Toqlukuti'k Project

Powered by Copenhagen Infrastructure Partners and ABO Energy

Welcome

We're excited to introduce you to **Project Toqlukuti'k** — a proposed wind and hydrogen facility right here in Newfoundland and Labrador.

This Project is being developed by **Toqlukuti'k Wind & Hydrogen Ltd.**, a partnership between two renewable energy leaders:

- ABO Energy Canada (formerly ABO Wind), part of the ABO Energy Group who first proposed the Project and has a long history of developing clean energy projects around the world and in Canada.
- Copenhagen Infrastructure Partners (CIP), one of the world's largest renewable energy investors and developers, who joined the Project in 2024 as the majority owner through their Energy Transition Fund.

Through our joint development partnership, our teams are working to create a Project that delivers local opportunities, and long-term benefits for communities in the region.

About Our Logo

Our new logo for the Toqlukuti'k Project is inspired by the spirit of collaboration at the heart of our work. The two interlocking C's symbolize the idea of "Toqlukuti'k", a Mi'kmaw word meaning "working together." This connection reflects our commitment to partnership—with communities, with each other, and with the environment.

The circular motion of the C's also mirrors the turning blades of wind turbines, capturing the movement and energy that power the project. The two shades of green represent both green hydrogen—the clean molecule we aim to produce—and the broader renewable nature of the entire initiative.

Together, these elements reflect our vision of a greener future, built through cooperation and sustainable innovation.

What To Expect Today

The Project is well underway, with significant progress made to date. That said, there's still a great deal of work ahead — including a thorough environmental assessment, which is a key part of the provincial approval process. This assessment will also include opportunities for public feedback, so that people like you can help shape the Project moving forward.

Today is about sharing updates, hearing your thoughts, and having meaningful conversations.

Our team is here to listen, answer questions, and learn from you. We invite you to:

- **Explore our poster boards to learn about different aspects of the Project.**
- **Share your thoughts by providing feedback and asking our team any questions as you browse the displays.**
- **Make your voice heard! Write on our post it wall or complete a feedback form.**
- **Stay connected!**

Check out www.toqlukutikproject.com and sign up for our e-newsletter for regular project updates:

If you have questions or feedback anytime after these sessions, please reach out:

Lori Tobin, Communications and Community Engagement Coordinator

info_toqlukutik@aboenergy.com | 709-697-9105

Project Overview

In August 2023, the Project was one of four across the province to receive a Wind Application Recommendation Letter from the Minister of Industry, Energy and Technology, awarding the Project exclusive right to pursue development on nominated Crown lands.

The Island of Newfoundland is an ideal location for new large-scale wind-hydrogen developments to help produce the clean energy our world needs now, and into the future.

88% of land in the province is unpopulated Crown land which has good potential for wind development.

Newfoundland's exceptional wind speeds are ideal to efficiently power the wind turbines.

Newfoundland is rich in fresh water — a natural resource that plays a key role in producing clean hydrogen.

Newfoundland's proximity to Europe is ideal for shipping ammonia to markets where it is needed most.

Learn more about this new wind-hydrogen industry from Energy NL's public information website: www.windatourbacks.ca

Did You Know?

Ammonia is produced by combining nitrogen (from the air) with hydrogen.
Compared to hydrogen alone, ammonia is preferred for marine shipping because it's easier to store, transport, and handle over long distances.

Project Purpose

- Project Toqlukuti'k is expected to begin construction in 2029/2030, with an estimated construction period of approximately five years.

- Once operational, the Project will generate renewable energy using state-of-the-art wind turbines. This energy, combined with water, will be used to produce clean hydrogen and its derivatives—such as ammonia—making it a clean, sustainable energy source and industrial feedstock.

- The ammonia produced will be shipped from a local port to international markets. During peak production, it is currently estimated that three ships per month may be required, or in other words, 25 to 31 shipments per year.

- In addition to global export, the Project team will continue to explore opportunities for domestic use of ammonia and hydrogen, supporting clean energy and feedstock needs both locally and globally.

- Project Toqlukuti'k is also expected to bring significant economic benefits, including local jobs and contracting opportunities across the region.

Stronger Through Collaboration: Toqlukuti’k Means “ Working Together”

Meet the partners bringing this Project to life — ABO Energy and Copenhagen Infrastructure Partners (CIP).

Who is ABO Energy?

ABO Energy has been in operation since 1996 and now employs 1,400 people worldwide, including 30 in Canada. Our presence in Atlantic Canada continues to grow, including 2 employees based locally in Newfoundland and Labrador.

- Active in 16 countries in Europe, North and South America, and Africa. We take pride in our international expertise and our local focus.

- ABO Energy Canada started in 2017 in Calgary. Here in Atlantic Canada, ABO is focused on wind, solar, battery storage and green hydrogen development.

- Copenhagen Infrastructure Partners came on as a majority investor to Project Toqlukuti’k in December 2024. They are now the 90% shareholder of this Project.

- Now with a 10% ownership stake in Project Toqlukuti’k, ABO Energy remains committed to the Project‘s success as a minority shareholder and co-developer.

Who is CIP?

In December 2024, ABO Energy transferred a 90% share of its Toqlukuti’k Wind & Hydrogen Project to the Danish Investor Copenhagen Infrastructure Partners (CIP).

Copenhagen Infrastructure Partners (CIP) today is the world’s largest dedicated fund manager within greenfield renewable energy investments and a global leader in offshore wind.

- It was never ABO’s vision to be the sole investor in the TQK Project. The Project was always intended to involve strategic partners due to its scale and complexity.

- CIP has a dedicated renewable energy and clean hydrogen investment fund with a global portfolio. They bring extensive expertise, particularly in ammonia projects worldwide.

- ABO will continue to lead many aspects of the Project’s development — including community and Indigenous consultation and engagement, planning for the wind park, and managing the regulatory and environmental approval process. They’ll also oversee important technical work like civil and electrical engineering, as well as manage contracts related to these areas

- CIP will lead the development of the hydrogen production facility, including Power-to-X operations. They’ll also be responsible for key areas like corporate services, securing financing and grants, working with future investors, and managing agreements related to hydrogen sales and terminal services. Their involvement helps strengthen the Project’s financial foundation and creates opportunities for additional investment in the future.

- Toqlukuti’k represents the second Project in partnership between CIP and ABO Energy, which also includes Canada’s largest onshore wind farm, Buffalo Plains. This project is near construction completion.

Image: Buffalo Plains Project - 495 MW capacity.

Stronger Through Collaboration: Toqlukuti’k Means “ Working Together”

Building respectful relationships with Indigenous partners and communities.

Partnering with Miawpukek First Nation

Toqlukuti’k Project

The name Toqlukuti’k (pronounced ‘dok-loo-gu-tik’) was determined together with Miawpukek First Nation and originates from the traditional Mi‘kmaw language of the Miawpukek First Nation, meaning “working together”.

Project Toqlukuti’k has been working together with Miawpukek First Nation since 2022, signing an Memorandum of Understanding to explore opportunities for their involvement in the Project, including potential roles and contributions.

We respectfully acknowledge that the Toqlukuti’k Project is located on the traditional lands of Indigenous Peoples who have cared for these lands, waters, and ecosystems for countless generations. We honour their deep connection to the land and culture and recognize the importance of this relationship in shaping a sustainable future.

As we move forward, we are committed to listening, learning, and supporting reconciliation. Through collaboration we aim to better understand how our project may impact Indigenous ways of life and ensure those voices help guide our work.

Local Collaboration: Listening to Community Voices

Project Toqlukuti’k has been engaging with communities in the region for several years—and this is just the beginning.

We believe the most successful Projects are built in partnership with the people who know the land best.

That’s why we’re connecting with residents, cabin owners, outfitters, contractors, municipalities, and others to ensure community perspectives help guide the way forward.

Your voice matters. This is a shared journey, and we’re committed to walking it together.

Project Planning Updates
What's New?

- Our team has been actively planning the Project, refining many technical elements to optimize. This involves technical studies and engineering work, environmental studies, local engagement, and more.

- These efforts have helped determine what Crown lands from our initial reserve area that we need for a viable Project.

- We've already reduced our Crown land use by nearly 50% and are working toward a 75% reduction—pending government approval. This reflects our commitment to responsible and efficient land use.

- We have held many community ("mobile") office hours throughout the summer and fall of 2024 and hosted 7 open houses in March 2024. We're continuing to connect with community members, local governments, Indigenous communities, and anyone with an interest or concern in the Project—ensuring open, respectful, and ongoing dialogue.

- We look forward to submitting our Environmental Assessment Registration (EAR) by summer 2025, which will provide much more detail on important environmental and community considerations for the Project. Public input is a key part of this process, helping to shape decisions and guide the project forward.

We are glad you are here today – your feedback is very important as we continue our planning at this stage of the Project.

Project Evolution: Then vs. Now

Before		Now (Optimization ongoing)
5 gigawatts		**2.5-3.2 gigawatts**
~107,000 hectares reserved		**~55,000 hectares** reserved
Phased Approach Phase 1: Local offtake Phase 2 & 3: Ammonia export		**Ammonia export focused** Optional local offtake
Construction Start: 2026		**Construction** Start: 2029/2030

Since our last community open houses in 2024, Project Toqlukuti'k has evolved. We've refined the Project scope and adjusted our timeline to better reflect global market trends.

Our Changes:

- In response to market conditions and Braya's current appetite, the Project has transitioned from a multi-phase plan—with an initial focus on local clean hydrogen offtake—to a single-phase approach that advances ammonia for export, while continuing to explore local offtake opportunities in parallel. We maintain a strong relationship with Braya and actively are working to align the business cases.

- Originally designed for 5GW, the Project is now being sized between 2.5 and 3.2GW—a scale better suited for long-term success, pending approval from the Department of Industry, Energy, and Technology (IET).

- If our request to reduce the size of the Project is approved by IET, then the number of wind turbines will be between 400-515. This number may change depending on turbine efficiencies, in addition to additional environmental constraints, engineering studies and further local consultation.

- We've already reduced the total land use by nearly half.

- We're actively working with government on additional land reductions. Our proposal is under review, and we're awaiting feedback.

- Due to evolving partnerships, land use changes, and global market shifts, Final Investment Decision and the start of construction (site preparation) is expected to be in 2029/2030.

Disclaimer:

All changes to the Project must be approved by the Department of IET. At this time, our request to reduce the land reserve by 50% has been approved. We are actively working with the government to further modify the Project, including reducing its size from a 5 GW wind Project to approximately 2.5–3.2 GW, as well as further decreasing the land area required through the Crown Land application process.

Project Planning Updates
Key Focus Areas 2024-2025

Environmental, Geotechnical & Wind Measurements

- An Environmental Assessment (EA) is required before Crown land leases can be issued; EA is to be registered in coming months.
- We began our environmental field studies in 2023.
- Preliminary geotechnical studies have been completed. Geotechnical studies deal with soil, rock and ground water, and their relation to design, construction and eventual operation of our Project. Additional field studies are scheduled for 2026.
- Since 2023, onsite wind measurements have been underway using two LiDAR systems, with a 120-metre wind measurement tower added in 2024. The wind monitoring program will continue to expand, with plans to cover up to 23 locations by 2029.

Project Footprint Reduction & Land Strategy

- A 50% land reduction from our original footprint was requested by Project Toqlukuti'k to the NL Government in Fall 2024.
- This reduction was based on setbacks from infrastructure and sensitive areas, optimal wind speeds, and constructability.
- After careful evaluation, the government has approved a 50% land return, shown on our map — a clear reflection of our commitment to responsible land use.
- Our Goal: Use only 5–10% of original area.
- Continuous refinement is core to our approach.

Regulatory Process & Engagement

- Feb 28, 2025: Crown land lease application to the Province of NL begins formal referrals to various provincial agencies/departments to review the application.
- Regional towns will be engaged through the Department of Municipalities and Public Affairs.
- The Crown lands application for Project Toqlukuti'k involves at least two years of regulatory review to determine which parcels may ultimately be approved for lease.

Transparency & Collaboration

- While engagement has already begun, we're committed to continuing the conversation.
- Feedback is an ongoing part of the process— not a one-time event. Communities can engage through Provincial Government referral agencies and directly with our Project team.
- Consultation with residents and stakeholders is critical for a successful Project.

We're still early in the process — no final decisions have been made. We're committed to sharing updates, listening and incorporating feedback every step of the way

From Reserve to Lease:
Our Progress on Crown Land Use

Long before construction begins on this Project, a rigorous process is required by the Provincial Government to ensure Crown land is used carefully and responsibly. Every application is reviewed by government agencies, surveyed by professionals, and refined to include only the land truly needed. It‘s part of our commitment to responsible development.

1

On August 30, 2023, the government announced that through the Call for Bids process, ABO Energy and other companies received the exclusive rights to pursue their projects through the Crown lands application.

2

From that point forward, Project Toqlukuti’k had a large area of land in reserve and the opportunity to determine what land we’d need for a viable Project, as well as the right to apply for the Crown land we needed for our development by February 28, 2025.

3

Crown land applications for the Project must be approved through the provincial Crown lands application, process, administered by the Department of Fisheries, Forestry and Agriculture (FFA). We submitted this application in February, with a greatly reduced footprint.

4

No Crown land title will be issued to Project Toqlukuti’k and no Project can proceed to construction, unless we are released from the Environmental Assessment, a process administered by the Department of Environment and Climate Change (ECC). We plan to submit the Environmental Assessment within the coming months.

Did you know?

- Once we receive approval to release certain parcels from our Crown land reserve, those lands return to the Crown. At that point, residents are welcome to apply to use them through the usual Crown land application process.

- Typically, most activities underway before construction of a wind site can continue afterwards, like berry picking and snowmobiling.

- During operation the wind farm will not be fenced off therefore recreational use of the Crown lands is facilitated by the Project’s road network. Electrical and chemical facilities are fenced off to protect the facility and the public.

As with any construction project, access to certain areas will be restricted during active work to ensure the safety of both the public and workers. We recognize the scale of this Project and the changes it may bring, and we’re committed to collaborating with you to understand your land use and minimize impacts wherever possible.

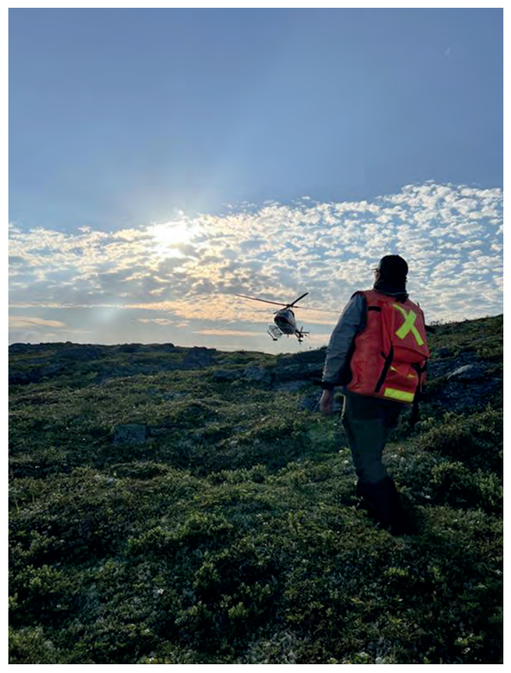
Understanding and Conserving our Environment

Like any major infrastructure project in NL, Project Toqlukuti'k will be subject to an Environmental Assessment Approval, with an ongoing goal to mitigate the Project's residual effect on the local environment.

We plan to register the Environmental Assessment soon with the Provincial Government. It will be publicly available for your review and feedback!

Environmental Studies are being done by an Environmental Consultant:

- A range of desktop studies have been completed to date, with more ongoing.
- Field studies completed so far include aquatics, bats, shorebirds, breeding birds, and waterfowl.
- Upcoming studies will focus on water resources, caribou and moose, and birds and bats.



Understanding the local environment and any potential impacts is very important to us:

- We are committed to understanding the potential impacts of our Project on the environment and the surrounding communities, and these ongoing studies and community feedback are crucial in guiding us toward making informed decisions.
- Our Project is being designed to avoid sensitive areas, minimize potential impact on critical habitats, species at risk, and other ecological features of concern.

The Environmental Assessment (EA) process:

The Municipal Affairs website explains that environmental assessments aim to protect the environment and support quality of life in the province by promoting sustainable development.

- The EA process ensures that proposed projects are carefully reviewed for their potential impacts on the environment, communities, and health before they are approved.
- We plan to submit our EA registration in summer 2025. Within the 45-day government review period to follow, the public can provide feedback. Government departments will also review the Project.
- In preparation for government's decision, we are planning for additional studies and ongoing consultation to better understand the impacts of the Project.

Clean Energy for our World, Powering Local Prosperity

The Toqlukuti'k Project will be major renewable energy Project. While we'll use local wind to power wind turbines to ultimately create clean, renewable energy for export (in the form of ammonia), we're exploring potential local offtake options as well to keep a portion of the energy produced right here.

Regardless of the energy's end use or destination, the development, construction and operation of this major Project will contribute substantial economic growth to the region and the province.

Opportunities in the renewable energy sector are varied and include construction, maintenance, operations, supply and service. The Project will also provide additional funding to local community initiatives as activity ramps up.

Jobs

- The Project is not yet hiring trades roles as it is still in the relatively early planning phases, with construction anticipated to begin in 2029/2030. In total, 4600 jobs are anticipated at peak construction, with up to 500 full time employees during operations.

- Toqlukuti'k is not anticipated to be hiring tradespeople directly but will be seeking the expertise of major contractors and subcontractors (when these have been awarded in the future) once the Project is closer to having shovels in the ground.

- The Project will require similar roles and skills as any traditional land-based large industrial project (labourers, heavy equipment operators, truck drivers, operating engineers, and various types of trades), in addition to those specially trained to be wind turbine and hydrogen technicians.

Vendors/Suppliers

- Vendors and suppliers with interest in working with the Project may register on our Supplier Portal (located on the bottom of our webpage) at any time!

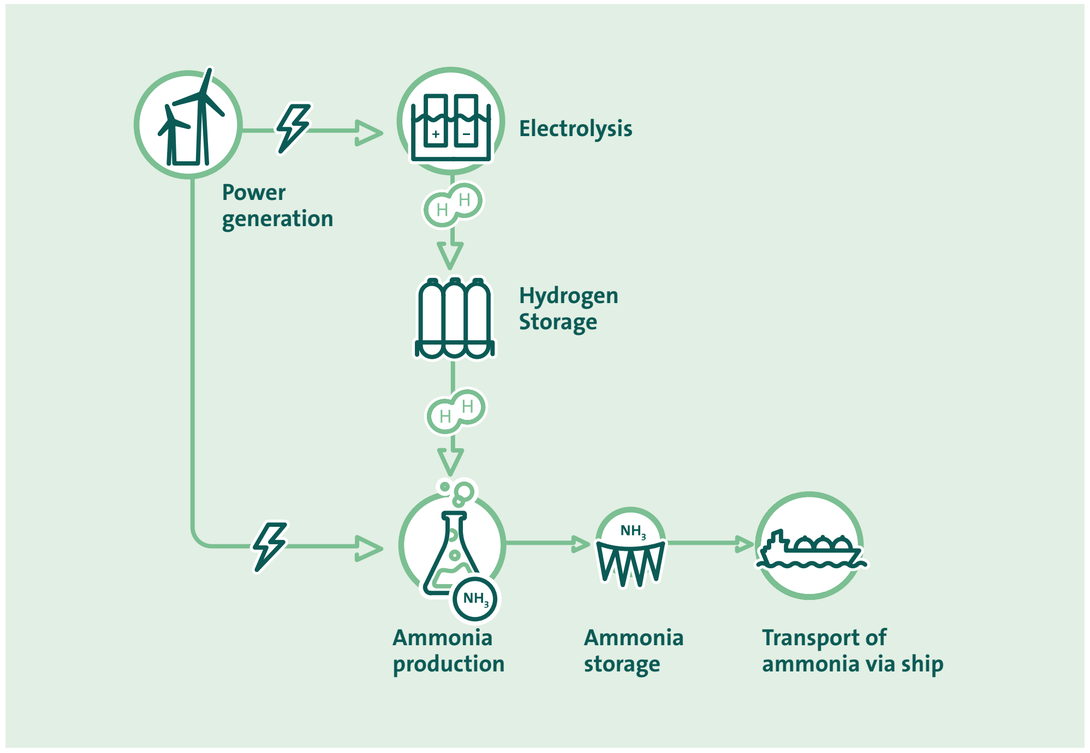
- Later, we anticipate contracts for accommodations, site and tree clearing, road building/maintenance, snow clearing, storage yard construction, security, electrical works, turbine installations (steel, crane, concrete works), hydrogen facility construction and more.

We encourage you to stay in touch and subscribe to our e-newsletter on our website to learn of any updates: www.toqlukutikproject.com

From Wind to Fuel: The Ammonia & Hydrogen Story

It All Starts with Wind

Unlike typical wind farms that send electricity directly to the power grid, the purpose of Project Toqlukuti'k is different. Our wind turbines will generate clean, renewable electricity to power an electrolyzer facility—which uses water and wind power to produce clean hydrogen, and ultimately, green ammonia for export.



What Kind of Wind Turbines?

While the final turbine model hasn't been selected yet, here's how it may look:

- **Turbine Height (to blade tip)**: Expected to range from 210 to 235 metres
- **Blade Length:** Approximately 80 to 95 metres
- **Rotor Diameter:** Roughly 160 to 190 metres

What you might not know: the Confederation Building in St. John's is about 64 metres tall—so these turbines will be around 3 to 4 times taller!

These turbines, often called Wind Turbine Generators (WTGs), are designed to be efficient in capturing as much wind energy as possible from the environment.

What is Green Hydrogen?

Clean hydrogen is hydrogen that is produced by splitting water molecules (H2O) using an electrolyzer, in a process called electrolysis.

The electricity for the electrolyzer must be generated from renewable sources to be considered "clean". This ensures that no carbon dioxide (CO2), or other environmentally harmful byproducts, are released during hydrogen production.

Hydrogen and Ammonia: Clean Energy Solutions

How will hydrogen be used?

- **Export to the global market:** Clean hydrogen is one of the key elements to assist Europe to reach its climate targets and to ensure energy security. Clean hydrogen can be a solution to Europe's energy problems for several reasons, including its low carbon intensity, ability to be stored for a longer time prior to distribution, and its versatility in uses.

Clean hydrogen can be transformed into derivatives such as ammonia, exported all over the world for use in industrial processes, heating, electricity, and automotive or other transportation use – like ships.

- **Potential Local Offtake:** TQK will continue to explore opportunities for the domestic sale of ammonia and hydrogen, however the primary focus will be production for international export.

Where does Ammonia fit in?

Compared to hydrogen, ammonia has several decisive advantages in terms of long-distance transport:

Ammonia's high energy density and ease of liquefaction allow it to be easily transported with potential to use already existing infrastructure.

Ammonia can be used as feedstock in the existing chemical industry and can also be used as feedstock in new industries, or in the transportation sector (e.g. as shipping fuel).

If needed, ammonia can be converted to hydrogen on demand on the import side, without carbon emissions.

Ports options for Ammonia export:

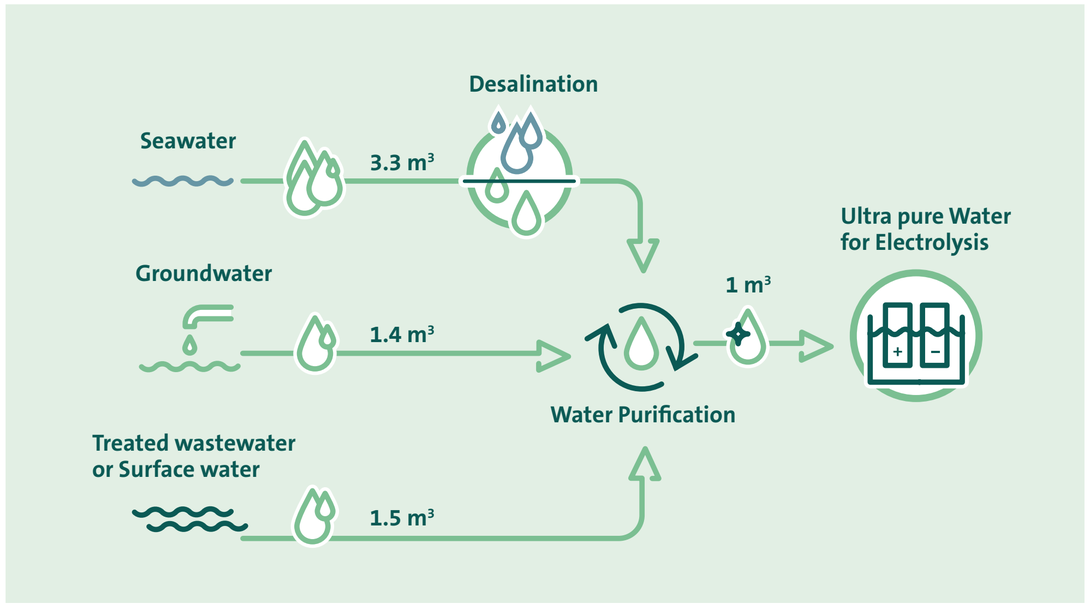
- As part of our Project development, we are evaluating multiple port options (new and existing). These evaluations will continue as the most viable option is identified for development.
- The ammonia will be exported to global markets from the selected local port on a ship, estimated to occur up to 3 times per month and between 25 and 31 times per year.

Safety:

- Ammonia has been used in industry for over one hundred years, each year ammonia is transported by road, train, ship and pipeline.
- Ammonia has a well-known hazard profile and has been handled safely for more than a century.
- Review of safety risks and emergency response plans and mitigations will be in place for our Project prior to any operation or production.
- All companies or contractors involved in this Project must have safety at top of mind and follow all safety and emergency response protocols, from site visits to construction and operations.

Water's Role in Green Hydrogen Production

Clean hydrogen is created through a process called electrolysis, where water is split into hydrogen and oxygen using electricity. In our Project, that electricity will come primarily from onshore wind energy—a clean and renewable source.



How Much Water Is Needed?

The amount of water used depends on two key factors:

- The technology of the electrolyzer
- The quality of the water

As a rule, producing 1 kilogram of hydrogen requires around 10 litres of ultra-pure water. The water demand is not only depending on the project size but also on the water quality, therefore the final water demand for the Toqlukuti'k facility is not known yet. Once the plant design is finalized, and the water studies are conducted more information can be shared.

Finding a Sustainable Water Source

Water is the sole and essential feedstock used in producing clean hydrogen.That's why identifying a sustainable, long-term water source is essential.

The bodies of water shown below are being studied for potential use in the Project. Final water sources and volumes are still to be determined. These ponds were identified to maintain flexibility as planning progresses.

Post-It Wall – A Space for Your Thoughts

What questions, comments or feedback do you have? Is there something you'd like to learn more about? What is most important for you as we develop this Project?

Grab a post-it and let us know here!