Appendix U4

# Public Information Session 4 Material

# Appendix U4

# Public Information Session Material, June 3, 2024

# List of Appendices

Appendix U4.1: Advertisement and Event Materials

Appendix U4.2: Handout, Posters & Information Booklet

Appendix U4.1: Advertisement and Event Materials

Promotional Flyer for Open House.

# Argentia Renewables

# **Open House**

# June 3, 2024

4:00 p.m. – 7:00 p.m. Star of the Sea 14-22 Jubilee Rd, Placentia

Come out to hear about the Argentia Renewables Project, ask the experts, and provide your feedback.



ArgentiaRenewables.ca argentiarenewables@patternenergy.com Promotional Socials Post for Facebook and X.

# Argentia Renewables

# **Open House**

June 3, 2024 4:00 p.m. – 7:00 p.m. Star of the Sea 14-22 Jubilee Rd, Placentia

Come out to hear about the Argentia Renewables Project, next steps, and how to provide your feedback.





Pattern Renewable Holdings Canada ULC 119 Spadina Avenue, Suite 403 Toronto, ON M5V 2L1 T +1 416 263 8025

F +1 416 203 8023 www.patternenergy.com

May 2, 2024

Stakeholder Organization

#### Re: Argentia Renewables - Open House

Dear X,

As one of Canada's leading renewable energy development and operations companies, Pattern Energy is pleased to advise X that, as the Argentia Renewables Project EA submission nears, we are offering another opportunity for key local stakeholders to attend an Open House session. We will be sharing information surrounding the latest information on environmental baseline studies, EA submission, how to give feedback, and more. This is a great opportunity to ask the experts about individual aspects of the project.

Pattern Energy invites you to join an Open House session happening June 3, 2024, at the Placentia Star of the Sea. The event will take place from 4:00 p.m. to 7:00 p.m., with refreshments served.

Pattern Energy is actively partnering with several local companies to advance our development activities with respect to Argentia Renewables and we will have those subject matter experts participate in the session with Pattern Energy.

We look forward to sharing information about this exciting project and hope to see you at the Open House.

Sincerely,

Frank Davis AVP Green Hydrogen Development and Canada Country Head Pattern Energy Group LP

#### Information Session Comment Card.

<b>Pattern</b> Argentia Renewables	<b>Pattern</b> Argentia Renewables		
We want to hear from you!	We want to hear from you!		
Name	Name		
Contact (Phone or Email)	Contact (Phone or Email)		
Comment	Comment		
We will not, in any circumstances, share your personal information with other individuals or organizations without your permission, including public organizations, corporations or individuals, except when applicable by law.	We will not, in any circumstances, share your personal information with other individuals or organizations without your permission, including public organizations, organizations, aronations or individuals, except when applicable by law.		
Toll free: (844) 486-3323 Argentia Renewables	Toll free: (844) 486-3323 Argentia Renewables		
patternenergy.com/projects/argentia-renewables/	patternenergy.com/projects/argentia-renewables/		

## Information Session Sign-in Sheet.

Open House	ne or Email)
Name         Contact (Phone or Email)	
We will not, in any circumstances, share your personal information other individuals or organizations without your permission, includ organizations or individuals, except when applicable	ing public

# Appendix U4.2: Handout, Posters & Information Booklet\*

\*This material was printed as a handout for participants to take home, and was also displayed on boards at the event.

# **Argentia Renewables**

Newfoundland & Labrador are uniquely positioned to meet the demand of the rapidly growing European market for green hydrogen.

Argentia Renewables consists of a 300 MW windpowered green hydrogen and ammonia production and export facility located at the Port of Argentia, the closest deepwater, ice-free port to Europe in the Western Hemisphere.



# Good Neighbours Produce Meaningful Partnerships

We believe in acting as a good neighbour through longterm engagement and giving. Argentia Renewables equally commits to listening and respecting the landowners and communities that host our facilities through relationship building, open communication, and the reception of feedback. We encourage you to call or email our team to start a conversation. Wind energy will power dockside electrolyzers to produce green hydrogen that will used as feedstock for ammonia production. The final product—carbon-zero/green ammonia—will be safely stored at the Port for export to European offtakers.

## **Economic Investment**

An initial capital investment of ~\$1.4 billion CAD (including both wind and green fuels infrastructure), representing one of the largest renewable energy investments in Canadian history.

## Job Creation

Creates construction jobs, including equipment operators, electricians, laborers, and more. We prioritize hiring locally when possible. Once operational, permanent staff will operate and maintain the facility.

.....

.....

## **Business Opportunities**

Creates an economic boost and brings opportunity for local businesses to provide materials and services.

.....

#### Lasting Revenue

We believe in giving back to the communities that host our development projects and operational facilities. We contribute to local causes through sponsorships and donations throughout all project phases, and we implement Community Benefit Programs at operational facilities.

#### PatternEnergy.com



#### Handout, page 2.

# Harnessing the Power of the Wind to Advance Economic Development and Decorbonize Simultaneously

The development of wind energy and Green Fuels infrasturcture offers the only clear and cost-effective pathway to decarbonizing sectors of the economy that require hydrogen as a feedstock, such as heavy industry and transportation.

Pattern Energy's resources, experience, and market credibility position our company to meet the many challenges associated with commercializing green fuels export projects in remote locations.

Working with world class partners, local companies, community hosts and residents, local governments, and First Nations, we are committed to making these projects a reality.

# Target Schedule

#### \_ 2023/2024

Completion of environmental and feasibility studies, acquiring regulatory approvals, securing offtake arrangements

#### 2024/2025

Target for final approvals and commencement of construction

2027 Target commercialization

# About Us

Pattern Energy is a leading developer, operator and owner of renewable energy infrastructure projects and facilities across North America. Our mission is to transition the world to renewable energy through the sustainable development and responsible operation of facilities with respect for the environment, communities, and cultures where we have a presence.

Our approach begins and ends with establishing trust, accountability, and transparency. Our company values of creative spirit, pride of ownership, follow-through, and a team-first attitude drive us to pursue our mission every day. Our culture supports our values by fostering innovative and critical thinking and a deep belief in living up to our promises.

Headquartered in San Francisco, Pattern has a portfolio of power facilities and transmission assets producing and transporting nearly 6,000 MW of power across North America, serving various customers that provide low-cost clean energy to millions of consumers. Booklet, page 1.

# Welcome

# Argentia Renewables

**Open House** 

Thank you for coming. We look forward to visiting with you.

Your questions and comments are important to us.



Scan to Sign-in



Booklet, page 2.

# Pattern Energy Argentia Renewables

Pattern Energy is a leading developer, operator and owner of renewable energy infrastructure projects and facilities across North America. Our mission is to transition the world to renewable energy through the sustainable development and responsible operation of facilities with

respect for the environment, communities, and

cultures where we have a presence.

Our approach begins and ends with establishing trust, accountability, and transparency. Our company values of creative spirit, pride of ownership, follow-through, and a team-first attitude drive us to pursue our mission every day. Our culture supports our values by fostering innovative and critical thinking and a deep belief in living up to our promises.

Headquartered in San Francisco, Pattern has a portfolio of power facilities and transmission assets producing and transporting nearly 6,000 MW of power across North America, serving various customers that provide low-cost clean energy to millions of consumers.



Booklet, page 3.

# **Project Overview**

**Argentia Renewables** 

Newfoundland & Labrador are uniquely positioned to meet the demand of the rapidly growing European market for green hydrogen.

Argentia Renewables will consist of a 300 MW windpowered green hydrogen and ammonia production and export facility located at the Port of Argentia, the closest deepwater, ice-free port to Europe in the Western Hemisphere.

Wind energy will power dockside electrolyzers to produce green hydrogen that will used as feedstock for ammonia production. The final product—carbonzero/green ammonia—will be safely stored at the Port or Argentia for export to European offtakers.

# Green Fuels

- The project is expected to have an output of approximately 400 tonnes per day of green ammonia.
- Construction of a high voltage transmission line from the Argentia Wind Facility on Port of Argentia property to the dockside Argentia Green Fuels Facility.

# Investing in Canada

An initial capital investment of ~\$1.7 billion CAD (including both wind and green fuels infrastructure), representing one of the largest renewable energy investments in Canadian history.

# **Project Schedule**

#### 2023-2024

Completion of environmental and feasibility studies, acquiring regulatory approvals, securing offtake arrangements

#### 2024-2025

Target for final approvals and commencement of construction

2027-2028

Target commercialization



Booklet, page 4.

# Site Selection & Design

**Argentia Renewables** 

When selecting the Port of Argentia as the location for a Green Fuels project we considered a range of factors. We use these criteria to select sites, and then refine facility designs.

# Project Criteria

- Closest port to Europe
- Access to 9,000 acres of private land
- Ice-free port with existing heavy industrial site to support project
- Engaged & supportive partners

# General Site Characteristics

- Exceptional Wind Resource
- Avoids Impact to Critical Wildlife Habitat
- Proximity of Wind Turbine Locations to Port Facility
- Brownfield Site





Booklet, page 5.

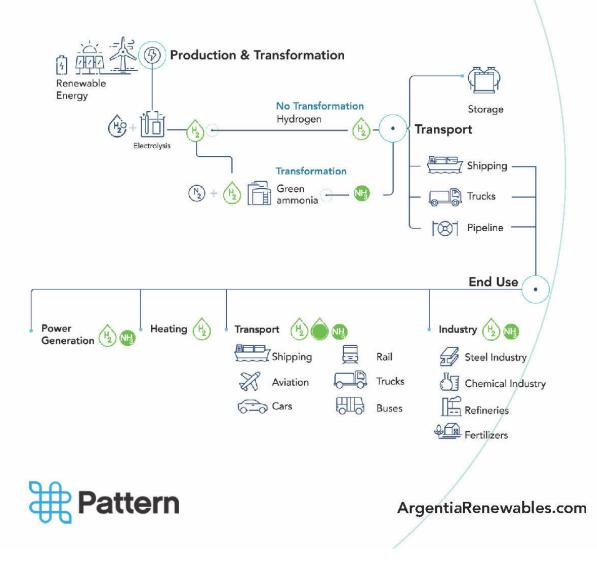
# **Turbine Technology Argentia Renewables** Wind can be harnessed to transform kinetic energy into electrical energy. Wind turbines do this with blades mounted on towers, which are turned by the wind, causing them to turn a shaft that is attached to a generator. This creates an electrical current that is carried by cables to the electric grid that connects to your home. **Rotor Diameter** 390-525 ft. measures the swept area diameter of the blades Blade Length 180-250 ft. Hub Height 330-450 ft. measures from ground level to the center of the turbine blades (nacelle) Blade Ground Clearance



Booklet, page 6.

# Green Fuels Argentia Renewables

Green fuels, such as green hydrogen, are currently produced globally at scale for various industrial applications, including chemical/steel/concrete manufacturing, oil refining, and more. Unlike carbon intensive hydrogen, green hydrogen is produced by a process called electrolysis utilizing only renewable energy and water as inputs and emits no carbon when produced.



Booklet, page 7.

# Local Business Opportunities

# **Argentia Renewables**

Pattern Energy strives to benefit the communities where we operate. With this goal in mind, we are committed to using qualified local and regional vendors and contractors when possible

These efforts create more jobs and offer the community additional economic benefits.



Please visit us at ArgentiaRenewables.ca or scan the QR Code below to submit your business information.



# Construction

- Road Construction and Site Grading
- Foundation excavation and backfill
- Road maintenance and asphalt paving
- Concrete supplier
- Aggregate supplier
- Electricians
- Foundations and site concrete
- O&M facility and builiding construction
- Landscaping
- Security, fencing, water, power, sanitation facilities, etc.

# Maintenance

- Communications maintenance
- HVAC contractor
- Hardware supply
- Waste control and removal
- Solid waste disposal
- Landscape and groundskeeping
- O&M building maintenance
- Road maintenance
- Electrical supply
- Truck fleet leasing and maintenance
- Crane services and rentals
- Janitorial services

Booklet, page 8.

# Good Planning Involves the Community

# **Argentia Renewables**

Pattern Energy equally commits to listening to and respecting the landowners and communities that host our projects through relationship building, open communication, and the reception of feedback. We encourage you to call or email our team to start a conversation.

# Community Outreach

ArgentiaRenewables@patternenergy.com 844.486.3323

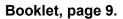
# Media Inquiries

Matt.Dallas@PatternEnergy.com

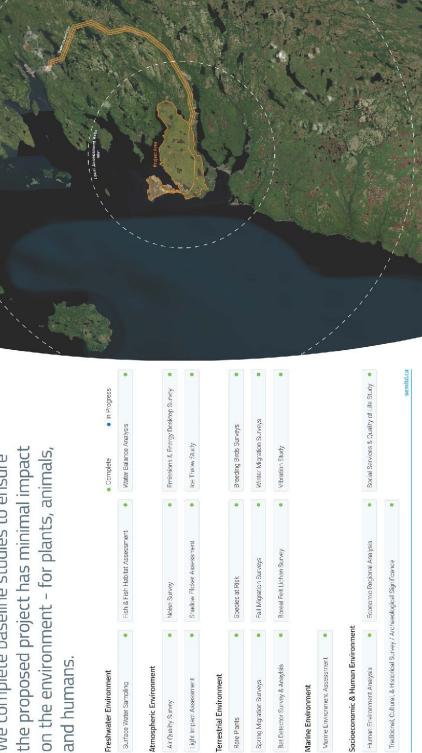


Comment form









#### Booklet, page 10.

the proposed project has minimal impact on the environment - for plants, animals, We complete baseline studies to ensure and humans.

H Pattern

**Sem** 

# Booklet, page 11.



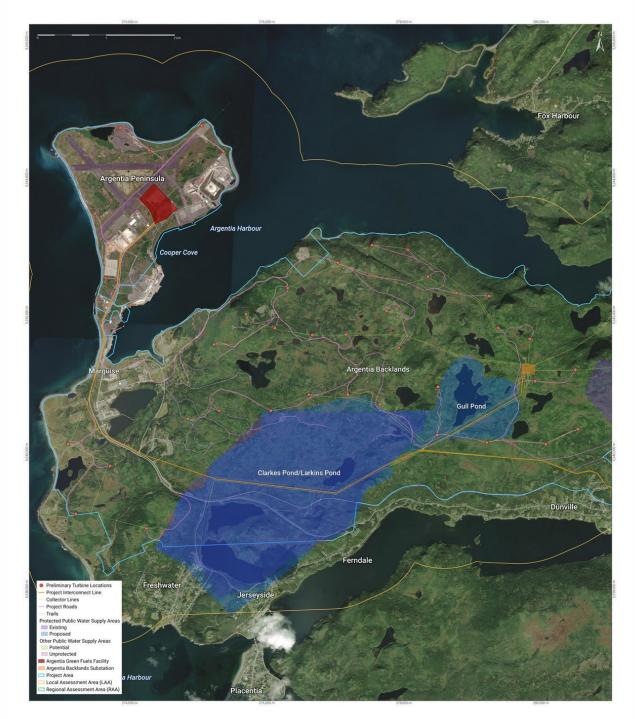
PROJECT TITLE:	and the end of the second s	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 23/05/2024	
	FIGURE TITLE Proposed Infrastructure	NOTES: The location of proposed project infrastructure is considered preliminary	REVIEWED BY: APPROVED BY:		
	PROJECT TITLE: Argentia Renewables	and is subject to change.		sem	

# Booklet, page 12.



Pattern Argentia Renewables	FIGURE NUMBER: 3.0	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 23/05/2024
	FIGURE TITLE Proposed Infrastructure with Public Water Supplies	NOTES: Public Water Supply data sourced from the NL Government Land Use Atlas (NL	REVIEWED BY: APPROVED BY:	
	PROJECT TITLE Argentia Renewables	Water Resources Division)		5 <b>CM</b>

## Booklet, page 13.



Pattern Argentia Renewables	FIGURE NUMBER: 3.1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 23/05/2024
	FIGURE TITLE Proposed Infrastructure with Public Water Supplies Peninsula/Backlands	NOTES: Public Water Supply data sourced from the NL Government Land Use Atlas (NL	REVIEWED BY: APPROVED BY:	
	PROJECT TITLE Argentia Renewables	Water Resources Division)		sem

# Booklet, page 14.

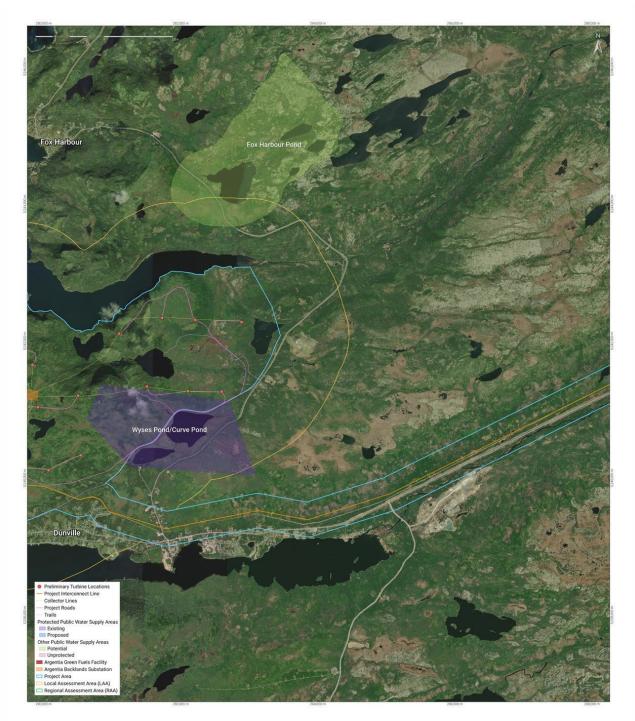
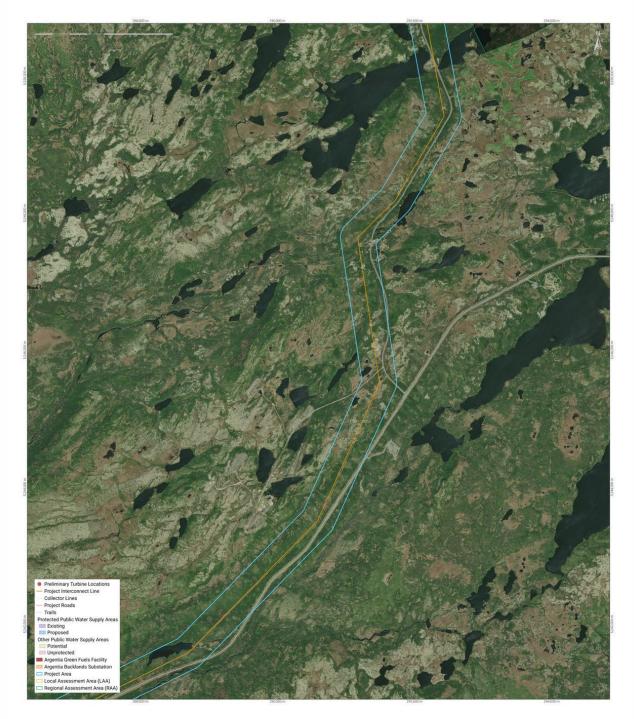


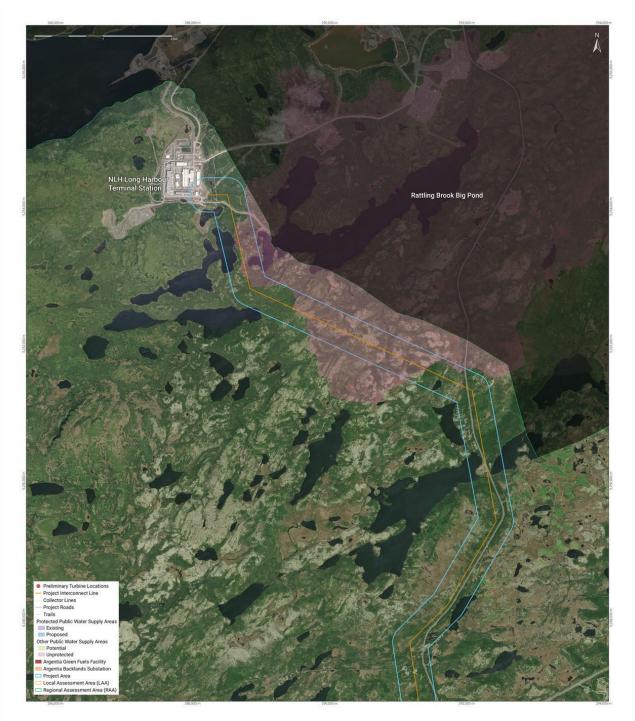
	FIGURE NUMBER: 3.2	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 23/05/2024	
Pattern Argentia Penewables	FIGURE TITLE Proposed Infrastructure with Public Water Supplies Backlands/Project Interconnect	NOTES: Public Water Supply data sourced from the NL Government Land Use Atlas (NL	REVIEWED BY: APPROVED BY:		
	PROJECT TITLE: Argentia Renewables	Water Resources Division)		sem	

# Booklet, page 15.



Pattern Argentia Renewables	FIGURE NUMBER: 3.3	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 23/05/2024
	FIGURE TITLE Proposed Infrastructure with Public Water Supplies	NOTES: Public Water Supply data sourced from	REVIEWED BY: APPROVED BY:	
	Project Interconnect PROJECT ITILE Argentia Renewables	the NL Government Land Use Atlas (NL Water Resources Division)		sem

# Booklet, page 16.



Pattern Argentia Renewables	FIGURE NUMBER: 3.4	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 23/05/2024
	FIGURE TITLE Proposed Infrastructure with Public Water Supplies Project Interconnect/Terminal Station	NOTES: REVIEWED BY: Public Water Supply data sourced from the NL Government Land Use Atlas (NL		
	PROJECT TITLE: Argentia Renewables	Water Resources Division)		sem

# **Argentia Renewables**

## **Frequently Asked Questions**

What's in it for the community?

When Pattern Energy joins a community, we proactively engage with community members, community leaders, elected officials, and local organizations to identify and address their experiences, goals, and concerns. We understand that along with the benefits our facilities bring, they also bring change. We strive to make those changes positive.

We believe in giving back to the communities that host our development projects and operational facilities. We contribute to local causes through sponsorships and donations throughout all project phases, and we implement Community Benefit Programs at operational facilities. Our community giving prioritizes causes that meet at least one of the following objectives:

- Advances community initiatives;
- Enhances ecological preservation;
- Fosters health and wellness;
- Produces local or regional economic benefits;
- Promotes the needs of youth through education or recreation; and/or
- Supports initiatives of local Indigenous populations, emphasizing cultural awareness, the environment, health and wellness, and education.

Already, we have committed forming and funding the Cape Shore Ecological Centre of Excellence to devote resources and expertise to the protection of species and biodiversity in the Cape Shore region.

We also seek to hire locally and bring long-term benefits to our communities by contributing to the tax base and supporting local initiatives. We believe in being good partners and neighbors. Our renewable energy facilities also bring significant indirect economic benefits through revenues added to local service industries and the influx of activity during construction and operations.

Where will all the water come from? What are the water requirements? Pattern is currently assessing the most responsible sources to gather water from for the Project. This could include water from the municipal system, a newly developed source, or a combination of both options. Water for the plant is required to be purified.

## Booklet, page 18.

# Frequently Asked Questions | Argentia Renewables

Are there risks to drinking water in the area?	No. Projects are set back from all neighbouring structures so foundations, water wells, underground piping or other infrastructure is not affected. There is also no harmful runoff or discharge into the air, soil or water. All relevant regulations and best practices will be followed in the construction and operation of the Project to ensure no risks to drinking water in the area.
What are the risks to birds and bats in the area?	All Pattern projects are designed to minimize impacts to the natural environment, including wildlife and habitat. We collect data (including from the local community) about any wildlife that may nest, den or migrate through the project area. Final project design reflects careful consideration of these factors.
	Wind power is far less harmful to wildlife than traditional energy sources it displaces, including to birds and their critical habitats. Overall, wind causes less than 0.01% of all human-related bird deaths—an estimated 328,000 of the more than 2.5 billion bird mortalities in North America. Other causes include buildings (550 million), power lines (130 million), cars (80 million), pesticide poisoning, (67 million), and radio and cell towers (6.8 million). Climate change is the largest threat to many species and their habitats, and wind energy is a major climate change solution. (https://cleanpower.org/policy/wildlife/)
What jobs will this create?	Each new facility brings new jobs. Pattern prioritizes residents when staffing for operations and maintenance (O&M) at our renewable energy facilities. In addition to permanent employees, Pattern contracts a variety of goods and services through the life of projects including hardware and electrical supply, waste control and removal, building maintenance, road maintenance, truck fleet leasing and maintenance, crane services and rentals, landscaping, janitorial, communications services and more.
Will hiking trails be impacted?	Pattern Energy follows all applicable environmental regulations, as well as industry best practices to minimize impact to critical wildlife and habitat. This includes local natural recreational areas such as parks and hiking trails. During construction, hiking trails may be impacted. Pattern will work with local trail associations and land uses to ensure the safe co-habitation of hiking trails and the Project.

## Booklet, page 19.

# Frequently Asked Questions | Argentia Renewables

What are the risks with Hydrogen? Is it explosive? How will you manage that risk?	Hydrogen is a safe, non-toxic, colourless, and odourless fuel produced globally and is considered safer than natural gas, diesel or gasoline. Like all gases, hydrogen can be flammable. However, Hydrogen combustion is more rapid than other fuels and burns in seconds, reducing the fire risk to surrounding areas in the event of such an emergency. Hydrogen produced at Argentia Renewables will be stored at a safe dockside location on the Port lands.
Will I see the turbines from my house or cabin?	Pattern Energy is committed to doing everything we can to site wind turbines in a way that protects the viewsheds of those around our project sites. However, in some instances, obstructions are unavoidable as turbines are tall structures.
Can my company get work from this project and how do I go on a bidders list or become a preferred vendor?	Each project creates hundreds of jobs during construction and increases demand for all kinds of local businesses. Pattern hires Engineering, Procurement, and Construction (EPC) Contractors for each project. In turn, these contractors subcontract for a variety of goods and services such as concrete, fuel and construction, and in some cases, hire direct employees in the area. Pattern and its contractors prioritize local labour and resources. We will hold a job fair prior to construction to engage interested companies and workers, establish a vendor and worker application portal, and keep a list of interested workers and vendors.
With the added access roads to the turbines, is there a risk to the wildlife in the area? Increased hunting activity, etc.	Pattern Energy follows all applicable environmental regulations, as well as industry best practices to minimize impact to critical wildlife and habitat. Hunting is not permitted during and around active construction for the safety of all parties, however, normal hunting and wildlife patterns resume once construction is complete. Pattern remains in contact with community members throughout development, construction, and operations to communicate

important events and processes.

## Booklet, page 20.

# Frequently Asked Questions | Argentia Renewables

Health impacts of the Project? (Noise, Vibrations, etc.)	Wind turbine noise can range from 29–55 dB at the source (turbine, nacelle, blades). Wind farms are designed to be at or below ambient outdoor noise levels at proper setback distances. Overall, health and medical agencies agree that the sound from wind turbines is not loud enough to cause hearing impairment and is not causally related to adverse effects. Scientific evidence does not support a direct association between wind turbine noise and physical health problems or disease.
Will the project have any impact on electricity rates? Will my power bill be affected?	Individual Pattern projects are not directly tied to neighbouring electricity rates, however, as utilities choose to diversify and upgrade their power portfolios with renewables, electricity rates become more stable and affordable.
Will any of the jobs created be reserved for minorities/women/ Indigenous people?	Pattern Energy is committed to a diverse, equitable, and inclusive workplace where all employees belong. We believe in having diversity in our teams and our leadership while providing an environment where employees from underrepresented groups are encouraged and empowered.
What is the lifetime of the project? Will the jobs created be temporary or permanent?	Wind-based projects have an average lifespan of 30–40 years, with potential for "repowering," whereby new agreements and equipment may renew or extend the life of the facility. We expect the bulk of jobs created from the project to occur during the construction phase, with a limited staff of permanent number of technicians and maintenance jobs to be created during operation.
What other infrastructure is going to be built up to support the Project? (i.e. temporary housing, camps, materials storage/dumping etc.)	Through careful site selection, project design, and use of best management

included in every step of the conversation about land use and development.

## Booklet, page 21.

# Frequently Asked Questions | Argentia Renewables

How will the blades be disposed of at end of life?	About 70% of turbine mass is steel, which is 100% recyclable. Although blade recycling and repurposing is more complex than steel recovery, it is growing more popular all the time. Blades—composed primarily of fibreglass and wood—are a perfect fit for repurposing into certain structural projects and can also be recycled in specialized facilities such as the one in Louisiana, MO.
	In 2020, when Pattern Energy repowered our Gulf Wind facility in Kenedy County, TX, about 75% of the old blades were recycled or sold to a wind turbine services company that can reuse them. The turbine light bulbs, gearbox oil, and batteries were also recycled. We are exploring ways to learn from our first repowering experience to reduce landfill waste during future repower projects.
What measures are being taken to preserve American base infrastructure in the area?	Certain areas of the lands owned by the Port of Argentia have been excluded from the areas able to be developed. This in addition to the inclusion of mapping of known base infrastructure in the project siting process will help to preserve American base infrastructure during construction and operation of the Project. Pattern is also overseeing a Traditional, Cultural, & Historical/ Archaeological Significance Survey as part of their baseline studies.
What is ammonia?	Ammonia is a colorless gas with a strong odor, its chemical compound is NH3. It is highly soluble in water, which makes it a useful and common household cleaning agent. It has been used by humans for centuries, but the industrial production began in the 20th century with the development of the Haber-Bosch process for synthesizing ammonia from nitrogen and hydrogen gases.
What is ammonia used for?	Ammonia has many uses. Most of the world's production of ammonia is used in fertilizer production, providing essential nutrients to plants, promoting their growth. Fertilizer is required to supply over half of the world's food production. Ammonia is also used in household and commercial cleaning products, refrigeration, the chemical industry more broadly, and also in pharmaceuticals.

#### Booklet, page 22.

# Frequently Asked Questions | Argentia Renewables

#### Is ammonia safe to use?

Yes, ammonia is considered very safe when handled properly. It has been used in hundreds of process plants worldwide for many years with a remarkable safety record. The key to its safe use lies in following established safety guidelines, proper storage, and adhering to industry best practices. With the right precautions, ammonia can be managed safely without significant risk.