

# The Vécycle Biogas Plant

Customer presentation



Green Island Group.

# A new standard for local biogas

With a Vécycle™ solution, your community or local farm can turn **its waste into value**.

We offer a standardised locally-scaled solution for processing 100-200 metric tonnes of manure or other organic waste every day – a perfect amount for local towns and small-to-medium sized farms and farming communities.

You can turn waste into biogas or biomethane for **local heating, electricity, or even for feeding into the main pipeline**, thereby contributing to the green transition.

You also get the added benefit of circulating your nutrient streams to create organic fertiliser. By establishing a local nutrient circularity, you can become independent of chemical fertiliser, saving money and the environment.

Read more on the Vécycle™ biogas plant design at [www.vecycle.dk](http://www.vecycle.dk)



# The competitive advantage of Vécycle™

## Proven technology

The 35+ years of technological development and practical experience in Denmark is applied in a North American market where biogas technology is 20 years behind.

## Access to farmers

Exclusivity in offering plants to all farmers under GET Corp, constituting an industry-wide adoption. Lead management and project development supported by Véhub™.

## Operational experience

Operational experience from Denmark guides commissioning, and our cloud-based operations platform enables continuous learning across the entire portfolio of plants.

**Guaranteed  
biogas  
yield**

# Why now?

## A new generation of green energy

### #1 New demand for green energy

Both North America and Europe are currently dramatically revisiting their energy policies.

Energy has become a question of national security, and the global effort to decrease GHG emissions is increasingly pressing.

This confluence of events has resulted in a renewed demand for high-density green energy sources.

### #2 Proven technology

Denmark has more than 35 years of biogas experience and know-how. Meanwhile, North America is estimated to be 20 years behind in the biogas space (source: SEGES).

With world-leading suppliers and knowledge institutions on our side, Vécycle™ is uniquely positioned to spearhead a new Danish greentech export adventure.

### #3 Maturity in digital development

With recent advances in digital development, it is now very possible to spread and operate energy generation across a wide portfolio of interconnected assets.

Distributed energy resources (DER) running on Véhub™'s operations stack enables economies of scale horizontally while maintaining a spread in risk.

# Enabling a green breakthrough

The world needs new  
energy sources that are:

- Free from geopolitical risk – produced locally.
- Fossil free and high-density, ready on demand.
- Scalable and applicable with current distribution infrastructure, such as pipeline networks.

And the agricultural sector  
needs a path to decarbonization

We believe that we have found the solution for farmers to become heroes in the green transition, by championing local, pipeline ready biomethane production.



# A scalable green investment

## Vécycle™ as part of Canada's Sustainable Agriculture Program

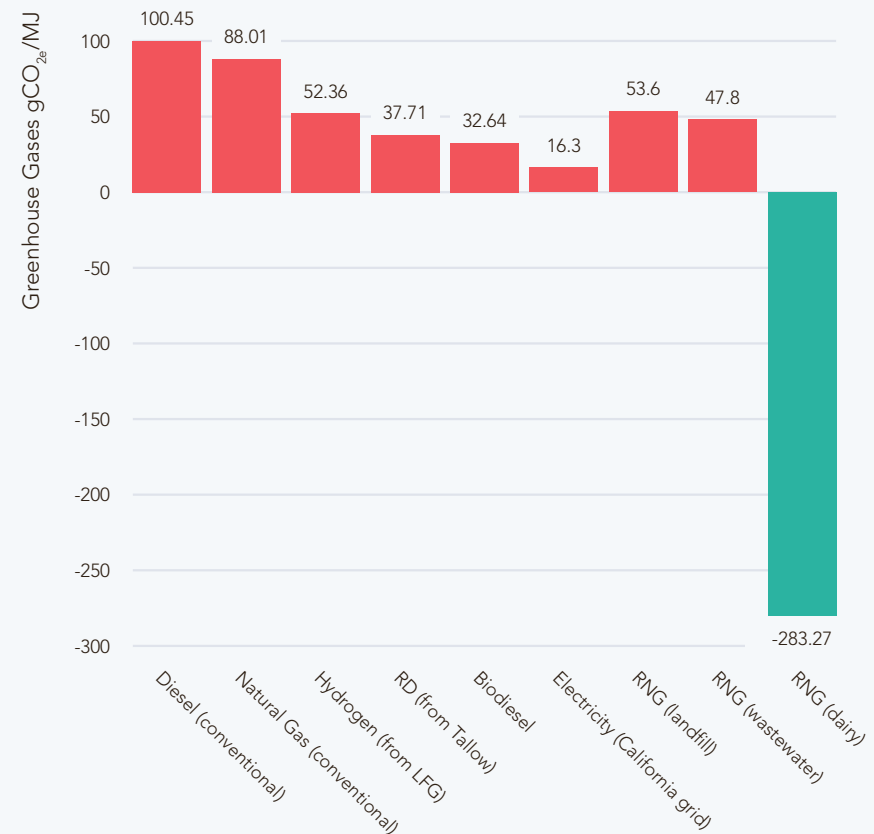
GET Corp wants to make the **Canadian dairy industry carbon neutral**. Farmers begin their individual journey by **joining the Sustainable Agriculture Program (SAP)**.

- The first step of SAP is to get a Vécycle™ plant, to secure the anaerobic digestion of on-farm waste.
- **Vécycle™ has exclusivity** in offering this technology to GET.
- The first plant is **nearing completion**.
- The next **5 plants are signed** with site design and permission ongoing.

## Greening the pipe

Biomethane produced from dairy manure combined with on-farm organic waste has a **carbon intensity score of -283,27 under LCFS**, which is one of the lowest of any energy source. Reductions are achieved both on individual farm operations by doing anaerobic digestion and by displacing fossil fuels.

## Carbon intensity of key transportation fuels\*

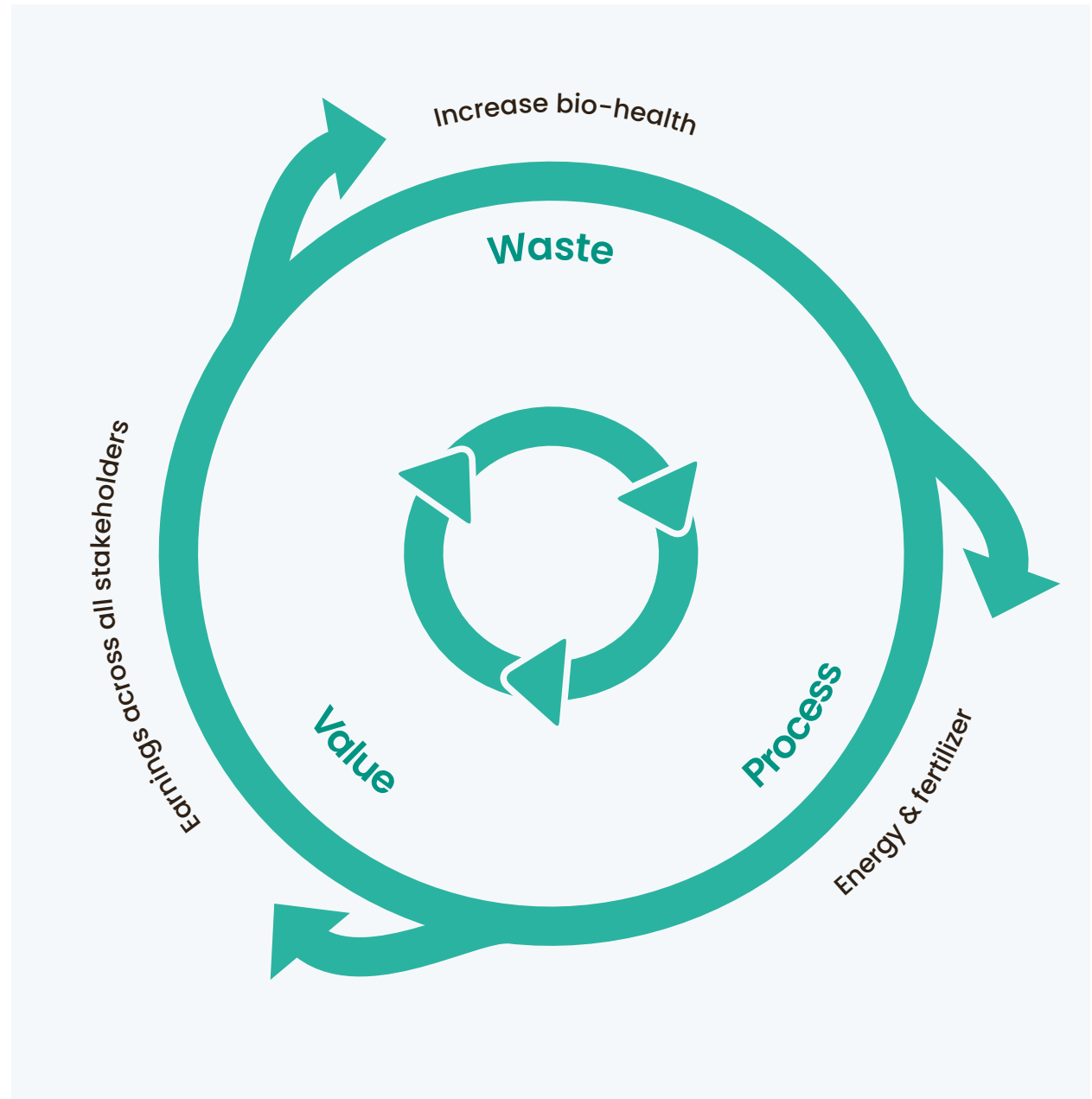


\* California Air Resources Board LCFS Certified Pathways (2019).  
Adjusted for heavy-duty truck applications.

# Nutrient Circularity

Close the nutrients loop and add social, environmental, and commercial value every step of the way

- Close the nutrient loops and add social, environmental, and commercial value every step of the way.
- All nutrients have value when captured:
  - Energy
  - Fertilizer
  - Environment
- Circular ownership secures long-term commercial viability.



# The Danish-Canadian partnership model

**Green Island Vécycle** and **Green Energy Trading (GET) Corp** have partnered up to decarbonize the farming community and introduce a new standard for Canadian on-farm biogas production.

The two organisations represent experience from the Danish biogas industry and the Canadian dairy industry.

- Shared value creation as principle for all stakeholders.
- Advantages include:
  - Quick permissions.
  - Long-term operational success based on trust and transparency.
  - Stakeholders engage in joint success facilitated by the business model.
- Partnership with GET Corp relies on exclusive agreement to implement Vécycle plants in North America.
  - Sustainable Agriculture Program (SAP).
  - By farmers for farmers – Supply management community makes dairy farmers an ideal market.



Vécycle™ has packaged the best from Danish biogas technology, offering its standard plant to Canadian farmers through GET Corp on EPC terms.

As a subsidiary of Green Island Group, Vécycle™ uses the digital platform Véhub™ for scalable project development and plant operations.



GET Corp is a second-tier cooperative by and for farmers – equivalent to Arla or Danish Crown. They have a pipeline of +300 farmers ready to sign up for a biogas plant.

The dairy industry is highly organized as a supply management community for milk. GET Corp is doing the same for manure.



# Testimony on the pilot Vécycle™ project



*I have worked with Green Island Vécycle to establish my Anaerobic Digester plant. Green Island Vécycle are not just selling hardware, they are helping us understand every detail of operating the plant as well. Their cloud solutions bring the globally best experts right onto my farm, they have even given me a yield guarantee so I can calculate the payback time on the investment beforehand. I would warmly recommend any farmer and their community to work with Green Island Vécycle.*

Nick Thurler  
President, GET Corp.

# A complete and circular solution from farm to energy market

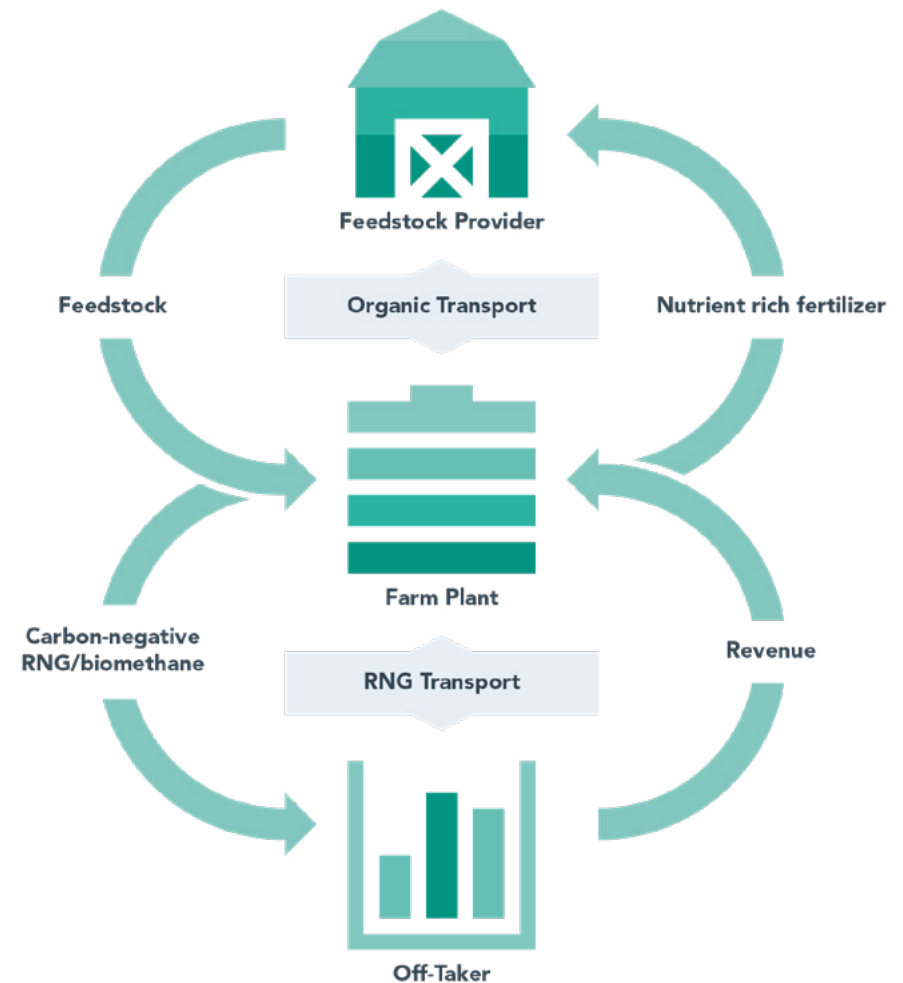
A Vécycle™ plant provides farmers and communities with an opportunity to take part in the green transition.

The processed manure from Vécycle™'s plant can **displace fossil fuel-based commercial fertilizer**. Cutting down on synthetic fertilizer improves the commercial farmer's bottom line and **greatly reduces greenhouse gas emissions**.

Vécycle™'s standard plant has the right size for local communities and on-farm operations with a daily intake of 100 or 200 tons of feedstock per plant.

All the **feedstock comes from farm operations**, and together with the farmer we agree on a detailed program for feeding the plant with manure and farm organics. As long as the farmer sticks to the program, **Vécycle™ guarantees the yield**.

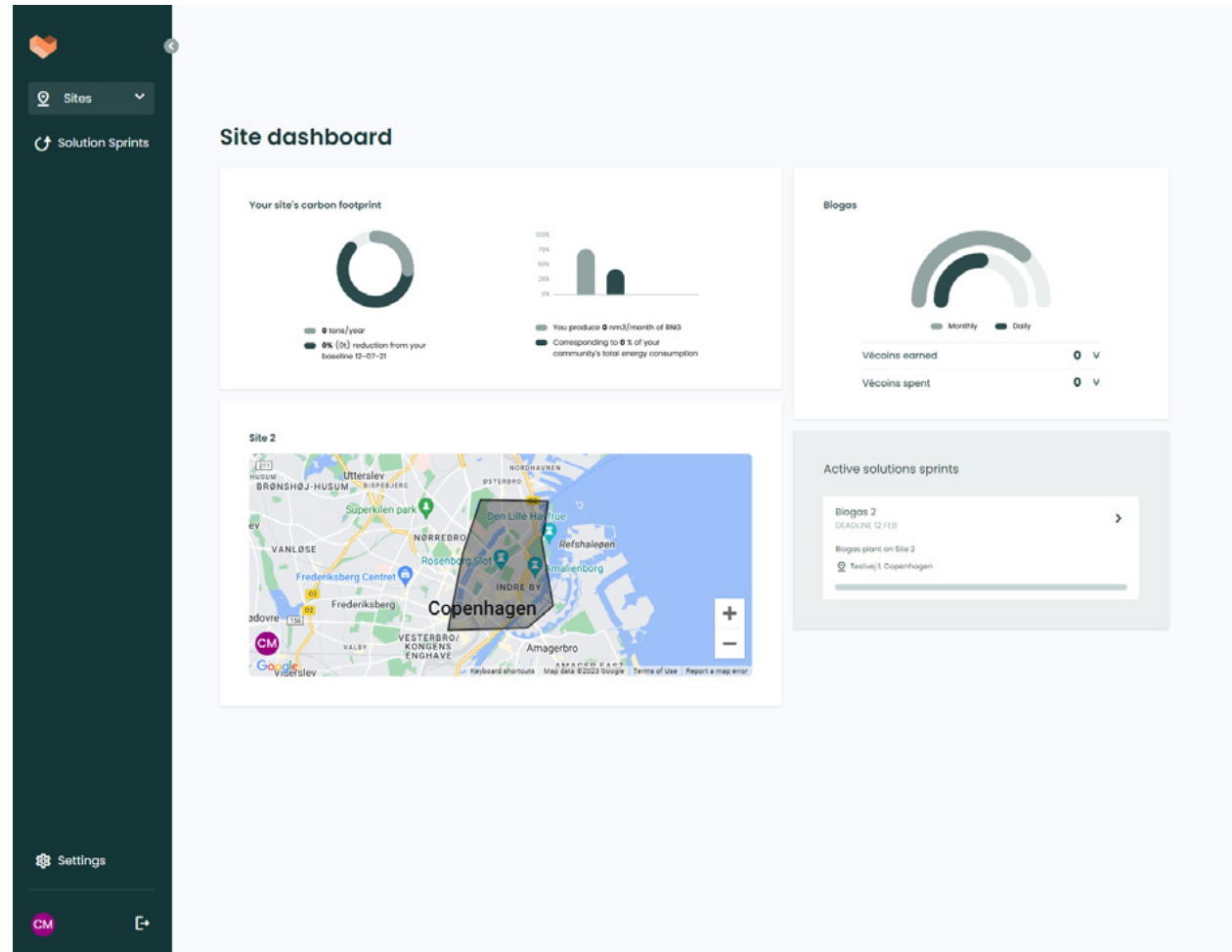
A gas upgrading module raises the methane level to 99% to meet **pipeline quality**.



# Digital optimization

## Véhub™ explained

- Streamlined and scalable project management.
- Supervision and optimization of operations.
- Yield guarantee and continuous optimization.
- In-house state of the art development.
- Taking the optimal mix from human knowledge to the digital world – a complete cloud solution, built on 35 years of experience.



# Partners and suppliers

Majority of renowned Danish suppliers



Digester Construction



Gas upgrading system  
and boiler



Organics mixing



Organics mixing



Agitation system



Construction



Pumps



Heat exchanger



Piping



CTS & Electrical  
engineering



Instrumentation



PLC / SCADA



Construction

Validated and advised by



Solution design



Engineering due diligence



Engineering & construction consultancy

# The standard plant

- Facilitated collaboration with best-in-class Danish and European suppliers and local contractors.
- Focus on right-sizing, scalability, repeat construction, and operational advantages through digitization.
- BIM design process.
- See Technical Appendix for detailed description of the Vécycle™ Standard Plant.



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**More information**

[www.vecycle.dk](http://www.vecycle.dk)

[www.vehub.org/vecycle](http://www.vehub.org/vecycle)

[www.greenisland.group](http://www.greenisland.group)

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**Vecycle™**