GREEN ENERGY ENGAGEMENT Program

Cape Breton Partnership

Offshore Wind Community Engagement Survey Report

Survey results to identify community engagement needs across Unama'ki – Cape Breton

August 2024

Introduction

The potential for offshore wind (OSW) and green fuels production presents a generational economic development opportunity for Unama'ki - Cape Breton. There has been an unprecedented interest in Unama'ki – Cape Breton for the development of commercial OSW and green fuels production due to our natural resources. Areas in Nova Scotia's offshore have wind speeds between 10-11 metres per second, which is a world-class wind speed for OSW development. With an urgency to decarbonize our electrical grid and Europe facing an energy crisis, there is demand for secure, clean energy both domestically and for export. The development of OSW and other forms of renewable energy could contribute towards Nova Scotia's goal of achieving net-zero greenhouse gas (GHG) emissions by 2050.

It is anticipated that the creation of this new green energy sector could also provide meaningful employment, improve energy security and reliability, and bolster economic development in Unama'ki - Cape Breton. Clean Energy Canada estimates that 99,000 clean energy jobs will be added in Atlantic Canada between 2025 and 2050. With a workforce historically centered around large-scale industry and marine sectors, Unama'ki – Cape Breton has a skilled workforce ready to be deployed, with educational institutions preparing their curricula to accommodate a future OSW industry. This could provide a significant economic opportunity for the region, with work focused on infrastructure upgrades, predevelopment studies, shipping and logistics, assembly and construction, as well as the operation and maintenance of turbines.

Our region is at the forefront of developing a transformational green energy sector; however, this cannot be done without the support of Indigenous Communities, ocean users, and the public. In 2022, the Government of Nova Scotia set a target to lease five gigawatts (GW) of OSW energy by 2030 to support the emerging hydrogen energy market. The Government of Nova Scotia has released their Offshore Wind Roadmap and Green Hydrogen Action Plan which outline the role green hydrogen and OSW can play in Nova Scotia's green energy transition.

OSW is a new industry that requires the development of a regulatory framework before any seabed leases, environmental assessments, or construction could occur, there is an opportunity to engage early with communities across Unama'ki – Cape Breton. As provincial and federal governments lead regulatory framework development for future OSW development, organizations like the Cape Breton Partnership have been conducting community engagement to ensure that communities have access to information and can make informed decisions about future green energy development. The Green Energy Engagement Program was developed to begin meaningful community engagement, to create ongoing dialogue, and equitable knowledge exchange, as we endeavor to create a more sustainable future.

Before visiting communities with information about OSW, the Cape Breton Partnership and Net Zero Atlantic launched a survey to conduct preliminary engagement. The purpose of this survey was to identify how communities wanted to be engaged with, to ensure that engagement was happening in a meaningful way that communities wanted. The survey also asked about the importance of different factors that could be impacted by OSW development, along with several questions on demographics and previous participation in engagement sessions. This report provides an overview of the survey findings.

Organizational and Program Backgrounds

The Cape Breton Partnership is a private sector-led economic development organization that works collaboratively to promote Unama'ki – Cape Breton as a great place to live, work, and invest. The Cape Breton Partnership is an independent, non-partisan organization, providing economic development support to four First Nations' Communities and all five municipalities in Unama'ki – Cape Breton, through the Regional Enterprise Network (REN) model in partnership with the Government of Nova Scotia. The Cape Breton Regional Enterprise Network (CBREN) includes the First Nation Communities of Eskasoni First Nation, Membertou, Wagmatcook First Nation, and We'koqma'q L'nue'kati; the Municipalities of the Counties of Inverness, Richmond, and Victoria; and the Town of Port Hawkesbury. The Cape Breton Regional Municipality (CBRM) is represented by the CBRM REN. Both RENs are part of a wider network of seven RENs across Nova Scotia.

The Cape Breton Partnership wants the economic, cultural, social, and environmental values of Unama'ki - Cape Breton to be reflected in any future proposed green energy development. To work towards this goal, the Green Energy Engagement Program (GEEP) was developed in 2023 to focus on meaningful community engagement, creating ongoing dialogue and equitable knowledge exchange that helps communities build capacity and make informed decisions about future green energy projects, including wind energy and green fuels.

In the context of the GEEP, a community is not just a geographic location; instead, a community is a group of people with shared values, interests, and goals. The GEEP has set out to follow the spirit of Netukulimk through meaningful engagement and relationship development with communities across Unama'ki – Cape Breton. Netukulimnk is a Mi'kmaq concept defining the relationships between the aspects of humanness, interconnectedness, and principles of responsibility, respect, and reciprocity. Resource management that aligns with Netukulimk honours the integrity, diversity, and productivity of our environment for present and future generations – a goal that is central to the objectives of the program.

The GEEP is not a means of advocating on behalf of any one industry. The purpose of the GEEP is to provide communities in Unama'ki – Cape Breton with information about green energy. This means focusing on relationship development with First Nations' Communities, fishers and ocean users, local businesses, academic leaders, environmental groups, non-profits, tourism operators, and individual community members to account for all voices in Unama'ki – Cape Breton when considering the potential benefits and impacts of future green energy development. Through the GEEP, communities of practice have been established with organizations conducting engagement throughout Mi'kmaq'ki, to ensure coordinated efforts when visiting communities. The Cape Breton Partnership will encourage sustainable and

equitable development, that allows all communities and ocean users to work together towards a common understanding and sharing of resources.

Survey Partner

The Cape Breton Partnership's partner for the Offshore Wind Community Engagement Survey was Net Zero Atlantic. Below is a short summary from Net Zero Atlantic about their organization and projects.

Net Zero Atlantic (NZA) is a leading energy research organization advancing Atlantic Canada's transition to a low-carbon future. We are encouraging growth of a sustainable energy sector by identifying knowledge gaps, connecting experts to projects, and leading applied research. Our work covers critical areas in need of development, such as clean technology, pro-climate behaviour, hydrogen, offshore wind, geothermal energy, and energy system modelling.

Our team is dedicated to an inclusive and successful transition in Atlantic Canada and our focus is on credible and unbiased research, including data collected through community engagement. We work to prepare policy makers, industry leaders and workers, and sector investors to work together on pathways to decarbonize our region's economy, mitigate climate change impacts, and move Atlantic Canada toward net-zero emissions by 2050.

In 2022, NZA began *Capacity Building for the Sustainable and Inclusive Development of Nova Scotia's Offshore Wind Resource* – a project developed to build local capacity in Nova Scotian communities so they can meaningfully participate in discussions regarding development in Nova Scotia's offshore environments. The project focuses on building capacity in rural and Mi'kmaw communities to enable an inclusive approach to OSW development in Nova Scotia. Funding for this project is provided by Natural Resources Canada's *Smart Renewables and Electrification Pathways* program. Our project partners and supporting organizations include the Confederacy of Mainland Mi'kmaq, Unama'ki Institute of Natural Resources, and the Cape Breton Partnership.

Offshore Wind Community Engagement Survey

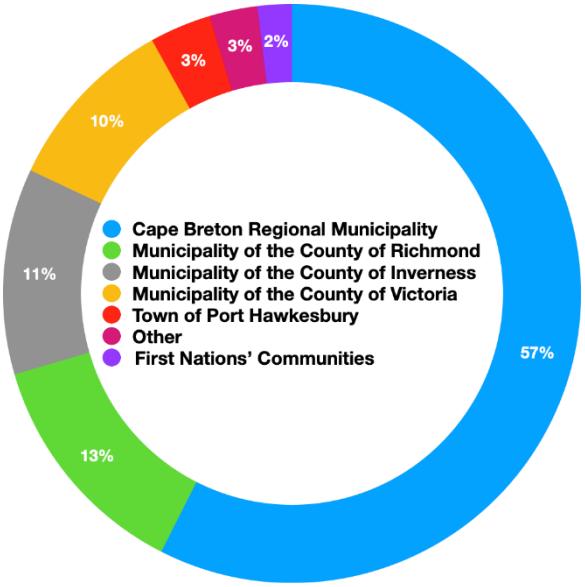
The Cape Breton Partnership and NZA ran a community engagement survey from June to August 2023. The purpose of the survey was to identify the ways in which communities would want to be engaged with. Engagement is most effective when it is done in a way that people would want to participate and have equal access to those opportunities. The survey was advertised at local Cape Breton Partnership events across Unama'ki – Cape Breton, as well as social media, e-blasts, and digital billboards.

There was a total of 333 surveys taken, with 261 surveys completed in full. To avoid skewed results, only the surveys that were completed in full were used in the analysis of results. The full list of survey questions can be found in the Appendix. Raw data was sorted in Microsoft Excel to compile the results from completed surveys. The results that follow are graphical representations of the data with a brief overview of the results.

Survey Results

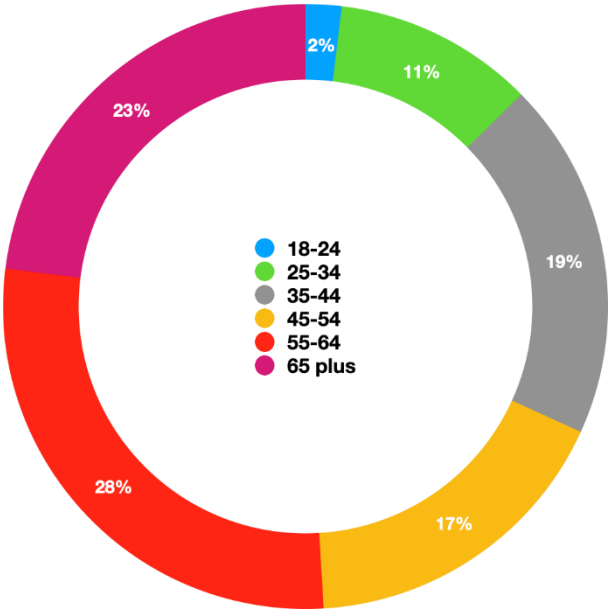
Survey participants responded to 15 questions, with the option to leave additional feedback at the end of the survey. The questions were a mix of multiple-choice, yes/no, Likert scales, ranking, and one open-ended question that asked how people wanted to be engaged with and what would make them more likely to be engaged.

Participant Location



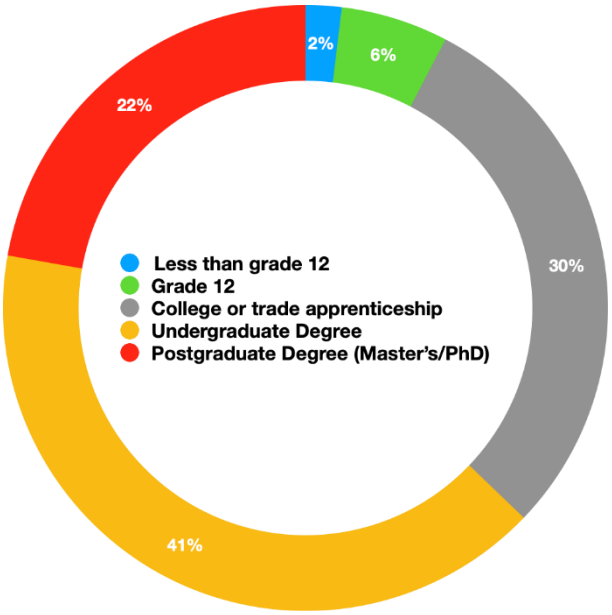
The survey findings were reflective of population demographics in the Statistics Canada Population Census from 2021 for participants in municipalities across Unama'ki – Cape Breton. Participants in Cape Breton Regional Municipality (CBRM) accounted for 57% of survey participants; the Municipality of the County of Richmond (MOCR) 13%; the Municipality of the County of Inverness (MOCI) 11%; the Municipality of the County of Victoria (MOCV) 10%; and the Town of Port Hawkesbury 3%. Three percent of survey respondents were classified as other with locations outside of Unama'ki – Cape Breton. The First Nations' Communities were grouped together because some communities only had one participant. There was a risk that someone could be singled out as the sole participant in that community; therefore, to protect anonymity, the First Nations' were grouped together.

Participant Age



Participants were asked to identify their age range. The highest number of participants were in the 55-64 age bracket, making up 27% of total survey participants. With 23% coming from the 65 and up age bracket, we saw 50% of participants ages 55 and up. Only 3% of survey respondents were in the 18-24 age bracket. This is an important demographic to engage with, as that age bracket, and those under 18, may be looking for education and training opportunities in the green energy sector.

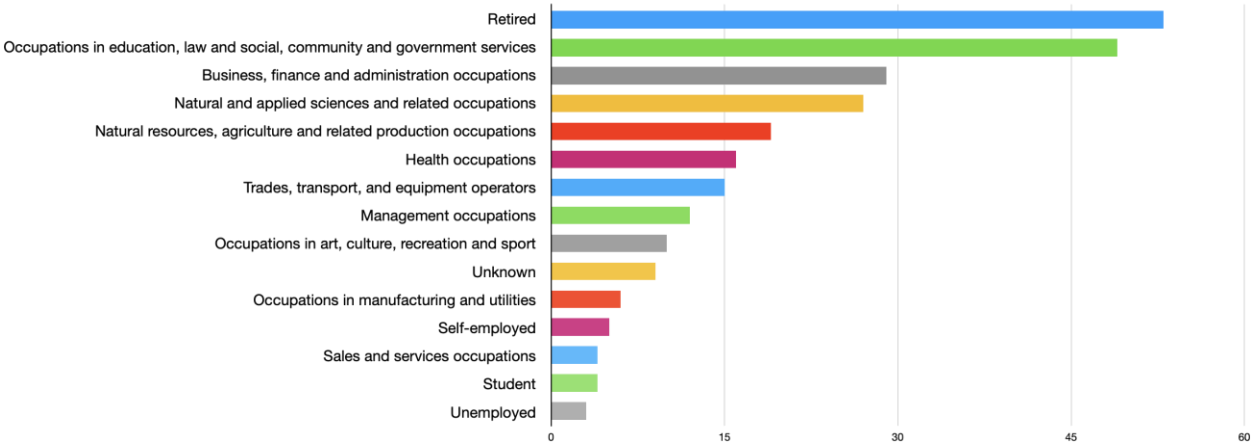
Participant Education



Participants were asked to identify the highest level of education that they had completed. Forty one percent of participants had completed an undergraduate degree, with 22% having completed a postgraduate degree. Thirty percent of respondents had completed college or a trade apprenticeship. Six percent of participants had completed grade 12 and two percent of participants had completed less than grade 12.

Participant Employment Sectors

Participants were asked to identify their occupation, either generically or provide the title of their position. This meant that a participant could state that they were a healthcare worker or that they were a registered nurse. To aggregate results, the answers were matched with the relevant North American Industry Classification System (NAICS) code to group into sectors. The participant was classified as unknown when they explicitly stated that they did not wish to share that information, or the answer did not clearly identify a sector or role that could be placed in a group. The graph below shows how many participants belonged to each NAICS group.

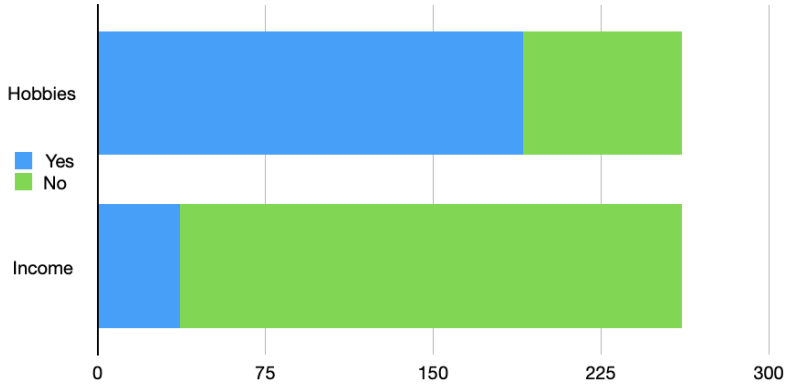


Twenty percent of respondents identified as being retired; this was the largest group of respondents, followed by the education, law, and social community, and government service group accounting for 16% of respondents. Natural resources, agriculture and related production accounted for 7% of respondents; this group included participants identifying as fishers. The remaining percentages for participants were:

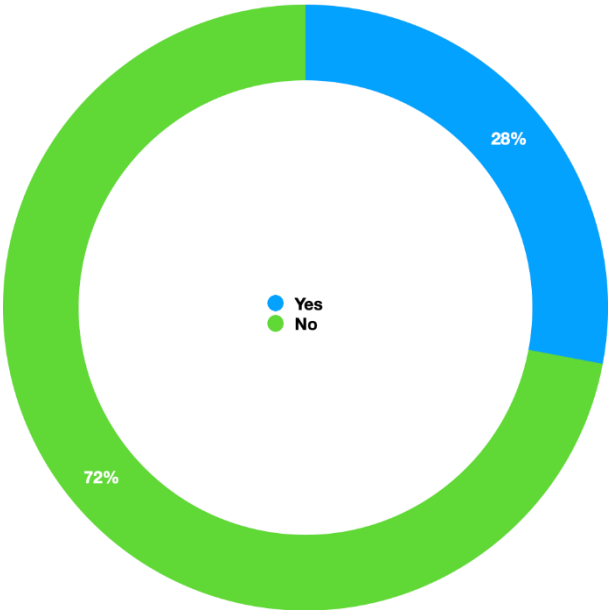
- Business, finance and administration 11%
- Natural and applied sciences and related occupations 10%
- Health 6%
- Trades, transport, and equipment operators 6%
- Management 5%
- Art, culture, recreation and sport 5%
- Unknown 4%
- Manufacturing and utilities 2%
- Self-employed 2%
- Sales and services 2%
- Student 2%
- Unemployed 1%

Ocean Use: Income versus Hobby

Participants were asked if their income was dependent on ocean use and if their hobbies were dependent on ocean use. The results indicated that with respect to income only 14% of participants were dependent on ocean use. Conversely, 73% of participants stated that their hobbies were dependent on ocean use.

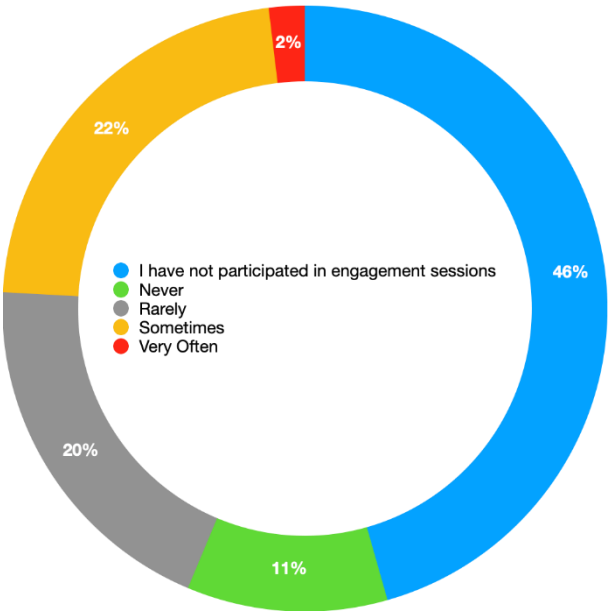


Previous Participation in Engagement



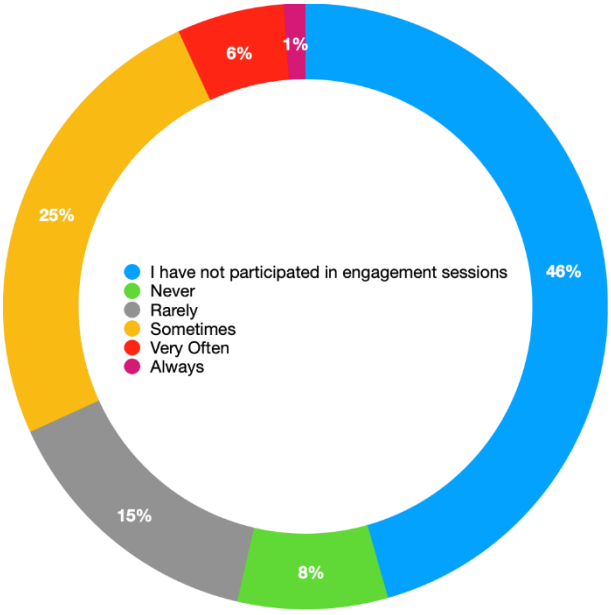
Participants were asked if they had previously participated in any type of engagement or planning sessions. The survey did not explicitly ask about engagement connected to the renewable energy sector, because there has not been large-scale deployment across Unama'ki – Cape Breton to date. Only, 28% of participants stated that they had previously participated in engagement or planning sessions.

Influencing Final Outcome



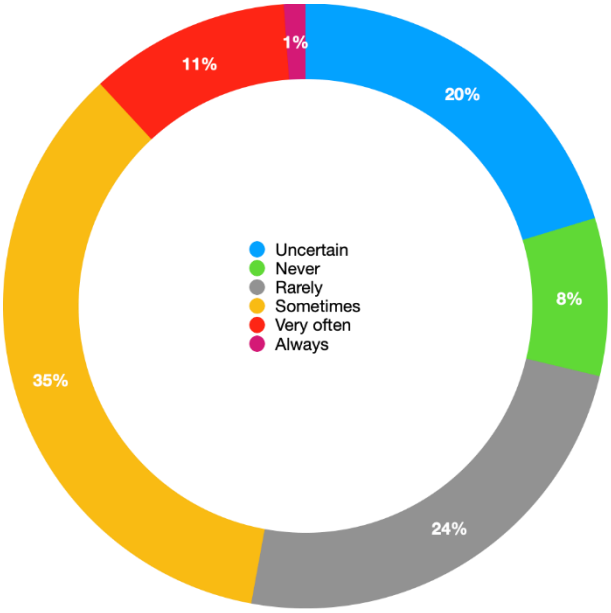
Participants were then asked how often they felt that their voice was reflected in a project's final outcome. In this survey, 46% of participants had not participated in engagement previously. Of the 54% of participants who had previously participated in engagement or planning sessions, 20% felt that their voice was rarely reflected in a project's final outcome and only 2% of participants felt that their voice was reflected in the final outcome of a project.

Voice Acknowledged



When asked if participants felt that their voice was acknowledged during the engagement process, only 1% of participants felt that was always the case; 6% felt that it was very often acknowledged; 25% sometimes felt their voice was acknowledged, 15% felt that their voice was rarely acknowledged in the engagement process, and 8% felt their voice was never acknowledged during the process. Again, 46% of participants indicated that they had not previously participated in engagement or planning sessions.

Open/Transparent



Participants were then asked how often they felt that the project planning and engagement processes are open and transparent. Participants were not given the choice to indicate they had not previously participated in engagement sessions to gauge the level of trust participants had in the process. There were 20% of participants who were uncertain. One percent of participants felt the processes were always open and transparent; 11% felt the processes were very often open and transparent; 35% felt that the processes were sometimes open and transparent; 24% felt the processes were rarely open and transparent; with 8% of participants feeling that the processes was never open or transparent.

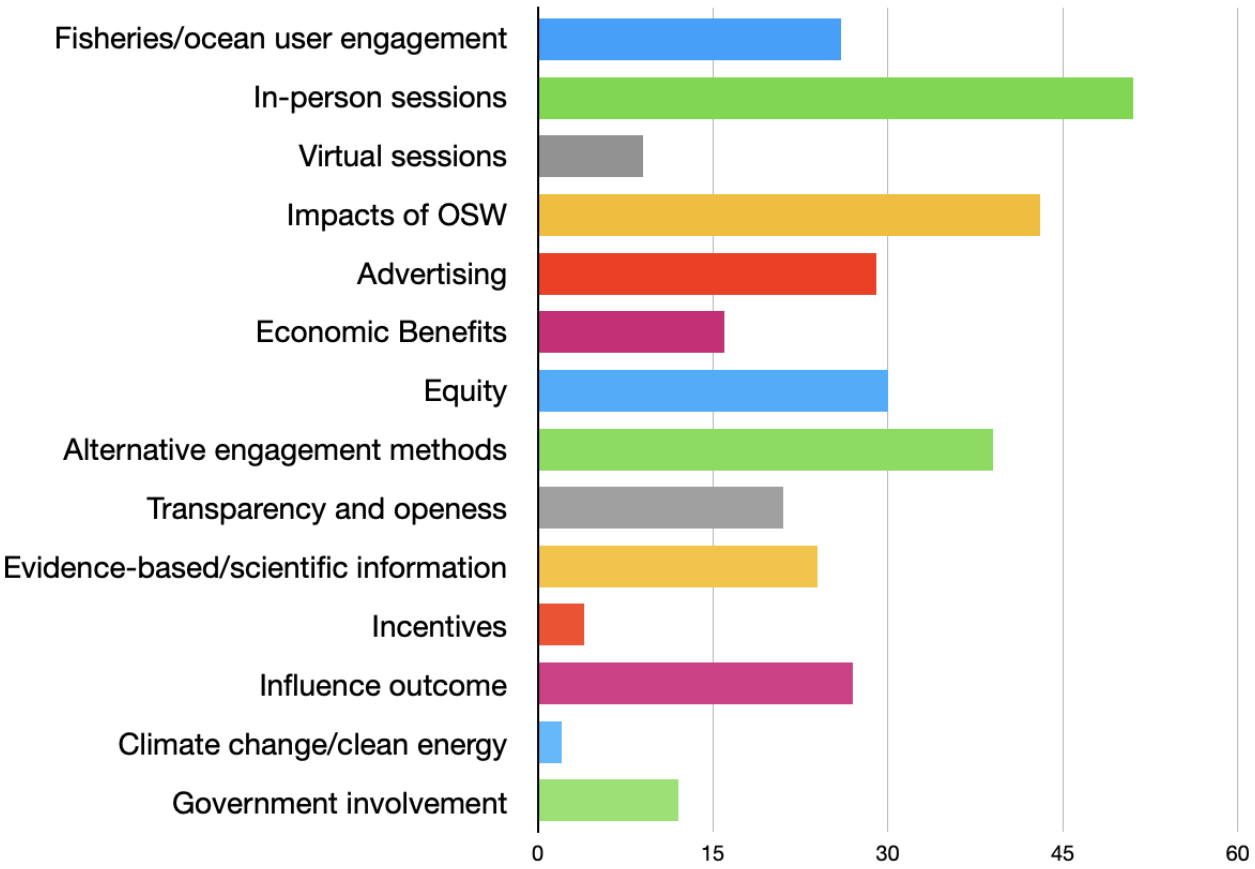
Types of Engagement and Likelihood of Participation

Survey participants were asked the open-ended question: What would influence your likelihood of participating in public engagement for OSW development and what types of engagement would you like to see?". The answers were compiled and coded to identify themes in the responses. The frequency of each theme is shown in the graph below. Knowing that the Cape Breton Partnership and Net Zero Atlantic would be entering communities across Unama'ki – Cape Breton in the months following the survey wrap-up, this question was used to help identify ways that we could engagement more effectively with communities.

The most common type of engagement requested was in-person sessions. Virtual sessions were requested by fewer people; however, accessibility was often associated with the idea for virtual sessions. Accessibility and equity came up frequently, both in terms of being able to attend sessions and with respect to how sessions were advertised to reach a broader audience. Alternative engagement methods like attending local events with information, informal discussions in coffee shops or other venues, and interactive education were noted as potential options to traditional public information session. Even though the majority of participants did not depend on ocean use for their income, the theme of engagement with fisheries and other ocean users was also brought up frequently.

In terms of the content that participants wanted, the impacts of offshore wind were the most cited. Participants wanted information to be evidence-based, scientific information presented transparently, and open communication. It was often noted that there is an imbalance of positive versus negative impacts, with participants wanting both presented fairly. Very few participants brought up wanting to learn more about climate change and clean energy in their comments.

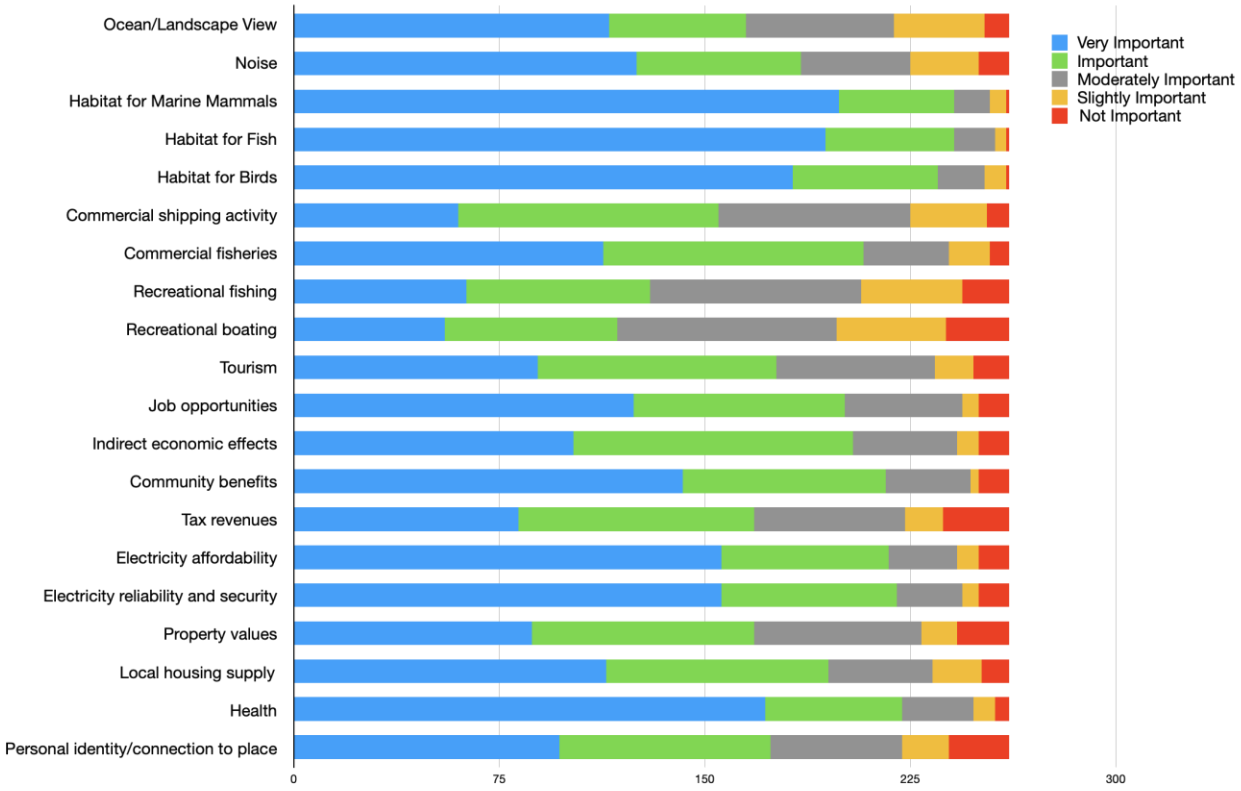
Who was presenting the information was also important to participants. Of those that mentioned government involvement, approximately half wanted to see the government involved because they would be leading the development of industry regulations, with the other half not wanting government involved because there was a lack of trust. The graph below notes the frequency with which each topic was brought up in participant feedback for this question.



Priorities

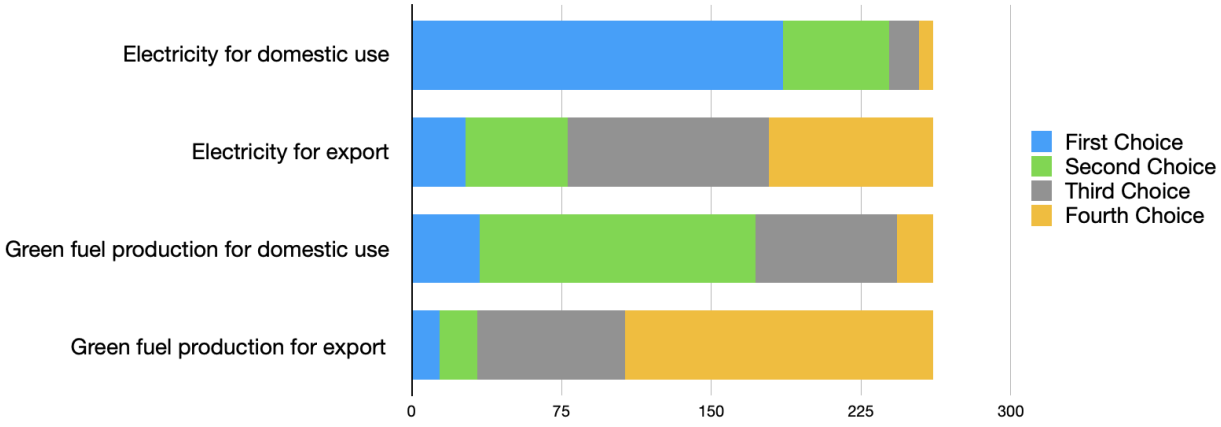
Participants were asked to identify how important each of the factors were to them when they consider the impacts of future offshore wind development. Participants were provided with the options very important, important, moderately important, slightly important, and not important for each factor. The graph denotes the frequency of each response for each factor.

Factors with the highest proportion of participants selecting very important were habitat for marine mammals (75.9%), habitat for fish (74.05%), and habitat for birds (69.47). Health, electricity reliability, security, and affordability were ranked very important by 60-70% of participants. Ocean/landscape view, noise, commercial fisheries, community benefits, and local housing fell within the 40-50% range, with commercial shipping activity, recreational fishing, recreational boating, tourism, tax revenue, and property values between 40-50%.



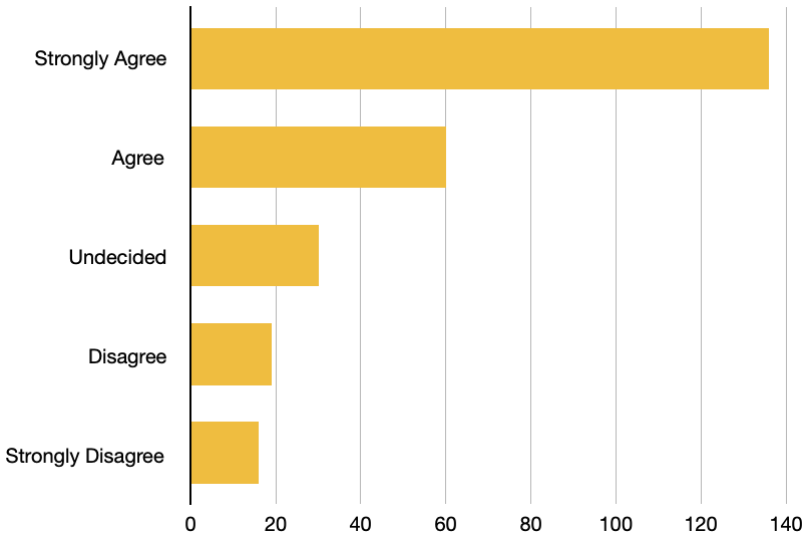
Power End Use

Participants were told that renewable energy can generate different outputs and that offshore wind could be used to generate electricity or it could be used to create green fuels like hydrogen and ammonia through power-to-x. Both types of end product can be used domestically or exported. Participants were asked if offshore wind was developed locally, what would they expect energy produced to be used for. Participants were asked to rank from their first choice to their fourth choice, with the frequency of this ranking shown in the graph below.



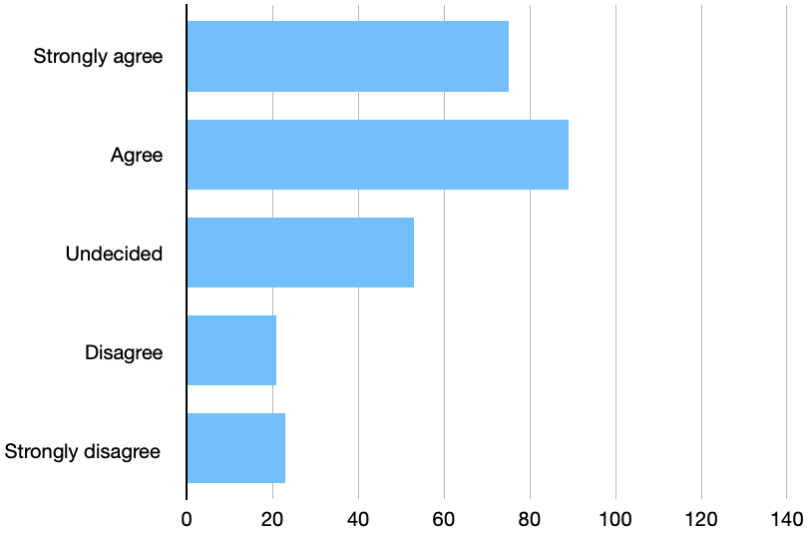
Looking at participants first choice of end-use power, there were 71% of participants who chose electricity for domestic use; 13% chose green fuel production for domestic use, 10% chose electricity for export; and 5% chose green fuel production for export. More than half of participants chose green fuel production for export as their last choice for the end-use of OSW energy.

Climate Change Health and safety



Participants were asked if they believed that climate change threatens their personal health and safety. The graph below shows the number of participants who selected strongly agree to strongly disagree. There were 52% of participants who strongly agreed that climate change threatens their personal health and safety; 23% agreed; 12% were undecided; 13% disagreed or strongly disagreed that their personal health and safety was threatened by climate change.

OSW and CC Targets



Participants were asked if they agreed that the development of an offshore wind industry would help achieve climate change targets. Participants were able to select from choices including strongly agree (29%), agree (34%), undecided (20%), disagree (8%), and strongly disagree (9%).

Conclusion

The Cape Breton Partnership, with partner Net Zero Atlantic, launched the Offshore Wind Community Engagement Survey in the summer of 2023 as a preliminary form of engagement to identify community needs. To be meaningful, engagement must be centered around community needs. The survey is not a statistical representation of Unama'ki – Cape Breton; however, it provided insights that were used to plan Community Offshore Wind Information Sessions and continues to be used when planning engagement strategies.

The most common type of engagement requested was in-person sessions. Virtual sessions were requested by fewer people; however, accessibility was often associated with the idea for virtual sessions. Accessibility and equity came up frequently, both in terms of being able to attend sessions and with respect to how sessions were advertised to reach a broader audience. Alternative engagement methods like attending local events with information, informal discussions in other venues (farmers' markets, coffee shops), and interactive education were noted as potential options to traditional public information sessions.

In terms of the content that participants wanted, the impacts of offshore wind were the most cited. It was often noted that there is an imbalance of positive versus negative impacts, with participants wanting both presented fairly. Very few participants brought up wanting to learn more about climate change and clean energy in their comments, which may account for 20% of participants being undecided when asked if OSW development could help achieve climate targets. It was clear, however, that respondents felt that energy produced from OSW development should be used domestically, with 71% of participants choosing electricity for domestic use as their first choice, and only 15% of participants wanting to see OSW energy used for electricity export or green fuel production for export.

Even though the majority of participants did not depend on ocean use for their income (only 14%), the theme of engagement with fisheries and other ocean users was also brought up throughout. Fishers were included in the natural resources, agriculture and related production NAICS group, which accounted for 7% of participants. Future surveys should target fishers and other ocean users to better understand their engagement needs moving forward. The majority of participants (73%) stated that ocean use was required for their hobbies, which could indicate why habitat for marine mammals, fish, and birds all ranked as very important factors for participants when considering future impacts of offshore wind development.

In terms of participation in engagement and planning sessions, improving fairness and trust in the process could lead to higher numbers of participants. Almost half of survey participants had not previously participated in engagement; however, 32% of participants believed that engagement was rarely or never open and transparent. Thirty one percent of participants stated that they did not believe their voice had been reflected in the final outcome of a project.

The results from this survey will be used in ongoing engagement planning by the Cape Breton Partnership. With ongoing work being done by various levels of government to create a regulatory framework for the OSW industry in Nova Scotia, future surveys may be used by the Cape Breton Partnership to identify community engagement needs across Unam'aki – Cape Breton. Our goal through the GEEP is to ensure that we are communicating meaningfully with communities about topics related to green energy.

Appendix – Survey Questions

1: Please select the community in which you currently reside.
- Potlotek First Nation
- Municipality of the County of Richmond
- Wagmatcook First Nation
- Town of Port Hawkesbury
- Membertou First Nation
- Cape Breton Regional Municipality
- Eskasoni First Nation
- Municipality of the County of Inverness
- We'koqma'q First Nation
- Municipality of the County of Victoria
- Other

2. Please select your age range.
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

3. Please select the highest level of education you have obtained.
- Less than grade 12
- Grade 12
- College or trade apprenticeship
- Undergraduate degree
- Postgraduate degree (Master's/PhD)

4. To help inform future engagement strategies, please provide your occupation either generally (e.g. healthcare professional) or specifically (e.g. nurse).

5. Is your income dependent on ocean use?
- Yes
- No

6. Do you have hobbies or participate in recreational activities that require ocean use?
- Yes
- No

7. Have you previously participated in engagement or planning sessions?
- Yes
- No

8. How often do you feel that your voice was reflected in a project's final outcome?
- Very often
- Sometimes
- Rarely
- Never
- I have not participated in engagement sessions

9. How often do you feel your voice was acknowledged during the engagement process?
- Always
- Very often
- Sometimes

- Rarely
- Never
- I have not participated in engagement sessions

10. How often do you feel that the project planning and engagement processes are open and transparent?
    - Always
    - Very often
    - Sometimes
    - Rarely
    - Never
    - Uncertain

11. When considering offshore wind development, what types of engagement would you like to see happen in the future? What would influence your likelihood of participating in public engagement?

12. Using the scale below please identify how important each of these factors are to you when you consider the impacts of future offshore wind development?

Answer options: Very important; important; moderately important; slightly important; not important.

Factors: Ocean/landscape view; Noise; Habitat for marine mammals; Habitat for fish; Habitat for birds; Commercial shipping activity; Commercial fisheries; Recreational fishing; Recreational boating; Tourism; Job opportunities; Indirect economic effects; Community benefits; Tax revenues; Electricity affordability; Electricity reliability and security; Property values; Local housing supply; Health; Personal identity/connection to place.

13. Offshore wind can generate renewable energy with different outputs. There is a potential for offshore wind to be used for electricity generation. It can also be used to create green fuels like hydrogen and ammonia – this is called power-to-x. These fuels can be used domestically or exported. If offshore wind is developed locally, what would you expect the energy it produces to be used for? Please rank your answers with 1 being your top expectation.
a. Electricity for domestic use
b. Electricity for export
c. Green fuel production for domestic use
d. Green fuel production for export

14. Do you believe that climate change threatens your personal health and safety?
    - Strongly agree
    - Agree
    - Undecided
    - Disagree
    - Strongly disagree

15. Do you agree that the development of offshore wind industry will help achieve climate change targets?
    - Strongly agree
    - Agree
    - Undecided
    - Disagree
    - Strongly disagree

16. If you have additional comments, please provide them here.