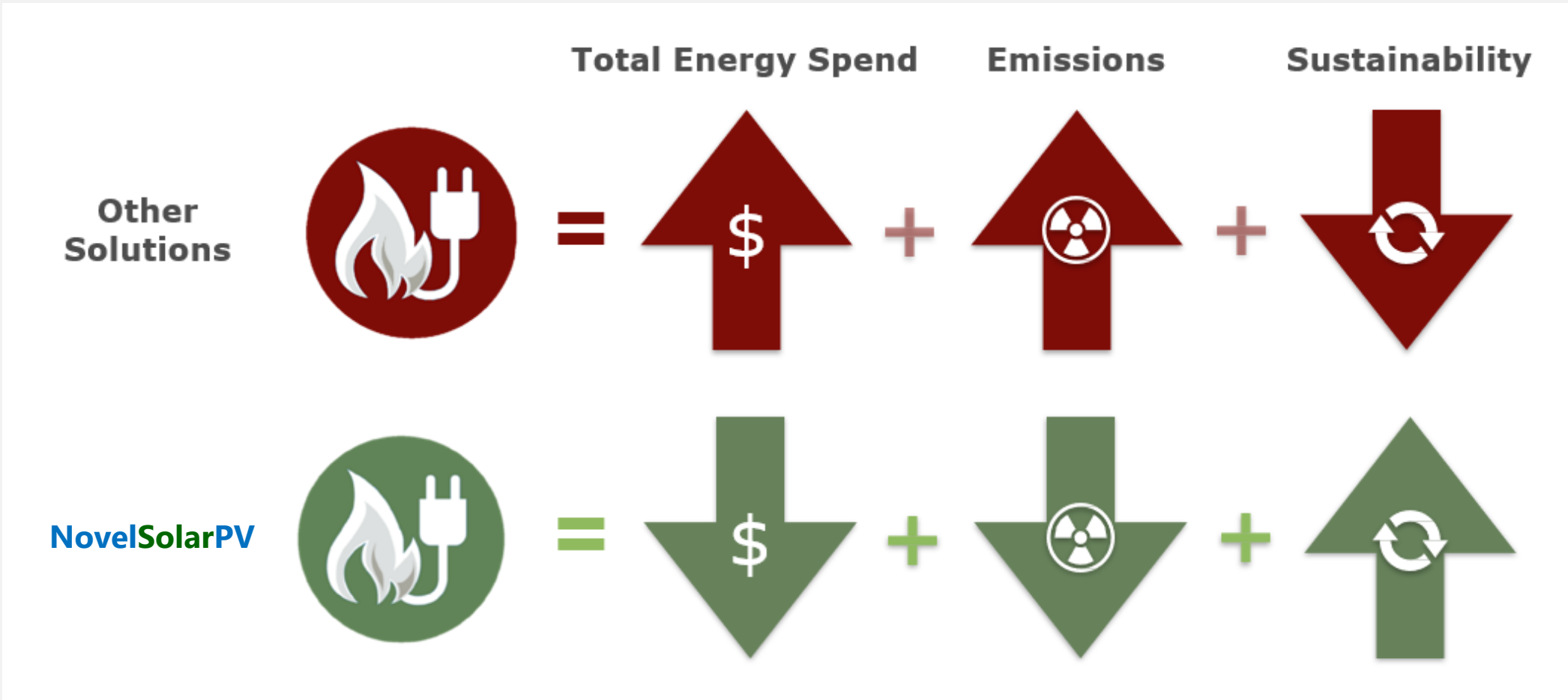
5,502,367 kWh

Environmental Impact

10,065,000 lbs of CO₂/year

> 40% emissions redux in less than two years without paying for REC's





NovelSolarPV's solar PV is the only solution in the solar PV market with a ~44% energy efficiency.

NovelSolarPV is double the energy-efficiency compared to conventional solar PV

There are four main sources for the commercial production of **hydrogen**: natural gas, oil, coal, and electrolysis; which account for 48%, 30%, 18% and 4% respectively. Fossil fuels are the dominant source of industrial **hydrogen**.

Public pressure is rising to limit global warming to 1.5 degrees Celsius, and global leaders are grappling with how to best take on this unprecedented challenge. Full decarbonization requires a multidimensional strategy.

NovelSolarPV's ~44% energy-efficient solar PV compared to ~21% conventional solar PV will bring down the energy cost for **green hydrogen** production and operation of data centers.

NovelSolarPV's turn-key system delivers the lowest per-kilowatt energy cost over any competition guaranteed! Over 2x more profitable than conventional solar PV.

NovelSolarPV's solar PV is the only solution in the solar PV market with a ~44% energy efficiency.



ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG)

The global race for clean hydrogen means new geopolitical realities.

The global race for clean hydrogen means new geopolitical realities. If the 1990s were the decade of wind, the 2000s is the decade of solar energy, the 2010s is the decade of batteries, and the 2020s could launch us toward a next frontier of the energy transition: green hydrogen. Hardly a week goes by without a major new hydrogen breakthrough. In just the past five years, more than 30 countries have developed or started to prepare national hydrogen strategies (IEA 2022). The Paris Climate Accords' goal is to shift to greener fuels to achieve net zero emissions by 2050.

Hydrogen battles

The pathway for clean hydrogen growth remains contentious, however, two primary fault lines have emerged: how to produce it and in which sectors to deploy it.

NovelSolarPV is bringing a novel, transformative, and first-of-its-kind ~44% efficient solar PV technology system for hydrogen production and operate data centers.

What sets NovelSolarPV apart is our novel solar PV technology system that is ~44% energy efficient compared to conventional solar PV that is ~21% energy efficient.

NovelSolarPV is positioned to sell its novel solar PV technology system to data centers and hydrogen producers to economically achieves decarbonization and net-zero emissions by 2050.

NovelSolarPV is pleased to support Social Contract Values and is building a purpose driven clean energy technology business to successfully implement the ~44% efficient solar PV technology to achieve Environmental, Social and Governance (ESG) standards to help safeguard the environment. We desire to help the community's citizens health and well-being to provide the societal benefits to the environment by improving air quality and maintaining high paying jobs improving the local economy.





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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION # **63,111,111** RECEIPT DATE / TIME **08/24/2023 08:52:34 AM ET** ATTORNEY DOCKET # **LIPKENT001**

SYSTEM AND METHOD FOR DELIVERY OF SOLAR THERMAL ENERGY
SYSTEMS AND METHODS FOR DELIVERY OF THERMAL ENERGY FOR H2 PRODUCTION

Application Information

APPLICATION TYPE	Utility - Provisional Application under 35 USC 111(b)	PATENT #	-
CONFIRMATION #	7758	FILED BY	yogesh bhardwaj
PATENT CENTER #	62660449	FILING DATE	-
CUSTOMER #	49332	FIRST NAMED INVENTOR	Kent B. Hytken
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Willie Jacques

Documents

TOTAL DOCUMENTS: 5

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
ADS_	8	Application Data Sheet	1226 KB
Oath_	2	Oath or Declaration filed	100 KB
POA_	4	Power of Attorney	1295 KB
Coversheet_1	3	Provisional Cover Sheet (SB16)	1492 KB
Specification	20	Application body structured text document	1243 KB



NovelSolarPV is a transformative solar PV technology system for **hydrogen** production and operate data centers.

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Getting to
**NET-ZERO
EMISSIONS** by 2050

