ADVENT

Fuel Cell Technology for the Hydrogen Economy

Investor Presentation, May 2024

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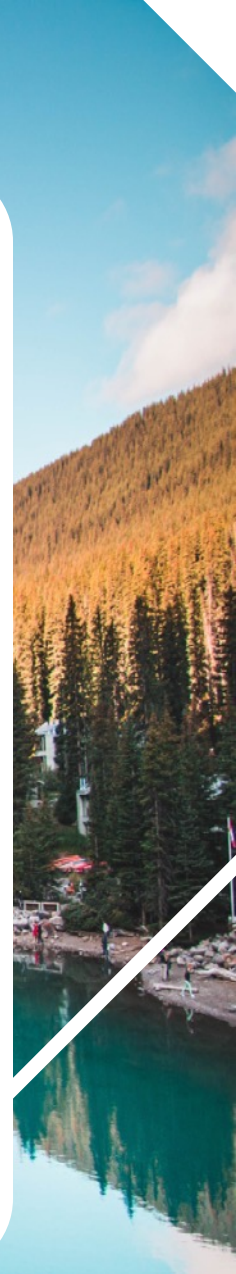

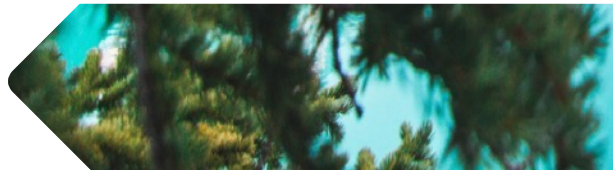

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Introduction

Company Highlights

ADVENT IS THE WORLD LEADER IN HT-PEM FUEL CELL TECHNOLOGY

- Our products deliver **electrification powered by green energy** for the **Stationary**, **Portable**, **Off-Grid**, **Heavy-Duty Automotive**, **Marine**, and **Aerospace** sectors.
- Core-IP secured by **150+ patents**
- Multiyear collaboration and licensing from US DoE (LANL, Sandia Labs, Brookhaven Labs)
- Factories and state-of-the-art equipment in place for R&D and production scale-up

STRATEGIC PARTNERSHIPS

- Automotive: **Hyundai Motors**, and four of the top-10 global automotive/truck manufacturers in Technology Assessment
- Aerospace: **Airbus** in Joint Development Agreement**, Safran** in Joint R&D, three more in Technology Assessment
- Marine: **Siemens Energy** first ship contract, joint R&D and Joint Development Agreement
- Defense: **US Army** renewed development contract with potential to manufacturing in next phase
- Stationary Power: 4th gen product in market **with more than 1,200 units sold and delivered worldwide**.

GLOBAL MANDATE TO DECARBONIZE

- **US Inflation Reduction Act**: $369 billion allocated
- **REPowerEU**: Up to €300 billion allocated
- **EU Hydrogen Accelerator**: Goal of 20MT green H2 by 2030.

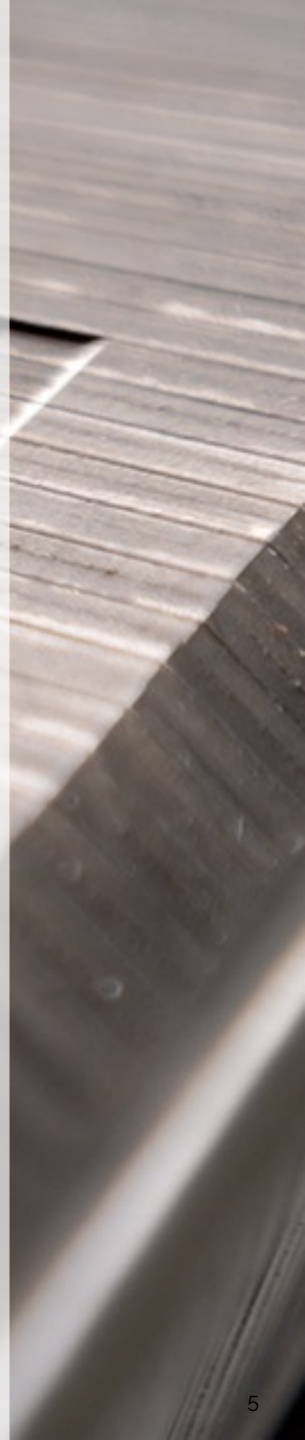
GOVERNMENT FUNDING

- **Government funding of 22 programs**, totaling **$42,000,000** ($16,000,000 contracted and $26,000,000 pending), in the EU and USA to support R&D in 2024 and beyond.

FINANCIALS*

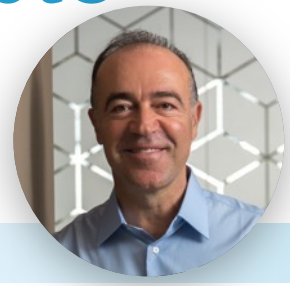
- **2024:** The target for revenue is set at **$13 million ($11 million in revenue and $2 million in grants**). **IPCEI should bring another $3 million to $5 million that are not included in the previous sentence**. Cost reduction through Operations and Facilities consolidation aims for a total of **$24 million in 2024**, a decrease of almost **50%** from the previous year.
- **2025: Goal to break even by end of 2025.**

*See "Disclaimer" regarding forward-looking statements, projections and targets. The Company does not undertake to update or affirm these projections and targets in the future. Projections are inherently uncertain and subject to assumptions and future events.



Our People

*Indicates member of Board of Directors following the Business Combination.



Vasilis Gregoriou*
Chairman & CEO

Emory De Castro*
CTO

Chris Kaskavelis
CSO

Jim Coffey
General Counsel

Nora Gourdoupi *
SVP, Corporate Business Development

Morten Hougaard Sørensen
SVP, Advent Technologies A/S

Mogens Berg Andersen,
Financial Director, Advent Technologies A/S

Vasilis Kopelas
VP, Business Development (Green Mobility)

Lawrence Epstein
Non-Executive Board Member

Anggelos Skutaris
Non-Executive Board Member

Wayne Threatt
Non-Executive Board Member

Von McConnell
Non-Executive Board Member

Organization

110
Employees & consultants

40+
Successful R&D Programs

700+
Combined Technical Years of Experience

150+
Patents Issued, Licensed, or Pending

USA

Advent Technologies Holdings Inc.
Boston, MA USA

- Corporate Headquarters
- R&D

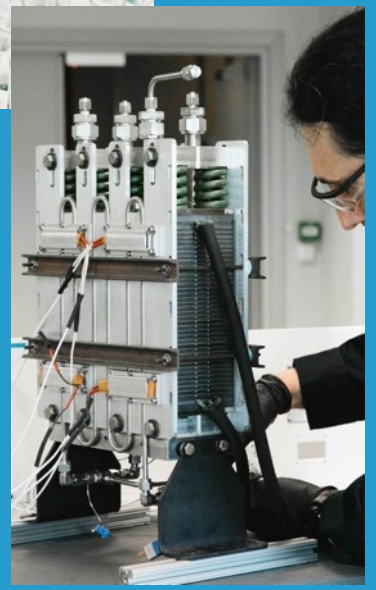
Advent Technologies LLC
Silicon Valley
USA

- Product Development
- Manufacturing

Greece

Advent Technologies SA

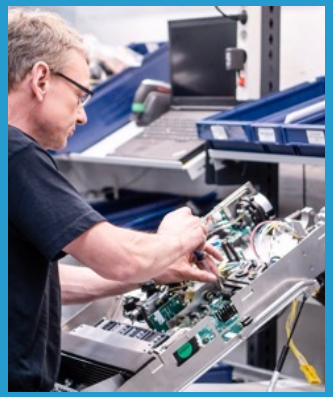
- R&D
- Product Development
- Manufacturing
- Management Offices



Denmark

Advent Technologies A/S

- Product Development
- R&D



ADVENT

Market Opportunity & Mission

Emissions

35 Gt of CO_2 global/year

- **Buildings** — 3
- **Power Generation** — 15
- **Industry** — 9
- **Mobility** — 8

Hydrogen

Gt of CO_2 abated

- **Stationary & Off-Grid Power**
- Long-Term Storage
- Steel
  Fertilizers
  Refineries
- **Trucks**
  Marine
  Aerospace

Advent Market

Immediate Opportunity in $35bn growing diesel generator market

MISSION
to replace fossil-fuel engines with lower-cost, green-power fuel cells

Advent's Fuel Cell

Multibillion electrification opportunity to replace combustion engines

Core Beliefs

- Hydrogen can address 1/3 of the world's emissions problem.
- Batteries, green liquid fuels (eFuels), and green H2 are not competing technologies: all will be needed to address heavy-duty applications.
- Green focus is not enough. We must **beat fossil fuel engines on Total Cost of Ownership in the fastest-growing, most cost-sensitive markets.**
- Advent must enable the world's leading manufacturers to get there faster
- Liquid eFuels like eMethanol can be a game-changer for off-grid, portable and marine markets

ADVENT

Advent's HT-PEM Fuel Cell Technology

HYDROGEN

Where infrastructure for refueling & local production is available.

eFuels/METHANOL

eMethanol: Liquid 100% green H2 carrier
Methanol/Biomethanol: Interim, low-cost option for off-grid & marine.

Advent's Fuel Cell System

ELECTRIFICATION

- Stationary, Portable Off-Grid Power
- Heavy-Duty Automotive
- Marine
- Aerospace

HT-PEM Technology Advantages

Liquid Fuel

Methanol/eFuel

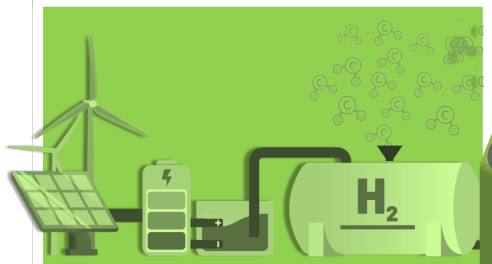
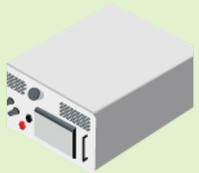
Simple logistics, Immediate market
For marine, stationary, off-grid, backup power, data centers

Efficiency

Superior Heat Management= High-Efficiency
For: trucks, aerospace

Replacing the Diesel Generator

With Advent Fuel Cells

Source	Fuel	Unit	Efficiency	Noise	Power	CO2	Pollutants
 Crude Oil	 Diesel 0.3-0.8 L	 Diesel Genset	 Efficiency 11%-34%	 Noise	 1 kWh Power	 1,162 gr CO2	 NOx, SOx, PM2.5, BC, OC
 Sun & Wind & H2O Green H_2 + CO_2	 eFuel 0.5 L	 Fuel Cell	 Efficiency 41%-85*%	 Low Noise	 1 kWh Power	18 gr CO2	None

*41% electrical efficiency, 85% incl. thermal efficiency

Methanol= Liquid Green Fuel and Excellent Green Hydrogen Carrier

- **Grey methanol**: Derived from natural gas, undergoing an electrochemical conversion process to produce power (and heat) in fuel cells.
- **Biomethanol:** Sourced from biomass, waste, or biomethane via gasification methods.
- **eMethanol:** Produced through a combination of green hydrogen, generated via water electrolysis using renewable power sources, and CO2.

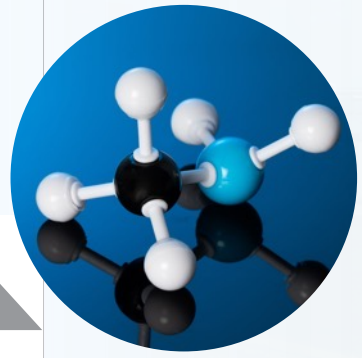
Bloomberg — Maersk Unveils World's Biggest Methanol-Powered Container Ship

Splash 247.com — Orders for methanol engines outpace LNG for the first time

REUTERS® — Shipowners, port operators ramp up methanol-fuelling projects

DNV — Methanol as fuel heads for the mainstream in shipping

Methanol is the Fuel of Tomorrow, Available Today



130
Methanol projects underway
60% e-methanol,
40% bio-methanol

20m tons
Production Capacity 2028

251
Methanol-fueled vessels are either actively in service or on order.

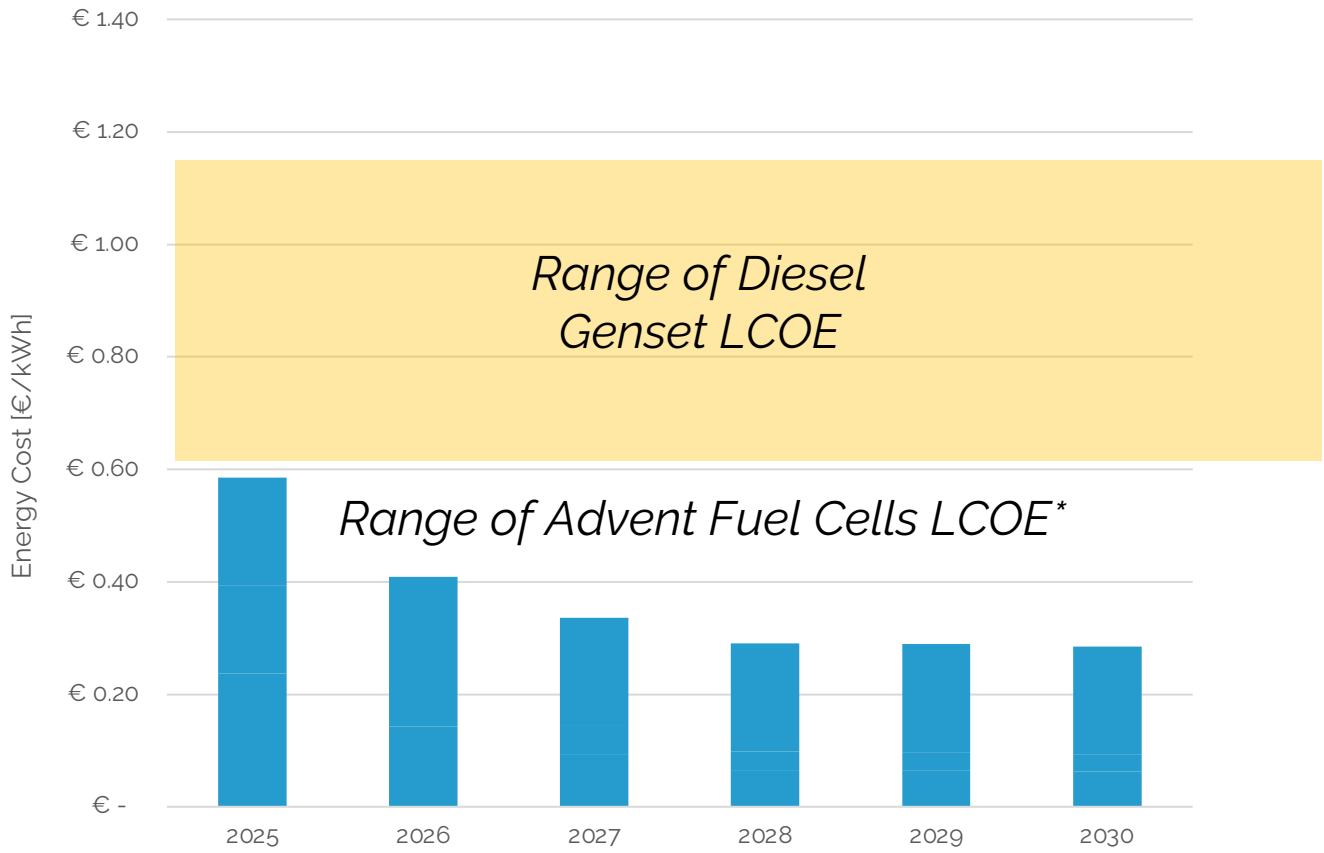
Goal: Beat Diesel Engines/Gensets on Cost by 2026

- **Market: 35$bn** diesel genset market by 2030 is growing at 6% even in most advanced countries

Strategy:

- New MEA to be released in 2025 drops cost massively by increasing power density and lifetime.

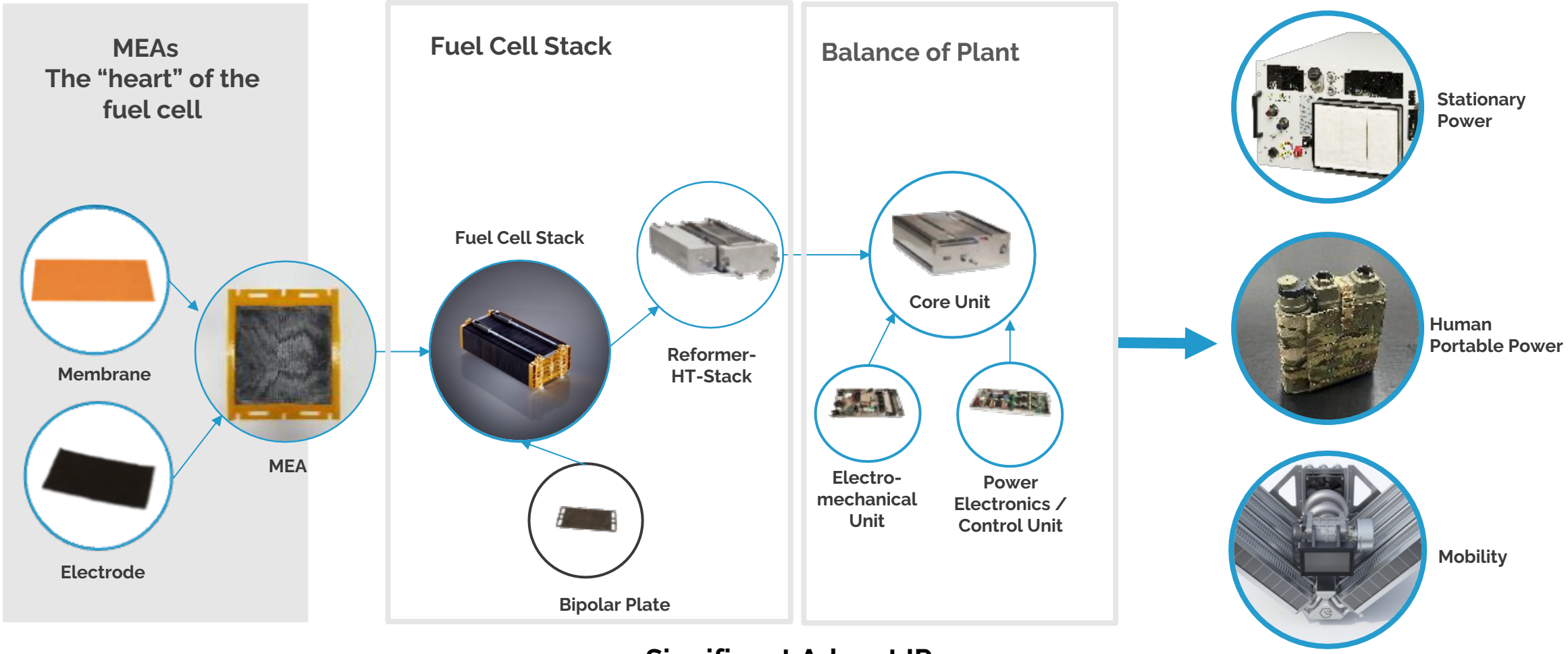
- Partnerships with Tier1s and industry leaders to scale-up production and provide market access that will lead to volume-driven efficiencies.



*Methanol-based cost estimate, including CAPEX and OPEX

Inside the Advent HT-PEM Fuel Cell

One Technology: Many Markets



Core & Unique Advent IP:
Manufacture at scale the most differentiating and scalable fuel cell component

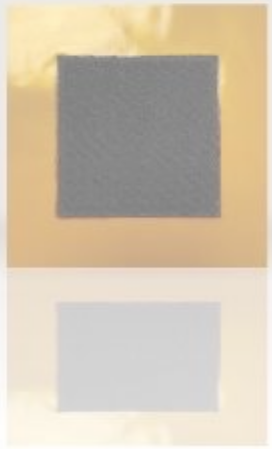
Significant Advent IP:
Prototype, manufacture selectively and license to Tier1s to address end product differentiation, manufacturing capex needs, service, support and global network capabilities of global leaders

Ion Pair™ MEA

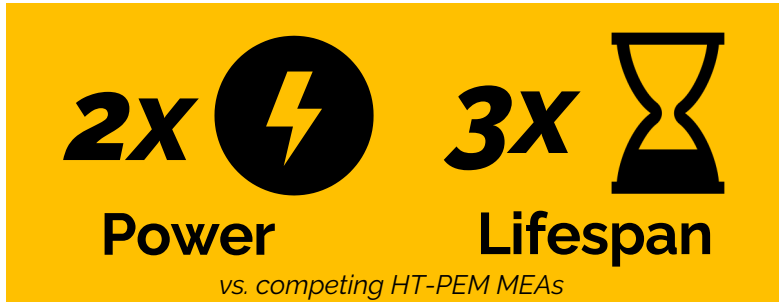
Superior Performance:

HT-PEM fuel cells featuring Advent's next-gen MEA, developed in collaboration with Los Alamos National Laboratory, **offer tripled lifespan and double the power density** compared to previous models.

Los Alamos NATIONAL LABORATORY



Development Target



Preferred Industry Choice:

The Ion Pair MEA is the reason behind the success Advent had lately with signed and pending Joint Development Agreements. It combines the power density potential of LT-PEM with the resilience and multifuel capability of HT-PEM.

We expect this technology to be an industry game-changer enabling fuel cells to be deployed with the current fuel availability and resilience issues.

Advent owns unique IP on the core technology and the manufacturing scale-up of the MEA.

Global Commercial Collaborations, Top-tier Lab Partnerships, and Government Alliances

Ongoing Joint Development Agreements

SIEMENS energy

Marine

AIRBUS

Aerospace

U.S. Department of Defense

Defense

HYUNDAI

Heavy-Duty Automotive

Long-Term R&D Partnerships

Los Alamos NATIONAL LABORATORY

NREL Transforming ENERGY

Brookhaven National Laboratory

cea

Fraunhofer

Our fuel cells have been successfully deployed by world-leading companies in the telecom industry.

MOTOROLA

LAND BRANDENBURG

ERICSSON

Smart

Globe

NOKIA

ADVENT

Markets

Key Markets

1. Stationary & Portable Power

- ✓ *Diesel Generator replacement (infrastructure, construction, telecom, data centers)*

2. Marine

- ✓ *eMethanol Fuel Cells to decarbonize Shipping (start with yachts market)*

3. Heavy-Duty Automotive

- ✓ *Focus on heavy-duty trucks and eFuel EV range extenders*

4. Aerospace

- ✓ *Main propulsion for aircrafts in the next decade (start with under 2hr market)*

Advent Product Deployments

Over 730,000 Operational Hours in the Field (as of March 2024)

Telecom Backup Power

Globe Telecom
5G upgrades – Philippines

- 10kW systems on rooftop sites in rural and urban areas
- Proved resilient against natural disasters
- Off-Grid, Bad-Grid
- 24/7 Power

Telecom Backup Power

ZTE/Telefonica
Germany

- Energy-self-sufficient mobile communication site utilizing a combination of Advent fuel cells and 30 solar panels.
- This setup saves over 13,000 kilowatt-hours per year compared to a mobile phone tower powered by conventional electricity.

Critical Communications Backup Power

State of Brandenburg
Germany

- Backup remotely monitored power for Brandenburg's BOS digital radio network
- Serene fuel cells ensure seamless operation of the entire BOS network in Brandenburg

Critical Infrastructure Backup Power

Motorola
Norway

- Backup remotely monitored power for Motorola Norway's critical communication site.
- Serene fuel cells can detect problems without requiring a helicopter for communications between police, fire, and rescue services.

Stationary & Portable Power: New Markets

Data Centers

With new data centers scaling up to hundreds of GWs, reliable backup solutions are now essential, replacing traditional diesel generators. Data centers, known for their high energy consumption, require backup power for approximately 200 hours annually, translating to a market potential worth hundreds of millions. This demand is amplified by mandates from major corporations, notably among hyperscalers like Amazon Web Services (AWS) and Microsoft.

Remote EV Charging Stations

Forecasts suggest EVs will represent 40% of global auto sales by 2030, necessitating established charging stations in remote areas. Advent fuel cells offer a proven solution to power remote EV charging stations, supporting initiatives such as the Bipartisan Infrastructure Bill in the US and China's "GoRural" campaign.

MW-Scale Off-Grid Support for Microgrids and Industrial & Hospital Applications

Significant potential for mass adoption in off-grid and microgrid hybrid systems, with global average run-hours ranging from 2,920 to 8,760 annually. Power generator sizes vary from 0.05 to 20MW per site. Advent fuel cells also fit well in industrial facilities, hospitals, and hotels, with backup systems averaging 200 to 800 run-hours annually. Typical generator sizes range from 0.075 to 0.3MW, totaling 14.1MW deployed capacity.

Portable & Stationary Power Products

Advent USPs

- **10-20x** more energy dense than batteries of equivalent weight.
- **Liquid fuel**: Simplifies logistics for off-grid use, construction, and EV charging.
- **Low fuel cost, pollution**, **noise**, and **footprint**.
- **Flexible:** Configurable size for fuel cells, batteries, and tanks.
- Advent offers **standalone fuel cells** for third-party branding.

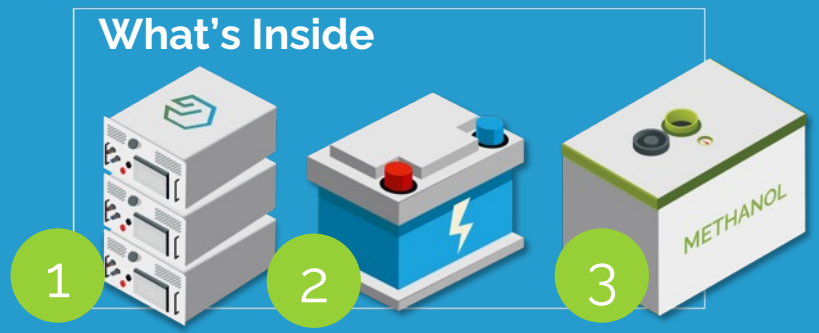
All Products below built with SereneU

SereneM for Marine | **SereneP for Portable** | **SereneS for Stationary**

The Fuel Cell

Fuel cells charge the battery, providing unlimited green power generation. **Just add methanol fuel**.

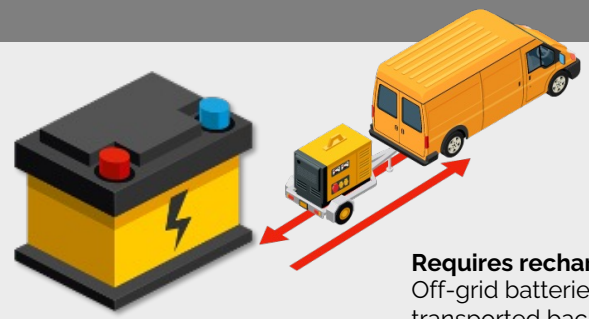
What's Inside



Fuel Cells + Battery + Methanol Tank

Advent: 0.8kg/kWh (0.4kg/kWh in 2025)

Battery-Only Competition: 6-8kg/kWh



Requires recharging.
Off-grid batteries must be transported back to the grid for recharging every day.

Portable Power Case Studies

Construction

Events

Advent Customer Crafting Their Own Solutions

Municipality projects

Denmark

- Advent's clean power solution charges electrical machinery, replacing 60kVA diesel genset.
- Average power output of 5.8kW with a peak of 21kW, results in monthly reductions of 2.2 tons of CO2 emissions for each diesel generator replaced.
- Fuel cost savings of 38%-62%.

Green Concert

Denmark

- Continuous power for beer taps/bar tents .
- Replacement of 60kVA diesel genset
- 40% efficiency, compared to the 11% efficiency of a Diesel Genset.
- 93% CO2 emission reduction using bio-methanol .

Volta Energy

Netherlands

- Advent fuel cells enable the creation of hybrid mobile power products for construction, festivals, and events.
- Advent's fuel cells provide sustainable backup power, complementing photovoltaic energy systems and batteries for continuous and reliable power supply.

Marine Deployments

The Marine Industry is moving toward methanol as the most viable green fuel option for the 2050 net-zero target.




Siemens Energy

Advent and **Siemens Energy** are collaborating through a JDA to develop a fuel cell solution for the marine industry using Advent's HT-PEM fuel cells. They have also partnered with **Sanlorenzo** to launch the first eMethanol HT-PEM fuel cell project, aiming to eliminate the need for diesel engines and generators in yachts. The 50Steel methanol fuel cell superyacht, **Almax**, was launched in May 2024.

Rivercell

Advent has partnered with **Meyer Neptun**, **Siemens Energy** and **Lloyd's Register** to develop **50kW Fuel Cell** modules utilizing Advent's *Ion Pair*™ MEA technology, with a minimum total system size of 250kW.

Technohull

Advent has partnered with **Technohull**, a luxury boat manufacturer, to create an eco-friendly electric propulsion system. This system integrates Advent's methanol-powered fuel cells and batteries to drive a custom Technohull vessel,

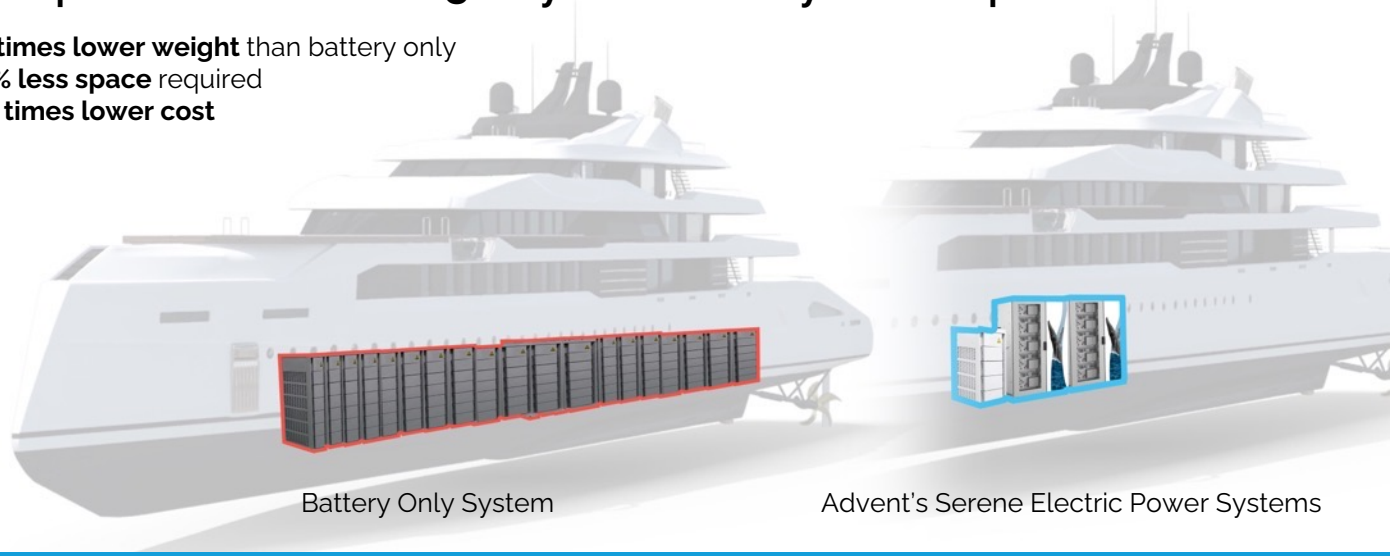
Global Shipping Fleets

Advent has formed partnerships with **Neptune Lines** and **Laskaridis Shipping** commencing with pilot programs, where Advent's methanol-powered HT-PEM fuel cells are being tested as auxiliary, backup and emergency power sources.

Marine Products

Comparison based on a 3-day (6MWh/day load) trip

13 times lower weight than battery only
72% less space required
9.4 times lower cost



No Range Anxiety.
No Battery Recharging.
No Noise.

Advent USPs:

Made to fit your boat: free from moving parts, ensuring durability and simplicity, can be easily customized to match yacht specifications.

Quiet Serene Sail: operate silently, eliminating noise and vibrations.

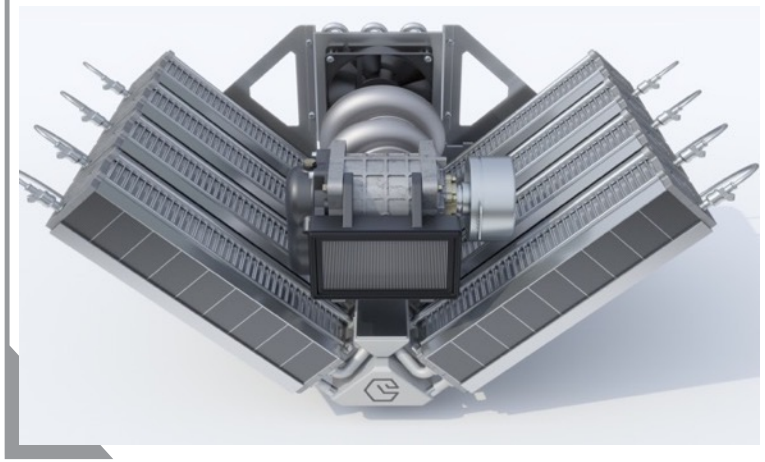
Low Maintenance, Low Cost: significantly reduces the need for Maintenance, Repair, and Operations (MRO), giving you more time to enjoy the open waters.

Competitive Cost: low-cost with new system under Joint Development Agreement

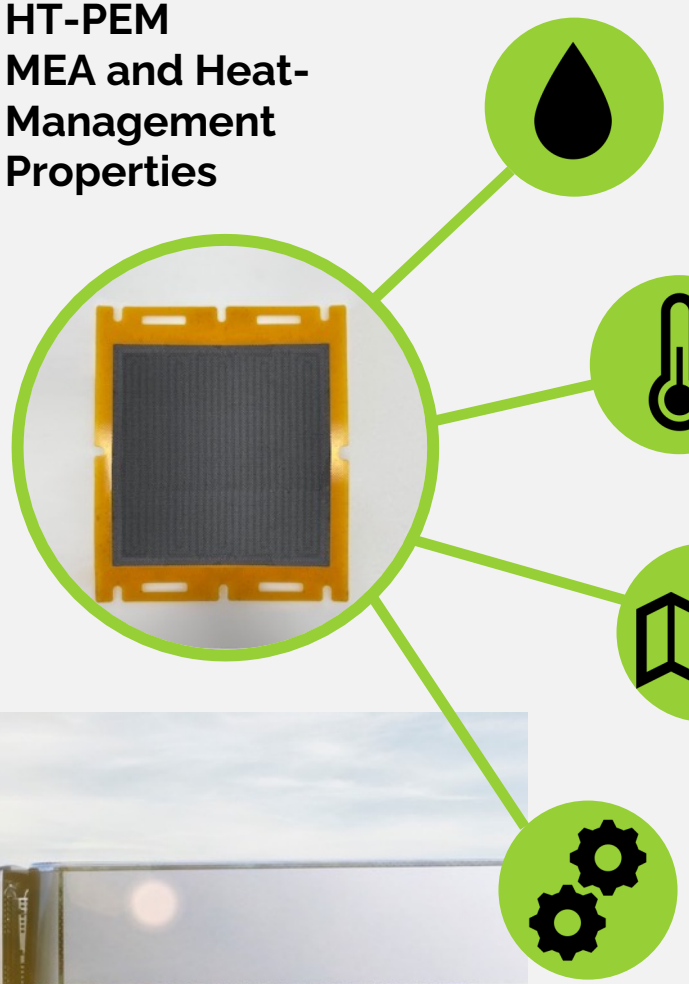
Simple Refueling: convert liquid green methanol fuel into electric power. Ready to work with biomethanol or emethanol for net-zero operation

Automotive

- **2023: Hyundai** Motor Co. Joint Development. Technology assessment with **four more** top-15 Automotive & Equipment manufacturers
- **2024:** First phase completion and potential move to large-scale Joint Development Agreements for Technology commercialization
- **2025-2026:** Aim for multimillion joint development agreements with move to commercialization
- **2027 forward:** mass production of MEAs by Advent and potential licensing of fuel cell technology.



Focus on unique HT-PEM MEA and Heat-Management Properties



Methanol, H2, eFuels

- Ability to have liquid fuel on board and refill with current infrastructure.

Heat Management

- HT-PEM: Unique thermal management characteristics.
- Compact, cost-efficient cooling system.
- Ideal for extreme conditions.

Long Range & Fast Recharge

- Maximize Payload.
- Solves the limitations of pure EV trucks.

Efficiency

- Use of heat and steam through turbo gen to increase efficiency.
- Designed for high voltage.

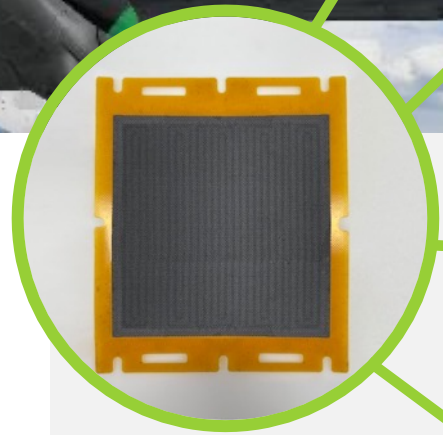
Aerospace: Fuel Cell-Powered Aircraft

Airbus

Utilizing our exclusive **Ion Pair™ MEA technology**, we are at the forefront of fuel cell development with the objective of enabling flights of up to 1000 kilometers solely powered by fuel cells. Through a **$13-million Joint Development Agreement**, Advent is actively contributing to **Airbus's ZEROe project**, which seeks to introduce the world's first hydrogen-powered all-electric commercial aircraft by 2035.

Safran

By harnessing our exclusive **Ion Pair™ MEA technology**, we are partnering with **Safran** to pursue the goal of enhancing aviation's environmental impact by advancing the development of HT-PEM fuel cell technology, with a specific focus on the aerospace sector. This effort aims to make aviation cleaner, more efficient, and more sustainable.



Focus on unique HT-PEM MEA and Heat-Management Properties

Eliminating Water Dependency

HT-PEM fuel cells operate without needing water, making them ideal for aerospace, avoiding water-related challenges and the risk of dehydration in high-altitude environments.

Thermal Management

Our HT-PEM MEAs and fuel cells tackle a major hurdle in aerospace fuel cell usage: the thermal management issue.

Multifuel Capability

HT-PEM fuel cells offer compatibility with various fuel sources, including liquid hydrogen, dimethyl ether, and reformed sustainable aviation fuel (SAF).

Extended range

Compared to battery aircraft, HT-PEM technology enhances range, payload, and trip frequency on a single charge due to its lightweight design and power efficiency.

ADVENT

Human-Portable Power

Honeybadger 50™

Ultra-compact fuel cell, offering quiet, lightweight power generation on-the-move

- In September and December 2023, contracts totaling **$2.2 million** and **$2.8 million**, respectively, were signed with the **U.S. Department of Defense**. These contracts focus on integrating the **Ion Pair MEA technology** into Honeybadger 50™ and enhancing specific components/manufacturing processes. The objective is to facilitate the shift from low-prototype volume to small manufacturing volume.
- Near silent generation of up to 50W of continuous power with clean emissions.
- More than 70% weight reduction compared to batteries.
- Can use windshield washer fluid as fuel.
- Advent and the U.S. DoD plan to strengthen their collaboration by concentrating on the manufacturing process of the improved HB50 fuel cell system, with the goal of achieving high-volume production capacity.
- **Multiple applications are expected in the future in sectors such as robotics, agriculture, drones, emergency operations, and consumer uses.**

Lightweight

Reduces weight vs batteries by 3x to 25x on missions.

Resilient

- Continuous operation at -20˚ C to 50˚C.
- Manufactured with materials that are not damaged at extreme temperatures.

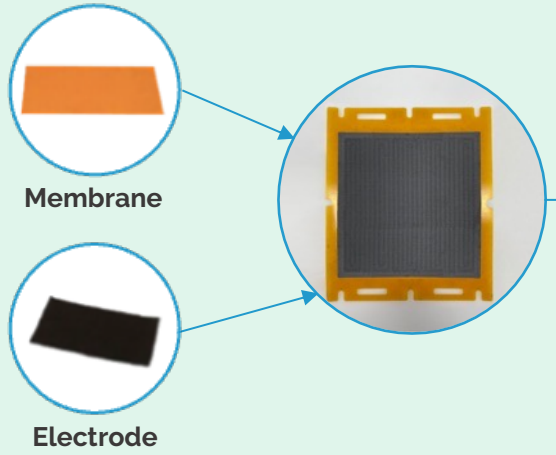
Fuel Flexible

Uses a fuel serviceable filter (like a water filtration kit), allowing it to run on the fuels that can be deployed in defense missions: methanol, JP-8, and even windshield washer fluid.

Business Model

Business Model

MEA



Manufacture and sell MEAs at scale

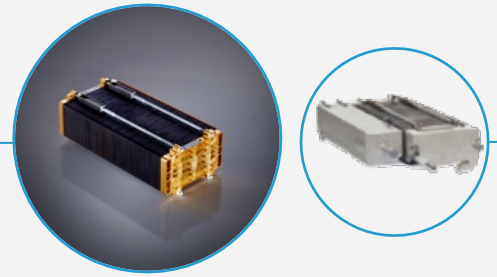
Core-IP protected by know-how and patents

Low capex needed to increase production (coaters)

25% gross margin

20%-25% of fuel cell cost

Fuel Cell Stack



License technology to Top Manufacturers

Selectively manufacture in the short-mid term to prove the market until all partnerships are in place.

Licensing gross margin over 90%

40%-60% of fuel cell system cost

Balance of Plant

License technology to Top Manufacturers

Selectively manufacture units for short-term to improve quality and IP reach

Licensing gross margin over 90%

40%-60% of fuel cell system cost

Fuel Cell-Based System

Stationary Power

Human Portable Power

Mobility

- Standardized MEA and fuel cell stacks, coupled with the application-specific balance of plant and system integration, can address a variety of markets
- Products will be under the brand of the world's top manufacturers

ADVENT

Managing Growth: Go to Market Strategy

STAGE 1
2022-2024

Technology Assessments

World-leading partners evaluate the technology, through benchmarking programs to determine suitability for their market.

Completed Successfully: **Hyundai Motor Company**, **Airbus**, and **Siemens Energy.**

Ongoing assessments: with **four of world top-10 automotive companies**, **four leading aviation companies**, and a **world leading construction equipment manufacturer**.

STAGE 2
2023-2025

Joint Development Agreements

Scope at MEA or System level. Develop market-specific optimal fuel cells or MEAs that can meet criteria for mass production..

Under way: **Hyundai Motor Company**, **Airbus**, **Siemens Energy and US Army.**

Low-volume production & sales for Stationary Power Market (Serene Product Suite)

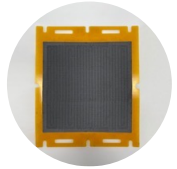
STAGE 3
2026 – Onward

Mass Production & Licensing

Intent to **license** fuel cell technology and **manufacture** MEAs at scale.

Top tier manufacturers in charge of the **production process, including BOP, Sales & Marketing**, and **aftersales**.

Manufacture & Sell MEAs



License Fuel Cell System

Market Potential

(per partnership)

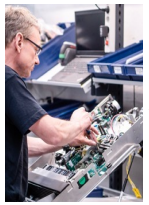
Customer Growth Strategy

Technoogy Assessment
300K

Joint Development Agreement (JDA)
$3m-$5m/year/partner
(2x with R&D grants)

Low Volume Production
20MW-50MW
10-25m$/year
Target 2026

High Volume
100MW-1GW
40+m$/year



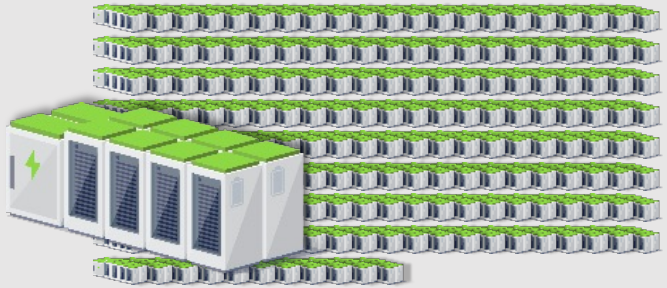
Year 1	Year 2	Year 3	Year 4:	Year 5:	Year 6:	Year 7:	Year 8:
			20 MW	50 MW	100 MW	500 MW	1 GW

Massive scale-up occurs at the volume production stage, with low capex for MEA manufacturing and a high-margin licensing model.

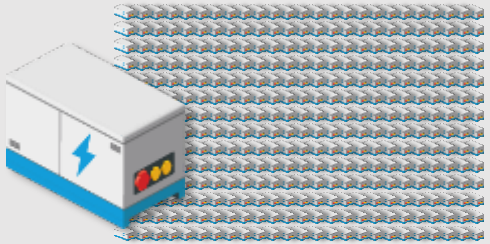
What is 100MWs Equivalent To:

STATIONARY POWER MARKET

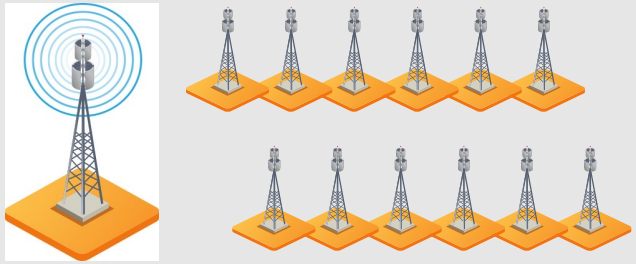
1 Data Center



350 Building/Hotel Backup Power Systems



350 Construction Portable Power Systems



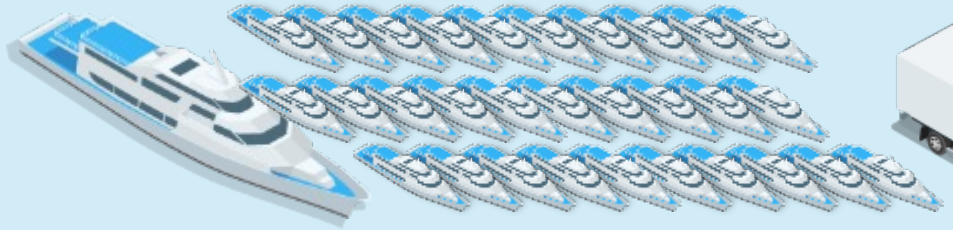
5000 Telecom Towers

Global diesel genset market: 2022: $20bn billion to grow to 2031: $41bn

MOBILITY

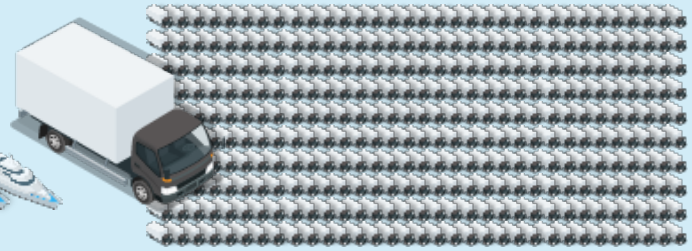
10 ATR type Aircrafts

Global Market: 2,450 turboprop aircraft (2041)



30 Large Yachts

10,800 yachts (275 per year)



400 Heavy Duty Trucks

3.2mn hd-trucks, 278mn commercial vehicles

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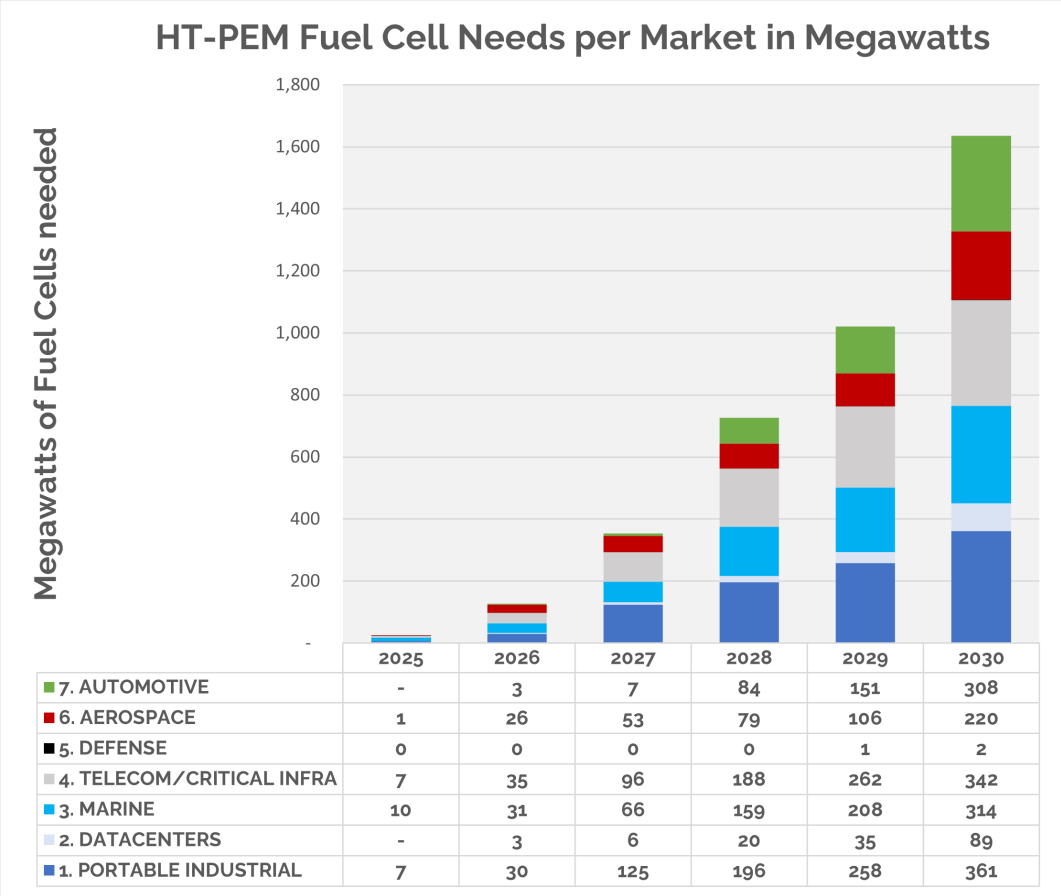
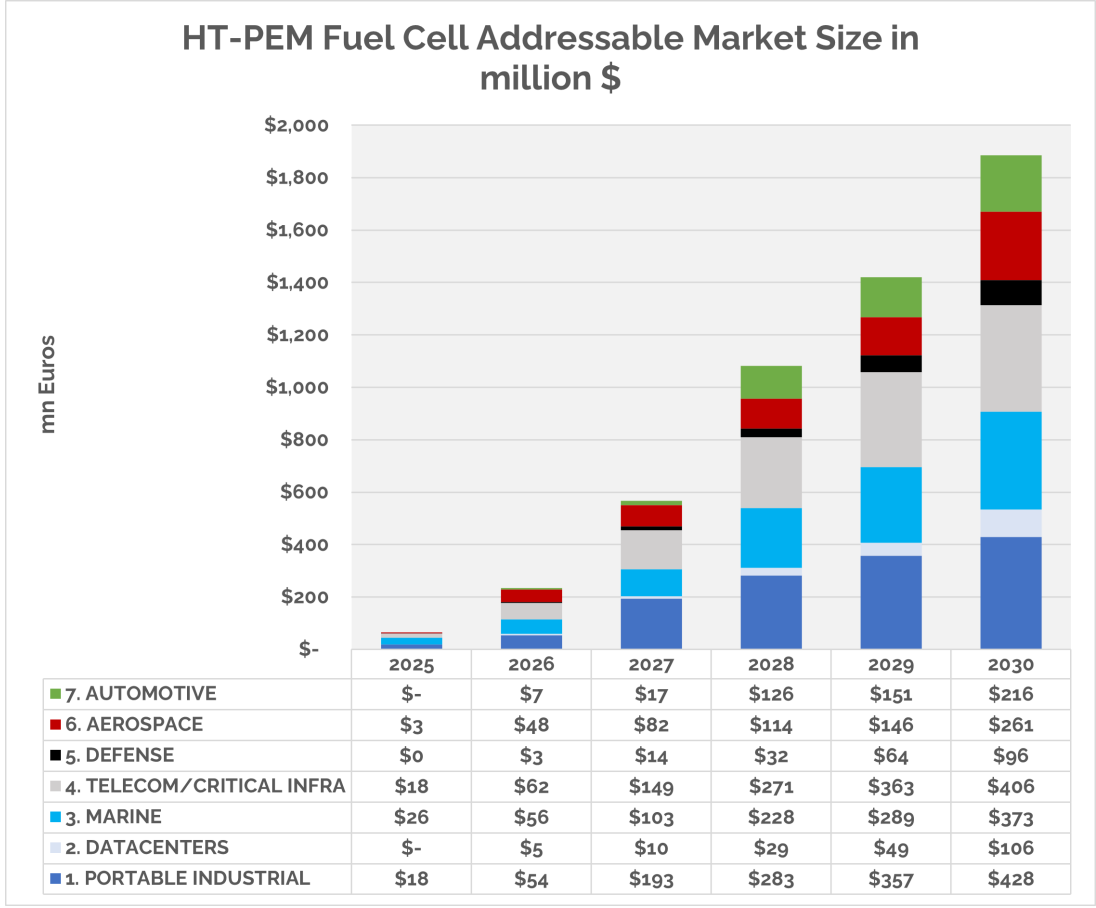
Market Opportunity for HT-PEM Technology and Advent



	2025	2026	2027	2028	2029	2030
7. AUTOMOTIVE	-	3	7	84	151	308
6. AEROSPACE	1	26	53	79	106	220
5. DEFENSE	0	0	0	0	1	2
4. TELECOM/CRITICAL INFRA	7	35	96	188	262	342
3. MARINE	10	31	66	159	208	314
2. DATACENTERS	-	3	6	20	35	89
1. PORTABLE INDUSTRIAL	7	30	125	196	258	361



	2025	2026	2027	2028	2029	2030
7. AUTOMOTIVE	$-	$7	$17	$126	$151	$216
6. AEROSPACE	$3	$48	$82	$114	$146	$261
5. DEFENSE	$0	$3	$14	$32	$64	$96
4. TELECOM/CRITICAL INFRA	$18	$62	$149	$271	$363	$406
3. MARINE	$26	$56	$103	$228	$289	$373
2. DATACENTERS	$-	$5	$10	$29	$49	$106
1. PORTABLE INDUSTRIAL	$18	$54	$193	$283	$357	$428

- **We predict that HT-PEM Fuel Cells can address a 1.6GW opportunity by 2030,** mainly by replacing diesel generators and engines in stationary, portable, off-grid, and marine applications. Scaleup of mobility is a much bigger opportunity.

- **We predict that HT-PEM Fuel Cells can generate revenue of $1.8bn by 2030**, addressing the 1.6GW early-adoption market segments. Advent's goal is to be the world-leading HT-PEM technology company and receive ~20% of these revenues through MEA selling and license fees.

Active R&D Programs

21 Programs of $16m in EU and USA to support R&D in 2024 and forward

U.S. DEPARTMENT OF ENERGY

Horizon Europe

Clean Hydrogen Partnership

EUDP

Federal Ministry for Digital and Transport

EU Project Funding

Green HiPo: Innovative Production of HT-PEM Fuel Cells and Electrolyzer Systems in Western Macedonia, Greece

Advent's planned facility in Kozani, Greece

Advent's Green HiPo, a **€60-million EU-approved key IPCEI Hydrogen Technology Project**, is set to establish R&D and production facilities in Kozani, Greece, supported by a **€24 million state aid package from Greece's Just Transition Fund (JTF)**.

AEM Electrolyzers R&D

SOLAR

WIND

H2

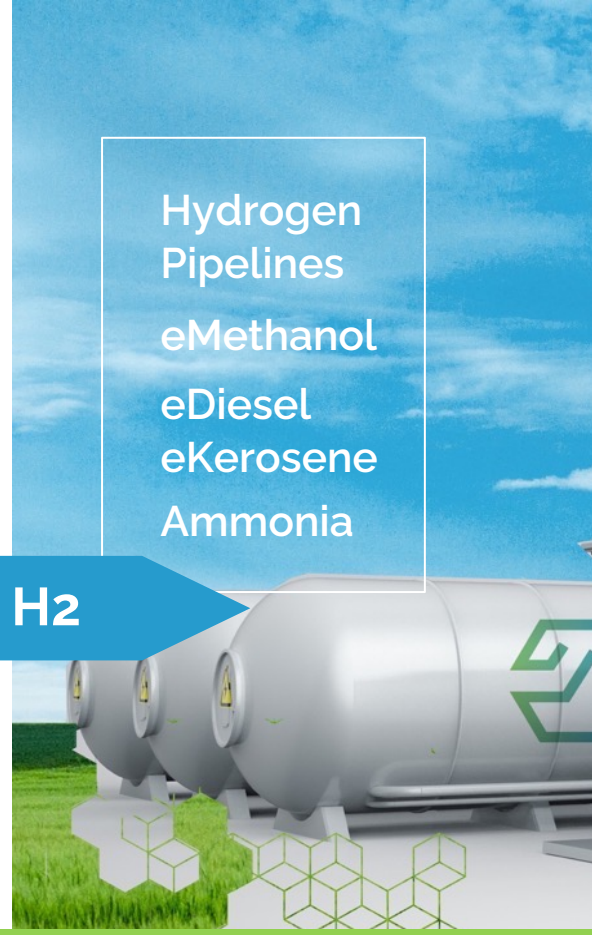
Hydrogen Pipelines

eMethanol

eDiesel

eKerosene

Ammonia



Advantages

No Platinum
Unlike PEM electrolyzers, AEM does not require Pt that costs $100s per kW

No Iridium
Unlike PEM electrolyzers, AEM does not require Ir that costs $100s per kW

Supply Chain
Established: Rely on abundant non-precious materials

IP
Advent's strong IP in electrodes & membranes & scale-up readiness

Manufacturing
Designed for low cost of manufacturing, long lifetime

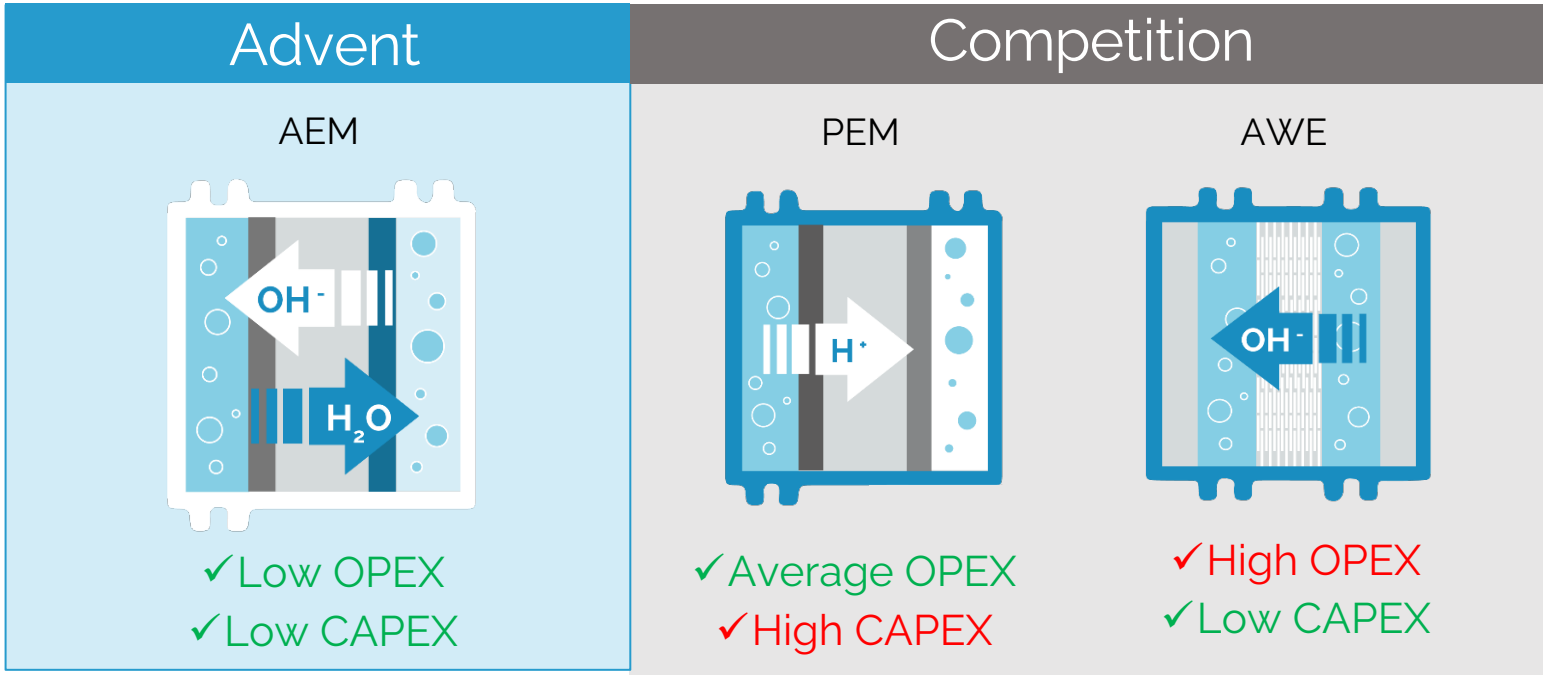
Advent Develops AEM Electrolyzers to Lower the Cost of Green Hydrogen Production

Low OPEX:

- Advent's MEA achieves 90% voltage efficiency (key to achieving hydrogen at $1/kg)
- At the MEA level, Advent has exceeded the U.S. DoE target of under 45 kWh/kg H2

Low CAPEX:

- No Platinum, Iridium, or Titanium needed



Financial

Financial Highlights*

2024:

Revenue & Grants: Target is set at $13m ($11 million in revenue and $2 million in grants). Most of the revenue is already contracted and subject to Advent delivering against milestones. **IPCEI should bring another $3 million to $5 million that are not included in the abovementioned target**.
Costs: Cost reduction by Operations and Facilities consolidation with path to **$24m total 2024 costs**, a drop of almost **50% from previous year**. Reduction mostly in overhead, facilities, and streamlining of acquired companies' operations. Company may increase spending in R&D if new financing/funding is in place, or in Cost of Goods sold if new profitable contracts are secured.

2026:

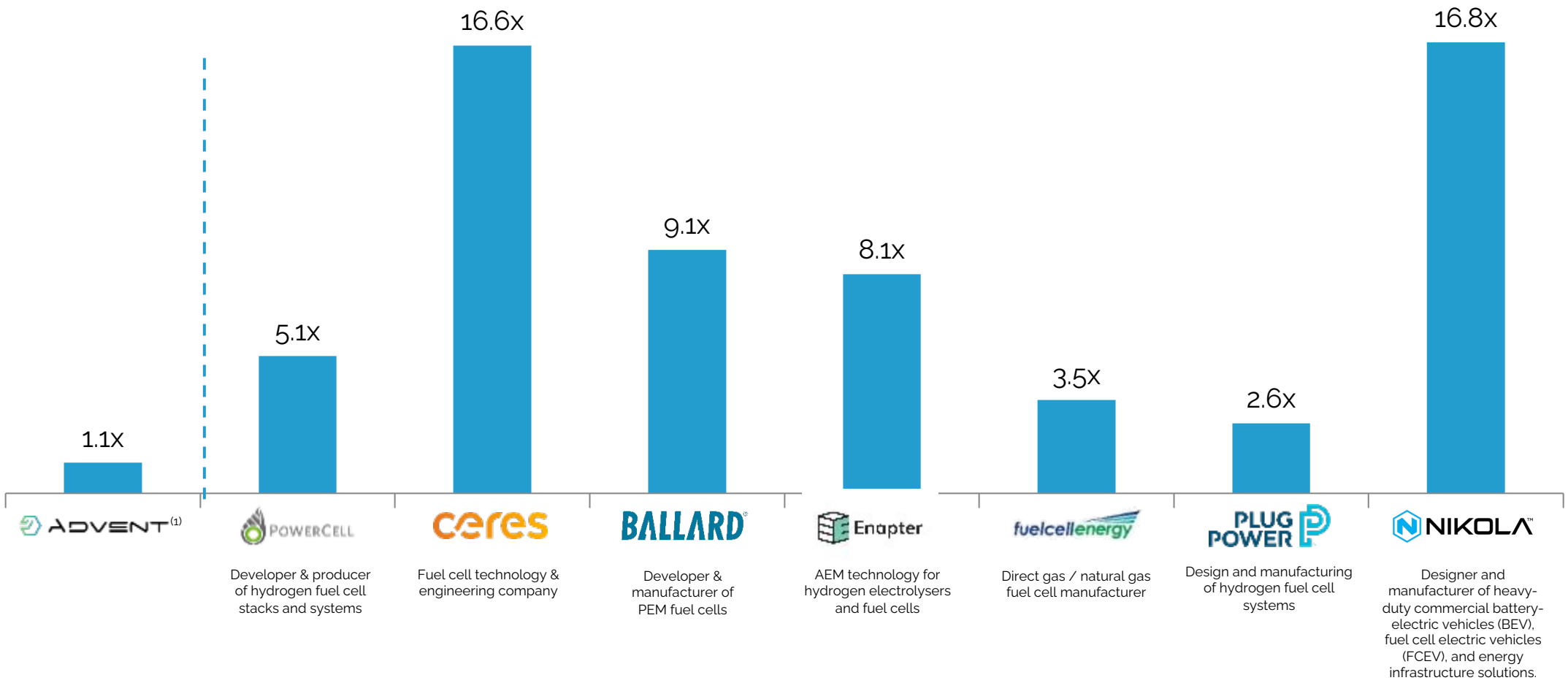
Path to **$60m revenue & grants inflows by 2026** is still the target assuming significant support from EU is in place. **Goal for EBITDA positive by 2026**.

Strategy:

Growth strategy relying on technology transfer and strategic partnerships with world-leading organizations.
License out Serene product for the Stationary Market. Customer focus on 10-years+ service agreements further justify this strategy.
Grow and develop Strategic Partnerships in Aerospace, Marine, Defense, Automotive.
Avoid direct sales to price sensitive markets to limit sales and distribution costs, working capital costs, and negative gross margin.

*See "Disclaimer" regarding forward-looking statements, projections and targets. The Company does not undertake to update or affirm these projections and targets in the future. Projections are inherently uncertain and subject to assumptions and future events.

Price/Sales Ratio (As of May 17, 2024)*



*The price-to-sales ratio (Price/Sales or P/S) is calculated by taking a company's market capitalization (the number of outstanding shares multiplied by the share price) and divide it by the company's total sales or revenue over the past 12 months. The lower the P/S ratio, the more attractive the investment. The above-mentioned estimations are based on data sourced from Yahoo Finance on May 17, 2024.


ADVENT
Thank you.

Technology Appendix

Why Fuel Cells?

	Diesel Generator	Batteries	Fuel Cell
Maintenance	6-8 times per year	2-3 times per year	1 time per year
Resilience	Good	Intolerant	- 20°C to 50°C
Duration	Just add fuel	1-2 hours	Just add fuel
CO2 emissions	Highest emissions & pollutants	Grid-based (20% - 40%) reduction	80%-100% emissions reduction
Recycling	No recycling of system	Expensive and difficult to be recycled	Easily recycled
Noise	High over 100db	Negligible	Under 50db
Footprint	Large	Large	Small
Theft	High	High	Negligible

HT-PEM: USPs vs LT-PEM

Technology

		Efficiency Heat-Management	**Logistics** Liquid eFuel –ready (Methanol)	**Resilience** at Extreme Environments
Heavy-Duty Automotive		HT-PEM works at ideal temperature for heat rejection, thus maximizing efficiency and allowing operation in hot weather climates. LT-PEM cannot cool fast meaning it is not suitable for Aerospace and Heavy-Duty tracks.		No-water in the fuel cell membrane results in simpler system that can operate in hot or cold environments efficiently.
Aerospace				Operates at extreme ambient temperatures (from May's tarmac heat in Mumbai to well below zero at 10,000km high).
Marine			Methanol is a liquid, easy-to-transport, and refill hydrogen carrier available in more than 100 ports globally.	
Stationary & Off-Grid			Transporting compressed H2 off-grid doesn't make economic sense. Methanol is a simple green choice.	Can operate in the most polluted of cities or toughest environmental conditions.

ADVENT

SereneP

Portable Power Products

For Construction Sites, EV Charging Stations, Microgrids, Events & Buildings

- Combines a battery, a fuel cell, and green liquid fuel to provide clean power (10kVA to 300kVA).
- Operates on methanol, biomethanol, or eMethanol.
- Unlike traditional grid charging, SereneP's fuel cell charges its batteries, enabling virtually limitless green power generation even during grid outages.
- It is lightweight and portable enough to be moved to the location of choice.
- Advent has established a broad network of partners and have perfected the operations excellence processes for taking care of each customer's methanol needs.

SereneP: Comparison with Batteries

Comparison

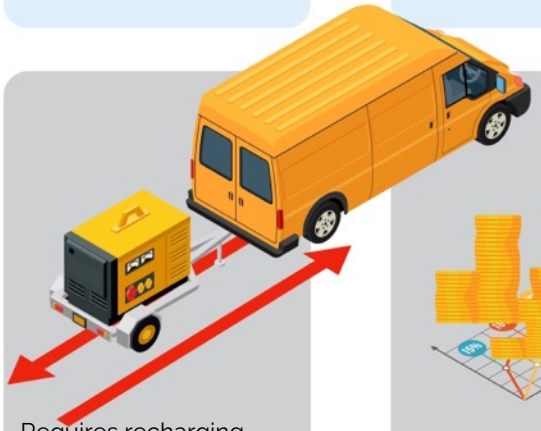
Advent's SereneP System
Vs
Battery-Only Solution

SereneP (Fuel Cell + Battery)

Fuel cells charge the battery, providing unlimited green power generation.

Battery-only Solution

Battery powered generators.

Logistics	Cost	Emissions
		
No Recharging	**Lower Cost**	**Lower Emissions**
Constant power potential limited only by fuel supply.	Significantly lower cost and longer runtime.	80% reduction when using biomethanol fuel.
 Requires recharging. Off grid batteries must be transported back to the grid for recharging every day.	 Higher cost and less runtime.	 Batteries charging from the grid in most countries result in higher net emissions.

SereneM Marine Power

Comparison

Battery Only
vs
Advent's Serene
Electric Power System

Comparison based on 1 day (6MWh/day load) trip

Battery Only System

Advent's Serene Electric Power Systems

7 times lower weight than battery only
35% less space required
3 times lower cost

Comparison based on 3 day (6MWh/day load) trip

Battery Only System

Advent's Serene Electric Power Systems

13 times lower weight than battery only
72% less space required
9.4 times lower cost

Types Of Methanol Vs Diesel

Advent Fuel Cells can also use H2 or natural gas, ethanol

Fuel	Cost vs Diesel	TCO/kWh (incl. capex, service, fuel)	CO2 Emissions	Pollutants
Diesel		€€€ 0.6-1.15	CO2 1,162 gr/kWh	Unburned Hydrocarbons (HC), carbon monoxide (CO), nitrogen oxides (NOx), SOx, particulate matter (PM), BC, OC
Grey Methanol	€ % 60%-80%	€ 0.41 in 2026	CO2 605 gr/kWh	No SOx, NOx, PM2.5, BC, OC
Biomethanol	€ % 30%-40%	€€ 0.59 in 2026	CO2 232 gr/kWh	No SOx, NOx, PM2.5, BC, OC
eMethanol	= Parity by 2035 or at H_2=$4.5/kg	€€ 0.59 in 2035	CO2 18 gr/kWh	No SOx, NOx, PM2.5, BC, OC

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