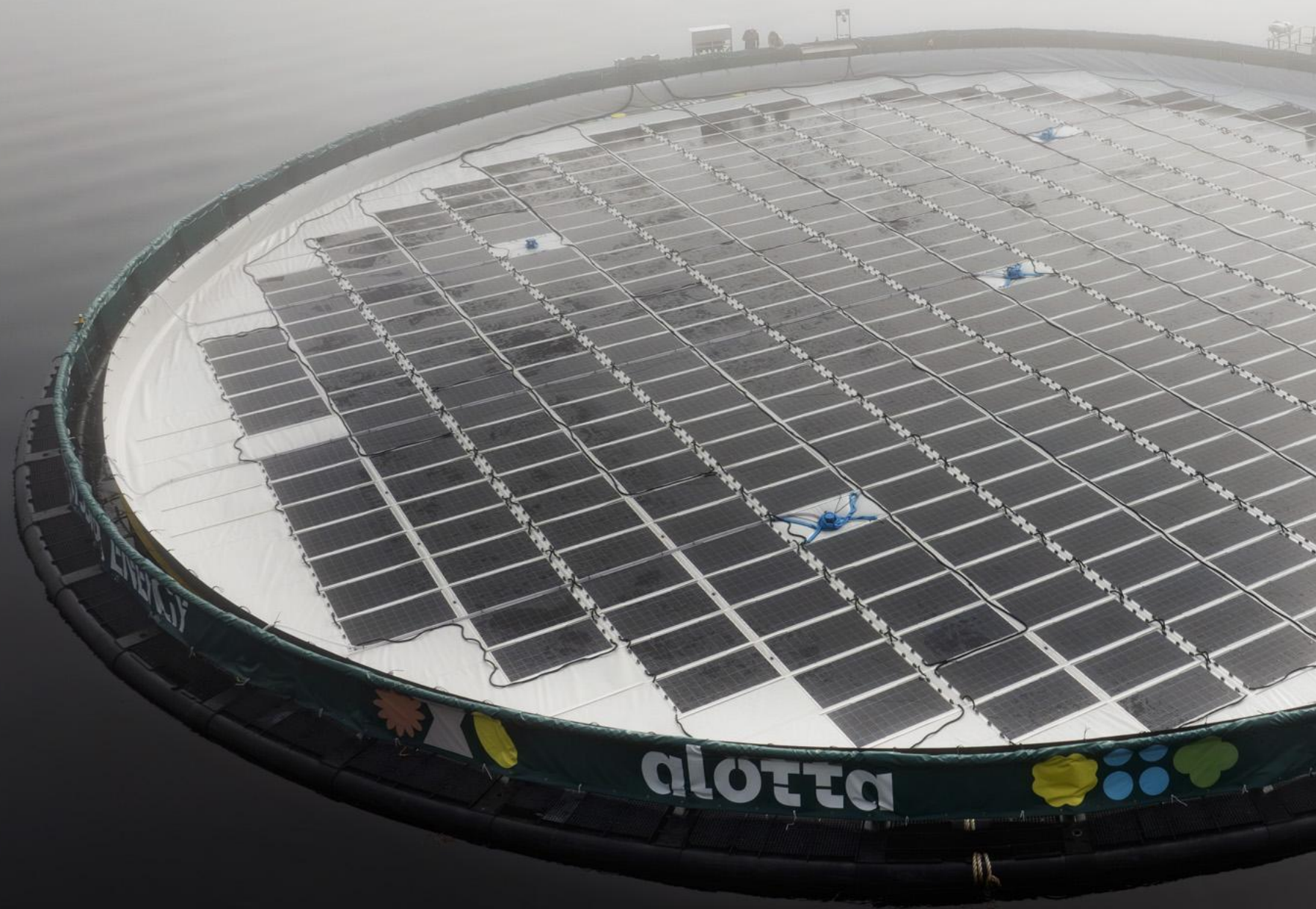




# Alotta Solar Hybrid

A scalable energy system designed for rapid deployment



We design and deliver turnkey floating photovoltaic (FPV) and renewable energy solutions to areas with limited connectivity.

Our solution is modular, movable, and reduces reliance on fossil fuels while lowering operational costs.

Metrics from our latest installation at a Norwegian cod farmer, since mid-April\*:

Power  
produced

**71,866**  
kWh

Diesel  
replaced

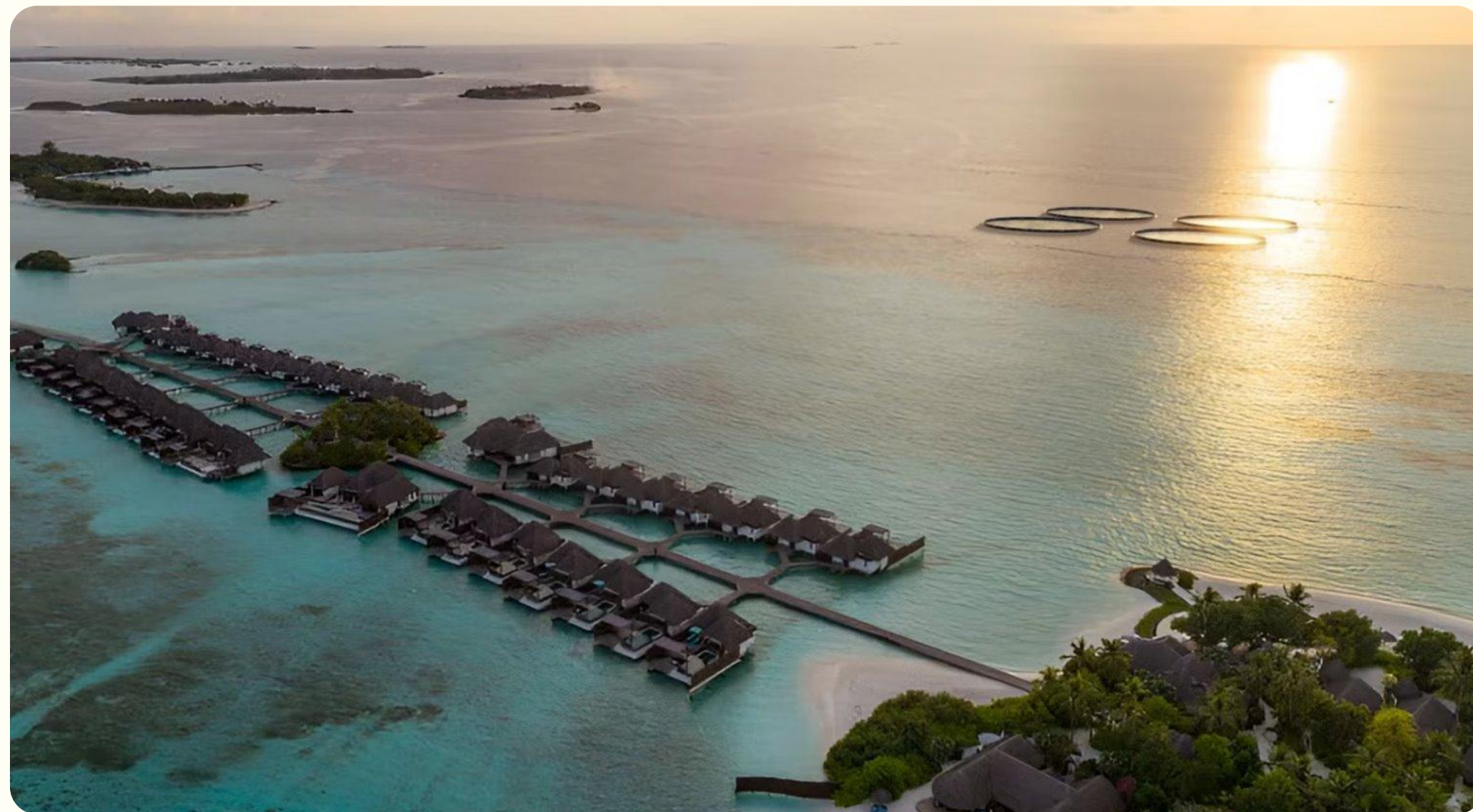
**25,153**  
liters

Emissions  
avoided

**67.1**  
tons of CO<sub>2</sub>




# Industries & Markets



- Aquaculture
- Remote areas and islands (off-grid areas)
- Lakes and reservoirs
- Fabric covered buildings



An aerial photograph of a fish farm in a Norwegian fjord. Several circular pens are visible in the water, connected by a network of lines. In the foreground, a large, oval-shaped floating solar panel array is deployed. The background features steep, forested mountains and a layer of mist or low clouds over the water. The sky is clear and blue.

# aquaculture

The global aquaculture industry has the need, desire, and maturity to deploy innovative energy solutions.

40%

of Norway's 1,000 active fish farms are not connected to the grid, and instead rely on diesel generators.

100%

of Chile's 500 active fish farms are off-grid and entirely diesel-driven.

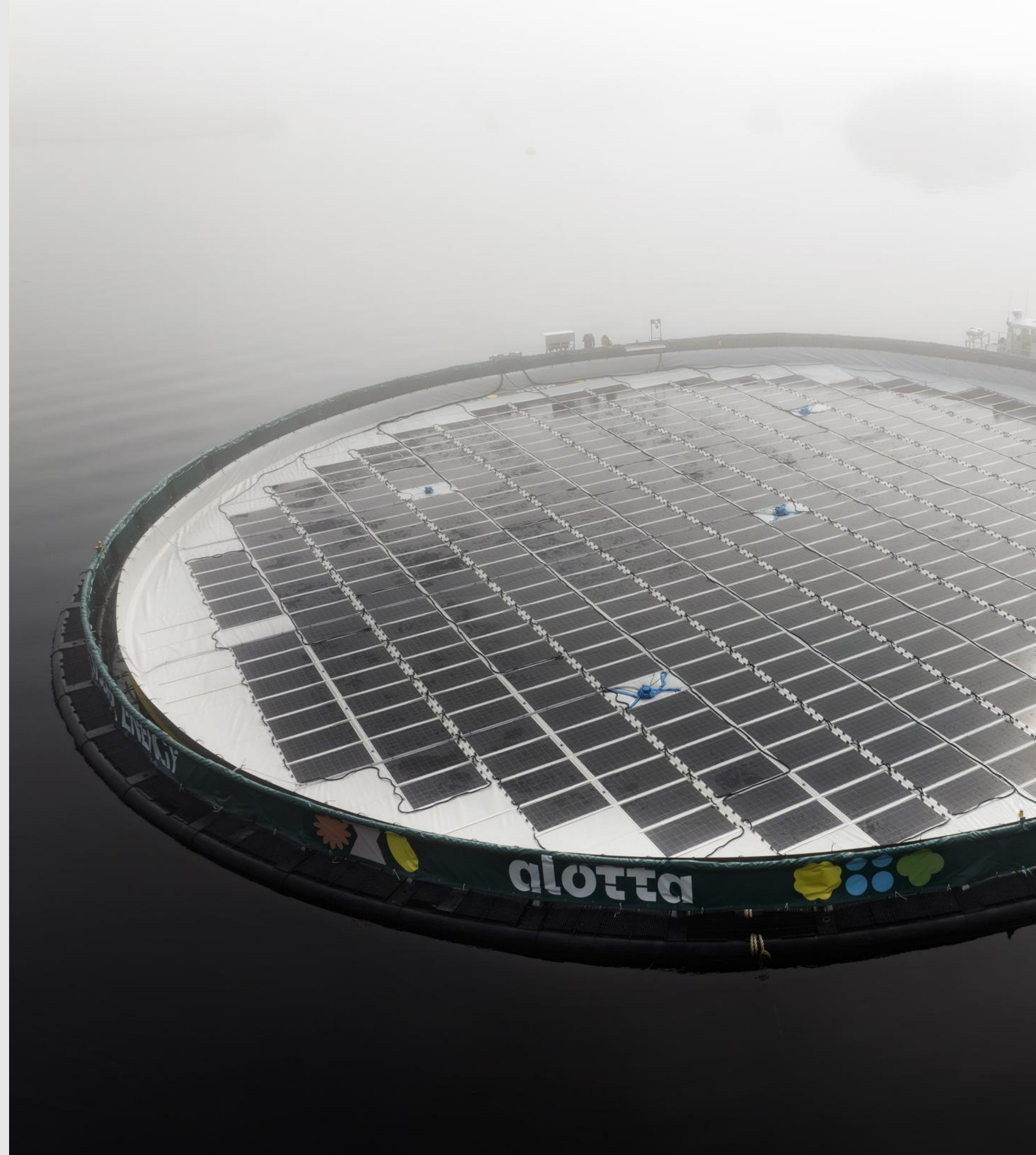
100%

of Turkey's 151 active fish farms are off-grid and entirely diesel-driven.



# «Not an ordinary fish cage»

- Reduces CO2 emissions
- Reduces diesel consumption
- Reuse of floating collar – recycling of plastics
- Improves the working environment by reducing noise of diesel generators
- Reduces boat traffic for bunkering diesel
- Scalable technology – suitable for any geometrical floater system
- Mobile system – no permanent footprint





# Alotta Circle

## Compact - Circular - Clever

Alotta Circle is our most proven and versatile floating solar platform. Designed for fast deployment and seamless operation, it's ideal for aquaculture feed barges and other marine installations where space is limited and reliability is key.

Available in flexible **S-XXL formats**, the system scales from **90 to 220 meters in circumference**, allowing us to tailor both energy output and footprint to the needs of each location.

### Key features

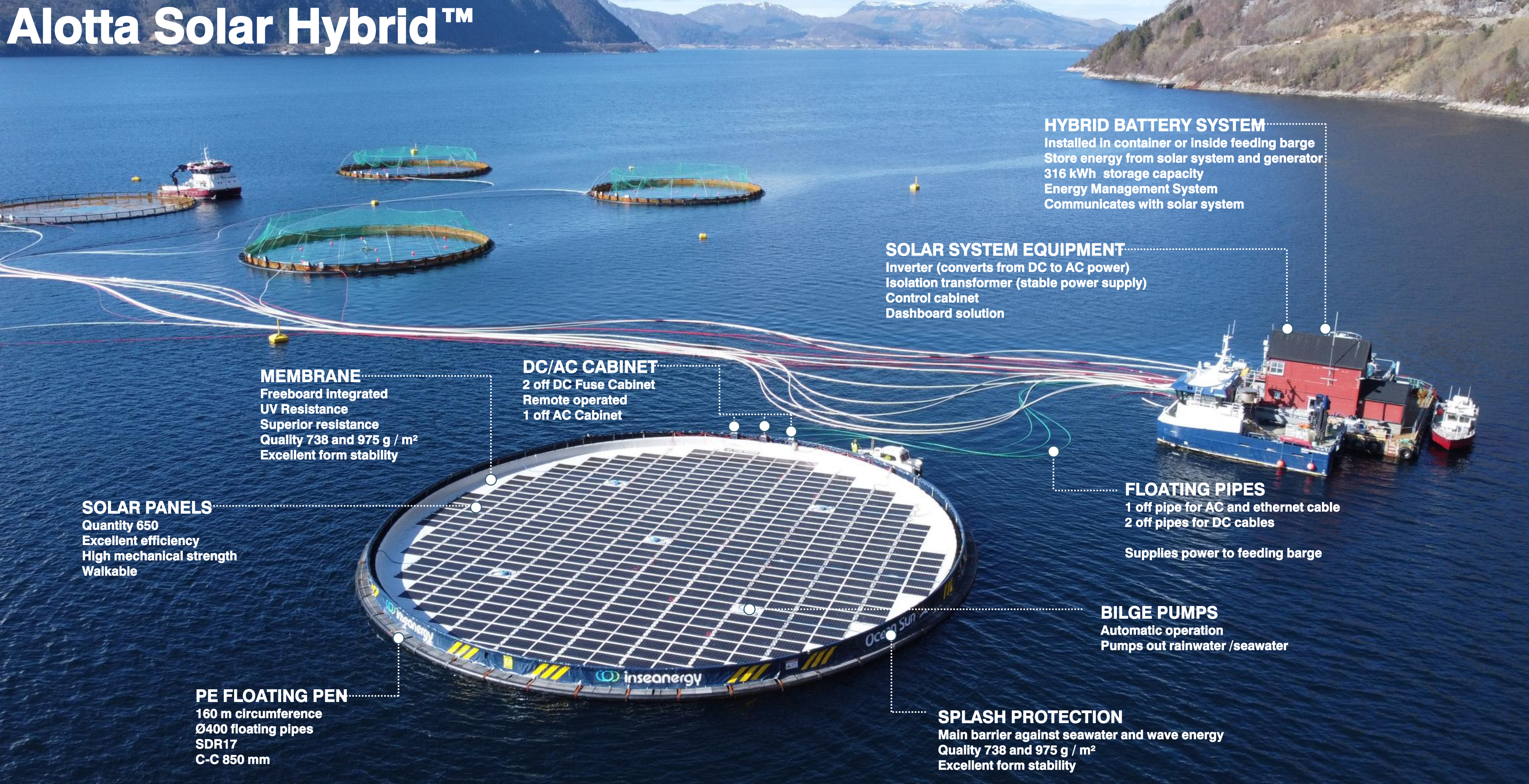
- Platform size (circumference): 90–220 m
- Installed solar capacity: ~120–580 kWp
- Deployment time: typically, 5-14 days
- Easy connection to **battery systems** and **generators**
- Remote performance monitoring and maintenance tools
- Reuses PE aquaculture cages – lower material use and emissions

**Alotta Circle is compact, robust, and ready to replace diesel – one platform at a time.**





# Alotta Solar Hybrid™



## HYBRID BATTERY SYSTEM

Installed in container or inside feeding barge  
Store energy from solar system and generator  
316 kWh storage capacity  
Energy Management System  
Communicates with solar system

## SOLAR SYSTEM EQUIPMENT

Inverter (converts from DC to AC power)  
Isolation transformer (stable power supply)  
Control cabinet  
Dashboard solution

## MEMBRANE

Freeboard integrated  
UV Resistance  
Superior resistance  
Quality 738 and 975 g / m<sup>2</sup>  
Excellent form stability

## DC/AC CABINET

2 off DC Fuse Cabinet  
Remote operated  
1 off AC Cabinet

## SOLAR PANELS

Quantity 650  
Excellent efficiency  
High mechanical strength  
Walkable

## FLOATING PIPES

1 off pipe for AC and ethernet cable  
2 off pipes for DC cables

Supplies power to feeding barge

## BILGE PUMPS

Automatic operation  
Pumps out rainwater /seawater

## PE FLOATING PEN

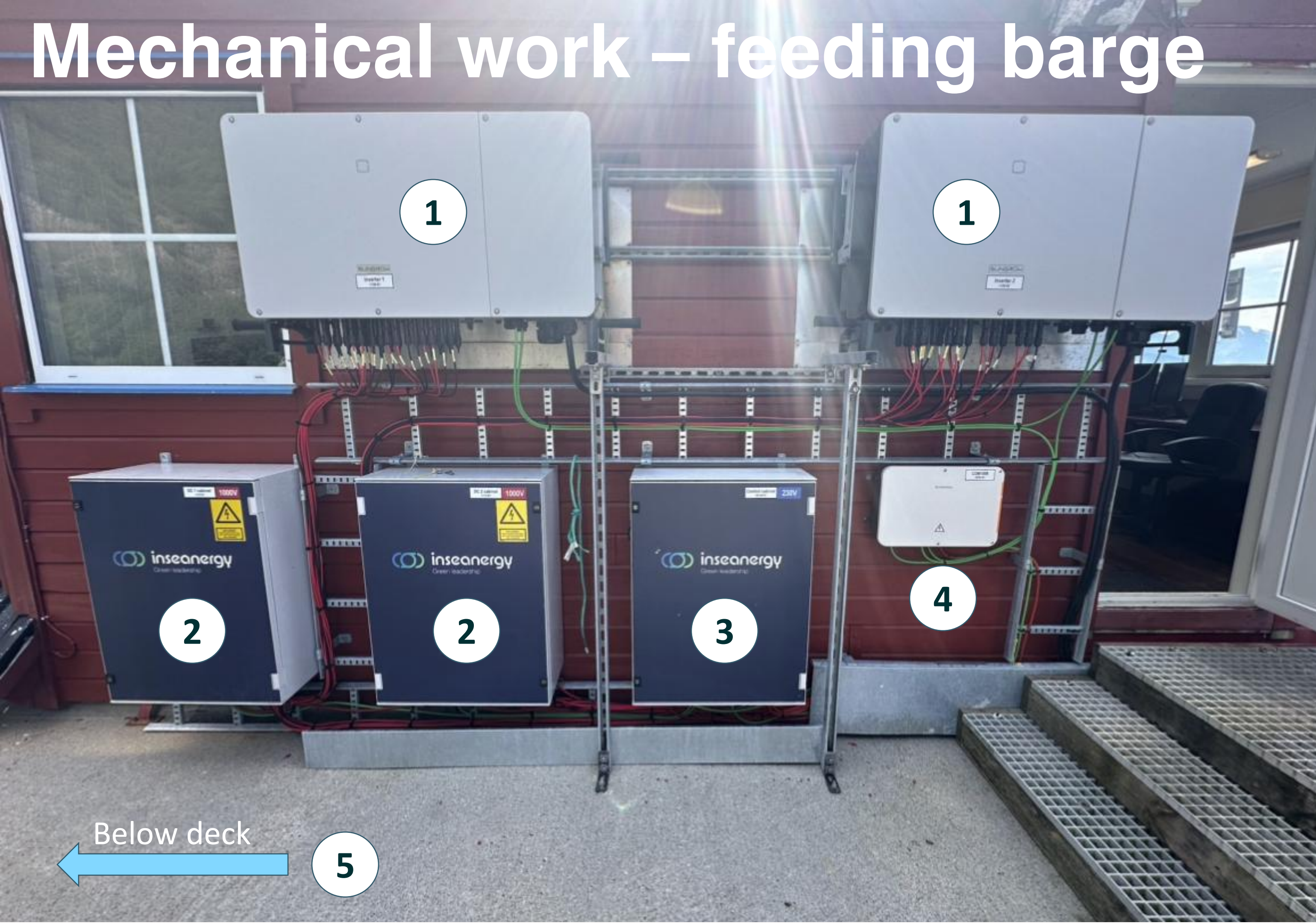
160 m circumference  
Ø400 floating pipes  
SDR17  
C-C 850 mm

## SPLASH PROTECTION

Main barrier against seawater and wave energy  
Quality 738 and 975 g / m<sup>2</sup>  
Excellent form stability



# Mechanical work – feeding barge



1. INVERTERS

2. DC CABINET

3. AC CABINET

4. COM100

5. TRANSFORMER



# Hydropower Dams

Adding solar on top of hydro reservoirs unlocks untapped potential.



**Hydropower plants already provide clean energy – but their large water surfaces remain unused. By adding floating solar, we can:**

- Increase total renewable output without new land use
- **Balance supply** – solar during day, hydro at night
- **Reduce water evaporation**, improving reservoir efficiency
- Use existing **infrastructure and grid connection**
- **Ideal for: Brazil, Indonesia, Turkey – and any sun-rich country with hydro assets.**



# Mooring system

## Mooring analysis solar system

According to NS 9415:2021

- Mooring frame
- Approved area for farming
- Mooring lines

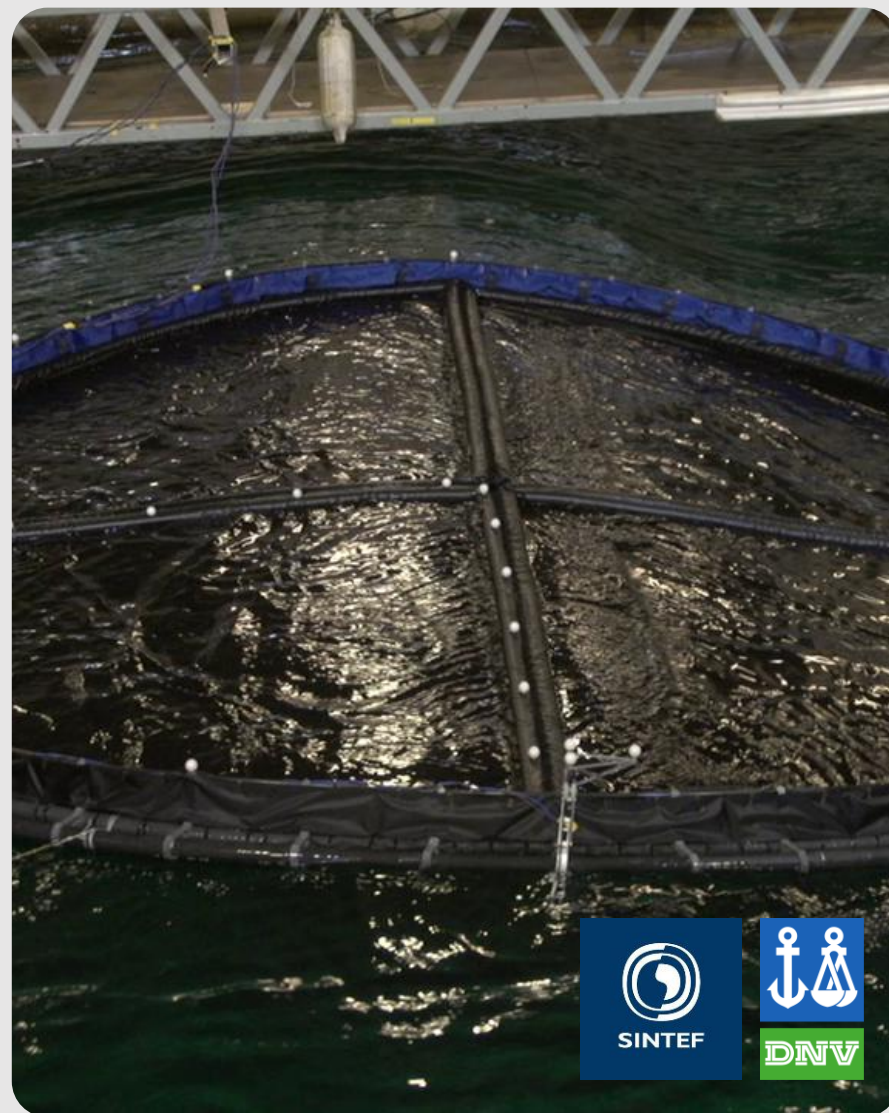




# Comprehensive test & validation program



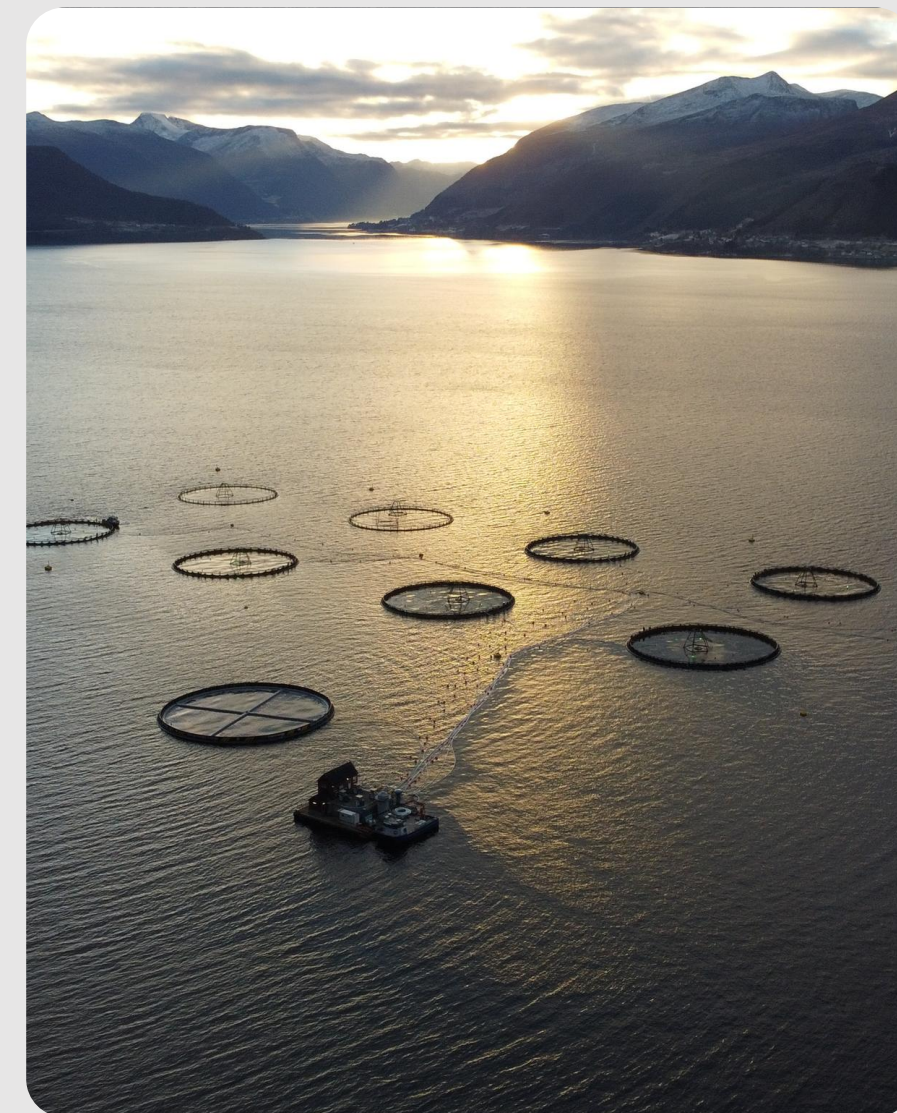
Built full scale tech demonstrator  
in partnership with Hofseth



Completed extensive validation  
program



Built full scale upgraded pilot in  
partnership with Hofseth



First customer delivery  
Customer: Ode



# Membrane



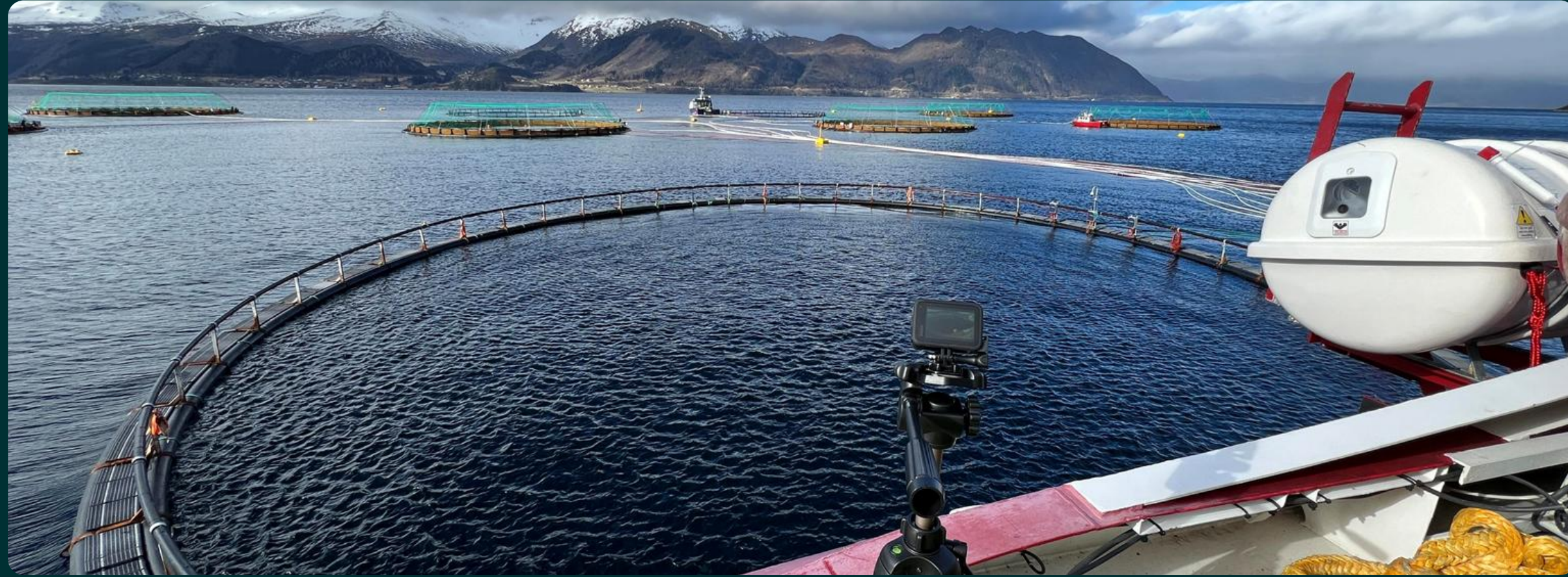




# Membrane installation



# Membrane installation





# Solar panel installation



## HMS Brief

Safety first – CTO Erik Rongved





# Solar panel installation



alotta



# Alotta Cloud

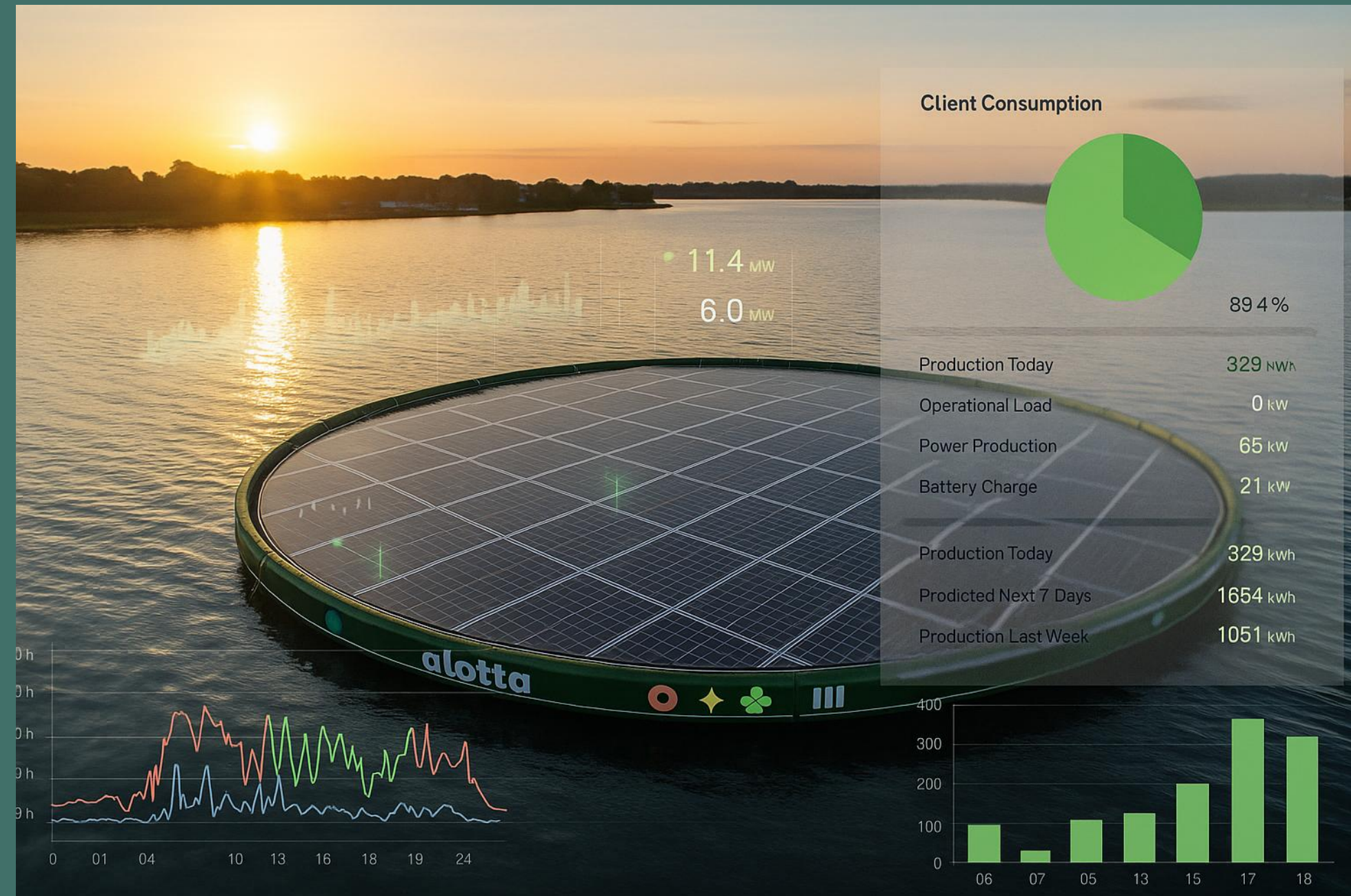
## Digital insight - Real-time control - Smarter operations.

Alotta Cloud is our digital monitoring and analytics platform – developed to give operators, partners and customers full visibility into the performance of our floating and land-based energy systems.

### Core Capabilities – What matters to you

- Live insight into solar production, battery levels, generator use, and total energy consumption – all in one dashboard.
- Smart alerts flag issues early and help prevent downtime.
- Performance history lets you track efficiency, diesel savings, and CO<sub>2</sub> reductions over time.
- Remote access from anywhere – for both your team and Alotta's support staff.
- ESG-ready reporting – export clean, reliable data to support your sustainability metrics and compliance needs.

With Alotta Cloud, you stay in control — with the data, insight, and tools to power sustainable operations.





# HUAR NORTE, SALMON SITE

Huar Island, Los Lagos region - Chile





# Floating solar for underserved communities

Where there is no clean power – we bring our own island.

## Where there is no clean power – we bring our own island.

In many parts of the world, small villages and coastal communities still rely on diesel generators – or lack reliable electricity altogether. Without clean, affordable energy, it's hard to support schools, clinics, businesses, or modern infrastructure.

Alotta's floating solar systems can be deployed directly off the coast – as **energy islands** – providing:

- Stable, renewable electricity
- No need for land or long power lines
- Fast setup and simple maintenance
- A real alternative to diesel dependency
- Jobs in transport, installation, anchoring and maintenance

**A floating power system outside a fishing village can do more than power lights – it can power opportunity.**

**alotta**





# Alotta Square

## Scalable – Sustainable - Solid

Alotta Square is our square-shaped floating solar system designed for direct integration into existing steel cage structures. Built in M–L–XL formats (30m×30m, 40m×40m, 50×50m), it's ideal for sites with limited space, challenging logistics – or the need for clean, off-grid power.

By reusing steel aquaculture frames, Alotta Square offers a low-footprint, low-emission solution with fast deployment and high scalability.

### Key features

- Platform sizes: 30×30, 40×40, 50×50 (M–L–XL)
- Installed solar capacity: ~140–400+ kWp
- Built to fit directly into existing steel frames
- Reuses steel aquaculture cages – lower CapEx and emissions
- Seamless integration with batteries and diesel generators via Alotta Cube
- Remote monitoring and hybrid control functionality
- Suitable for larger feed barges and exposed marine environments
- Can also serve as a stand-alone energy island where clean grid power is unavailable

Alotta Square turns unused sea space into productive, clean energy – without expanding your footprint

**alotta**





# Alotta Cube

## Compact – Connected – Configurable

The Alotta Cube is the intelligent heart of every installation. Built as a compact control unit, it houses all key components needed to convert, control, and optimize energy on site — and makes integration with batteries and diesel generators seamless.

Originally developed for marine conditions, the Cube is designed to be both robust and modular, supporting various platform sizes and hybrid setups.

### Key features

- Pre-wired and factory-tested for plug-and-play installation
- Contains:
  - Inverters
  - Transformers
  - Control and communication cabinet
- Optional battery interface and smart diesel synchronisation
- Marine-grade ventilation with protected filters
- Integrated remote monitoring and diagnostics
- Aluminium structure with standard lifting profiles
- Compact footprint: fits on barge deck or auxiliary float

Alotta Cube makes hybrid integration easy, reliable and efficient — bringing all systems together in one smart unit.

**alotta**





# We design our systems with installation in mind – practical, predictable, and efficient.

## **Built for real-world conditions**

- Modular design simplifies on-site assembly
- Fits into existing PE or steel cage infrastructure
- Alotta Cube centralizes power electronics and connections

## **Low-complexity logistics**

- Shipped in standard containers or delivered by barge
- No special vessels or heavy cranes required
- Components are manageable by small teams on site

## **Quick deployment on water**

- ~5–14 days
- Simple integration with generator and/or battery systems

## **Smoother start-up**

- Remote commissioning support available
- Optional service agreements ensure reliable operation

**Efficient to install. Easy to scale. Ready to deliver clean energy where it's needed.**

**alotta**



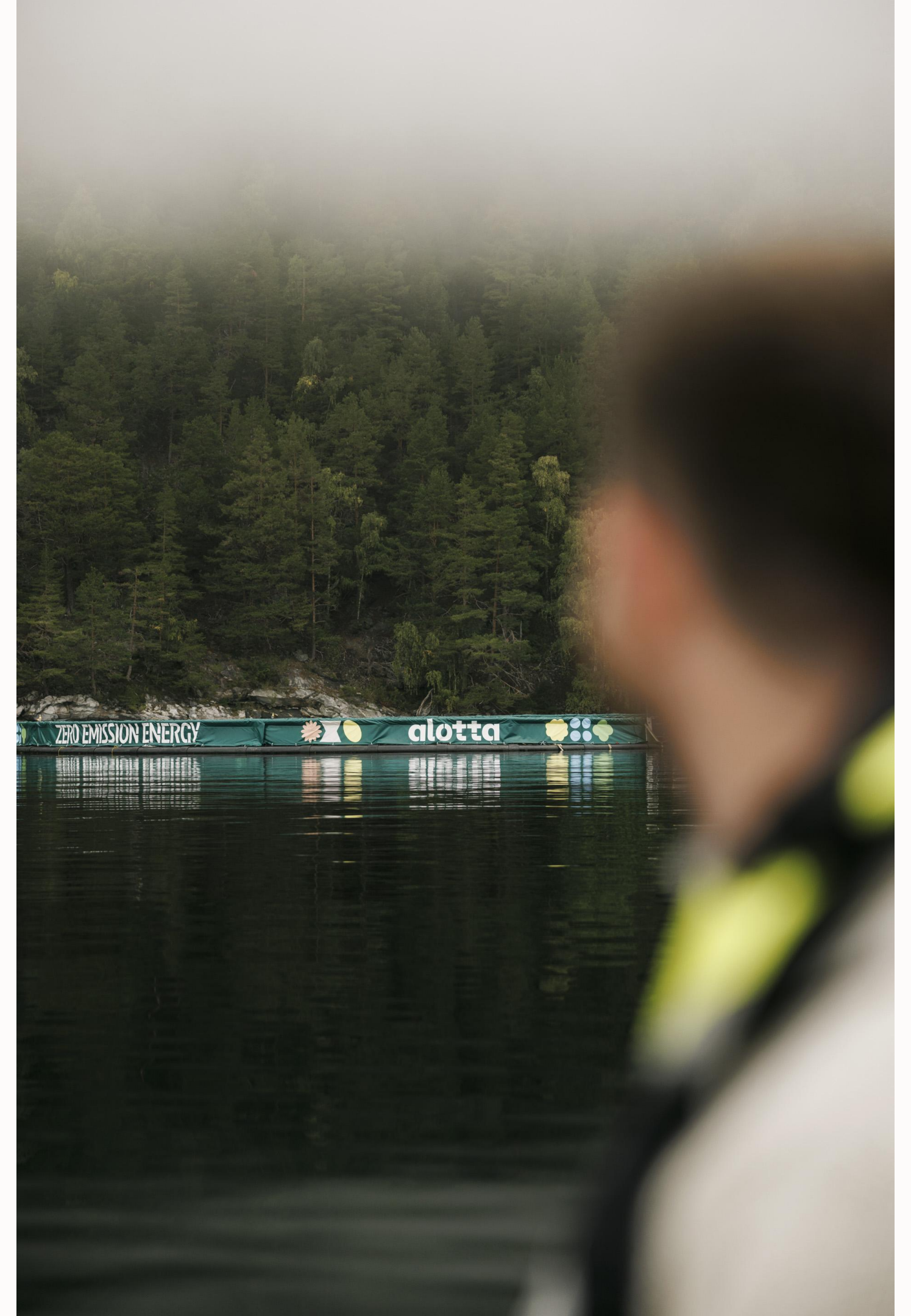


# Energy Sales

-> Pay-as-you-go renewable energy

- **No upfront investment** – We cover all the costs of building and installing the system
- **Only pay for energy produced** – You simply buy the green kWh from us, like you do with regular electricity
- **Lower energy costs** – competitive pricing and significant savings compared to diesel
- **Predictable energy costs** – Long term energy purchase agreement gives predictable future energy costs
- **CO<sub>2</sub> reduction** – Cut your emissions without the hassle — we take care of everything
- **Fully managed solution** – We handle maintenance, service, and make sure the system performs at its best
- **Focus on your core business** – You get clean energy without worrying about technology, operations, or risks

**alotta**





# Solutions Sale

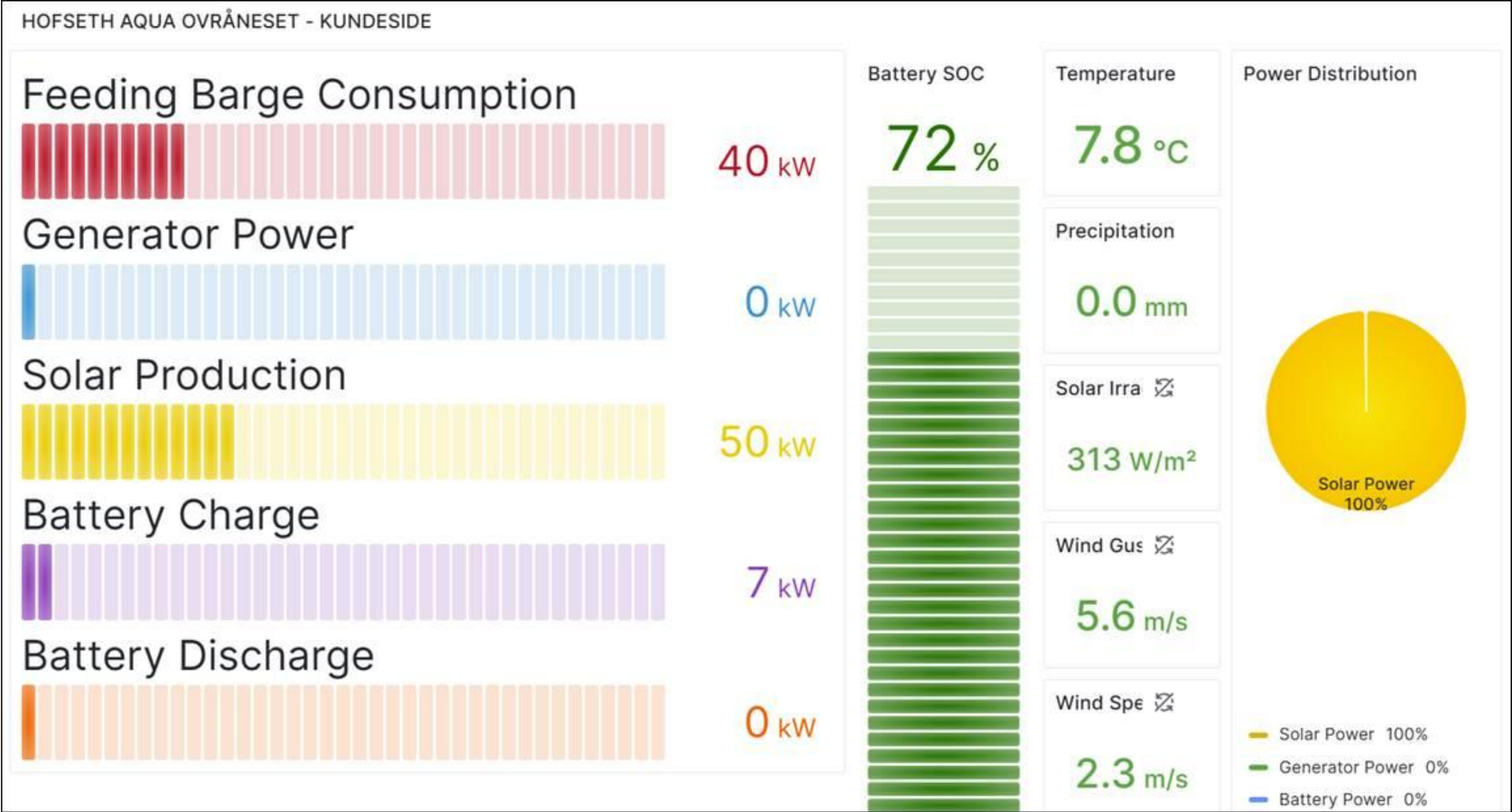
-> Own your energy solution

- **You own the system** – Full ownership from day one; it's your asset.
- **One-time investment** – You invest upfront, and the savings are yours long-term.
- **Turnkey delivery** – We handle everything: design, installation, and commissioning.
- **Maximize long-term savings** – Avoid fuel costs and price volatility over time.
- **Optional service agreements** – We can take care of maintenance to ensure optimal performance.
- **Perfect for asset-focused companies** – If you prefer to own and control your infrastructure, this is the way to go.

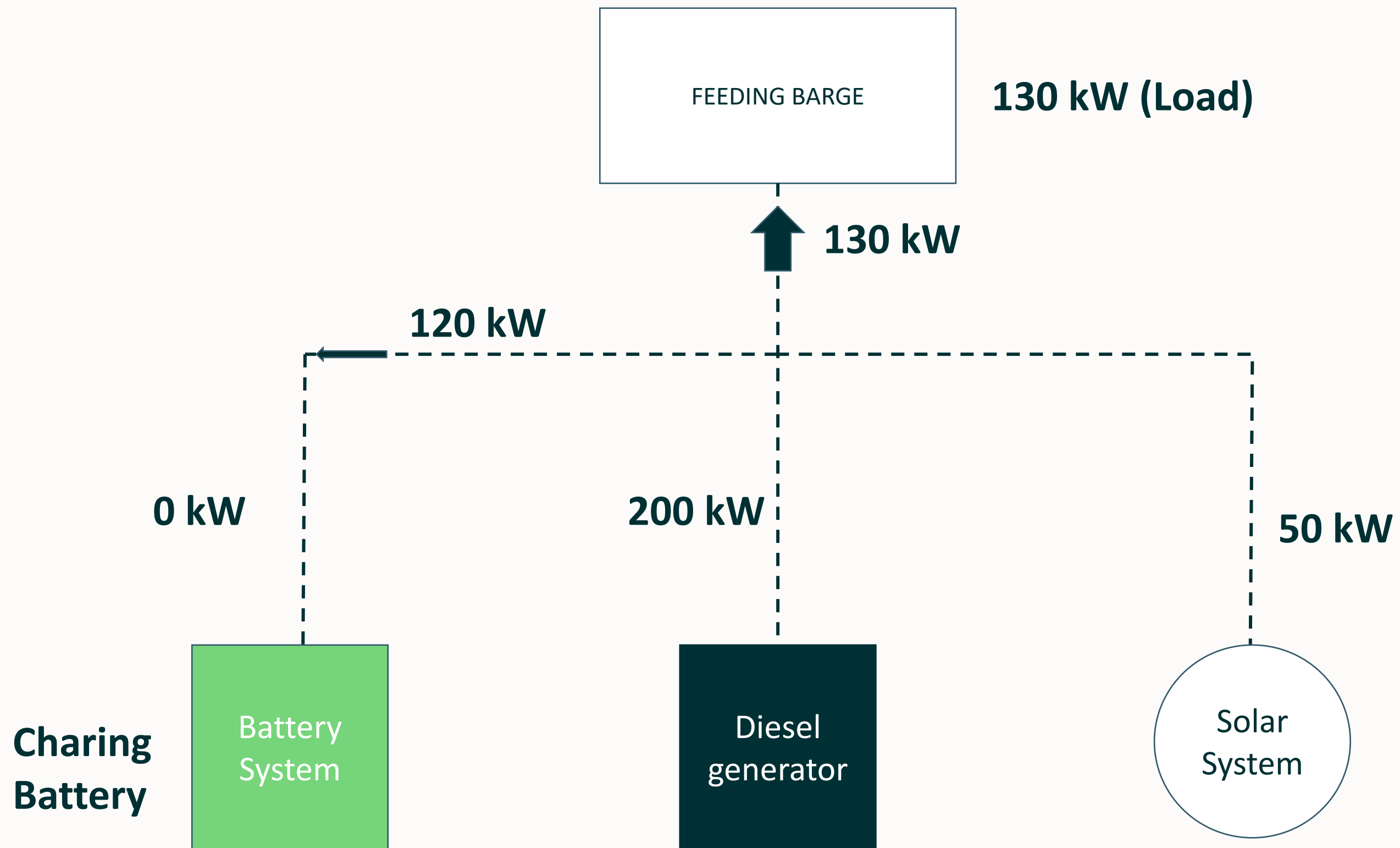




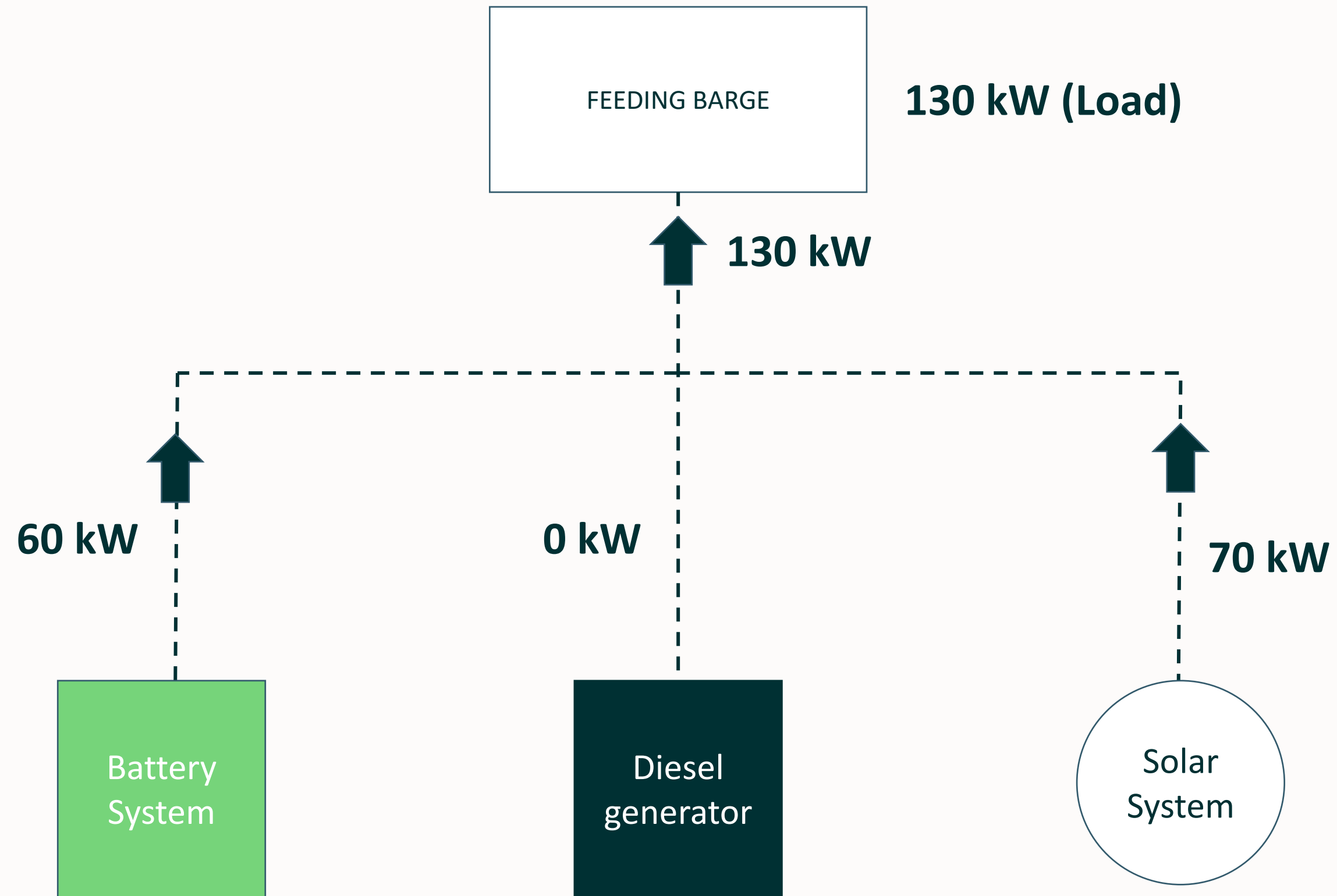
# Typical Dashboard Solution



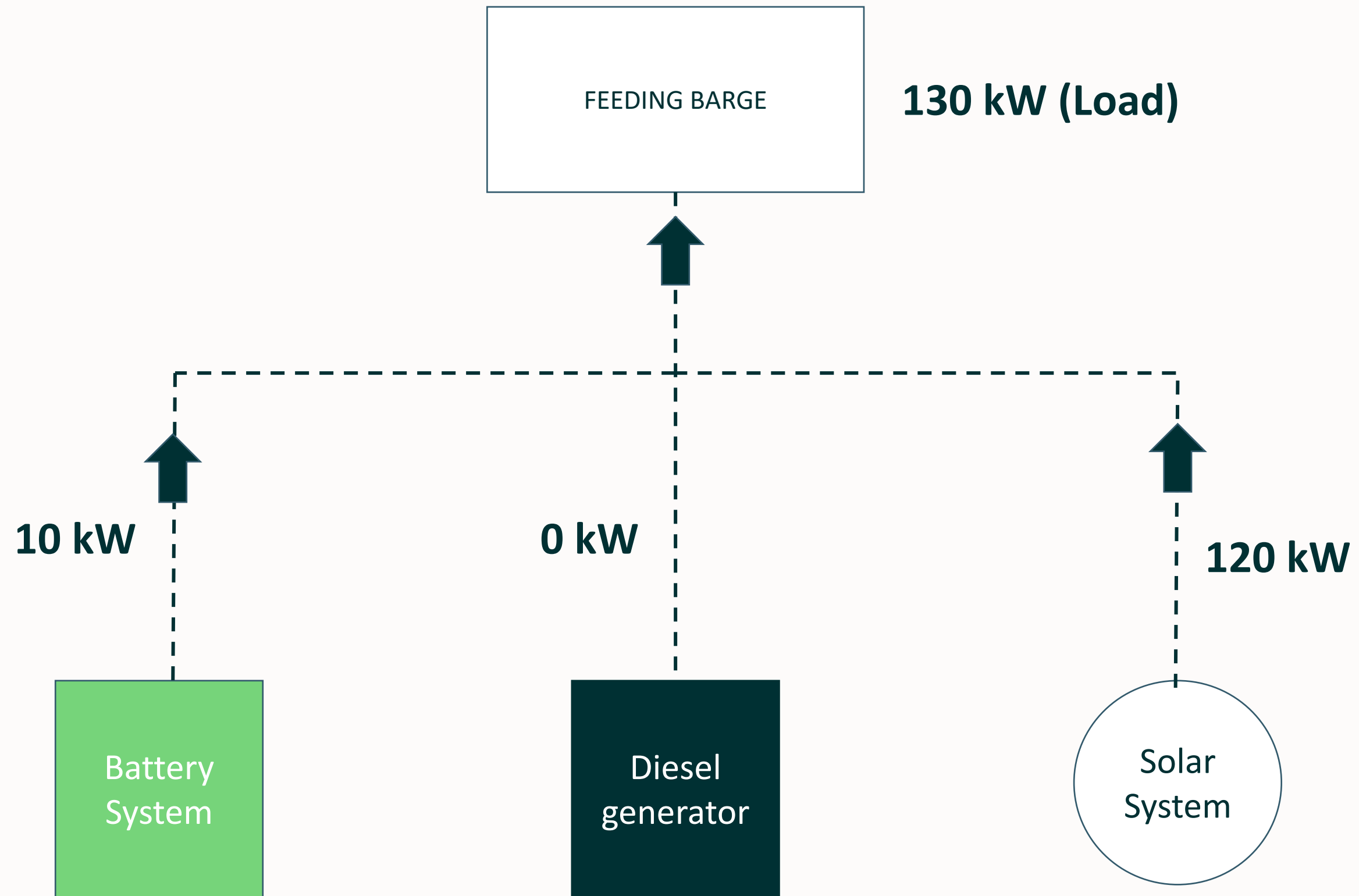




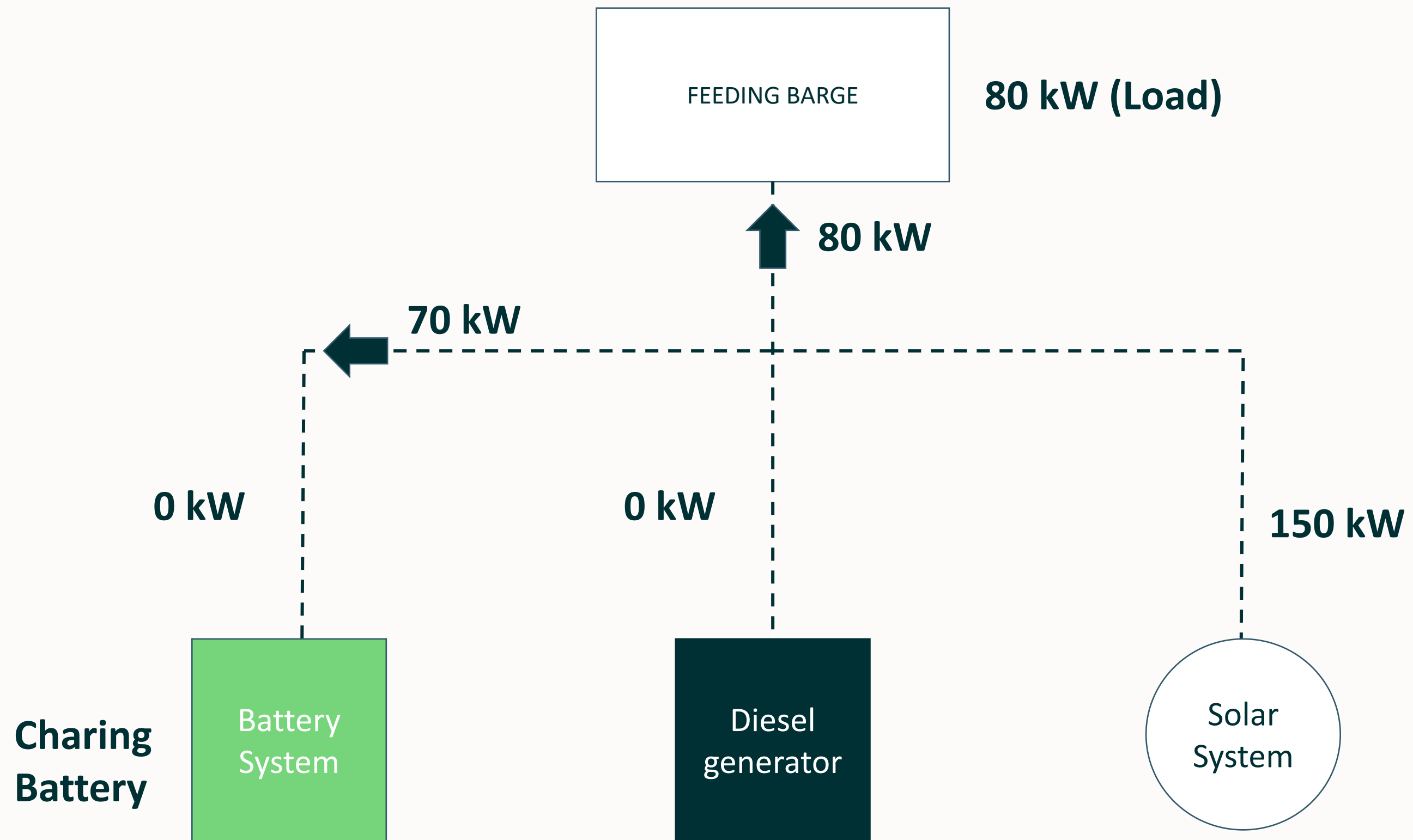














# Strong Partners - Akva Group

Low emission farming

The image shows an offshore aquaculture farm in the ocean. It features two main types of cages: a large rectangular one and a circular one. A support vessel is positioned near the rectangular cage, and a feed ship is near the circular one. The background shows a coastline with hills.

Battery hybrid

Solar energy

Waterborne feeding

Software control

GENERATOR PRODUCTION 13 616 kWh	GENERATOR EFFICIENCY 142.6 %
DIESEL CONSUMPTION 3 756 L	TOTAL CONSUMPTION 13 058 kWh
DIESEL SAVING 3 038 L	CO <sub>2</sub> SAVING 8 081 kg
45% Reduction in the amount of diesel and fuel consumed and diesel consumption by 45%	81% Reduction in diesel costs and fuel released to the generator house by 81%

Pioneering a better future

**AKVA**GROUP™



# Excellent solar production even in Norway (May)

- Barge load profile:
- 7 hrs feeding load @70 kW
  - 12 hrs “hotel load” @12 kW
  - 694 kWh energy demand per day

On-day peak production

95 kW

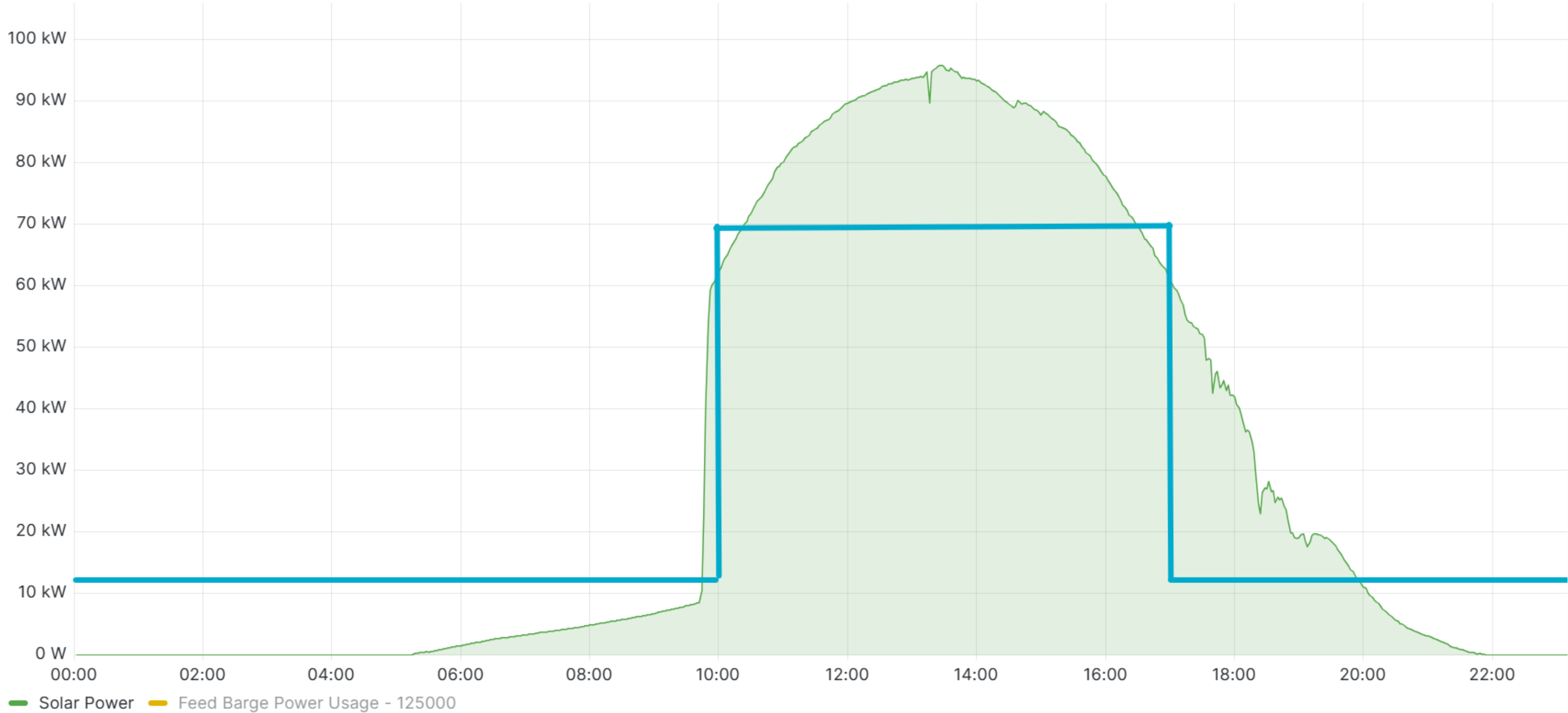
Daily solar yield

722 kWh

Energy demand covered

100%

Power Distribution Graph SALMON FARMING EXAMPLE





# Key base line most be agrees with customer

## ALOTTA SOLAR HYBRID

Most important factores to agree upon with customer before starting on the calculation is todays load profile and diesel usage:

1. Load profile trough a year: example (18kW – 11hours 185 -7hours) =1493kWh/day =550.000kWh/year
2. Efficiency of current Diesel Generators : 3-4kW pr liter (Best possible efficiency on a industry diesel generator in perfect operation conditions) Experience on barge aprox 2,5 kW pr.liter
3. Cost pr.liter diesel delivered at barge (1,2 EUR)
4. Service and Maintenance cost on diesel generators.
  - Hours running time generator between services
  - How many years between replacement of generators.





# Floating Floating Renewable Energy Systems

## Circular economy

Redundant plastic floating collars used for fish farming – turned into floating solar power plants.

## Renewable energy

Locally produced green zero emission energy from floating solar systems – reducing CO2 emissions.

## Profitable

Reduced use of fossil fuels – good for the environment, people, fish, and the economy.



# Reference Projects

These projects prove our systems work – in different climates, regulatory frameworks, and logistics conditions.



## Ode, Sunnmøre (Norway)

**More than one year in operation**  
– zero faults

**System:** Alotta Circle M-c120  
**Energy output:** ~85,000 kWh/year

→ Grid-connected site.

Valuable experience for Alotta – shows our system integrates seamlessly with the grid and prepares us for future hybrid setups.

**alotta**



## Emilsen Fisk, Rørvik (Norway)

**The world's northernmost floating solar power plant**

**System:** Alotta Circle M-c120  
**Energy output:** ~90,000 kWh/year  
**Diesel replaced:** ~26,000 liters/year  
**CO<sub>2</sub> saved:** ~70 tons/year

→ Featured on NRK Norwegian national news



## Mowi, Isla Huar (Chile)

**Chile's first floating solar plant for aquaculture**

**System:** Alotta Circle L-c160  
**Energy output:** ~360,000 kWh/year  
**Diesel replaced:** ~120,000 liters/year  
**CO<sub>2</sub> saved:** ~320 tons/year

→ Enables large-scale diesel reduction in off-grid salmon farming  
→ Marks a key milestone for solar hybrid adoption in Chile



PEOPLE  
BUILDING  
TRUST





NASA SERVICES  
INTERNATIONAL

PEOPLE.BUILDING.TRUST.

