Public Participation in Offshore Wind Development: A Multi-National Analysis of Public Engagements and Consultation Requirements

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EXECUTIVE SUMMARY

As countries around the world become increasingly invested in offshore renewable energy developments, there is an urgent need for their legal requirements, policies and strategies to safeguard adequate and meaningful systems of public involvement in the decision-making process. Public participation is generally viewed as an instrumental factor in offshore wind farm (OSW) project development, paving the way to their success by gaining a social license to operate. However, OSW development within Canada's *Blue Economy Strategy* must be pursued only if it is in the service of the public and, therefore, public involvement is paramount in its project planning. This paper analyzed the regulatory frameworks of key coastal states that are pursuing OSW development in a similar context to Canada. This analysis was done by reviewing each country's laws and policies for OSW, documenting ways in which public engagement is mandated. Drawing from Arnsteins (1969) Ladder of Citizen Participation and Aitkens (2014) Levels of Engagement, information obtained from the analysis of legal documents was synthesized into four main models: Information Sharing (0); Consenting Scheme (1); Degree of Influence (2); and Benefits/Empowerment (3). Examining models of engagement over the life span of a project. what's identified is a gradual shift from legally mandated measures into non-legally mandated forms. Furthermore, legally mandated measures do not elaborate on how the public feedback received from these measures is incorporated in decision making. In some contexts, this opacity in decision-making has rendered public engagement into an acceptance exercise where the objective is to attain public consent. Compensation is one of the most used mechanisms; yet they are rarely legally mandated and vary in the ways which compensation might be defined. Community Benefit Agreements and measures alike, whilst popular, do not have the legal mandated stature, but, if implemented properly, can allow for the public to have greater self-

determination over its desired benefits for an OSW project. Canada can implement public participation measures that redistribute power back to coastal communities to correct past inequities, provide meaningful benefits, and safeguard the current uses of the ocean environment through measures such as compensation.

Keywords: Offshore Renewable Energy Projects; Public Engagement; Consultation; Regulatory Requirements

ABBREVIATIONS

BOEM- Bureau of Ocean and Environmental Management

DAD - Decide- Announce-Defend

DNS - Developments of National Signifigance

EIA - Environmental Impact Assessment

EU - European Union

IAAC - Impact Assessment Agency of Canada

LIR - Local Impact Report

NEPA - National Environmental Policy Act

NIMBY- Not-In-My-Backyard

NOAA - National Oceanic and Atmospheric Administration

NRCAN - Natural Resources Canada

NSIP - National Significant Infrastructure Planning

OSW - Offshore Wind

PLI - Public Local Inquiry

RA - Regional Assessment

UNCSD - United Nations Conference on Sustainable Development

WEA - Wind Energy Area

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CHAPTER 1: INTRODUCTION

Climate change and its realities have forced many countries around the world to begin the gradual shift from fossil fuel-based energy infrastructure and economies to ones focused on renewable energy sources and environmental sustainability. For coastal countries, this transition has transpired under the framework of a "blue economy", a term first proposed at the United Nations Conference on Sustainable Development (UNCSD) in 2012, and has since been defined by the WorldBank as "the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem." (World Bank Group, 2017). Countries around the world have adopted the term "blue economy", although their visions for this new economic model and strategies to implement it differ widely. Implementation will require thorough considerations and discussions to serve their domestic needs, aspirations, and geography. Canada, for example, began conceptualizing the blue economy in 2018, with a statement from the Prime Minister echoing sentiments of wanting to build Canada's leadership as a coastal state, protecting its ocean environment, collaborating with coastal and indigenous communities, and creating a sustainable ocean economy (Prime Minister of Canada, 2018). Canada has since started forming its *Blue Economy Strategy* and has made steps towards its eventual implementation. As Canada is in its conceptualization stage for the *Blue Economy Strategy,* it's current agenda ranges in objectives from ocean protection to international engagement. Canada is committed to the conservation of its marine and coastal areas of 25% by the year 2025, looking to enact sustainable measures such as protecting its wild salmon, protecting aquatic species at risk, and restoring important marine habitats (Fisheries and Oceans, 2023). The *Blue Economy Strategy* has allowed for a total 2.3 billion Canadian dollars to be invested into supporting clean technology, as government institutions partner up with the private sector to make technological innovations

(Fisheries and Oceans, 2023). An integral part of the *Blue Economy Strategy* also focuses on the reconciliation and recognition of Indigenous rights into Canadian maritime law, supporting indigenous fisheries through funding and by creating stronger partnerships with Indigenous coastal communities (Fisheries and Oceans, 2023).

OSWs have become an increasingly appealing option within the Blue Economy for coastal states. OSW energy has been stated to be one of the many forms of green energy that being employed by countries around the world to seek carbon neutrality (Virtanen et al., 2022). OSWs increasing popularity is evident by the 30 percent expansion of the technology globally in the last decade (Novaglio, et al., 2022). As of 2023, there are 260 operational wind farms present around the world, signifying that OSWs have become both a legitimate option as an alternative energy source, as well as lucrative industry.

This rapid increase in development of OSW, whilst supporting countries' carbon emission reduction efforts, has not been without their costs—economic, environmental, and social. The ocean is a shared space with various, potentially competing uses. OSW places itself on the ocean's surface as a large-scale development spatially within existing coastal economies, leading to studies such as Virtanen et al (2022), undergoing spatial prioritization analyses to understand how exactly to place energy production in coastal areas. Its implementation has the potential to disrupt existing activities such as fishing and diminish social and cultural elements placed upon it by communities (Virtanen et al, 2022). Whilst OSW has shown itself to be a capable agent of the Blue Economy, scholars fear that its integration into current economies focused primarily on growth, will come at the cost of the "commodification of nature, the dominance of private over public and cultural interests, and prioritization of the interests of current over future generations" (Novaglio et al., 2022). Although it is primarily an economic model focused on the sustainable use of the ocean's

resources, the Blue Economy should be equally focused on people to avoid inequities. Social inequities are derived from the willfully ignored aspects of marginalization found within laws and policies, thus social equity is the effort to increase justice and fairness within the procedures and processes of institutions or systems, as well as their distribution of resources (Code for America, 2021). The overall inclusion for OSW within the Blue Economy, as regulatory processes around the world become more concrete, could potentially translate into policies causing unintentional inequities. Scholars have identified that this inertia within policy has likely already happened for OSW and proponents of the blue economy alike, citing global phenomena such as COVID-19 as the forceful motion that might allow for a re-focusing of priorities towards the social perspective (Novaglio, 2022). However, policy for prominent agents of the Blue Economy should put people at the center from the very beginning of its planning process. This belief is reiterated by Scholars such as Cisnernos-Montemayor et al (2019), stating that an ardent focus on Social Equity is what makes the Blue Economy a meaningful approach. Therefore, it is crucial that agents such as OSW, with its propensity to cause inequities equal to its benefits, that the public be put at the forefront of considerations when it comes to development.

Canada boasts the world's longest coastline of 243,042 km (Statistics Canada, 2016), grossing nearly 4.1% of the country's total GDP between the years 2014 and 2018 (Statistics Canada, 2021). Yet, out of the 260 operational OSW farms worldwide, not one is sited in Canadian waters. There are currently 35 OSW projects in Canada, none of which are operational and progressed enough in the development process to produce wind energy (4C Offshore, n.d), however, the interest is there. Canada is seemingly late to implementing OSW relative to its western natural gas-based counterparts that have already begun their transitions to green renewable energy. Experts have long recognized Canada's great potential for OSW, with wind speeds

comparable to the North Sea, the current prime location for the technology (as cited in Choi, 2023). Canada, now looking to begin its transition into OSW, has begun creating its regulatory process in tandem with the ongoing regional assessment (RA) facilitated by the Impact Assessment Agency of Canada (IAAC) happening within the Scotian Shelf.

Whilst the Federal government has taken its time getting to OSW implementation, provinces such as Nova Scotia have been actively interested in the technology for over a decade. In 2010, the province shared its view in a published discussion paper that it would wait for its onshore industry to mature before it would venture into plans for OSW (Energy Nova Scotia, 2010). Less than 5 years later, the province introduced its *Marine Renewable Energy Act* in 2015, a set of early provisions focused on "…the responsible, efficient and effective development of marine renewable-energy resources…" (Nova Scotia Legislature, 2015). The Act represents the province's ambition for OSW within its waters. Having to then wait nearly a decade, the federal government's efforts to create a regulatory process for permitting OSW is lagging in comparison with the Nova Scotian government that has since focused its efforts on implementing the technology within its own jurisdiction. The province of Nova Scotia has the rights for development within its own basins as well as up to the lower water line of its shores for development (Legislative Services Canada, n.d). In a roadmap published in May of 2023 by the province for its plans regarding OSW, Nova Scotia recognizes these parameters for development. Whilst it states that it is intent on still working with respective institutions to help form the federal process, it is set on meeting the nation's goal of 5 Gigawatts OSW energy by 2030, recognizing the strong market interest within its jurisdictional capacity (Government of Nova Scotia, 2023). Canada's context for OSW regulation and development is complicated. The Province of Nova Scotia has expressed interest in working outside the expected Federal regulations that are to come out in the coming

years. This paper has undertaken this analysis to primarily inform the Federal regulations that will help to mobilize OSW development in Canada. It should be noted that this potential disconnect between governments has caused two different roadmaps/expected trajectories for OSW development on the Scotian Shelf.

Meaningful participation measures are the cornerstone of ensuring that inequities don't arise during OSW development and that the economic return of the project returns reflect benefits desired by the public. Furthermore, the development of OSW, and proper public participation within that process, should actively reduce inequities that exist within current energy production infrastructure. Offshore oil production and drilling has been at odds with coastal communities and fishing industries due to lack of access to waters, and the loss of potential catch and subsequent revenue (Andrews et al., 2021). Furthermore, offshore oil projects in conception have a predisposition to aspects of sustainability, equity, and justice, as they involve inherent environmental and social risks (Fusco et al., 2022).

Existing energy infrastructure has already posed challenges and created inequities that coastal communities are grappling with. Moreover, coastal communities around the world have not seen the promised socio-economic benefits by developers for oil extraction. For example, Andrews et al (2022) states that members of coastal communities are often excluded from the employment in the offshore petroleum sector. The reality for OSW development is that it is not being placed on a blank slate, but in an existing context where inequities have arisen from natural resource extraction such as oil, meaning that it needs to actively redress these issues. OSW development should focus ardently on ensuring that public participation and involvement is at the core of its regulatory processes to ensure equitable and beneficial outcomes for the public.

CHAPTER 2: MODELS OF PUBLIC ENGAGEMENT

2.1 Ladder of Citizen Participation

The theorization of public participation has resulted in a multitude of perspectives and conceptualization on the process over the last century. A classic and widely referenced framework for analyzing the methods and meanings of public participation is Sherry Arnstein's *Ladder of Citizen Participation*. Published in 1969, Arnstein developed this model during a politically turbulent United States, amidst the civil rights movement where various public programs were being implemented to address societal issues such as poverty, public health, education across the country under Lyndon B Johnson's Great Society program. In it, Arnstein (1969) iterates the wide-standing belief that having citizen participation is ultimately a good thing. Using an analogy of health, Arnstein (1969) states that "…citizen participation is a little like eating spinach: no one is against it in principle because it is good for you." and that the participation of the public as a "cornerstone of democracy" is an understanding that's universally approved. Participation as an agent of democracy is a complicated concept, as a classic democratic measure such as voting does not reflect an individual's thoughts on *how* certain issues might be addressed. Measures for public participation that do not provide guarantees on feedback incorporation reduce engagement down to gauging the opinions and reaction of the public, a concept built on more by Aitken (2014) in the next section. Furthermore, not all methods of participation attain to that understanding of being a proponent of democracy. Some methods allow powerholders to claim that participatory measures were enacted to appease the public and maintain the status quo when in reality few members of the public actually see any benefit (Arnstein, 1969).

This disparity between widespread acceptance/approval of participation, and the inability for measures to match that sentiment, leads Arnstein (1969) to understand how the distribution of

power works in terms of effectiveness. Arnstein (1969) states that for participation to be a truly democratized process, the redistribution of power must occur in order to enable "the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future.".

From this understanding, Arnstein's (1969) ladder of citizen participation is conceptualized with the redistribution of powers as the pinnacle of participation. Working up within the rungs of the ladder, there is a gradual shift in methods of participation that are discretely non-participatory such as: therapeutic options and manipulation; to tokenistic measures, such as information sharing and broad forms of consultation; to finally at the highest point of the ladder citizen control, where powers are delegated to the public, meaning there is a high degree of citizen control.

Arnstein (1969) notes that there are obvious limitations to this model, as synthesizing such a complex process into a convenient understanding doesn't fully encapsulate the multitude of different nuances within participatory efforts. Furthermore, stating higher rungs as superior to lower ones in all circumstances is incorrect, as there might be some cases where lower rung measures see more approval in a project. Scholars such as Bobbio (2019) note a collection of criticisms for Arnsteins model and focus on the redistribution of power. Arnsteins (1969) model is noted as one dimensional and lacking in applicability for different processes and goals, such as climate change, where it could be used more as a social learning tool rather than analysis (Bobbio 2019). The redistribution of power, again noted in Bobbio (2019), is not the ultimate fix for participation measures in all cases, as its broad application can take away from specific groups effected.

Yet, in light of these criticisms, Arnsteins (1969) ladder still remains as an influential foundation for analyzing public participation measures. Scholars have been able to derive

frameworks for analysis more specific to the process they are trying to analyze, influenced by the ladder of citizen participation in some form. Arnstein's (1969) model works well to provide the general groundwork for the analysis of participation measures, but more in-depth discussions are needed to understand the specifics of complicated contexts such as the marine environment, and developments such as OSW projects.

2.2 The Marine Context, Aitken's Levels of Engagement

The marine environment is complex in both makeup and use. The ocean as a resource and space is used for a multitude of purposes ranging from activities that support livelihoods in adjacent coastal communities, to large-scale, capital-intensive ventures such as oil drilling with limited connections with the local economy. The introduction of OSW into the array of existing activities is a complicated process that involves both a heavy amount of planning and public participation to ensure that existing activities in the space aren't disrupted. The overwhelming ambition and interest of private investors in regions such as Europe have faced numerous challenges linked with social acceptance, rooted in skepticism and concerns—both real and imaginary—toward wind farms (Soma & Hagget 2014).

Aspects such as visual impacts have played a large role in influencing the public perception and acceptance of wind projects (Windemer, 2023). However, despite these concerns, onshore projects persisted and have been developed around the world as a symbol and agent of addressing climate change as a sustainable, alternative source for energy, as it's been observed that climate awareness has played a key role in the increased social acceptance of wind projects (San Martin, 2023). Onshore wind, regardless of barriers perpetuated by issues of social acceptance, has risen as a popular energy alternative in countries like the United States where it's estimated that there

are over 70,800 turbines in use across 44 states (U.S. Geological Survey, n.d.). The general public has come to accept onshore energy as a green alternative, but this level of acceptance isn't entirely reflected by local communities when it comes time for development. Authors such as Klok et al. (2023) have noted that whilst there is a large sense of public support for wind projects, there is still opposition at the local level where these projects are eventually built (Klok et al. 2023).

These concerns and issues related to social acceptance have become evident in OSW, despite being relatively less intimate in comparison to terrestrial projects. These concerns primarily surround environmental impacts, the perceived lack of benefits for local communities, and energy security (Buck, 2019). These concerns paired with the marine environment's inherent complexity, call for meaningful measures of participation that can mend the gaps between the ocean's environmental complexity, various competing uses, and the concerns of the public.

Aitken (2014) has conceptualized a model for levels of engagement that is more specific to the marine context. Like Arnstein (1969), Aitken's (2014) model highlights and synthesizes various general methods for engagement into levels. However, Aitkens's (2014) levels of engagement only focus on the rungs surrounding tokenism and citizen power. These approaches are as follows: Awareness raising, Consultation, and Empowerment (Aitken, 2014). As these are broad, there are many perspectives that can be understood within each of these levels. Using these levels as a guide, this section will discuss different methods and perspectives for public participation using scholarly literature.

2.2.1 Awareness raising

Aitken's (2014) classification of awareness-raising largely surrounds the provision of information to the public, with the primary goal of increasing social acceptance. The measures for

this level range anywhere from the publication of documents to site visits and educational pamphlets. However, this level is less concerned with the methods and is rather focused on the general act of information sharing.

The act of sharing information with the public is a critical step towards gaining a positive perception of renewable energy infrastructure in general, not uniquely for OSW. Eleni et al (2014) showed in their analysis of social acceptance of renewable energy applications, three parameters that influence public behaviour: the public's access to information, existing perceptions, and the fear that resonates from a lack of understanding. As countries around the world move on from existing fossil fuel-based energy infrastructure, the public is introduced to new concepts for "cleaner" energy, supported by scientific arguments and information that places OSW as a valid option for combating climate change. The emphasis on scientific information means that the arguments for OSW as a suitable technology, may not be easily accessible to understand for some members of the public, who do not have the literacy skills to process complex information. Eleni et al (2014) state that a gap in knowledge serves as an influential factor in perceptions by the public of renewable energy infrastructure, alongside notions of "…, mistrust, lack of impartiality, and suspicion towards investors." They argue that transparent acts such as information sharing help to remove perceptions fueled by incorrect assumptions of OSW technologies and development, and help familiarize the public with relevant information for a project.

Government institutions recognized early on that a transparent approach to sharing information helps to remedy these fears and anxieties towards new infrastructure, overall leading to greater levels of acceptance. Haggett (2008) noted a case study, Kjaer (2004), on the Danish Horns Rev II OSW farm project in 2004. It is identified by Kjaer that public resistance to the project was lessened due to a transparent and open approach, stating that a large amount of

information given to the public alongside cooperation with local governments and stakeholders led to a greater sense of public acceptance for the project. Although information sharing was only one aspect of gaining public acceptance for the project, it provided communities with the information needed to engage with the project more meaningfully. Transparency in this regard has now become a widely recognized aspect of meaningful engagement in developments such as OSW. Evident in publicly available guides made for developers and institutions alike on stakeholder engagement, stating transparency and information sharing as core stakeholder strategy (Keegan, 2021). Moreover, information sharing has become a legal requirement in regions such as Europe and Central Asia with the ratification of the *Aarhus Convention.* The convention itself makes legally binding the rights to information, participation, and access to justice (Samvel, 2020)

To ensure that the feedback provided is as informed and applicable as possible, the information provided must be accurate and unbiased. Information provided by governmental institutions or developers is susceptible to bias, and in some cases can be inaccurate or incorrect. Firestone *et al*. (2020) conducted a survey with those in the development area of the Block Island OSW project to gauge public perception and trust in the development. When asked about the information-based meetings that took place at the start of the development process, participant *BS4* noted concern over the information provided being biased in trying to guide the public towards a certain understanding of the project. The information provided is validated by the regulatory frameworks facilitator or project developer, and given the complex nature of OSWs development process spatially, technically, and scientifically, the public is left with few options for other perspectives on the information provided.

Information sharing is the first step in the engagement process. Hagget & Vigar (2004) noted that the public is bound to lean toward skepticism and hostility for project decisions if the

public feels distanced and or excluded from the process, unable to meaningfully impact a project. Information sharing in Arnstein's (1969) ladder of citizen participation is labelled within the tokenistic series of approaches to engagement. Arnstein (1969) warns of issues surrounding accessibility and the "one-way" flow of information between the public and governments that diminishes it as a meaningful form of engagement, despite being the first step in the right direction. Public engagement means more than simply informing the public, as it should allow the public to engage in a proper two-way dialogue where opinions and interests can be shared (Soma & Hagget, 2015). Providing information simply gives the public the required knowledge on both the project and the technology being pushed, so that feedback can be as informed as possible.

2.2.2 Consultation

Consultation is another tokenistic approach according to Arnstein (1969), and is, like informing, a step towards involving the public, but without proper follow-up and assurances can be relegated to being a less meaningful approach. Aitken (2014) mirrors this sentiment to an extent, recognizing the often-limited forms of feedback during engagement but states the goal of this level as gaining insight for the purposes of making a socially acceptable plan. Ideally, awareness measures such as information sharing and consultation work in tandem, for example at public feedback meetings where citizens come prepared via previous information. However, the tokenism of the consultation level both lies in the intention of consultation measures and how feedback is incorporated.

A dominant factor plaguing consultation as a meaningful approach in part lies with the intention from the facilitator side to engage the public. Public consultation should ideally be employed to receive feedback from the public, amend any concerns within the current plan, and

proceed having fully incorporated the public's feedback. Phadke (2013) in a paper discussing the juxtaposition between wind power's strong public support and barriers due to Not-In-My-Back-Yard (NIMBY) syndrome recommends that OSW would best operate off a "consult-consider-modify-proceed" approach to incorporating public feedback. However, current models of consultation do not encourage these more thoughtful forms of public engagement and are shown to favour more tokenistic measures. Wolsink (2000) states that plans for projects such as OSW, specifically in the United States, are conceptualized first with the intention of consulting third parties, such as the public, later for the sake of gaining acceptance. This characterization of project development is commonly noted as the "Decide-Announce-Defend" (DAD) model and "…is a top-down, minimally participatory method of public management" (Participedia, n.d).

NIMBY, the opposition to the placement of a project that's considered undesirable (Hermansson, 2007), has been the major proponent of discussion for local opposition towards OSW. However, the focus is now shifting towards criticization of the DAD model as the real opposition towards OSW implementation. Scholars such as Komendantova & Battaglini (2016) in the German context dispel understandings of OSW opposition from NIMBY. Whilst scholars agree that understandings of opposition from NIMBY have some legitimacy, it's more the case that NIMBY has played a role "…in shaping how industry, policy-makers and media commentators think about and respond to skeptical responses of local residents to proposals for renewable energy in their locality.". NIMBY informs more on the facilitator's responses to negative public perceptions. The real cause for the opposition, as identified by Bell et al. (2013) and reiterated by Komendantova & Battaglini, (2016), is due to issues of procedural justice and the lack of opportunity by the public to meaningfully express views and concerns. The DAD model does not

allow for meaningful engagement to occur in consultation efforts, therefore frameworks such as NIMBY are incorrectly understanding issues of local opposition.

Now, the DAD model and its repercussions on OSW development have been analyzed in recent years. Armeni (2016) published an article on participation in the environmental decision-making process for OSW in England the Wales, reflecting on the planning process and Community Benefit Schemes. Armeni (2016) finds that participatory measures in relevant documents such as the *Planning Act of 2008* and *National Policy Statements*, reflect a planning focus based on acceptance, and that measures resembled persuasion for a project over participation. This stark contrast in planning for acceptance rather than participation lends itself to the DAD model of OSW development. The public is only being engaged in order to help facilitate development by being a checkbox, a point touched upon by Armeni (2016) in stating that public approval is an unconditioned need for development. The DAD model detracts from the legal obligations of facilitators to properly engage the public, as the focus is on getting the public to approve of the plan rather than change its outcome.

This widespread, more tokenistic approach to consultation with the DAD model lends itself towards planning that aims purely to attain the public's approval. This form of engagement is still important as this method essentially democratizes public engagement to either a ‘yes-or-no’ model, if public acceptance is a condition for development. However, it's not a truly participatory process and might be more accurately labelled as a consenting scheme under the DAD model, until the time when Phadke’s (2013) “consult-consider-modify-proceed” approach is incorporated into a country's planning process.

2.2.3 Empowerment

Aitken's (2014) levels of empowerment moves up the rung in Arnstein's (1969(Citizen Ladder of Participation into degrees of citizen power. The empowerment level gives a degree of power to the public, focusing on "…enabling them to play key roles in decision-making, building social capital, and enhancing democracy" (Aitken, 2014). It could be understood that this level is when the levels for awareness raising, and consultation are used in the ideal sense to facilitate public engagement. Aitken (2014) states, however, that there are few measures that specifically focus on aspects of empowerment but efforts such as facilitation within communities in the form of a spokesperson and deliberative workshops play an empowering role.

Aitken (2014) identifies that these measures in the definition of empowerment are primarily procedural and that other substantive methods such as Community Benefit Agreements (CBA) and community investment opportunities can be considered empowerment. CBAs are "…strategic vehicles for community improvement" that benefit multiple sectors in the process, including a project's developer (Office of Energy Justice and Equity, n.d), which allows the public to receive a benefit for implemented projects, playing a role in development that exists beyond the planning stage.

CBA have been conceptualized with the public as "…tools that can help ensure the state's transition to offshore wind creates economic opportunity and equitable development." (Hoff & Segal, 2023). This focus on equity places CBAs closer to ideas for development within the *Blue Economy Strategy*, although inequity can still surface through issues discussed at the awareness-raising and consultation levels such as information that leads the public to a specific understanding of the agreement, or consulting in a manner that fits a preset idea of what a projects CBA might look like by the developer. CBAs serve to give communities a degree of influence in developments,

by serving as a measure of economic empowerment, creating jobs and infrastructure that allows for the public to help shape projects (as cited in Hoff & Segal, 2023). These often legally binding contracts between developers and communities help to move ideas of community benefit away from more standard measures such as revenue sharing or more indirect measures such as "spillover benefits", and into more mutually beneficial, collaborative methods. Revenue sharing faces challenges of uncertainty relating to limitations present in supply chains, and the inability to accurately predict demand for any product (Tsao & Lee, 2020). Furthermore, revenue from OSW energy generation, whether from supply chains or energy exports, does not allow for communities to seek further opportunities more clearly. Revenue sharing cannot be the only benefit received by a community with the development of OSW, although it can be an aspect present within a CBA. Revenue sharing does not ensure that communities can utilize an OSW to its truest potential such as created infrastructure and local workforce advancement. CBAs stand to give communities the means to stand on their own after a project has been developed, avoiding uncertainty through revenue sharing delegated by facilitating institutions.

Rudolph et al. (2018) states that CBAs are an opportunity during the process of developing OSW to address issues of inequity within developments through procedural justice and community planning. This substantive way of addressing issues that might have presented themselves in the awareness-raising and consulting stages allows communities to rectify inequities and gain economic benefit through job creation and local infrastructure. Ideally, CBAs should also be without general guidelines as they should be designed to the unique interests and needs of the local context OSW is being developed in (Rudolph et al., 2018). CBAs as a measure for participation are not a generalized method of engagement but are intimate in engaging with the local context to ensure that both the public and developer seek maximum benefit out of a project.

Skepticism surrounds CBAs when looking back to notions of social acceptance for wind projects. Working with communities to understand wants and desires in the manner that CBAs do, links closely with Aitken's (2014) views on consultation being a measure to gauge public opinion. What takes CBA a step further in this regard is the view of this measure as a buyout. Armeni (2016) states that it's hard to dismiss these benefit packages as a form of bribery for the public, leading back to notions of acceptance found within the DAD model. Understanding this communities are forced to be aware of the exact effect their interests and demands will have on a project. Armeni (2016) follows up this point on bribery by stating that CBAs are ideally "…flexible schemes that could perform a useful function by providing the hosting community with a residual opportunity to effectively re-localize benefits and (re)open the debate about their expectations and values.".

This measure should be treated as a continuous open dialogue throughout a project's development, to ensure that inequities during the final stages and operation don't arise.

CBAs have become the foremost method for providing back to the community with OSW developments, although largely not legally mandated. CBAs being specific to the context they are created in, with the participation of the community to discuss what benefits they are to receive, allows for new developments to address past inequities that might have spawned from oil and gas. CBAs, when utilized correctly, cause for the redistribution of powers back to the community, aligning CBAs with the highest rungs of Arnsteins (1969) ladder. These kinds of measures focused on benefits and empowerment, allow for communities affected by OSW developments to have more control over their place in a projects plan and operation.

2.5 Models of Engagement

Arnstein (1969) as a starting point in the analysis of public participation has allowed for literature to explore participation in different nations and Industries. Aitken's (2014) model being more specific to the marine governance context helps lay out a solid foundation for examining OSW participation measures more specifically, whilst still being applicable to different fields. This paper has formed models and definitions for clarifying different measures of public participation in OSW development. This was done to further build upon ideas set by Aitken (2014) and the levels of engagement and be more specific towards the legal and voluntary measures examined in this study. This papers Model's aim to synthesize various legal measures into a framework comparable to Arnsteins (1969) Ladder of Citizen Participation and Aitkens (2014) levels of engagement. In doing so, observations can be made in terms of specific legal clauses and processes within a country's OSW regulatory framework. The result is models that take into consideration the different perspectives on public engagement explored in this paper's literature review and findings unique to this study's analysis.

2.5.1 Model 0: Information Sharing

Information sharing is the simple act of providing the public with information on any aspect of development, ranging from the technology itself to the spatial placement. Information sharing is merely a base in the eyes of public engagement for true forms of participation. However, the underlying goal for this approach, as Aitken (2014) states in his own definition, is "…likely to be greater public acceptance or legitimacy for the project.". This models' requirements are specific to all clauses or acts that a country upholds in terms of information provision throughout the OSW regulatory process. Key terms for identification focused on Information Provision, Information

Sharing, Information on a Project, Information on OSW itself, Information as to when public participation occurs, Information Request such as mechanisms found in *Freedom of Information* acts.

2.5.2 Model 1: Consenting Scheme

Model 1 in being a consenting scheme is based on the 'decide-announce-defend' model of development planning. This form of consultation aims to provide the public with information and the opportunity to give feedback. However, there are no mechanisms that state how feedback is applied to decision-making. Based on earning greater social acceptance, Aitken (2014) reiterates in his definition of the consultation level that these limited forms of feedback "…is to gain an insight into public opinion and to create a socially acceptable or appropriate policy or project. Key terms to identify measures that are placed into Model 1 focused on Consultation, Representations, Decision-making, and General Participation in an OSW regulatory process.

2.5.3 Model 2: Degree of Influence

Model 2 focuses on mechanisms that allow for the public to influence and or change an outcome of the project. The provided feedback is only able to change details in an already decided plan (spatial placement for a wind farm for example). This is a step above the consenting scheme as measures such as compensation, which occur after the initial development, often become a part of the maintenance/operation of the OSW farm, thus influencing the project. Other more influential measures such as a veto, rare but present in countries such as Denmark, allow for a much greater amount of autonomy relative to the previous model of engagement. This measure resonates closely with Aitken's (2014) definition of empowerment, where the public is able to "play key roles in decision making, building social capital, and enhancing democracy.". Key terms in this Model are less specific and focused on concepts such as influence, Public Representation, Public Autonomy,

and Public Incorporation into aspects of the regulatory process such as compensation during operation.

2.5.4 Model 3: Participation that provides benefits/empowerment

Model 3 is primarily concerned with measures such as CBAs, and or Stipulations that require both regulatory process facilitators and developers to give back to communities. Aitken's (2014) definition of empowerment plays a role in this model, but is more focused on OSW giving back to a community, building local infrastructure that allows for communities to form jobs and economies off of the development. Moving away from aspects such as revenue sharing, this model empowers communities to stand on their own feet, modelling the allegory “teach a man how to fish”. Key terms in Model 3 focused on Benefits, Community Empowerment, and Self-Determination.

Chapter 3: Methods

This multi-national analysis of legally mandated (both obligatory and voluntary) requirements for public involvement in OSW development covers five countries, the United States, the United Kingdom including Scotland and Wales by technicality, Denmark, Norway, and European Union directives (*Aarhus Convention)*. These countries were selected based on similarities in context to Canada. The counties selected are predominantly fossil fuel lead energy economies, looking to transition into renewable energy such as OSW. Canada, undergoing a similar transition, is likely to adopt similar measures to that of these existing comparable contexts. Comparing different countries legislative contexts, differences in participation measures were observed in recent entries into OSW like the United States, to well established contexts like the United Kingdom. This paper understands that the transitions to clean energy are a privilege of already established fossil fuel-based economies. Countries emblematic of the Global North are in a more advantageous position to engage in OSW infrastructure, whilst some countries in the Global South are still establishing themselves within oil and gas. Choosing to focus on the five countries in this study was done as they most closely represent the context that may be of relevance to the Canadian governments.

The analysis itself was conducted by synthesizing a country's legal and non-legally mandated measures (CBAs, Stipulations) for OSW development regarding public consultation. The information was synthesized into a spreadsheet with three sections: consultation detail, degree of influence, and returns to the public. The first section's primary focus revolves around detailing the type of consultation, defining how the public is represented, the consultation's facilitator, at what stage of the process, and the frequency of the consultation. The degree of influence section notes the outcomes of consultation in the first section in terms of how feedback is applied and if

the public has any opportunities to make an impact in the decision-making process. The final section focuses on the social equity side of offshore developments, noting if a given regulatory framework provided returns such as revenue sharing and compensation, benefits packages such as CBAs, and who facilitates these measures. This analysis via synthesizing a regulatory framework key points for public consultation allows for the understanding of where, when, what, and how the public is involved in a country's OSW development process. Pertinent documents are entered into the sheet and are then assessed throughout all three sections. An act will be assessed in terms of what, when, and how participation occurs, if any factors contribute to the public having influence on the project, and if the act provides any kind of benefit. Nations and subsequent measures, for example, that emphasize a high number of opportunities for engagement but do not allow for said opportunities to have a guarantee of public influence in a project, are emblematic of Model 1. This analysis was able to show the differences more clearly in public engagement during development. Models that primarily focus on the aspect of a consent scheme as opposed to more participatory or beneficial measures.

Chapter 4: Results

The analysis done during this project focused on understanding exactly how, what, and when public participation is facilitated in OSW development in different countries with a similar context to Canada's current green energy-based transition. Recorded in the database are the different measures, legal and voluntary, that play a core role in a countries regulatory process. The created 'arrow schematics' detail a temporal scale to which measures for public engagement are labelled. The application of this paper's models is shown throughout the schematics, and provide information as to the legal, unique, and non-legally mandated participation measures present within a regulatory framework. For countries not covered in the arrow schematics, all relevant aspects of their regulatory frameworks will be covered in the detailed breakdown of measures of each model (0-3) that proceeds the schematics section.

4.1 Schematics

The arrow schematics shown in this section include the OSW development frameworks for the United States regulatory process, United Kingdom's National Significant Infrastructure Planning (NSIP) process, and Scotland's independent 0-12 and 12-200 nautical mile development process. Denmark and Norway's schematics have been omitted from this section. Whilst all the info for Denmark and Norway has been recorded in this studies database, pivotal documents that were not readily available in English had to be translated using AI services. Therefore, the information, whilst true, lacks the specificity needed to ensure an accurate representation of each countries regulatory process as an arrow schematic. The core aspects of Denmark and Norway's regulatory process are covered in the breakdown of measures via this papers models that proceeds the schematic section. The country of Wales and its regulatory process is in large parts identical to

that of the United Kingdom's NSIP process. The database has recorded the Welsh Developments of National Significance (DNS) regulatory process and its public participation measures. The DNS model gives Wales the jurisdiction for energy-based developments ranging between 10-350 Mw. This development scheme is unlikely to ever apply to OSW development as the average Mw output exceeds 350 Mw, evident through operational farms in Wales such as the Gwynt y Môr OSW farm being 576 Mw. For this reason, representation for Wales in this study has been assimilated into the United Kingdom's NSIP process.

The schematics shown can be derived independently using this studies database. However, since the nature of this study is to understand differences in public participation measures between countries, this section has opted to showcase the schematics in a comparative instance. The following figure compares the United Kingdom's NSIP process, the United States regulatory process, and Scotland's independent 0-12 and 12-200 nautical mile development process.

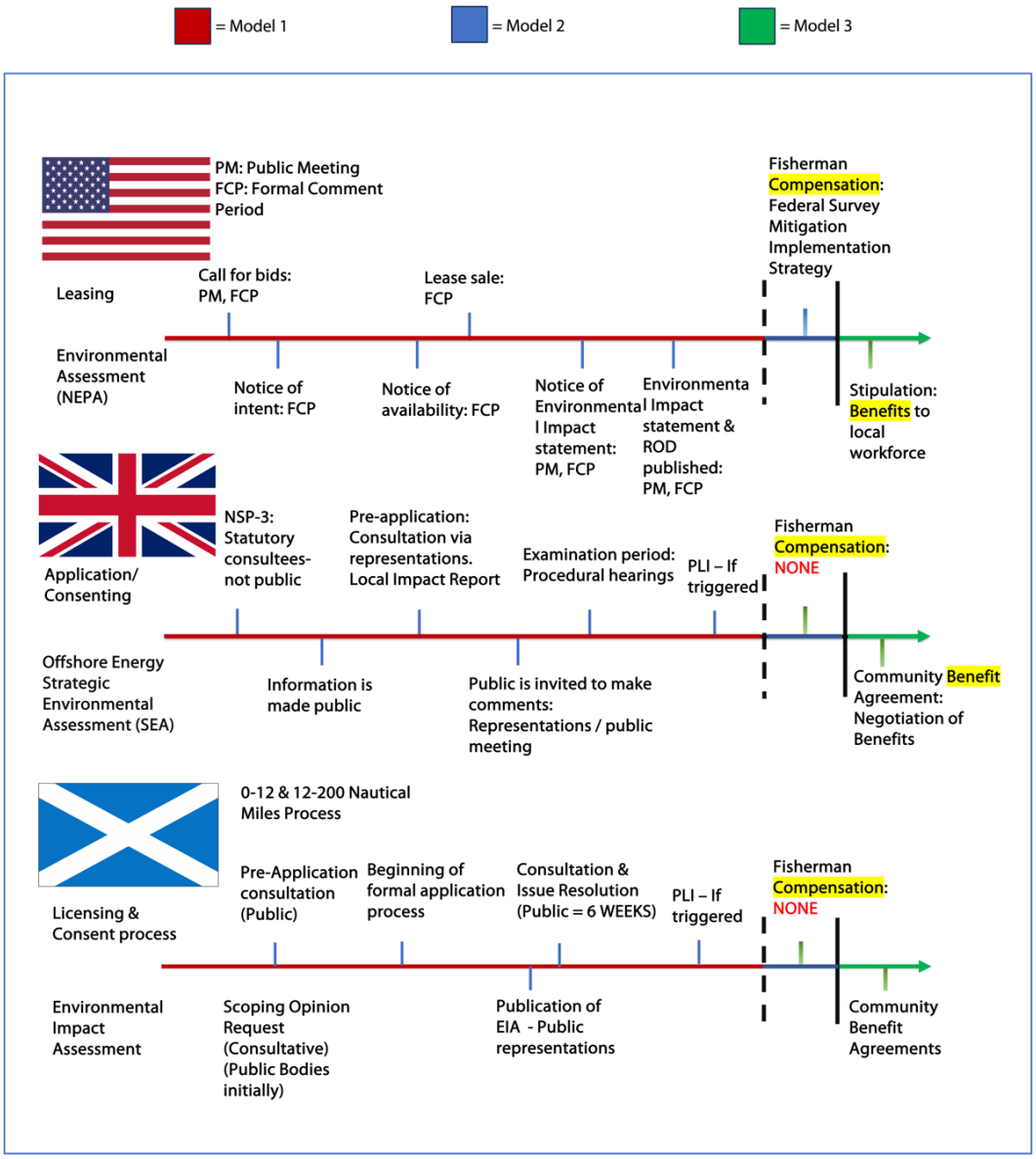

Figure 1: United States Regulatory Process – United Kingdom Nationally Significant Instructure Planning Process – Scottish 0-12 & 12-200 Nautical Mile development process

First, the comparisons between the United States and United Kingdom Processes. Although different in many aspects, the United States and United Kingdom's legally mandated measures for development are placed in its consenting process, Model 1. Furthermore, the measures for each country are split between the general licensing and Environmental Impact Assessment (EIA) processes. Both emphasize consultative measures with the public during these

stages of the development process. The United Kingdom prioritizes more opportunities for public engagement in its licensing/consenting process, whilst the United States focuses more on the EIA side of development. The United Kingdom's Public Local Inquiry (PLI) System acts as an objection-based measure for the public to enact through local authorities. PLI's occur when the public is in objection to any aspect of the plan for a proposed development of its onshore component, which is met with further consultation with the public to remedy grievances. There are currently no objection-based measures in the United States. As of this study being completed, neither country has a formal compensation process for effected fishermen, Model 2. The stripped vertical line is to indicate the beginning of the cut off point for legally mandated measures. The United States is currently in the process of creating a formal process, as the National Oceanic and Atmospheric Administration (NOAA), which governs United States fisheries, conducts a survey on mitigating the effects of OSW to fisheries with the intention of making policy with aspects of compensation. There are no such plans for a similar policy in the United Kingdom. CBAs, Model 3, are both voluntary measures that are the responsibility of the developer in each country. The primary difference between the two being that the United States process acts as a stipulation, encouraging developers to enhance local work forces or supply chains in return for a bidding credit. There are no such incentives in the United Kingdom process. In both cases, and for the following schematic, CBAs are placed at the end of the arrow, as the planning and enactment of these measures can occur at any stage and are up to the discretion of the developer.

The United Kingdom and Scotland comparison is more direct, as the Scottish system itself operates in tandem with United Kingdom legislation such as the *Electricity Act 1989* for its onshore components, basing its own legislation off the existing United Kingdom structure. Scotland adopts the same structure as the United Kingdom planning process, having the EIA and pre-application

stages operate simultaneously, which then lead to an examination period and subsequent awarding of a license to develop. Consultative measures through the form of representations in Scotland are also like the United Kingdom's NSIP process, occurring at approximately the same time. One major difference between the Scottish and United Kingdom measures is the absence of Local Impact Reports (LIR) in the Scottish development process. The LIR system is unique to the United Kingdom's *Planning Act of 2008 and* allows for the local authority to highlight predicted impacts to the area, physical and socio-economic, as informed by the community via consultation. The LIR is then used to inform decision making during the pre-application and examination stages of the NSIP process. Scotland does not have its own official version of the LIR system. In both cases, compensation measures, particularly for fishermen, are absent. CBAs are also strictly voluntary, with Scotland providing developers a guide specific to OSW developments, whilst the United Kingdom currently only has one available for its onshore wind farm operations. CBAs are still used in the United Kingdom for its wind farm operations, even lacking a formal guide for developers.

The following section will break down into models zero through three the various legal and non-legally mandated acts and policies put in place for each country done in this studies analysis. Doing so will detail the Danish and Norwegian processes for OSW development, as well as better inform the schematics presented in this section.

4.2 MODEL 0: Information Sharing

Information sharing is an aspect present within every regulatory process this project examined. Information sharing has been labelled as model 0 due to this fact and is recognized as the minimum for public engagement. Information shared is often split between the specifics of a

project (location, size, environmental aspects) and the provision of opportunities for public engagement.

Information shared on project specifics occurs in initial stages of the leasing and environmental assessments processes for all countries within the study. Official statements from a country's facilitating institutions for OSW give public notice on meetings where information can be provided. Statements for public meetings and information provision also express the opportunity for the public to provide feedback. Statements in the United Kingdom and Denmark are explicitly stated by regulations to be put in newspapers local to the development, and state pertinent information on both the project and the subsequent meeting/representation period. In the United States, the earliest information is shared when the Bureau of Ocean Energy Management (BOEM) publishes a lease for a designated area, shared on both the institutions website and United States Federal Register. Information on public meetings as well as aspects of public participation in the United States is handled by the Intergovernmental Renewable Energy Task Force's, which differ state-by-state. These task forces, alongside BOEM and working with other governmental agencies, hold meetings during the leasing and environmental assessment stages and provide information to the public.

All countries in this study are subject to upholding their acts focused on the public access to information. Often stated within the regulations specific to OSW and marine renewable energy, each country is obligated to disclose to the public information and documents that are controlled by an institution or public authority on request. Ideally, the freedom of information acts allow access by the public to all non-disclosed information. In the case of the United Kingdom, section 53 of the *Freedom of Information Act 2000* introduced a veto clause allowing an authority to deny

access to requested information with a sufficient reason. The United Kingdom is the only country that is transparent about denying access to certain information.

Countries that have implemented the *Aarhus Convention,* implemented in the European Union through directives Directive 2003/4/EC (Public Access to Information) and Directive 2003/35/EC (On Public Participation), must ensure that articles four and five of the document are reflected in their environmental assessments processes. The *Aarhus Convention* has been adopted with the conception of new acts in effected countries. Denmark conceived the *Act on access to Environmental Information* as an extension of already existing acts. Norway's *Environmental Information Act* encompasses both information sharing and promote public participation. The United Kingdom implemented the *Environmental Information Regulations* in 2004 as a reflection of articles four and five of the convention.

4.3 MODEL 1: Consenting Scheme

The primary legally mandated opportunities for public participation are present in the consent stage/model of the development process. Specifically, most regulatory processes focus on public input in the leasing and environmental assessment components of development.

Public consultation during the development process typically occurs via two methods, representations, and public meetings. A written representation period after a document's publication (lease/license notice, environmental assessment report) is typically allotted in a 60-day period where the public can provide feedback. Written representations were noted to be the most common form of feedback due to the periods starting shortly after the announcement of a component (lease/license notice, environmental assessment report) allowing for feedback before public meetings are held.

Written representation periods were found to occur more than once in development, typically occurring after stages of the respective components move forward i.e., the publication rounds of an environmental assessment and announcement and sale of license/lease. Public meetings were found to not be as consistently organized. In the United States process, BOEM has designated for a public meeting to occur alongside a formal comment period (representations) at the start of the lease process for a Wind Energy Area (WEA), as per its own regulations. As per the *National Environmental Policy Act* (NEPA), public meetings are held in the United States environmental impact assessment process both in the draft and final publication of the document. In the United Kingdom's NSIP (Projects that produce more than 100 Mw of power), representation periods are explicitly outlined in applicable acts, environmental assessment and the consenting/licensing process, and public meetings are less frequent. This is due to the designated examining and public authorities having control over this aspect of the planning process, making the main procedural hearing occur in the final stages of the license examination period (*The Infrastructure Planning Rules 2010*).

The number of legally mandated opportunities to engage in public consultation vary by country. The United States with 9 instances of engagement and United Kingdom at 8 are similar, with the major difference being through the United Kingdom's consenting process having more public involvement than the United States' counterpart in its leasing process. Denmark and Norway, although difficult to discern due to the language barrier, both have approximately 5 legally mandated instances of public consultation. Denmark's Open-Door process involves the same environmental assessment process as its Call for Applicants' model, with the differences in consultation occurring at the municipal level, where meetings are held at the discretion of the local authority.

This opportunity for public participation does not guarantee that submitted feedback will have direct influence on a project. In only a few instances in this study did clauses note on the public itself feedback being incorporated. In the United States context, the final lease sale is said to consider all feedback when finalizing the terms and conditions of the lease itself (§585.216). The use of the word 'consideration' is the extent to which this clause elaborates on the use of public feedback. Similarly, in the United Kingdom context, the Planning Act of 2008 states in section 49 the "Duty to take account of responses to consultation and publicity". Public feedback in this section focuses on the applicant for a license (in this case for an OSW project) acknowledging consultation feedback but, similarly to the United States process, does not elaborate on how the applicant is to incorporate feedback, let alone mechanisms taken by federal institutions to ensure that comments and concerns have been remedied.

The Marine Works (Environmental Impact Assessment) Regulations 2007, applicable in OSW projects within Scotland in the 0-12 and 12-200 nautical mile range, touches briefly on public consultation. Section 16 states that in the notice of an EIA report, that arrangements are made to detail the public on how participation will affect decision making in the process, including how representations are made with the addition of new information to the report. The act does not, however, provide more detail on how public feedback such as representations affect decision making.

Legally mandated consultation measures, although plentiful, do not guarantee that feedback is incorporated. More direct measures of influence are seen within the analyzed regulatory frameworks but are not placed within the consultation occurring in leasing/licensing stages and EIA.

4.4 MODEL 2: Degree of Influence Measures

Legal measures that allow for the public to affect a projects outcome, at any stage, are not as plentiful as the general consultation measures in Model 1. These measures vary in both practice and ability to affect a projects outcome. As noted in model 1, the legally mandated opportunities for public consultation do not extensively elaborate on the use of public feedback in decision making. Measures analyzed in Model 2 focus more on the publics direct ability to influence the projects through self-surmised documents, objections and measures that integrate the public into any formal stage of the project (compensation in the operation stage).

4.4.1 Local Impact Reports

The United Kingdom's *Planning Act of 2008's* LIR allows for information sharing to occur between local authorities and the developments examining authority during the pre-application stage of the licensing process. This opportunity for engagement focuses on local authorities giving details as to the likely impacts that will occur in the development area. Local authorities are the main institutions responsible for the drafting of the report and representations but are responsible for administrating community consultation in the process. LIR, although a form of consultation, is more similarly compared to information sharing, but on the behalf of local authorities to the projects facilitator as opposed to vice-versa. Specifics as to how LIR are integrated into the pre-application decision making process are not specified. The main objective of the document is to give an objective overview of predicted impacts to the local area, using local knowledge to help build that understanding.

4.4.2 Public Local Inquiry

The ability to object in a stage of development was rarely found. The PLI system present in the United Kingdom's *Electricity Act 1989* focuses on the onshore generator aspect of the

licensing stage. If there is an objection to the plan concerning the onshore generator component, section 62 of the act triggers a PLI which is met with subsequent public hearings and opportunities for representations. The PLI is handled by the independent Planning inspectorate assigned to the project, involving local planning authorities. A PLI does not halt the development process but does cause the onshore generator component to be paused to deal with any significant concerns of the public. In Scotland, Ministers can trigger a PLI without the need of an objection, regardless of a project's designation as an NSIP or other development. The PLI system is the only formal objection system present within its OSW development processes.

4.4.1 Denmark: Municipal Right to Veto

The only decisive objection process noted in this study is the veto process present within Denmark's Open-Door process for OSW development. Denmark's Open-Door process differs from its call for applications system. The call for application models consists of the Danish Energy Agency (DEA) producing a call for applications from developers for a designated area. The Open-Door process allows developers to submit applications for OSW developments in an area of their selection. Due to the Open-Door process allowing applicants to develop in areas at their selection, the system focuses more on municipal involvement. Initially given a municipal right to object, changed to a municipal right to veto when the Open-Door scheme was changed to only allow development 15 kilometres from the coast. Whilst not absolute, the municipal right to veto is stated to play a vital role in a project's acceptance or rejection. This veto system in Denmark is one of a kind, not only in the context of this study, but in regulatory processes around the world for OSW.

4.4.4 Compensation Measures

Compensation in OSW regimes is primarily focused on fisheries. Compensation for fisheries was found in Denmark and Norway, with the United States currently looking to implement compensation measures. In both Denmark and Norway's systems, the concessionaire/developer of the project are the ones responsible for providing compensation to effected fisherman. Denmark's process for OSW compensation to fisherman is covered in the country's Fisheries Act. In the Denmark process, responsibility for compensation begins once a permit for development is awarded, with a developer liable for any damages incurred during the construction phase, not limited to the offshore elements of the project but also export cabling. Compensation can be provided throughout the pre-investigation, construction, and operation stages. Compensation is paid out in accordance with documented losses, to which data is provided by the Danish Fishermen's Association. Norway's provisions for compensation fall under *Chapter 9* of its *Offshore Energy Act* regulations. Norway compensates fisherman based on loss of fishing grounds due to the development, incurred losses, and effects of pollution that might have been caused during development. Further details on Norway's compensation scheme were not found during this study. The United States is currently developing its compensation scheme for fisheries through the *Federal Survey Mitigation Implementation Strategy*. Lead by BOEM and NOAA, the surveys core objective is to guide the development and implementation of OSW to mitigate effects incurred by fisherman. One of the measures intended to be implemented is the use of substitute resources or environment as compensation to fishermen caused by OSW. Monetary means of compensation have not been discussed as of yet, and specifics on resource substitution have not been elaborated on as the survey is still in development.

4.5 MODEL 3: Benefits/Empowerment

Model 3's findings focused purely on measures within a country that allow for the public to receive benefit or assurance from the development of OSW. Benefit based measures were observed to be primarily voluntary, and often the responsibility of the project's developer to enact.

4.5.1 Social Clauses & Ability to Purchase Shares

Denmark is the only country in this study to have legally mandated measures that fit in Model 3. These measures range from social assurances surrounding employment to more benefit-based options that are focused on individual opportunity residing near OSW developments. Denmark's *Concession Agreement* published in 2016 to accompany the Kriegers Flak OSW farm, introduced distinct social and cultural clauses. The *Labour Clause* introduced in section 11 ensures that workers of the project are given secured wages, alongside special allowances relating to hours worked and favourable conditions for working. This protection of workers is in addition and pursuant to other labour laws enforced within Denmark. Section 12 titled the *Social clause regarding apprenticeships and placements,* ensures that a certain percentage of workers on the project are apprenticeships. The percentage is agreed upon between the developer and the DEA, and the goals for the clause are for Danish apprentices to gain valuable experience with the objective of entering the labor force. This clause guarantees that projects cannot outsource all its positions or keep employment internal, mandated to ensuring that Danish apprentices are given the opportunity to gain experience for future employment. These social and cultural clauses are not enforced in all Danish developments. Denmark's *Promotion of the Renewable Energy Act* introduced the option for an individual to purchase shares of the project. Residents in towns with the nearest coastline to the development of an OSW project can individually purchase shares. The percentage of shares for purchase by an individual is not stated in the Act itself, however, the DEA

has stated in subsequent documents and statements that its intention is for each development to be at least 20% locally owned.

4.5.2 Community Benefit Agreements

CBAs and measures similar to it such as the United States *Strategy for Bidding Credits* were the most common measure for benefits to the community in this study. In all cases, these measures are voluntary and up to the discretion of the licensed/permitted developer of an OSW development.

CBAs in the United Kingdom, although voluntary, are based themselves off existing statutory legislation. Section 106 of the *Town and Country Planning Act 1990,* provides a brief set of regulations on how developers can give back and lessen impacts felt by local communities. Other policies have since been introduced such as the *Community Benefits Protocol* in 2013 which ensures developers provide benefits to communities local to onshore wind developments of up to £5,000 per MW of installed capacity. The *Community Benefit Protocol* is currently only applicable for onshore developments. The United Kingdom has published a formal guide for developers to use but only for its onshore developments. This study noted the United Kingdom's existing onshore wind development guide for Community Benefit Agreements, realizing the increasing role of CBAs in the country's efforts for renewable energy and likelihood of a sperate guide being published in the future for offshore developments. The onshore CBA guide is primarily concerned with the conception of community benefit fund by the developer if it chooses to partake. The fund's purpose is to allow the community to develop long term developments that work in tandem with the windfarm to provide benefit back to the community. The fund itself is through an annual sum paid by the developer per Mw of generated energy. Other benefits in the package concern "in-kind" benefits such as shared community ownership of the windfarm and local energy discount

schemes. Community funds for local developments and in-kind benefits are the major components of the CBAs noted in this study.

Scotland has published a guide that is specific to CBAs for OSW developments. Voluntary for developers, the Marine Scotland – Licensing Operations Team (MS-LOT) highly recommends developers partake in the plan to ensure a project's success. The focus of the CBA is primarily decided by the community itself, meaning that benefits could range from the benefits to a local workforce, cultural elements, environmental communities etc. The scale of the CBA is decided by the size of the project, however, community benefit funds are considered a fundamental component of any conceived CBA. The guidelines for community funds mirror that of the ones set out in the United Kingdom's general onshore guidelines for CBAs. The guide also focuses on the aspect of consultation and early engagement, ensuring local communities can meaningfully contribute to the plan through capacity building.

4.5.3 United States Stipulation

The Pacific Wind Lease Sale 1 (PACW-1) in California Conceptual Strategy for Bidding Credits is a recent effort by the United States to introduce CBAs. This strategy, whilst currently specific to the wind lease sale that occurred in the Outer Continental Shelf in California, is looking to be used for future OSW area leases. The strategy is a stipulation for developers to create a CBA specific to workforce training and supply chain development in return for a bidding credit during the wind area lease. Developers work with the communities closest to the offshore development to create either a workforce training plan that helps create jobs local to the OSW farm or contribute to the creation of a domestic supply chain for OSW manufacturing and services. Fulfilling the requirements outlined in the strategy, developers can earn a 20 percent bidding credit for their final bid of the wind lease area. If a developer chooses to do partake in both options, the bidding credit

received is still maximum 20 percent. Developers are to consult the local community and relevant stakeholders in the conception of the plan. This *Conceptual Strategy for Bidding Credits* is still a voluntary measure and is not legally mandated in the United States regulatory process.

Chapter 5: Discussion and Recommendations

This study has only focused on a select percentage of OSW development schemes found world-wide. The chosen countries and their measures for public participation and consultation, both legal and non-legal, are likely to be reflected in Canada's own OSW development regulations. The regulations Canada adopts will generally reflect some of the measures established developers are already used to complying with in other countries. More notably, Canada will reflect the core elements of a licensing and EIA process as the fundamentals for developing OSWs in its waters. By categorizing various measures into this paper's models, which are an adaption of Aitken's (2014) levels, legally mandated instances of participation in OSW development taper off before getting to more beneficial measures. This section aims to explain this observation further, elaborating on select findings outlined in the results section. Furthermore, this discussion will also touch on aspects of accessibility and representation in OSW regulatory frameworks. The essence of understanding each countries regulatory process is through legal documentation. Those in a country curious to understand where, when and how they might be able to participate, will need a decent understanding of understanding legal documentation and jargon. Issues of representation are not exclusive to one country in this analysis over the other. Canada adorns a legal context that places a large emphasis on Indigenous rights. The Duty to Consult will supersede any regulatory process that will be mandated by the Federal government. Doing so secures the needed representation of Indigenous communities in the development of potentially disruptive infrastructure like OSW.

5.1 A Generalized Understanding of Offshore Wind Regulatory Frameworks

The five countries analyzed in this study, although different in specifics, all presented common trends that allow for a general conceptualization of how OSW regulatory frameworks are structured.

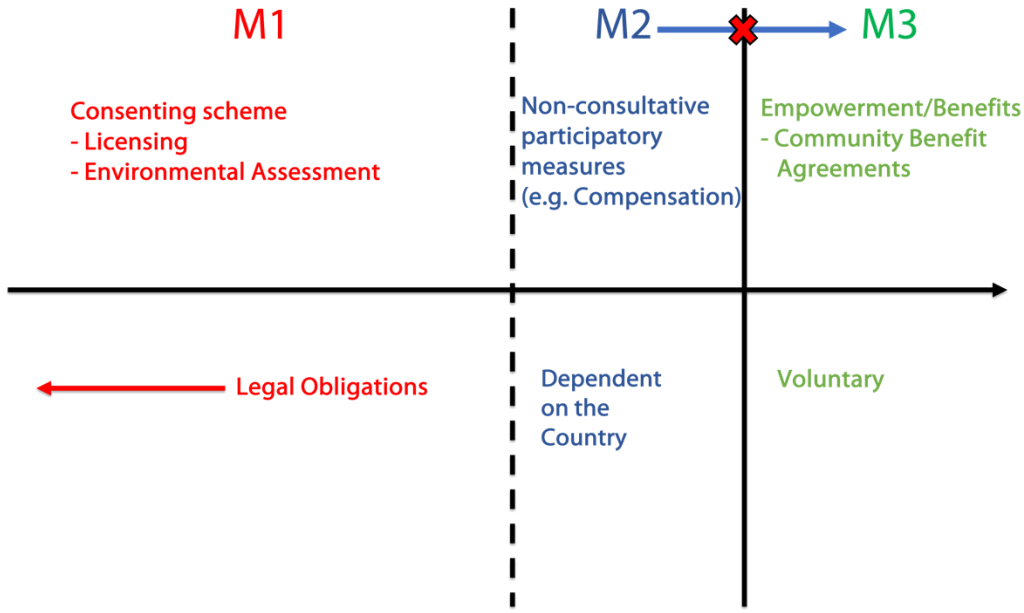

Figure 2: Generalized observation of the regulatory frameworks analyzed

Following the same system as the arrow schematics shown in the results section, Figure 2's horizontal axis represents the development process of OSW throughout all stages (planning to operation). The striped vertical line represents the tapering off point of legally mandated measures, and the solid, where legally mandated measures end. Model 0 is not incorporated, as similar to the arrow schematics in the results section, information sharing is the minimum form of engagement found in all countries. Aspects of information sharing will be discussed in the *Accessibility* section of this chapter.

5.1.1 Model 1: Acceptance & Consent

Model 1 and the consenting scheme, consistent of licensing/permitting and EIA processes, is universally found across the five countries. Although the specifics as to how, when, and where consultative measures occur differ between them, these components of the regulatory process consisted of the largest number of opportunities for public participation. These legally mandated measures ideally allow for consultation to occur to inform decision making in each respective process. These consultative measures, as noted in the results section, rarely elaborate in its respective act/policy on the use of public feedback and how its applied to decision making. At most, legal clauses that state how feedback is applied/considered in decision making do so in two to three sentences without any explanation as to how. For example, the United States *Renewable Energy Program Regulations* (§585.216) simply states that "…*we will consider all public comments received in developing the final lease sale terms and conditions.".*

The lack of explanation as to how consultative measures with the public inform decision making, frames these aspects of the process as tokenistic, aligning with consultations placement on Arnsteins (1969) ladder. A legal clause is not needed for a developer or facilitator of a project to address public concerns or needs, but the lack thereof does not guarantee the safeguarding of the public and its interests. Furthermore, the act of the public participating in consultative measures without this guarantee makes uncertain the value of public participation, framing the process as a check box to tick in the overall process. This finding in the OSW regulatory processes around the world partially confirms the views of Arnstein (1969) on consultation being tokenistic, allowing the public to have "participated in participation". Consultation in this sense is akin to another instance of information sharing as there is no reciprocation guaranteed, allowing political actors and decision makers to claim participation was sought out without facing consequences (Johnson

& Howsam, 2018). Some cases in this study, however, move us past this understanding from Arnstein (1969) when factoring in notions of acceptance. Acceptance has been a consistent constraint in the development of onshore and OSW (Keegan, 2021), but only in few cases does acceptance have legal precedence. Stated by Aremni (2016), planning for acceptance occurs when the publics acceptance of a project becomes a condition for development. An example of planning for acceptance occurring and how it might be facilitated was identified in the United Kingdom (and Scottish) context. The PLI system exists as a form of objection that the public can employ, that halts and puts into question the future of an OSW project, albeit only for the onshore generator component. The existence of a potential objection within an OSW regulatory process changes the intention for consultation toward ensuring support as opposed to ticking the box. Aitkens (2014) thoughts on consultation measures, used to gauge public opinion and better the acceptance of a project, might be pertinent in the United Kingdom context, as consultation could be used to lessen the chances of a PLI being triggered. The use of consultation moves from being a tokenistic participatory measure to one that is focused on achieving acceptance, as these measures are being used to ensure a project's success. This use of consultation to ensure a project's success through gaining acceptance, resembles the DAD model, discussed in Chapter 2, as feedback is only being applied to remedy issues to avoid an eventual objection. In this case, public participation moves away from being a check box in the process in cases where an objection is present, and into more of a 'yes-or-no' focus for public consultation, confirming the identification made by Armeni (2016). In contexts such as the United States where there is no objection, planning for acceptance might be present as public backlash could halt a project with events such as protests. The overall understanding of planning for acceptance and its focus on a 'yes-or-no' response to a project, nominally democratizes processes found within OSW regulatory frameworks. The publics purpose

in Model 1 is to then provide consent for a project, rather than be involved in a true participatory sense. This process is emblematic of the DAD process, as the intention for feedback does not include permissions that allow for the publics feedback to change aspects of the plan. Gaining acceptance in this regard is a measure taken in order to defend the project from being halted or shutdown.

5.1.2 Model 2: Degree of Influence

Measures found within Model 2 are more sporadic than the ones identified in Model 1. The measures that allowed for the public to have a degree of influence in the planning process varied differently. This is where the legal mandating of measures begins to differ between countries, as most of these measures are unique to a given context. LIR System present in the United Kingdom's *Planning Act of 2008* is not a consultative measure, but an elaboration on information sharing from the behalf of a community to the facilitator. Communities local to a development can make representations to their local planning authorities, which are then mirrored in the final LIR that is sent to the OSW project facilitator/examining authority. The LIR is purely to inform on potential expected impacts to the area of development, with no elaboration on how it places itself in the decision-making process. However, LIR's themselves provide the opportunity for 'co-learning'. Collaborative learning as an innovation to public participation measures has been around since the 1990s, and places emphasis on aspects of systemic improvement and starting a constructive discourse between public and facilitator (Daniels & Walker, 1996). Whilst collaborative learning as a topic has many definitions and interpretations, in this context, it is being used as a means for the public to give its feedback on potential impacts through LIR's, having community knowledge be incorporated into the planning process for a United Kingdom OSW development. However,

measures such as LIR's still encounter the same issues as consultation measures without guarantees of feedback being addressed or incorporated. One-way exchanges of information without reciprocation don't guarantee that concerns of the local community will be fully recognized (Johnson & Howsam, 2018).

More direct measures of public influence and intervention in Model 2 are rare. Assurances such as Denmark's social clauses on worker protection and apprenticeship development, whilst incorporating the community, are not measures the public can directly participate in. The social clauses provide a guarantee that in the development of a Danish OSW, that these aspects won't be desecrated at any stage of the plan, they are purely assurances. Beyond these social clauses, Denmark did allow for its public to have a significant level of autonomy in OSW development, relative to other regulatory processes in this study, for a period. Denmark's Veto system found in its Open-Door process reflect Arnstein's (1969) ideas on the redistribution of power. As noted in the results section, this municipal veto was not absolute in deciding the outcome of a proposed project, but it had significant influence. Arnstein (1969) states that a dominant factor in the redistribution of power for citizen participation, is that decision-making responsibilities are shared between the public and facilitating institution. By giving municipalities geographically closest to OSW developments, the DEA recognized the need for the public to be more involved in decision making. Shortly after this study completed its analysis of Denmark's regulatory process(es), the Open-Door process was shut down. Announced in June 2023, the DEA shut down the Open-Door process after months of hiatus and speculation, as the institution engaged in a dialogue with the European Secretariat on the potential breach of EU law (Ajin, 2023). Despite 9 of the 33 projects having been conditionally approved, the DEA closed the Open-Door process, causing a reaction of dismay from the public and industry in Denmark (Buljan, 2023) (Ajin, 2023). The discussion

on potential breaches to EU law that occurred between the DEA and European Secretariat have not been made public. With the Open-Door process now shutdown, the unique veto system has been lost. No other legally mandated measures observed in this study attain to Arnsteins (1969) view on the redistribution of power like the Danish Open-Door municipal right to veto.

Compensation

Compensation in Model 2 stems from the public's involvement in the project during planning, after displacement or loss of revenue has been caused. Due to not every country having compensation measures, the vertical line in Figure 3 represents the gradual drop off in these legally mandated measures. This study focused on compensation primarily on the topic of the fishing industry. Despite the advances in technology surrounding OSW, uncertainties regarding potential economic, environmental, and social impacts are still underdeveloped (Chaji & Werner, 2023). Still, some countries in this study recognized the importance of establishing acts and policy that provided fisherman with compensation for incurred losses. Methratta et al (2020), in their study on the human, environmental and fisheries management dimensions of OSW development in North America, surmise that decreases in commercial fishing revenues stem from more than just negative environmental effects, but also the overcrowding of fished water and displacement caused by infrastructure. Countries, thus have taken precaution and provided compensation measures. Denmark and Norway both currently have acts in place that ensure the compensation of losses stemming from OSW development and operation. Not originally the case, the United States, after the development and operation of two OSWs, is it now developing on fisherman compensation. Stated in Chaji and Werner 2023, BOEM in 2014 for its offshore oil and gas mitigation technique proposed different methods of compensation. BOEM proposed options to retrain fisherman and create a fund to offset property losses and damages, stating direct funds for compensation as a

lacking in terms of knowing the amount of funding needed to support fisherman (Chaji & Werner, 2023). Now, in 2022/23, BOEM and the National Oceanic and Atmospheric Administration (NOAA) have started a federal survey focusing on mitigating impacts to fisheries from OSW. The survey is still focused on compensation measures that are not funding based but has included monetary compensation as an option. Compensation then in the United States context, is a retrospective and reactive measure in the OSW regulatory framework, likely stemming from a lack of knowledge on economic impacts and hesitancy towards compensation measures like direct funds. The adoption of compensation for fisherman into the United States in the future allows for the public to then be involved more during the operation stage. In the United Kingdom, there is currently no legal basis for the financial compensation to fisherman for OSW impacts (Fishing Liaison with Offshore Wind and Wet Renewables Group, 2015). This is the case for all countries present within the United Kingdom, meaning Scotland and Wales do not have separate legal basis for compensation. Despite industries in the United Kingdom recognizing the lack of compensation as an issue, it is ultimately up for marine renewable energy developers, such as those in OSW to develop funds to support fisherman (Fishing Liaison with Offshore Wind and Wet Renewables Group, 2015). Reasons for compensation being absent in the United Kingdom process are not clear. Withouck et al (2023) point out that in Scotland aspects like compensation are not listed to be addressed in the country's EIA process. Forms of compensation that do occur don't comes until after negotiated consent (Withouck et al, 2023). Compensation, even when recognized as a concern by industries, is either existing in a countries regulatory framework like in Denmark and Norway, an afterthought such as in the US, or not present at all legally in the United Kingdom context. Given the importance of fisheries in places such as Nova Scotia, compensation is a necessity to protect its fisheries. The lobster industry alone, supports the livelihoods of coastal communities of

Nova Scotia and brings in a value of $898 million worth of revenue in years such as 2021 (Fisheries and Oceans Canada, n.d) (Oceans North et al, 2023). Lobsters are a benthic species and their areas for harvest are in clusters, meaning that OSW development could disrupt these specific locations. The introduction of compensation measures should coexist with the launch of federal regulations for OSW.

5.1.3 Model 3: Community Empowerment/Benefit

Model 3's primary observation was on CBAs. CBAs were found to be strictly voluntary in all cases observed. Unique measures such as the ability to purchase shares of a development, found in Denmark, only provide a general benefit to individuals through investment opportunities. Model 3 in this study is more concerned with measures that allow communities to be an active voice in how exactly they received benefit from an OSW development. Therefore, the focus on CBAs became the forefront of Model 3, as these community benefit schemes are found to be the most common measure. CBAs as a form of participation in this study are observed to be strictly voluntary, symbolized by a solid vertical black line in Figure 3, with small exceptions such as incentives existing in the US system. Reasons as to why the legal mandating of CBAs has not occurred varies. Armeni (2016) argues that CBAs can often be seen as a form of bribery focused on achieving a high level of acceptance for a project. Evidence shows that the opposite occurs as well when expectation for a benefit fund/agreement divide communities who understand that short term gain might lead to long term problems (Aitken, 2014). Facilitators and developers of a project alike are less keen to enforce measures that might complicate or make certain low acceptance for a proposed project. Some scholars suggest that CBAs can be potentially abusive towards developers. As voluntary measures that become mandatory in providing community benefits as a

condition for approval, the process can be artificially slowed down when a developer does not provide a CBA (Fazio & Wallace, 2010). However, CBAs are not necessary for all developments, and issues of developer abuse can be remedied "…by the judicious use of CBAs" (Fazio & Wallace, 2010). What does occur without a legal basis for CBAs surrounds a lack of community representation and guarantee the benefits desired by a community are reflected in the plan, as developers are not obligated by a formal guide or process bound to a law. Given the current uses for consultation measures in Model 1 and how more participatory measures in Model 2 are seen less, the legal mandating of CBAs in large-scale developments such as OSW must occur. This is especially true in the Canadian context, where if OSW intends to be a true proponent of the *Blue Economy Strategy,* it must employ participation measures that are focused on providing benefit to communities, not just achieving acceptance. CBAs should be specifically designed to the context they are made in, meaning that the community should be placed at the center. This measure should be more than just a means of collaborative consultation, as Arnstein (1969) states that consultative measures are rarely collaborative and empowering. CBAs should allow for the public to attain community empowerment that allows it to correct the power imbalances present at a societal scale (Baxamusa, 2008), such as issues stemming from previous offshore developments (oil and gas). Empowerment of this nature can provide the means necessary for communities to achieve self-determination in how they see benefit from OSW developments. Simple community funds or measures such as revenue sharing do not guarantee that a community can create developments that are consistent in allowing them to benefit from a project further. OSW developments, in accordance with the *Blue Economy Strategies* focus of providing equitable outcomes for everyone, should focus on the legal mandating of CBAs around communities having self-determination on how they expect to receive benefits, and provide the necessary means through policy to do so

(creation of local workforces, training, exporting energy). Self-determination as the core aspect of CBAs empowers communities and redistributes power back into the hands of those affected.

5.2 Accessibility

This study's analysis of public participation measures in each country's pertinent legal and non-legal documents for OSW development took place from May to August of 2023. During that period, it was difficult to remain consistent in the time between starting and completing a review for each country in this study. To fully understand each countries measures, and process, various legal documents and other pertinent information were analyzed in order to garner an understanding befitting of an analysis. These often-legal documents and acts are written with legal jargon and complicated sentence structure that is difficult to read for the untrained eye. This made getting through some countries relevant documentation challenging in attempting to understand what, where, and when consultation measures were occurring. The United Kingdom's NSIP process for example took nearly three weeks to read, comprehend and synthesize into the database. If an individual in the United Kingdom, who did not have the allocated time to research as this study has, was interested in knowing when they could participate in an OSW development, they would have to resort to legal documents or unofficial summaries published by law firms. There is no readily accessible and easily comprehendible summary or schematic for participation opportunities that a citizen could use in all countries present in this study apart from one. The United States has available online, a guide graphic and summary of public participation opportunities within its federal process. Written in plain English, the guide details the relevant acts for public participation in the countries OSW regulatory process. The authenticity of the information is guaranteed at the federal level, but the guide does not account for the differences at the state level which vary in

most cases. Still, having this document readily accessible allows the public to understand what their opportunities for engagement are, beyond hearing about it in the media once the process has started, which is identifiably the case for the other countries in this study. Awareness raising should begin with readily accessible documents that detail this information. Attempting to raise awareness amidst a projects start of development can have adverse effects on aspects such as acceptance. Soma and Hagget (2015) identify negative impacts to acceptance in engagement for OSW in case studies such as the Welsh Gywnt-y-Mor wind farm. The public found that the efforts made to provide information on the development for the OSW through brochures in Welsh and English were nothing more than a PR ploy, and information events were purely just one-way dialogues predicated on gaining acceptance rather than eliciting feedback (Soma & Hagget, 2015). Although these findings by Some and Hagget (2015) don't relate specifically to the regulatory process being made readily accessible, what's potent is that information sharing in this sense can easily come off as disingenuous. If the opportunities for engagement in Model 1 are to be a more democratized process where the public is consenting 'yes-or-no' to a process, then making easily accessible the info as to when they can do so is important. A proponent of voter education, the knowledge of knowing when and how to vote is just as important as the right to vote itself (United Nations, 2005). Providing the necessary knowledge for public consultation on OSW development separate from the information shared during a project's development, is necessary to ensuring meaningful engagement. The public in this case is informed ahead of the process, meaning that they can be more active in knowing opportunities for engagement and hold institutions accountable when a formal process for consultation is not followed correctly. Informed acceptance should be strived for in cases where Mode 1 dominates a countries OSW regulatory process.

5.3 Representation

Canada's OSW context is currently being developed through efforts made in the RA being facilitated by IAAC, and subsequent regulations to be published by Natural Resources Canada (NRCAN). This studies multi-nation analysis and comparison of public participation measures has produced findings that will help to better inform the nascent Canadian framework. However, even though the countries in this analysis were selected due to their similarity to Canada in transitioning away from natural resource usage for energy, the existing legal and historical context for Indigenous rights and recognition in Canada is a key distinguisher.

Developments in Canada are subject to the Duty to Consult, "…a constitutional duty owned solely to Indigenous people." (McIvor, 2021) in Statutory, Contractual and Common Law for Aboriginal and Treaty rights. The Duty to Consult, by definition, is the Government of Canadas responsibility to consult and when suitable accommodate Indigenous groups in the event that the Crown conducts or contemplates a decision that might adversely affect treaty or Indigenous rights, required by federal, provincial, and territorial governments (Canadian Encyclopedia, 2018). Integrated into regulatory review processes such as environmental assessment, the failure to consult can result in the delay or cancelation of a project (Canadian Encyclopedia, 2018). The Duty to Consult is different in process than the consultation employed with the general public. This constitutional duty is a part of an ongoing national project to reconcile indigenous and non-indigenous interests that had been ignored by colonizing European states (McIvor, 2021). Therefore, the Duty to Consult carries different weight than participation processes intended for everyone.

In the case of the OSW regulatory framework, it will be built on top of the existing legal and constitutional basis that emphasizes Indigenous rights in Canada. As noted in the Regional Assessment, the Governments of Canada and Nova Scotia recognize that sections of the designated area for the assessment include areas used by Indigenous peoples, and the potential impacts to various activities and rights of these communities (Impact Assessment Agency of Canada, 2023).

Renewable energy developments, such as wind, have caused issues for Indigenous peoples present in other countries under this study.

In Norway, the Sámi peoples have felt the effects of wind energy negatively impacting communities. Efforts to combat climate change have resulted in the formation of 'green sacrifice zones' in Norway, with Indigenous lands as the primary target, negative effects to these communities are offset by arguments that emphasize the need for lower carbon-based infrastructure (Karam & Shokrgozar, 2023) (Zografos & Robbins, 2020). Although these issues in Norway are primarily concerned with onshore wind, similar problems are rising in offshore contexts. Developments on the Fosen peninsula in western Norway has caused for the further violation of Indigenous rights in 2021 (Agence France-Presse, 2023). Green sacrifice zones in Norway are emblematic of efforts for colonization still being pursued in today's world. The only difference is that green sacrifice zones present a utilitarian argument for the continued colonization of Indigenous lands.

In the United States, Indigenous communities have been vocal about their concerns with the placement of OSW. Coded documents from a 2022 study on energy justice and the coopting of Indigenous narratives in OSW, highlight adverse effects of developed projects to Indigenous peoples in the United States. Recorded commentary demonstrated concerns for tribal history and spirituality, as aspects of distributive justice and the proposed placement of OSWs might cause for

the cultural loss of traditional ceremonies (Bacchiocchi & Bates, 2022). Concerns for the desecration of tribal interests has resulted in a suggested moratorium on OSW by Indigenous communities in the United States (Dlouhy, 2023). The potential disruption to Indigenous communities with OSW development is already prevalent in these countries. In the forming Canadian context for OSW, the Duty to Consult and the existing constitutional basis for Indigenous rights cannot be compromised. No models or measures, such as the ones identified in this study are perfect. The legal mandating of measures such as the ones found outside Model 1, like compensation and CBAs, gradually moves OSW development towards a decentralized process rather than a democratic one based on acceptance. The move towards a power sharing model needs to occur. Superseding all of this in the Canadian context is the existing relationship and emphasis on Indigenous rights. Canada purely mirroring anyone of the processes analyzed in this study, no matter if measures are ideal, would undermine the existing focus of providing Indigenous representation through Indigenous rights and constitutional duties such as the Duty to Consult.

5.4 Recommendations

The RA for the Scotian Shelf is still ongoing. Public information sessions are currently being held for anyone to attend, providing the latest information on the assessment such as potential locations. Whilst no definitive end date has been given for the RA, Canada's regulatory framework for OSW is expected soon, as investors have begun expressing interest in Canada's coastal waters. In April 2022, the Governments of Nova Scotia and Newfoundland and Labrador stated that they would be expanding their mandates on offshore energy towards renewables, renaming respective petroleum boards to encompass this change (Natural Resources Canada, 2023). In the year since then, the RA made headway in terms of both informing the public and

preparing Canada's East Coast population for a change in the industry. By May 2023, the Federal government made amendments to the *Accord Acts*, originally introduced in the 1980s, to properly expand the mandate into including the regulation of renewable energy developments, improve alignment with the ongoing assessment, provide support tools for conservation, and transition existing petroleum infrastructure (Natural Resources Canada, 2023). Nascent now, Canada's offshore renewable energy industry is developing fast. The soon to be published regulatory framework by NRCAN will bring OSW to Canada, after its already proved itself as a competent industry and energy source globally. Canada, although late, can look to existing regulatory frameworks during the conception of its own. In doing so, proven measures and practices for meaningful public participation from other countries can be utilized. As analyzed in this paper, not all models for public participation are created equal. The existing regulatory frameworks for OSW development primarily employ the DAD model, as noted with legally mandated measures such as consultation predominantly planning for acceptance rather than for participation (e.g., United Kingdom). This democratization of participation is still important, the public perception in voting 'yes-or-no' on a project should be an integral aspect of development, but it is not truly participatory. This form of engagement based on acceptance identified in Model 1, is present in all cases assessed and is likely to inform the Canadian regulatory framework.

If planning for acceptance, as prescribed in Model 1, is to be of the Canadian framework, then it is imperative that acceptance is made fully informed. Informed acceptance is predicated on the public understanding of the various legal mechanisms and opportunities for participation. Making accessible to the public a version of the regulatory process in plain language, clearly stating the rights and opportunities for engagement should help to give people the adequate resources for meaningful engagement.

More importantly, legally mandated measures should move away from aspects of tokenism by articulating how exactly public feedback is incorporated. Doing so provides a guarantee on how issues are expected to be addressed. Canada should focus on decentralizing power over the nominal democratization of its process, as represented in the DAD model. This includes engagement such as meaningful consultation from the onset of a projects conceptualization, or the ability to partake in information sharing through the form of LIRs. The public should be at the core of these developments to ensure equitable outcomes and have OSWs serve as an agent of the *Blue Economy Strategy* (Cisneros-Montemayor, 2019). These developments need to do more than just supply a social license and should actively benefit local communities. OSW development under the *Blue Economy Strategy's* framing, should only exist in service of Canada's coastal communities. The legal mandating of CBAs is what puts power back into the hands of these local coastal communities. In the event that Canada's OSW regulatory framework is ultimately more democratized, CBAs stand to provide the public the necessary self-determination over how exactly they benefit from OSW. This moves OSW development towards a more decentralized process overall, one intent on correcting inequities from past developments such as oil and gas. Superseding all of this, is the fact that the OSW regulatory framework in Canada is being built upon the existing legal obligations to Indigenous rights holders. The threat of OSW development to Indigenous communities is real, as noted in countries such as the United States and Norway. Indigenous constitutional duties, such as the Duty to Consult are a non-negotiable aspect of Canada's OSW framework.

The nascent industry for OSW development in Canada is one with a great sense of opportunity and potential. Being able to learn from existing models, Canada can implement public participation measures that redistribute power back to coastal communities to correct past

inequities, provide meaningful benefits, and safeguard the current uses of the ocean environment through measures such as compensation. In doing so, Canada's OSW regulations will lay the ground word for sustainable and equitable renewable energy infrastructure for future generations.

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