8ST OCTOBER 2026, TARTU HYDROGEN DAYS

From idea to production: developing a full green value chain Hydrogen project

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Destiny Energy - Developer, Technology Integrator and Investor

a Tolaram company

Destiny Energy Pte Ltd
Sustainable Energy Solutions

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Destiny Energy – P2X Solutions

The Impact Developer and Investor of Green Hydrogen Value Chain Projects

Reputable partner with over four decades in the energy industry, Destiny Energy is a complete P2X solutions provider.

Committed to the energy transition, decarbonization, and the adoption of renewable energy sources for various industries and transportation.

Creating e-Fuels by utilizing water electrolysis to produce green hydrogen and then combining it with CO_2 from biogenic sources.

A global developer and investor in P2X solutions for green hydrogen and renewable fuels production (eMethanol / eSAF / Green Ammonia).

“Fossil Fuels Rest IN Peace”!

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Destiny Energy – Business Verticals Around Green Hydrogen Eco-System

Destiny Energy

SINGAPORE HQ

Power-to-X Solutions

Developer, Investor and Operator of Renewable Power Value Chain Projects:

Green Hydrogen	eMethanol
eAmmonia	eSAF

Hydrogen Powered Drone Solutions

SKYCORP TECHNOLOGIES

Drone As a Service (DaaS)

Ports
Solar and Wind Farms
Oil Rigs
First Emergency Responder
Surveillance

Methanol to Power Solutions

eMethanol to off-grid Green Power Solutions:

Port Shore Power
Electric Vehicles Charging Stations
Data Centres
Emergency Power deployment
Construction and Mining sectors

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Global Projects Pipeline spans across Continents

COUNTRIES OF INTEREST: Estonia Egypt Malaysia India

Estonia

Project - Pärnu P2X Hub

FEED ongoing

Project - Narva P2X Hub

MOU Signed with RE producer

SE ASIA / Malaysia

Project – JB P2X Hub

Land acquired

Pre-FEED

200 MW Solar + Green Hydrogen + eMethanol (30,000 MTPA)

India

India – Distributed Green Hydrogen Projects

Egypt / MENA

Project Under Exploration

Solar + Green Hydrogen + Green Ammonia (100,000 MTPA)

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eFuels Market and Demand Growth & Signals

The synthetic fuels (eFuels) market is experiencing exponential growth, projected to expand from **USD 172-174 billion in 2025** to **USD 935-1,313 billion by 2035**. This growth is driven by:

Demand from transport applications (aviation, maritime, heavy-duty road)

Strong regulatory mandates (ReFuelEU Aviation, FuelEU Maritime, IMO frameworks)

Corporate net-zero commitments creating premium demand corridors

Technology maturation in Power-to-Liquid (PtL) and Power-to-Gas (PtG) pathways

eFuels Market and Demand Growth & Signals

Key Demand Signals

Global SAF Mandates

ReFuelEU Aviation: 2% SAF mandate from 2025, rising to 70% by 2050 (with e-SAF sub-mandate of 1.2% by 2030, 35% by 2050)

IMO Net-Zero Framework

Expected to be adopted in the end of 2026.
Target 70% emissions reduction by 2040, which drives global marine fuel demand.

Germany adopting RED III

RFNBO fuels benefits from specific quota and also triple counting for the CO_2 savings related to fuel life cycle emissions.

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Establishing Green Value Chain – example of Pärnu P2X Hub

LOCATION:

PÄRNU AIRPORT, WEST ESTONIA

OPERATIONAL:

August 2029

51 MWp Solar System

40 MW Wind Power

Grid Import (RE via PPA)

25 MW Electrolyser

15 000 tons/year eMethanol Synthesiser

Storage facilities and Balance of plant

Funded by the European Union
Emissions Trading System
Innovation Fund

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Production in Pärnu P2X Hub will be based on 100% green value chain, using only green energy and biogenic CO_2

Sourcing of sustainable feedstock and energy

- Solar Energy
- Wind Energy
- Green Grid Electricity
- Utility H_2O
- Biogenic CO_2 Feedstock

Energy

H_2O, CO_2

PP2XH project

- GH2 Electrolysis
- H_2
- H_2 Compressor
- Methanol Synthesis unit
- Methanol Distillation & Storage
- Energy Management
- Synchronised production

Transportation And Supply To End-users

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Sustainable production supply to the end-users

- Hydrogen for Off-take
- End-use In Shipping
- End-use as transportation fuel

Funded by the European Union
Emissions Trading System
Innovation Fund

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Challenges faced by developers of full green value chain projects

- Compliance and Mandates path to demand creation
- Availability of biogenic CO_2
- Availability of cheap renewable power
- Market for Oxygen, Heat and Other By-products
- Location challenges to proximity of transport hubs like ports and demand centres

Milestones reached in the PP2XH project

- Non-binding agreements with value chain partners, 2025
- Start of Detailed Planning, summer 2025
- Signing the EU Innovation Fund grant agreement, March 2026
- Start of FEED study in September 2026
- Signing of non-binding MOU for eMethanol offtake with Nordic Green and Venture Energy

Key Takeaways

01 **Destiny Energy** is a global investor and developer into Green Hydrogen value chain projects, committed to sustainability.

02 **eFuels market is growing**, transport leads demand

- Growth of 5-7x by 2035
- 62-68% of demand from aviation, maritime, heavy-duty road;
- Regulations (ReFuelEU, IMO Net Zero) create guaranteed offtake

03 **Regulatory Frameworks is Critical** for long-term offtake commitments, incl. technology-neutral mandates, e-fuel sub-targets, certification, carbon pricing drive investment

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Key Takeaways

04 **PtL & Methanol are currently the most viable eFuel projects**, having strongest regulatory support, commercial FIDs, drop-in compatibility

05 **Collaboration Essential** : Full value chain participation (regulators, developers, offtakers, traders, financiers) required for scale

06 **Liquidity Building** : Trading mechanisms, distribution network utilization, bunkering hubs emerging in 2026

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