



MILLFIELD TECHNOLOGY

Local power from flowing water

# Millfield Flow Converter

Modular river and tidal energy infrastructure. Deployable in days, scalable everywhere water flows.

Local Stable Clean Predictable No Dams

[www.MillfieldFlowConverter.com](http://www.MillfieldFlowConverter.com)



Project 11733014  
Millfield flow converter  
Model 1 Condition 1  
Run 69 73.7s  
19-06-2019 12:37:16  
1.056m/s

## WHY NOW

# Those who build resilience early gain strategic freedom.

“ *The decisions we fail to make today will define the decades ahead.* ”

HSH Prince Albert II of Monaco



Electrification is accelerating



Energy security is a strategic priority



Infrastructure is struggling to keep pace



Capital belongs where deployment can happen now

**The energy is already flowing.** Millfield turns it into predictable, nature-friendly local power - now, where it is needed most.

## THE CHALLENGE

**Yesterday's infrastructure was not built for tomorrow's electrification.**



**The world needs predictable local energy infrastructure - now.**

- ✓ Energy injection into constrained grids
- ✓ Energy security and resilience through local generation
- ✓ Stable delivery for industry, batteries and critical infrastructure
- ✓ Deployable without waiting for major grid expansion

## THE RESOURCE

**One of the world's largest renewable resources already flows where power is needed.**



**Predictable**



**Continuously renewed**



**Close to demand**



**Accessible from shore**

**Why wait for energy offshore when it already passes the places where it is needed?**

## THE TECHNOLOGY

# A modular platform that turns flowing water into local power.



### Works with the flow

Energy generated through continuous interaction with moving water - no damming, no river modification.



### Deployed in days

Land-based infrastructure that goes in fast, instead of the years of civil works hydropower usually needs.



### Modular and horizontal

Scale by adding units along the flow, not by building ever larger single installations.



### Predictable output

Rivers and tidal currents follow known patterns, so production can be planned and relied upon.

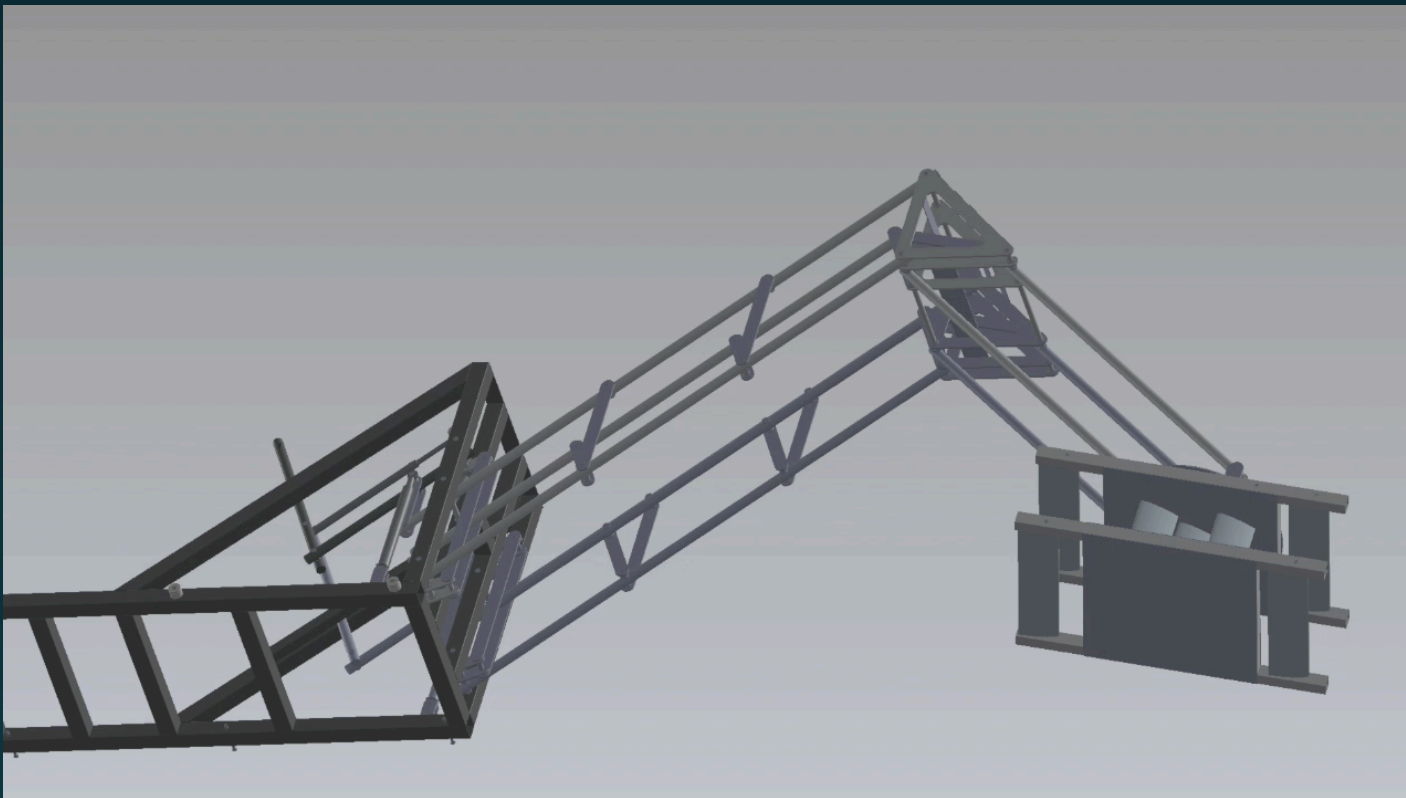


*Single modular unit shown.  
Units add along the flow for capacity.*

Traditional hydropower scales vertically. **Millfield scales horizontally.**

SEE IT IN ACTION

## Millfield Flow Converter in action.



## VALIDATION AND TRACTION

# Independently validated across technology, environment and regulation.



### Technology

DTU and Force Technology delivered engineering studies, simulations and prototype testing - plus two published MATLAB tools for energy absorption in flowing water.



### Environment

The Danish Angling Association and Society for Nature Conservation found no expected barrier to fish migration or significant environmental impact.



### Regulation

Norrdjurs Municipality permitted testing in the Grenaa River, assessing no significant deterioration of water flow or environmental condition.



### Industry

An EUDP pilot application united Energy Cluster Denmark, Crossbridge Energy, Everfuel, Associated Danish Ports and the Triangle Energy Alliance.



## TRL 7 achieved.

Next milestone: full-scale pilot deployment, independent third-party verification and commercial readiness.

## USE CASE

# Constant minimum power for Aquaculture.



*A Aquaculture needs guaranteed power for feeding.*



### 100% security for 2 MW

The Aquaculture uses about 14 GWh a year, but needs a guaranteed 2 MW during feeding.



### Saves around EUR 188 per MWh

Self-production at roughly EUR 12 per MWh against a grid price near EUR 200 - about EUR 2,6 Mio saved a year.



### Surplus becomes income

Around 3,52 GWh of surplus can be sold to the grid or shared in a local neighbour microgrid.

Additional CO<sub>2</sub> certificate revenues may apply. (Potential: ~ EUR 1,5 Mio/Y)

**Always-on local power.** Solar and wind only deliver when it is sunny or windy - Millfield delivers on demand.

## APPLICATIONS

# Wherever flowing water meets electricity demand.



### Ports

Maritime and shore power



### Aquaculture

Pumping, cooling, oxygenation



### Communities

Local, resilient supply



### Data centres

Always-on baseload demand



### Industry

Energy-intensive operations



### Charging

EV and equipment charging



### Hydrogen and Power-to-X

Green molecules from water



### Microgrids and resilience

Backup and energy security

## WHERE WE PLAY

# Strong demand drivers, with a clear beachhead to enter.

### WHAT IS DRIVING DEMAND



#### Electrification is accelerating

New electricity demand is outpacing the infrastructure that can be deployed to meet it.



#### Energy security is strategic

Local, resilient generation is now a board-level and national priority.



#### The cost of waiting is rising

Grid expansion takes years. Demand will not wait for it.

### WHERE WE START - THE BEACHHEAD



#### Industry and manufacturing

High energy costs, clear value



#### Ports and maritime

Dense demand, need for resilience



#### Aquaculture and water treatment

Continuous, predictable load



#### Batteries, charging and microgrids

Local generation, fast payback

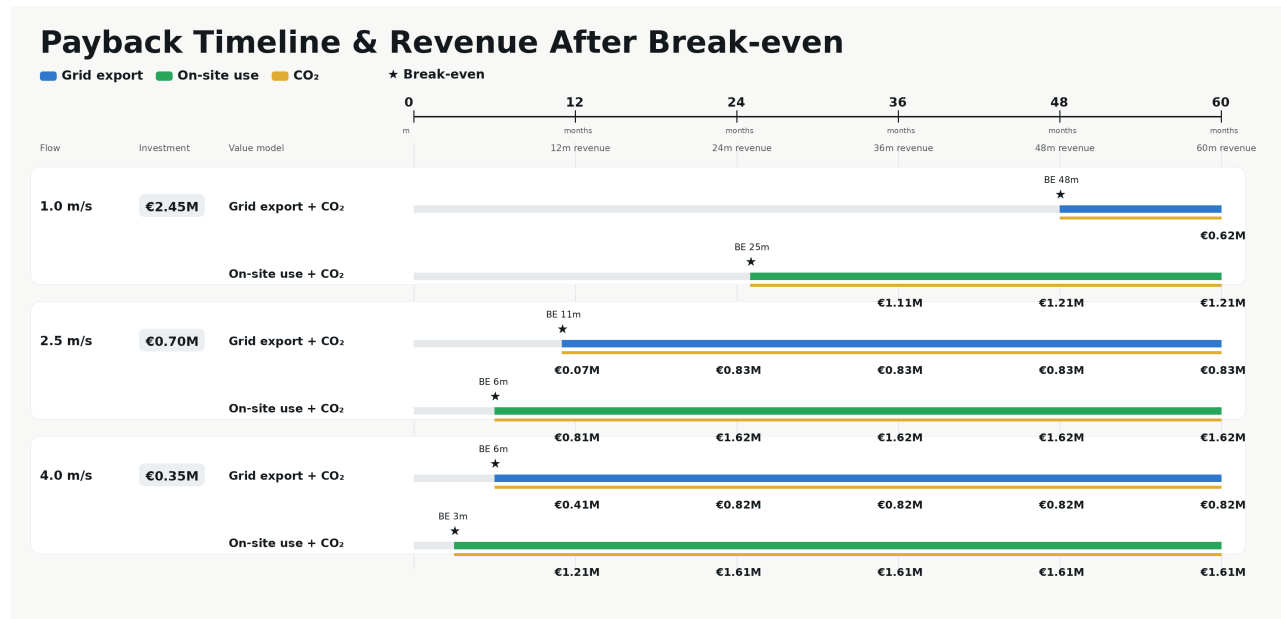
Beachhead today to local grids and Power-to-X to global rivers and tidal currents at scale

MARKET OPPORTUNITY

# A vast energy market, replacing itself in real time.

**78%**  
of today's energy sources must be replaced with sustainable solutions.

The global energy market runs into the trillions of euros. Demand for clean, deployable generation is growing fast - and capturing only a fraction supports a strong revenue trajectory.

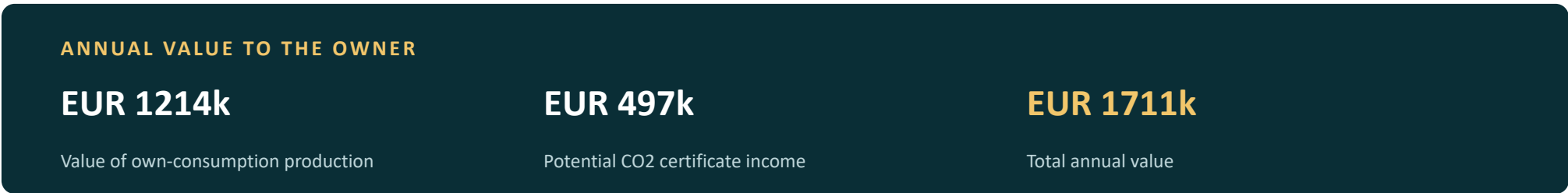


ILLUSTRATIVE REVENUE RAMP - FIRST FIVE YEARS (EUR M)

*Figures are illustrative management projections, shown to indicate scale and trajectory.*

THE BUSINESS CASE

## Compelling unit economics at 0.5 MW.



*Illustrative reference case at 0.5 MW (Germany). Figures exclude installation and service, and assume CO2 certificate income. Selling balanced electricity may raise revenue further.*

## BUSINESS MODEL

# Asset-light technology company. Partner-led deployment.

### REVENUE STREAMS



#### System sales

Sale of Millfield Flow Converter units



#### Service agreements

Annual service and monitoring contracts



#### Energy partnerships

Production partnerships and SPV structures



#### Licensing and distribution

Distributor and licensing agreements

### GO-TO-MARKET



Local distributors and strategic partners drive market entry



Local manufacturing and installation partners build and deploy



Millfield focuses on product, IP, certification and training



Scalable, partner-led international market expansion

**Customers buy energy security.** Millfield provides the infrastructure to produce it locally.

## THE OPPORTUNITY

# Get in early on proven, scalable river-energy infrastructure.



### Get in early

A first-mover platform entering its commercial phase, with founder-held IP and ground-floor terms.



### Highly scalable

Modular and partner-led. Millfield owns product, IP and certification while partners manufacture and deploy.



### Enormous market

Rivers and tidal currents are one of the largest renewable resources, flowing right where power is needed.



### Real advantages

Predictable output, deployment in days not years, and land-based servicing instead of offshore complexity.

**The ask:** EUR 2.0M in two phases - EUR 0.5M proves the technology, EUR 1.5M scales the business.

## TEAM

# Builders with deployment, manufacturing and infrastructure pedigree.



**Michael Millfield Mølhede**

**Founder, Inventor and CEO**

Inventor and patent holder. Architected the core hydrodynamics, deployment logic and modular infrastructure philosophy.



**Kristoffer Nilaus Tarp**

**Strategy, Governance and IR**

Head of Investor Relations at Impact Fund Denmark. Brings positioning, stakeholder alignment and sustainable-infrastructure strategy.



**Per Rieland**

**Electrical Systems and Controls**

Electrical engineer focused on operational integration, control architecture and infrastructure reliability.



**Kristoffer Lund**

**Industrial Deployment**

COO at GlobaQ Solutions and former CEO of Billund Aquaculture. Deep industrial-scale deployment and execution experience.



**Allan Erlandsen**

**Product and Manufacturing**

Senior product and manufacturing leadership from KK Wind Solutions, Grundfos and Bang and Olufsen.



**Henrik Norsk Hoffmann**

**Legal and Ownership Models**

Strategic lawyer advising on scalable ownership structures, SPV models and long-term infrastructure frameworks.

## THE INVESTMENT

# EUR 2.0M, structured in two phases.

Phase 1 - EUR 0.5M

Phase 2 - EUR 1.5M



**EUR 0.5M** 12 Months

### PHASE 1 - COMMERCIAL READINESS & FIRST REVENUES

- Patent maintenance and IP protection
- Manufacturing of MVP reference installation
- Pilot project installation and real-life validation
- Performance verification and documentation
- Sale of MVP reference installation
- Manufacture, test and sale of first 0,5 MW unit
- Hiring of CCO and launch of commercial activities



**EUR 1.5M**

### PHASE 2 - COMMERCIAL MARKET ENTRY

- International IP and market protection
- Expansion of the core team
- Production readiness and first deployments
- Distributor network and strategic partners
- Sales, Leasing, and SPV structures
- Business development & New Products

**The first EUR 0.5M delivers a commercial reference installation, first revenues and market readiness.**

The next EUR 1.5M scales deployment, sales and international expansion.



The gold is already flowing.

# Let's talk business.

Seeking:

- Strategic pilot partners
- Distribution partners
- EUR 0.5M Phase 1 investors



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**Michael Millfield Mølhedé**  
Founder, Inventor and CEO

APPENDIX A1

## Major financial advantages with CO2 certificates.

Sale (A) or own consumption (B) of 0.5 MW with the Millfield Flow Converter, modelled across flow speeds.

A: Sale or B: own consumption of 0,5 MW with Millfield Flow Converter (MFC)													
Average incoming Flowspeed	Expected Yearly generated in Gwh	Amount of MFC's	Over Capacity	Investment	CO2	Value in CO2 Certificates (10 Years) For owner	Net Cost per MWh (10 Years)	A: 10 years Value at current German spot market price (70 €/MWh) (18/6-2026)	A: ROI	A: ROI months	B: 10 years Saving Value Germany (€200/MWh) (18/6-2026)	B: ROI	B: ROI months
4	6,1	1	39 %	350.000 €	✓	4.977.958 €	-76,23 €	4.249.476 €	25	4,6	12.141.360	48	2,5
3,5	4,9	1	12 %	350.000 €	✓	4.027.620 €	-74,87 €	3.438.212 €	20	5,6	9.823.464	39	3,0
3	5,4	1	23 %	525.000 €	✓	4.407.432 €	-72,23 €	3.762.442 €	15	7,7	10.749.834	28	4,2
2,5	6,1	2	39 %	700.000 €	✓	5.000.585 €	-70,52 €	4.268.792 €	12	9,1	12.196.548	24	4,9
2	6,3	3	43 %	1.050.000 €	✓	5.125.034 €	-65,20 €	4.375.029 €	8	13,3	12.500.082	16	7,1
1,5	5,0	4	15 %	1.400.000 €	✓	4.118.129 €	-54,12 €	3.515.476 €	4	22,0	10.044.216	9	11,9
1	4,5	7	4 %	2.450.000 €	✓	3.722.155 €	-28,03 €	3.177.449 €	2	42,6	9.078.426	4	23,0
0,5	4,4	12	1 %	4.200.000 €	✓	3.626.798 €	12,96 €	3.096.047 €	1	75,0	8.845.848	2	40,4

*Illustrative. Prices exclude installation and service. Selling balanced electricity can raise revenue per kWh further, depending on market dynamics.*

## APPENDIX A2

# Major financial advantages without CO2 certificates.

Sale (A) or own consumption (B) of 0.5 MW with the Millfield Flow Converter, modelled across flow speeds.

A: Sale or B: own consumption of 0,5 MW with Millfield Flow Converter (MFC)													
Average incoming Flowspeed	Expected Yearly generated in Gwh	Amount of MFC's	Over Capacity	Investment	CO2	Value in CO2 Certificates (10 Years) For owner	Net Cost per MWh (10 Years)	A: 10 years Value at current German spot market price (70 €/MWh) (18/6-2026)	A: ROI	A: ROI months	B: 10 years Saving Value Germany (€200/MWh) (18/6-2026)	B: ROI	B: ROI months
4	6,1	1	39 %	350.000 €	☐	0 €	5,77 €	4.249.476 €	11	9,9	12.141.360	34	3,5
3,5	4,9	1	12 %	350.000 €	☐	0 €	7,13 €	3.438.212 €	9	12,2	9.823.464	27	4,3
3	5,4	1	23 %	525.000 €	☐	0 €	9,77 €	3.762.442 €	6	16,7	10.749.834	19	5,9
2,5	6,1	2	39 %	700.000 €	☐	0 €	11,48 €	4.268.792 €	5	19,7	12.196.548	16	6,9
2	6,3	3	43 %	1.050.000 €	☐	0 €	16,80 €	4.375.029 €	3	28,8	12.500.082	11	10,1
1,5	5,0	4	15 %	1.400.000 €	☐	0 €	27,88 €	3.515.476 €	2	47,8	10.044.216	6	16,7
1	4,5	7	4 %	2.450.000 €	☐	0 €	53,97 €	3.177.449 €	0	92,5	9.078.426	3	32,4
0,5	4,4	12	1 %	4.200.000 €	☐	0 €	94,96 €	3.096.047 €	-0	162,8	8.845.848	1	57,0

*Illustrative. Prices exclude installation and service. Selling balanced electricity can raise revenue per kWh further, depending on market dynamics.*

## APPENDIX B

### Three customer scenarios.

Granted or average energy production with MFC - 10-year calculation, market: Germany.

#### Customer scenarios

	<b>Customer: Company by river in Germany - 10 Years calculation Flow Speed 2,5 m/sec.</b>	Energy requirements in MW	Risk	Security of supply	Investment	Covers all needs at the moment	Savings on own consumption	Uniform consumption	Power quality	Sale	Return of investment
1	"I can plan and distribute my energy needs myself and want the MFC to be configured to an absolute minimum at the lowest flow rate. "	<b>0,5</b>									
Solution	<i>Small risk: The customer buys a MFC solution configured for the average flow rate, but accepts that the power consumption must be delivered when the flow speed is below average.</i>		High	X	Small	No	Big	Uniform	Balanced	Little	Lots
2	"My energy needs are predetermined and I need 100% certainty that the need can be met, even if it is only for a number of hours a day. "	<b>1</b>									
Solution	<i>Safe: The customer buys a MFC solution configured for the lowest flow rate to ensure its minimum power at all flow speeds.</i>		Small	X	Medium	Yes	Big	Peak load	Balanced	Medium	Medium
3	"I represent an electricity company / Energy Farms"	<b>10</b>									
Solution	<i>Safe: A power company buys a MFC solution configured for lowest speed to ensure its minimum power at all flow rates.</i>		Small	X	Big	Yes	Small	Peak load	Balanced	Lots	Medium

#### 10 Years calculation - Flow Speed 2,5 m/sec. - Market: Germany

	Price MFC Solution	Yield in MWh	Own need MWh	MWh for sale annually	Netto value of el sales	Gross savings on the purchase of MWh from the grid	Total value	ROI for customer	ROI Months	Result	Ton CO2 saved	Adding Value CO2 Certificate	Total	ROI Total	ROI Total Months
					70 €	200 €									
1	700.000 €	6.098	4.380	1.718	1.202.792 €	8.760.000 €	9.962.792 €	14,2	8,43	<b>9.262.792 €</b>	5.001	4.000.468 €	<b>13.263.260 €</b>	18,9	6,3
2	1.340.000 €	10.700	8.760	1.940	1.358.000 €	17.520.000 €	18.878.000 €	14,1	8,52	<b>17.538.000 €</b>	8.774	7.019.200 €	<b>24.557.200 €</b>	18,3	6,5
3	11.055.000 €	88.400	1.000	87.400	61.180.000 €	2.000.000 €	63.180.000 €	5,7	21,00	<b>52.125.000 €</b>	72.488	57.990.400 €	<b>110.115.400 €</b>	10,0	12,0