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Assessing energy justice: The case of Xwe'chi'eXen, Cherry Point

By

Andrea Gemme

Accepted in Partial Completion
of the Requirements for the Degree
Master of Arts

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Master's Thesis

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Andrea Gemme

May 24th, 2021

Assessing energy justice: The case of Xwe'chi'eXen, Cherry Point

A Thesis
Presented to
The Faculty of
Western Washington University

In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts

by
Andrea Gemme
May 2021

Abstract

Energy justice, based within the roots and philosophy of environmental justice, is a relatively new framework of assessing justice throughout our energy systems from production to consumption (Jenkins et al., 2020). Environmental justice emerged in the 1980s in response to the disproportionate burden that low income and communities of color experience from environmental harms and their negative externalities (Bullard & Johnson, 2000). Energy justice applies these concepts to our energy systems in a variety of ways. This research operationalizes one popular definition of energy justice to assess the presence of justice within the siting proposal of an energy infrastructure project. The case study analyzed in this research is the Cherry Point Gateway Pacific coal export terminal proposal in Whatcom County, Washington that was mainly active from 2011-2016. The U.S. Army Corps of Engineers rejected this proposal in 2016 based on the pre-existing treaty rights of the Lummi Nation. The framework of energy justice I chose for this research includes the three tenets of distributional, procedural, and recognition justice. Using a case study methodology, I assess the three tenets by analyzing existing data and documents. Though applying this tool is a helpful first step in critical analysis of energy infrastructure, it can and should be expanded to include the complexities of justice and U.S.-based energy systems. This includes prioritizing Indigenous rights and justice, as well as political economic context.

Keywords: energy justice, environmental justice, energy projects, coal, siting

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List of Acronyms/Glossary

NEPA: National Environmental Policy Act

SEPA: Stated Environmental Policy Act

EIA: Environmental Impact Assessment

EIS: Environmental Impact Statement

PRB: Powder River Basin

GPT: Gateway Pacific Terminal

PIH: Pacific International Holdings

Introduction

Energy is a ubiquitous need in our world; the demand for it in the United States (U.S.) continues to increase every year (U.S. Energy Information Administration, 2020a). The effects of climate change and impacts from greenhouse gas emissions are driving a movement towards decarbonization in the U.S. and abroad. While energy systems will always be a vital piece of modern society's infrastructure, the components of this system require constant shifting in order to meet the needs of the current global community, and our future. However, certain proximal communities, close to energy production processes, feel disproportionate impacts and burdens from our energy profile and choices. The path from energy extraction and production to consumption contains many opportunities to address these inequities. Energy justice aims to do just that. It has been applied as a framework at many stages of our energy systems, focusing mainly on the consumptive end. A lack of access to equitable energy is often referred to as fuel poverty, and remains a large issue in many low-income communities (Galvin, 2019). However, there have been an increasing variety of applications of energy justice as a tool to describe injustices and inform policy across the spectrum of energy systems (Jenkins et al., 2020). The processes of energy production, transportation and consumption are inextricably linked. I argue here that if there is injustice in the ways in which we produce energy in the U.S., which includes transport and storage, then there is injustice within our energy system overall.

While energy justice holds many different definitions and applications, the definition I use here is "a global energy system that fairly disseminates both the benefits and costs of energy services, and one that has representative and impartial energy decision-making" (Sovacool & Dworkin, 2014, p. 13). I operationalize this definition using the three tenets framework of procedural, distributional, and recognition justice, as identified by Jenkins et al. (2016). Jenkins

et al. (2020) has stated that the field of energy justice is at a “critical juncture”, especially as rapid technological advancement and changes to our energy system drive thinking that tends to lack inclusion of social justice impacts (para. 1). This research focuses on energy justice within a coal infrastructure project.

Coal has long been one of the foundational sources of energy in the U.S. and abroad, historically accounting for a majority of electricity generation in the U.S. (Houser et al., 2017). In recent decades, coal’s dominance in the energy market has significantly waned. Low priced natural gas has largely contributed to the decline of coal in the United States, though other factors like environmental regulations and a focus on a shift to renewable energy have also been cited as causes (Carley et al., 2018). In the face of these trends, a number of coal export terminals on the West coast of the United States have been proposed in order to export coal to Asian markets. To date, none of these terminals have been successfully built (Allen et al., 2017; McClure, 2021). One proposal in Washington State was said to hold the future of the global coal industry in its hands: the Cherry Point Gateway Pacific terminal (Stones, 2013).

Just north of Bellingham, Washington sits Xwe’chi’eXen, or the Cherry Point coastal region (see Figure 1). Cherry Point is on the traditional lands of the Coast Salish peoples, specifically the Lummi and Semiahmoo (Native Land, n.d.). It is located between the Lummi Nation reservation and Birch Bay, and is home to two oil refineries and an aluminum smelter in the process of retirement (Stones, 2013). During the summer of 2020, the aluminum smelter was officially decommissioned and around 700 workers were laid off (My Ferndale News, 2020). In 2010, a new project was proposed at Cherry Point, which would have been the largest coal export terminal in North America.

Originally proposed in 1992 by Pacific International Holdings (PIH), a subsidiary of SSA Marine, the re-vamped 2010 Gateway Pacific Terminal (GPT) project proposal drew almost six years of localized and organized resistance. In the end, the U.S. Army Corps of Engineers rejected key permits for this project and the terminal was never built. These permits were rejected based on the local Lummi Nation's treaty rights (Allen et al., 2017). I provide a more detailed description of the proposal and its evolution in the background section.

Given the fate of Cherry Point, I became curious about how the energy justice framework might be a way to describe and assess how this proposal evolved. This research addresses two questions: 1. Was the siting proposal for the GPT project an energy injustice? 2. Using the three tenets framework of energy justice, how does the analysis of distributional, procedural, and recognition justice contribute to an understanding of energy justice within this case study?

This research uses the framework of energy justice, based within environmental justice. Major themes explored here are the concept of energy justice, siting facilities/energy projects, applications of energy justice to the siting of energy projects, and fossil fuel exports and transportation in the Pacific Northwest. There is a gap in research regarding applying energy justice to the siting of energy infrastructure projects, especially within the context of the United States. This research addresses this gap and employs a case study methodology to investigate the presence of energy justice within the GPT proposal.

Background

For the purposes of this paper, the analysis will focus mainly on trends within the U.S. based on the proximity of the terminal proposal. Worldwide trends and energy markets will be discussed as they appropriately relate to this issue. The following sections address important

background information on the coal industry within the U.S., the energy justice frameworks utilized in this research, relevant background on fossil fuels, and will end with a description of the proposal at Cherry Point in Washington State.

A brief history of the modern U.S. coal industry

As an important aside and to provide contextual background, below I address the contemporary issues with coal as an energy resource. Coal mining took off during the 19th century as technological advancements allowed for the expansion of commercial coal mining (Houser et al., 2017). From the mid-19th century to the beginning of the 20th, coal grew from 9 percent of the country's energy supply to more than 70 percent (Houser et al., 2017). Coal employment peaked in the 1920s, and has only fallen since then (Rhodes, 2020). While coal consumption fell during the middle of the 20th century by more than 20 percent, the oil price spikes in the 1970s due to the Arab oil embargo and the Iranian revolution helped coal recover marginally (Houser et al., 2017). However, this recovery period was short lived and employment in the coal industry continued to decline after the 1980s.

One of the reasons behind this decrease in coal industry employment is the increase in average daily extraction by a single coal miner, which has grown from 4 tons per miner per day in 1920, to 140 tons per day in 2020. This large increase in productivity per miner has resulted in a loss of overall mining jobs (Lipton, 2020). The 2020-2021 global pandemic has added to employment woes in the coal industry and even though some plants are starting to rehire, employment is not expected to reach 2019 levels (Lipton, 2020). In 2019, U.S. coal fired electricity generation fell to a 42-year low, and continues to decline as more and more power plants are shuttered (U.S. EIA, 2020b). This overall decline in coal production and consumption

in the U.S. has a number of contributing factors, but declining natural gas prices and increased viability of renewable power are the largest.

In the last 10 years, natural gas has shifted to a more prominent role in electricity generation. Hydraulic fracturing, or fracking, has been a major source of gas extraction in the U.S. since 2009. Johnson et al. (2016), citing Hausman & Kellogg (2015), argue that the “advance in horizontal drilling, and fracking technology is arguably the most important change to U.S. energy markets since the OPEC crisis” (p. 2). The introduction of fracking has led to a massive increase in natural gas resources. Despite the arguments against the environmental externalities of fracking itself, there are many considerable benefits to low natural gas prices that have resulted. For one, electricity generation is cheaper, lowering the costs to consumers (Greenstone, 2018). The increase of cheap natural gas has also been a driving factor pushing coal out of the market (Rhodes, 2020). In 2015, natural gas overtook coal as the “top source of U.S. electricity generation” and continues to dominate (Davis, 2016, para.1). The resulting coal-fired power plant closures are now also the main force lowering U.S. carbon emissions (Storrow, 2020). To a lesser extent, the increased viability of renewable generation is also pushing coal towards its decline (Rhodes, 2020).

Though projections for what electricity generation fuel mixes are going to look like in the future vary, the decline of coal and increased renewable generation is consistent across projections (U.S EIA, 2020a). While electricity demand in the U.S. has remained fairly consistent since the Great Recession of 2008, the U.S. Energy Information Administration (EIA) has predicted slow demand growth through 2050 across all sectors (Carley et al., 2018; U.S. EIA, 2020a). However, when President Trump took office in 2017, he vowed to end the “war on coal” and send coal communities back to work. While the Trump Administration rolled back

environmental regulations that had impacted coal operations, this did not and will not save the coal industry. According to University of Colorado economist Daniel Kaffine, “the fall of coal is first and foremost a market story” (para. 13), and coal is not coming back, despite politicians’ promises (Milman, 2020). To compensate for declining demand domestically, the coal industry’s greatest challenge is to expand its exports to international markets where global demand is projected to remain fairly steady (Congressional Research Service, 2017; U.S. EIA, 2020c). However, the battle to build coal export terminals with the goal of shipping to Asia has been fierce and met with strong opposition from local communities. Environmental organizations focused on local and global environmental impacts, climate change concerns, and health concerns are one of the driving forces behind this opposition.

Coal export terminals, described in 2019 as speculative bets, once held promise to struggling coal producers in the U.S., especially in the Powder River Basin (PRB) in Montana and Wyoming. However, when new coal export terminals are proposed along the West Coast, some economists believe that they are a bad idea, citing them as poor investment choices due to underutilization of existing coal ports (Sanzillo, 2014). Nevertheless, proposals increased between 2011 and 2013 when a short-lived upswing in prices and Chinese demand provided hope for increased coal exports (Lucia, 2019). This is when the GPT proposal was put forth. However, since that bubble burst and Chinese demand fell, the prospects for increased coal exports have slowly diminished, especially with consistent opposition to new export terminals. The impacts of the global pandemic in 2020-2021 have also shifted coal’s position in the global market as energy demand dropped significantly in the first half of 2020. Though the long-term effects of the pandemic on coal have yet to be seen, the pandemic has proven that “renewable

energy is cheaper for consumers and a safer bet for investors” and some experts believe that the coal industry will never recover (Watts & Ambrose, 2020, para. 1).

Coal may continue to be an important resource in the energy transition, though will likely continue on an inevitable decline. As energy systems adapt to evolving market pressures, we are presented with an opportunity to prioritize energy justice, as identified by Jenkins et al. (2020). I return to this political economic context as it relates specifically to the GPT at the end of this paper to illustrate the interconnectedness of the market and its relationships to justice.

Energy justice

Environmental justice emerged in the 1980s as a response to the disproportionate placement of hazardous sites in low-income communities and communities of color (Bullard & Johnson, 2000). Robert Bullard is colloquially known as the father of environmental justice. Bullard (2000) has highlighted the key role that racism and classism plays within siting environmental harms and benefits. Some of the earliest literature in environmental justice looked at siting as “determining the location of commercial hazardous waste facilities” (Cole & Foster, 2001, pg. 55). Often, nearby communities disproportionately affected by these “locally undesirable land uses” do not have the power or resources to fight them (Bullard & Johnson, 2000; Kaswan, 2002). Environmental decision making is at the core of environmental justice and, while energy justice shares the same roots and philosophy, it focuses specifically on inequities associated with energy systems and policy (McCauley et al., 2013).

The concept of energy justice has emerged over the last decade, with the first known use in an academic paper in 2010 (Pellegrini-Masini et al., 2020). Because energy justice is still evolving as a concept, different definitions and uses are associated with the term. Some

definitions, particularly early ones, focus on the consumption side of our energy systems and consider ideas of energy burden and how safe and affordable energy is to consumers (Xu & Chen, 2019; Galvin, 2019). Other, more recent, definitions focus more on production, extraction and policy (Pellegrini-Masini et al., 2020). The definition of energy justice applied in this research is “a global energy system that fairly disseminates both the benefits and costs of energy services, and one that has representative and impartial energy decision-making” (Sovacool & Dworkin, 2014, pp. 13). This can be operationalized within research, as I do here, through three tenets: distributional, procedural, and recognition justice (Fuller & McCauley, 2016; Jenkins et al., 2016; McCauley et al., 2013). This is also a standard framework within broader environmental justice literature. Jenkins et al. (2016) promote the use of this three tenets framework and focus on the ways in which energy justice can be assessed within the siting of an energy project. McCauley et al. (2013) and Sovacool and Dworkin (2015) have also assessed its use as a conceptual and an analytical tool.

Sovacool and Dworkin (2015) approached the use of energy justice from an ethics perspective and provide a strong argument for utilizing the three tenets approach. The use of the three tenets accounts for the changing dynamics and human impacts that exist within our energy systems. This approach ensures that within the path from energy production to consumption, there are no disproportionate impacts, especially on vulnerable populations (Sovacool & Dworkin, 2015). McCauley et al.'s (2013) discussion on employing the three tenets framework complements the work of Sovacool and Dworkin (2015). Their examination of energy justice concludes with a strong stance that the three tenets framework is most appropriate to assess “justice issues within the context of both energy production and consumption” (McCauley et al., 2013, p.4). Schlosberg (2004) states that this use of the three tenets within environmental justice

“demonstrat[e] the plausibility of a plural yet unified theory and practice of justice” (p. 517).

Other studies that have applied this framework have found that it generated a holistic understanding of justice, as all three pieces of the framework are interconnected (Walker & Day, 2012; Jenkins et al., 2016).

Jenkins et al. (2016) identify the need for more research on the production side of our energy systems. However there are some important lessons that can be derived from related research. Fuller and McCauley (2016) assess the applications of the various framing of energy justice within advocacy organizations. Though not explicitly focused on energy projects, their research highlights the politics of framing and the fact that there is no universal definition and application of energy justice. They argue that an energy justice framework must include production and consumption alongside distribution and procedure issues (Fuller & McCauley, 2016).

One example of the application of energy justice to the siting of projects comes in Pesch et al.'s 2017 study. In this research, the authors utilized the three tenets to assess the ways in which justice claims appear within new energy project controversies. Their research concluded that energy justice can go beyond “ethical desirability of certain policy measures” and clearly pertains to the ways in which people relate to and understand changes in the energy system (Pesch et al., 2017, p. 832). Though, their research was heavily focused on Dutch processes in the Netherlands and thus is not generalizable (Pesch et al., 2017). Another study provides a comprehensive approach to applying the three tenets framework to regional energy extraction in the Arctic, but again highlights the lack of research applying this specific framework to the siting of an energy project (McCauley et al., 2016). In 2018, Siciliano et al. published their paper introducing a new conceptual framework they call “The Energy Justice Framework for Dam

Decision-Making”. They also discuss energy as a complex interdisciplinary system and argue for more integration of energy justice principles throughout all pieces of this system, including infrastructure development (Siciliano et al., 2018).

Given the above literature, it is appropriate to focus on utilizing the three tenets framework in assessing energy justice in the siting of a specific infrastructure project. The lack of literature around applying this framework to the siting of energy projects within the United States is a driving factor for the ensuing research on the GPT. This research can elucidate the ways in which energy justice can inform our decision making processes around extraction, transportation, and use of energy resources. The following sections will discuss each tenet of procedural, recognition and distributional justice and the definitions used in this research. Though they are separated here, they are closely related and contain multiple areas of overlap, which I address more in the results section of this case study.

Procedural justice

I look at procedural justice through the definition given in McCauley et al. (2013). I chose this definition because of its introduction by McCauley et al. (2013) as a framework built on the work of others that will be a useful approach moving forward. This definition includes “equitable procedures that engage all stakeholders in a non-discriminatory way [...] all groups should be able to participate in decision making, and that their decisions should be taken seriously throughout [...] participation, impartiality and full information disclosure by the government and industries” (McCauley et al., 2013, para. 8). Much of the existing literature around procedural justice within energy justice focuses on the processes behind siting renewable energy projects. One study in Washington State assessed procedural justice within siting wind

turbines. Through a case study analysis the authors determined the presence of procedural justice in practice within existing laws, public hearings, siting processes and more for two separate cases (Ottinger et al., 2014). They found that the processes within siting can be amended between state and local jurisdictions to better curate stakeholder recognition and influence in the decision making process (Ottinger et al., 2014). Simcok (2016) conducted another, similar, case study. Simcock (2016) also examined perceptions of procedural justice through the siting of a wind energy project. However, this study looked at a community-led project, which was thought to potentially foster a more fair and democratic process. Simcock (2016) found that the community held conflicting views on whether the process was just, demonstrating the varying experiences of the process and ideas of what ‘just’ means. This plays a role within the Cherry Point GPT proposal. Though procedural justice often includes recognition justice as part of its definition and application (Jenkins et al., 2016), in this research it is analyzed as a separate piece per McCauley et al.’s (2013) definition.

Recognition justice

Within recognition justice, two different author’s definitions are combined. Recognition justice in environmental justice is defined as “affirmation of group identity or difference” (Holifield, 2012, pg. 592). Schlosberg, citing work by Honneth (1995), identifies that recognition justice includes communities that are “free of physical threats, offered complete and equal political rights, and have their distinguishing cultural traditions free from various forms of disparagement” (2003, p. 82). Many applications of recognition justice in the literature are not necessarily related to energy or energy projects, but provide insightful methods for assessing its presence. Recognition justice and procedural justice hold some conceptual overlap, as identified

by Pellegrini-Masini et al. (2020). This plays a key role in the analysis of this research later on. Holifield (2012) interrogates the health risk of a superfund site on the Leech Lake Native American reservation and assesses the presence of recognition justice as well as provides tools for assessment. Holifield (2012) found that it is imperative to include place and land as part of the analysis of recognition justice based on the unique ways in which Indigenous communities understand land and the role reservations play in these debates. This paper will discuss this as well. Another aspect of recognition justice that is deeply engrained in the GPT proposal is Indigenous justice and rights. Though a full discussion and analysis of Indigenous rights and sovereignty is outside the scope of this paper, it has been assessed in conjunction with recognition justice in previous studies (Whyte, 2011).

Distributional justice

Distributional justice, also known as distributive justice, is also evaluated through the combination of two definitions. The first describes a distributional injustice, which is defined as the “unequal distribution of impacts, the unequal distribution of responsibilities and the spatialities that are implicated within there” (Walker, 2009, p. 615). The second definition is that distributional justice is “a critical issue even in contexts devoid of intentional discrimination or other process failures” (Kaswan, 2002, pg. 1036). Both of these pieces of distributional justice are important to capture because the focus within siting projects should be actively seeking justice, not passively accepting unintentional disproportionate distribution of potentially harmful facilities and their impacts. Kaswan (2002) makes a strong argument for the inclusion of distributional justice in her research and discusses the ways in which siting processes play a role in distributional justice. She found that distributional justice is critically important and

addressing it requires a focus on addressing needs beyond what zoning and land use can provide (Kaswan, 2002). Holifield (2001) defines distributive justice as the “distribution of environmental quality among different communities” (p. 81) and urges scholars to look beyond just distributive patterns to address the plethora of issues that activists and federal agencies include in their environmental justice work. Nakazawa (2018) describes the idea of overburdened communities and the often-unequal way that hazardous facilities, like waste facilities, are sited. His study of waste facilities in Japan reveals the myriad ways that local communities view cost sharing and cost overlapping of existing and proposed facilities. Distributional justice has also been considered the primary focus of environmental justice work (Valesco-Herrejon & Bauwens, 2020).

Pacific Northwest and Cherry Point

Fossil fuel projects and proposals in the Pacific Northwest generally fail to achieve approval and be implemented. For coal, specifically, its risky market status and the opposition from tribal and environmental groups present too large of a hurdle for these energy projects to become realized (de Place, 2017; Bricklin et al., 2014). Eric de Place (2017), a researcher with the Sightline Institute in Seattle, discusses the risks that communities in the Northwest face and trends that exist with fossil fuel and coal project proposals. De Place (2017) finds that many locations along the Northwest coast have been targeted for fossil fuel export terminals, based on the ease of access to Asian shipping routes. Wood (2018) analyzes these trends further, with a specific focus on the disproportionate impacts to Native communities and lands. She discusses the leadership that tribes have shown in this fight against fossil fuel exports. According to Allen et al. (2017), 27 out of 28 fossil fuel project proposals failed in the Northwest between 2013 and

2017. The last one standing from that time period has received multiple permit denials, making its path towards construction highly unlikely, despite several lawsuits attempting to push it through (Haun, 2018; Volcovici, 2020). The GPT proposal was no exception to these trends.

The roots of opposition to the expansion of fossil fuel infrastructure and energy projects in the Northwest include environmental impacts, health impacts, and tribal rights (Allen et al., 2017). For example, there are significant environmental and health hazards associated with shipping coal by train, especially with regards to the communities that are close in proximity to train tracks. Trimming (2013) analyzes the impacts of coal dust from the open style of transportation and storage. Bricklin et al. (2014) detail in their article not only the environmental risk of coal infrastructure, but the market risk as well. The use of coal as an energy source is declining, as described previously, and the proposals for coal-focused infrastructure have been failing partially as a result of this (Bricklin et al., 2014). Because of perceived local risks and treaty rights, the implementation of proposed coal terminals is generally not successful in the Pacific Northwest, specifically Washington (Allen et al., 2017; Bricklin et al., 2014; Trimming, 2012).

As mentioned above, much of the opposition to coal is based on environmental, health, and tribal rights. Wood's (2018) research on the power of Pacific Northwest Tribes within decision-making regarding fossil fuel exports demonstrates not only the disproportionate impacts tribal communities face, but also the importance of legal structures to provide an avenue towards justice. Often the treaty rights of tribes hold a lot of power in legal battles over fossil fuel projects. Within the GPT proposal, this was crucial, as the Lummi Nation and their rights played a key role in its rejection.

Both Bricklin et al. (2014) and Allen et al. (2017) provide overviews of the GPT proposal timeline specifically, but each focus on different aspects of the project and its evolution. Originally proposed in 1991 as a bulk materials export terminal, the proposal at Cherry Point was put on hold after the State of Washington Department of Ecology and the Department of Fish and Wildlife made an appeal. The developers were asked to reevaluate their environmental impacts at Cherry Point, which is considered an area of high ecological importance as well as a designated State Environmental Aquatic Reserve (Bricklin et al., 2014). Located in northwest Washington State, Cherry Point is identified within Figure 1.



Figure 1: Map of Washington State with Xwe'chi'eXen, Cherry Point, highlighted.

When the developers re-filed in 2010, the new proposed terminal was greatly expanded and included the shipment of coal. The developer was a company called SSA Marine, specifically their subsidiary Pacific International Holdings (PIH). The proposal also included financial support from investors such as Goldman Sachs (Allen et al., 2017). Surprisingly, Whatcom County deemed the permits from the 1990s still valid, but immediately received pushback from local environmental groups. When the county relented and agreed to require new evaluations of impacts and for the developers to reapply for permits, six years of local opposition began (Allen et al., 2017; Bricklin et al., 2014). Figure 2 shows specifically where Cherry Point and the GPT project would have been located within northwest Washington.

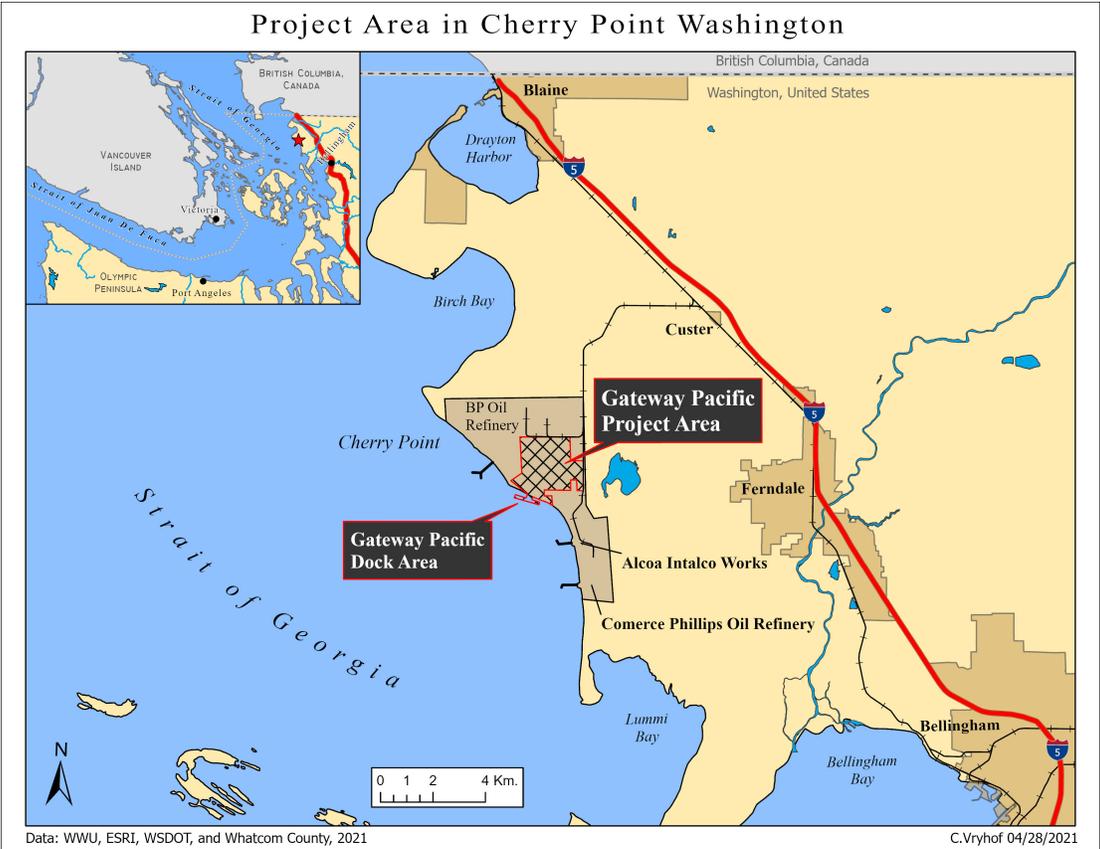


Figure 2: Map of the GPT project area

One study of the GPT (Allen et al., 2017) highlights the importance of the coalition forming that happened in Whatcom County in response to the proposal, and found that the strong networking and opposition forces supporting Lummi were key in its rejection. Another paper (Bricklin et al., 2014) provides a detailed background on the coal to be exported from Cherry Point, as well as analyzes the laws and regulations that played a role in its proposal process and opposition from the community. Bricklin et al. (2014) found that the project could have significant impacts if approved, and that there were clear paths to its denial.

The GPT would have primarily shipped coal that was mined and processed in the Powder River Basin (PRB) in the central United States, mainly in Montana and Wyoming. Coal from the PRB was already being shipped west for export just north of Bellingham out of British Columbia, the closest coal export terminal. Any proposed west coast terminal would have supported the export of PRB coal to Asian markets (Allen et al., 2017; Bricklin et al., 2014). Mutchek et al. (2016) conducted a life cycle analysis on coal shipped from the PRB and found that while coal export terminals do not add a significant impact to the life cycle of coal, the domestic transportation of PRB coal to the West coast did.

In 2016, the U.S. Army Corps of Engineers officially denied the permits requested by the developer SSA Marine. As cited in the official memorandum for record, the impacts on the Lummi Nation were deemed to be greater than *de minimus*, and the treaty rights of the Lummi Nation were cited as the main cause for rejection (U.S. Army Corps of Engineers, 2016a). In 2017, the developers officially withdrew their application (Sahlin, 2017). The outcome of this proposal held important implications on the future of coal in the U.S.

An overview of the literature critically evaluating the GPT demonstrates that while there has been some analysis of the proposal, there is an opportunity in interrogating the presence of

energy justice within this project. It is clear that there are controversies that surround this project and opposition from many different communities. Using the literature above as a solid analytical foundation, this case study done on the GPT proposal indicates key areas where energy justice was or was not achieved.

Scope and Positionality

Energy and environmental justice can be far-reaching, both in terms of geography and in scope of impacts. The research for this case study was done in full recognition that assessing the presence of justice is a complex research goal that can perhaps bring more questions than answers. In order to do this type of analysis, there needed to be clear bounds and limits. In general, this research focused on the process throughout the GPT proposal, and did not necessarily include analysis of how the decision was made by the U.S Army Corps of Engineers or the impacts of that decision. It also focused very heavily on Whatcom County and the localized impacts of the GPT because of the structures of the existing processes and permitting procedures. Of course, the impacts of this coal terminal would have reached far beyond Whatcom County. This includes countries in Asia that would have burned the coal, the adjacent First Nations and communities in Canada, as well as those that are mining the coal in the US. While I do discuss the Crow Tribe, I do not dive into the mining communities or economy specific to Montana. The transportation for this terminal also would have increased train traffic for more than just Whatcom County, but the analysis here is focused on geography close to the terminal. This is due to the existing U.S. based permitting procedures and processes as well as the scope of impacts that were most often discussed during research.

Because of the close proximity to Canada, the GPT project would have had a plethora of cross-border impacts. The Salish Sea and the waters connected to Cherry Point extend across

these same political borders. Indigenous communities across these political borders have been connected with Xwe'chi'eXen (Cherry Point) since time immemorial. Though, these cross-border Canadian considerations were not part of the EIS process or the developer's applications. My analysis in this research is also local, mostly to Whatcom County.

The last scoping boundary includes an acknowledgement of the impacts of an existing coal export terminal north of Bellingham in Roberts Bank, British Columbia, near Vancouver. This port has historically shipped more coal than ports in the US and ships both Canadian and US coal (George, 2019). The GPT would have certainly added to the existing impacts in this region just over the border, though this is too wide of a scope to include in my research here and thus I focus on US-based impacts and processes.

It is also important to acknowledge my own positionality as a researcher on a case study that, in the end, included an analysis of multiple Indigenous communities. I came to this research with known and unknown biases from a settler colonial background without Indigenous ties. I was born and grew up in New England within a third generation, white American family. Academically, my studies have been focused on sustainability and environmental studies, with a focus on energy systems and policy. I have also approached these topics and my academic studies from a social justice-focused lens. These pieces of my identity are important to acknowledge, as they are the orientation through which I view this case study and these topics.

Methods

In this research I used a case study approach as described by Lewis-Beck et al. (2004) and Yin (2018). Case studies allow a researcher to “focus in depth on a ‘case’, and to retain a holistic and real-world perspective” (Yin, 2018, p. 5). I chose a case study approach because I

was interested in applying the chosen framework of energy justice against an energy infrastructure project case study. Throughout this research I employed thematic coding analysis of existing documents. Thematic analysis is useful here because of its interpretive approach and easy application to qualitative data. I chose this method because this proposal had already been rejected approximately four years prior to the start of the research, and so there was a large amount of existing documentation available online. Many sources existed with direct quotes from individuals and stakeholders involved. There were also plenty of existing documents regarding the process itself and easily accessible information from the Indigenous Tribes and activist groups involved. As a white researcher, my goal was to not further burden the Lummi Nation or Crow Tribe by asking for interviews and questions that already had existing answers available online. The outbreak of the COVID-19 pandemic validated this choice in methodology, as I was able to easily conduct research from home in an online format. For this research, I completed two different phases of reading, collecting and analyzing, as I describe below.

I collected materials that included official government documentation, applications for permits, news articles and interviews, feature stories, and think-tank articles. Though news sources tend to carry bias, I relied on these for direct quotes from many stakeholders involved in the Cherry Point proposal process, as well as filling in the timeline of events. The newspapers I utilized included, but were not limited to, the *Bellingham Herald*, *The Seattle Times*, *Los Angeles Times*, *The New York Times* and *High Country News*. Other sources include official government documentation of the proposal process itself. This came from the Whatcom County government website, the archived website for the Environmental Impact Statement (EIS) for the project, the Lummi Nation website, and the Washington State Department of Natural Resources. I also analyzed published studies on the economic, environmental, health, and social impacts of this

project. I found these mostly on the archived EIS website. Other sources for energy information and trends included the Energy Information Administration (EIA), the Energy Research and Social Science journal, and feature stories that include interviews of community members and impacts from certain policies and events.

I collected data by identifying important sections of text and then organizing by tenet of justice within a word processing tool. This data included summaries of information presented and direct quotes. I cross-listed some sources for multiple tenets based on the information presented and quotes from individuals. Then, I used thematic content analysis approach to code different pieces of data in order to create themes within each tenet of justice (Miles & Huberman, 1994). To do this, I carefully read each source's data and followed the Miles and Huberman (1994) three-stage approach of data collection, data display, and data conclusion/drawing and verifying. For data collection, I highlighted key phrases from each and took notes on the significance and context of direct quotes. I then added comments to the documents to draw connections between other themes and data found. The four documents created and saved for data collection were labeled as: procedural justice, recognition justice, distributional justice, and a timeline document.

During the data display stage, I printed and sorted each source under each tenet group. Then I physically organized and gathered these into sub-themes within each tenet based on highlighted information, notes and comments that I took during the data collection period. This is the data conclusion/drawing and verifying stage of Miles and Huberman's (1994) approach. I found there to be 3-5 themes per tenet, with the one exception being the timeline document and data. I completed this visual thematic coding over the course of several days and did it one tenet at a time. As noted by Yin (2018), overreliance on existing documentation can lead to a

researcher assuming all documents contain “the truth”. In order to mitigate this, I found multiple sources to corroborate what I deemed to be important pieces of information that were not direct quotes from individuals or press releases. Figure 3 below shows the themes that each tenet’s sources were organized into.

Distributional	Procedural	Recognition	Miscellaneous
Indigenous opposition & impacts	EIS process	Northwest tribal support	Timeline of events
Marine vessel impacts	Legal challenges	SSA Marine & Lummi relationship	Coal export studies
Coal trains and health	Adjustments and changes	Crow & Lummi relationship	Coal market trends
	Impacts and mitigation plans	Treaties & Court cases	
	Tribal involvement		

Figure 3: Organization of subthemes during research

Once the first round of data organization was completed, I noted the gaps in research and went back to conduct more data collection. It was important to me to note what my sources were in order to be attentive to bias. I removed sources that presented data in a way that was hard to corroborate, like information from an anti-coal train website. I instead chose sources that presented information from where governance and decision-making happened, such as directly from government websites. At this point I looked for sources that I needed to replace or find the original source over a news article or other piece written about the source. I also looked for where I could combine and minimize news pieces about various studies done and look for the original study, while keeping the perspective of the news article in mind in order to understand public opinion at the time. In addition, I noted at this point that the tenet most lacking in sources

was distributional justice, and this prompted further questions about the strength of the sources here.

Once I had an additional document of data for each tenet, I went back through the three stages as noted by Miles and Huberman (1994), and highlighted key themes, printed, cut up, and organized sections back into each folder for each tenet. It was then that I began to write my analysis and connect themes with an argumentative narrative approach. This began with writing a summary of each source and how it related to the theme and tenet under which the theme was located. I then used each summary to write memos to myself to piece together a story/analysis of each tenet of justice that I found to be true based on my reading and understanding of the data (Yin, 2018; Lewis-Beck et al., 2004). I did this using a grounded theory approach and let the data speak for itself and analyzed them to find relationships to other sources and pieces of data (Yin, 2018).

I then wove these short memos together to write a longer narrative about the presence of energy justice within the Cherry Point proposal. I also assessed the effectiveness of using this energy justice framework as a tool for analysis. Throughout the process, my advisor and fellow graduate students read and edited drafts.

Results & Discussion

One of the first complications that arose from this research was parsing the analysis between tenets. Each of them is inextricably linked, but the energy justice framework here calls for a separate analysis. Therefore, these three tenets were assessed separately, but have clear theoretical and practical overlap in analysis (Pellegrini-Masini et al., 2020; Holifield, 2012; Valasco-Herrejon & Bauwens, 2020). I will discuss procedural justice first, because it includes

the process and timeline of this proposal, which is important in understanding recognition and distributive justice results.

Procedural justice

Procedural justice was defined in this study as “equitable procedures that engage all stakeholders in a non-discriminatory way...all groups should be able to participate in decision making, and that their decisions should be taken seriously throughout...participation, impartiality and full information disclosure by the government and industries” (McCauley et al., 2013, para. 8). In the case a large infrastructure project like GPT, the process is largely related to the Environmental Impact Statement (EIS). The federal government dictates this process, with regulations directed by the National Environmental Policy Act (NEPA). In addition, Washington State has their own regulations and requirements under the State Environmental Policy Act (SEPA) (State of Washington Department of Ecology, n.d.a). The EIS is a government-mandated document that assesses the potential harmful effects of a project, usually focusing on environmental impacts, but can include economic and societal ones as well (Middleton, 2018). These official guidelines for how to proceed include sharing information with the public, gathering comments and feedback, and reviewing decisions. This also includes conducting studies that assess the impacts of the projects and mitigation plans (Middleton, 2018). For the GPT, three agencies jointly undertook the EIS process: the U.S. Army Corps of Engineers, Whatcom County, and the State of Washington Department of Ecology (Whatcom County, n.d.; State of Washington Department of Ecology, 2011a). These three agencies also worked on preparing the state environmental review under SEPA. The goal with this process was to produce two different documents: the NEPA mandated one, and the SEPA mandated one (U.S. Army

Corps of Engineers, et al., 2013). Within NEPA, these processes also focused exclusively on US based impacts and did not consider impacts to Canada or other countries. For SEPA, however, some consideration of greenhouse gas emissions of the coal burned in Asia was going to be included in their analysis (U.S. Army Corps of Engineers, 2013; U.S. Army Corps of Engineers, et al., n.d.b).

The procedures followed by the developers, the county, and the state all seemed to follow proper protocol and EIS processes. The most important piece of looking at procedural justice here could arguably be the EIS scoping and comments process. As required by the regulations, developers and government officials must have a scoping process where comments are collected from the general public in regards to their support or opposition to the proposal. In the case of the GPT, the agencies held a 180-day scoping process that included public meetings and opportunities to submit verbal, written, and virtual comments (U.S. Army Corps of Engineers et al., n.d.a). Engaging all stakeholders in a meaningful way is an important component of procedural justice, and the scoping process for the EIS was a big part of ensuring that everyone's voices were heard and recorded. However, it is important to note that the EIS process has no mandates around ensuring that the will of the people is actually listened to. Officials can do whatever they like with public comments, including ignoring them (Cornell Law School, n.d.). In addition, as will be discussed later, the EIS process was never finished in this case.

One of the biggest conundrums around completing the EIS for a project like this is the scope of what will be included in the assessment. These scope questions for the GPT included whether the impacts addressed would be U.S.-based or Whatcom County-based, and whether the end uses of burning coal in Asia would be addressed. In the original 1992 proposal, the EIS process intended to look at this exported coal's impacts, outside of the actual terminal

construction and operation. But, this was going to be limited to impacts within the U.S. (McLerran, 2013). However, it has been argued by some researchers focused on greenhouse gas emissions that this could be an important facet of new projects that would need to be considered, especially projects that supported the transport of coal (Sheargold & Walavalkar, 2013). A group of Whatcom County physicians calling themselves the ‘Whatcom Docs’ came together in 2012 to write a letter to the Bellingham City council requesting that the county conduct a health impact assessment to understand the impacts of the GPT on asthma attacks, heart attacks, cancer, and more. The Whatcom Docs were mainly concerned about these health impacts as they were connected to the increased train and marine vessel traffic and the subsequent diesel particulate matter and fugitive coal dust that would come from the GPT (Whatcom Docs, 2012). While the EIS would look at the ecological impacts of these additions to Whatcom County, they would not look at the health impacts of them, as NEPA does not require it. This is but one of the shortcomings that have been critiqued within the EIS process, which McGrath argues takes a “narrow view of health effects” (2017, p. 82). Weston (2010), as cited by McGrath (2017), even goes so far as arguing, “decision-making procedures such as land use planning and decision-making tools, such as EIA, are little more than a smokescreen behind which decisions are legitimized” (p. 83). In this case, activists like the Whatcom Docs eventually got the State of Washington to agree to include a health impact assessment into the SEPA, though it still left some health practitioners and community groups wondering if it would be sufficient (McGrath, 2017).

In addition, Sheargold and Walavalkar (2013) argue that evaluating greenhouse gas emissions under NEPA and the EIS process does not take into account the end use of the coal that would be burned elsewhere in the world. However others that were in support of this project

argued that trying to include the impacts of GHG emissions related to the burning of coal went too far. The Governor of Wyoming, where the coal would be shipped from, weighed in about the scope of the EIS and stated that a wider scope involving GHG emissions and Asia would result in “less-informed decision making” (U.S. Army Corps of Engineers, 2013). In the final scoping report, the U.S. Army Corps of Engineers stated the following about the scope of the EIS:

According to the Applicants, the extraction, long-range transport, and combustion of coal, including overseas activities, would lack a causal project relationship because the Corps does not have jurisdiction over these activities. Moreover, these activities, such as rail or mining operation, have previously been scrutinized and are already in business.

Therefore, conducting an area-wide EIS in this situation would be unprecedented and require that all commodities shipped on the transportation network be studied for lifecycle impacts during an EIS for each new project. Currently proposed port projects in the Pacific Northwest should be evaluated individually as they are geographically separate and on their own development timetables. In addition, any traffic and air quality impacts should be confined to the Custer Spur proposal action area (U.S. Army Corps of Engineers, 2013, p.7-17 – 7-18).

It is clear that the developers were not in favor of including impacts beyond the direct geographic scope of the project. The Custer Spur proposal would have been an additional railroad track to provide access to Cherry Point for the coal trains. The above quote demonstrates that any study of impacts outside of the immediate area of the project and its components would be unprecedented, and they were not willing to undertake that. It is important to note that there

have been critiques of the EIS process and its effectiveness questioned since it was created. These include arguments from lawyers that the EIS process not only wastes time and money, but also is just a process to legitimize decisions that developers had already made (Friesema & Culhane, 1976). Sheargold and Walavalkar (2013) found that the EIS process contains a lot of uncertainty about how wide the scope of considered impacts needs to be, especially in regards to greenhouse gas emissions from coal export terminals. According to them, this could lead to the approval of coal export terminals without considering the full impacts on climate change (Sheargold & Walavalkar, 2013). McGrath (2017) also found that the EIS process “can fail to reconcile the diverse health concerns generated by public debates” (p. 81). While assessing the full scope of the EIS process is outside the bounds of this particular study, it is important to recognize the criticisms that exist on the process and the impacts that some argue the EIS does not address.

The co-leads for the EIS held seven public meetings across the state, even going so far as Spokane where people from Wyoming and Idaho attended (U.S. Army Corps of Engineers, 2013). These meetings had accommodations available for anyone that needed it, but were only able to provide language services outside of English in Spanish. While only one meeting was actually held in Whatcom County, the geographical scope of the other meetings shows a commitment to getting various perspectives and comments collected from across the state. Yet, the opposing argument could be made that the EIS process was too narrow by not holding meetings outside of the state or just north of Whatcom County across the border in Canada. A number of organizations across the state also collected comments from individuals outside of the scope meetings and submitted them to the EIS process. These totaled 282 comments in support of the project, and 12,523 comments opposed (U.S. Army Corps of Engineers, 2013). The final

scoping report for this project included around 125,000 total comments collected in support and opposition of the coal terminal. Scoping comments came in from a wide variety of organizations, agencies and elected officials as well as many Native tribes throughout Washington State (U.S. Army Corps of Engineers, 2013). While comments from tribes along the train corridor were considered, they were only mentioned once in the initial scoping report (U.S. Army Corps of Engineers, 2013). No comments from the Crow Tribe or other tribes in the PRB where the coal is mined were collected (U.S. Army Corps of Engineers et al., n.d.d.). These comments were submitted either written or verbally at a public meeting, or through email.

A lot of the initial opposition within the early days of the proposal came from the increased train traffic through Bellingham, though there were always serious environmental concerns as well (McKay, 2011; McKay 2013). Throughout the scoping process, the developers and their supporters as well as opponents to the terminal used numerous environmental, economic, and health impact studies to bolster their positions. An independent economic study done even found that the project had the potential to be a net negative for Whatcom County in terms of job creation and economic benefit, despite the opposite argument often being made from the developers (Communitywise Bellingham, 2013). One of the main points of contention around the scoping process was the lack of attention paid to the increased train traffic through Whatcom County, which one local activist group deemed a major oversight that would result in a “seriously flawed” EIS (Communitywise Bellingham, 2014, para. 5).

The Lummi Nation and the network of community support that came out behind them were the strongest point of opposition to the terminal. From the beginning, the Lummi Nation directly opposed the project, citing treaty rights as well as the fact that Cherry Point, or Xwe’chi’eXen, is on traditional and sacred lands. (Cascadia Weekly, 2012; IndianZ.com, 2013).

The 1885 Treaty of Point Elliot established fishing rights in “usual and accustomed fishing grounds” for Washington Tribes, and today still dictates the access and fishing rights of Washington Tribes (Governor’s Office of Indian Affairs, n.d., para. 6). The GPT proposal was located directly within the Lummi Nation’s usual and accustomed fishing area (U.S. Army Corps of Engineers, 2016a). I will discuss the Lummi Nation’s role more in the recognition justice section, but it is important to acknowledge how important these treaty rights are in this terminal proposal. The local environmental groups supporting Lummi included RE Sources for Sustainable Communities, the Sierra Club, Climate Solutions, Power Past Coal, Leadership Alliance Against Coal, and more. Other groups that came out in opposition also included local religious organizations and churches, physicians, and political groups (Allen et al., 2017; McGinn, 2013).

Those in the community that supported this proposal and those that opposed mainly fell on two different sides of a classic environmental debate: jobs vs. the environment (White, 1995). In a collection of statements of support to Whatcom County in 2012, the vast majority of comments came from labor organizations, unions, republican organizations, jobs alliances and business groups (Whatcom County, 2012). One of the most often repeated stances of support came in the form of economic development and generating revenue and jobs (Stayton, 2013). As the local non-profit organizations did their own health and environmental studies, those that supported the terminal did their own economic studies. SSA Marine completed many studies on the environmental impacts of this terminal between 2009 and 2014 (U.S. Army Corps of Engineers et al., n.d.c). In addition, because the surrounding marine resources included the Cherry Point Aquatic Reserve, the EIS process needed to include studies on the impacts to marine life and habitat. The Cherry Point Aquatic Reserve was designated in 2010 by the

Washington State Department of Natural Resources to “protect unique habitat that supports marine and intertidal species that are crucial to the health of the Salish Sea” (Washington State Department of Natural Resources, n.d., para. 1). The developers conducted 21 different studies on the environmental impacts, where the EIS process focuses the most (U.S. Army Corps of Engineers et al., n.d.c). However, these were mostly mitigation reports, rather than looking at the full impact on the large variety of species that not only resided at the reserve, but along the shipping channels as well. I discuss the potential impacts on marine life later on in the distributional justice section.

The economic impact studies done by the developers and their supporters aimed to demonstrate how beneficial this proposal would be for Whatcom County and the annual income and jobs it would create (Stayton, 2013). The developers themselves hired two different firms to run economic analyses reports, which were similar in their results except on overall job numbers (Knudson, 2011). In a report commissioned by the Washington State Farm Bureau, key findings focused on the greater benefits to Whatcom County in the form of enhancing trade with the Asia-Pacific region and the advantage of export expansion (Globerman, 2013). By shipping coal along the proposed trade routes, this would not only lower costs to other shippers, but also would increase the efficiency of other import and export capabilities (Globerman, 2013). Though the developers did not commission this report themselves, it demonstrates the extent of the support that labor organizations gave to this project.

These studies rarely mention the Lummi Nation and the impacts that would most affect them and their fishing practices. However, their voices and the voices of many other supporting tribal communities were loud throughout the scoping process. As mentioned, the impacts that the Lummi Nation cited as being the most harmful from this project included imposition on their

fishing rights and the fact that Cherry Point, or Xwe'chi'eXen, was sacred land (Lummi Indian Business Council, 2015; Schwartz, 2016). Surprisingly, Bob Watters, the Vice President of SSA Marine, stated that claims that had been made in regards the proposal disturbing sacred Lummi sites were “fabricated” (Bellingham Herald, 2013). However, the Lummi Nation had been unequivocal around their opposition to the terminal and the impacts that it would have on their fishing rights and cultural resources (Bellingham Herald, 2013; Lummi Indian Business Council, 2015). In the SSA Marine’s vessel traffic and risk assessment studies, conservative estimates of accidents and potential spills determined that though there would be increased impacts to the Lummi Nation and surrounding areas due to increased traffic, there were ways that this could be mitigated (The Glosten Associates, 2014; AMEC Environment and Infrastructure, 2012a). Throughout the planning process, SSA Marine consistently stated that they would mitigate and provide full compensation for “lost aquatic resources and functions” (AMEC Environment and Infrastructure, 2012b). This did not seem to have any effect on the level of opposition to the project overall, since Lummi claimed that they would still be affected deeply by the construction and operation of the terminal. Indeed, there were some pieces of the mitigation reports that listed disturbances as high as a 76% increase from what Lummi currently experiences due to the vessel traffic (Glosten Associates, 2014).

In a rash move in 2011, the developers made the mistake of beginning an unauthorized land clearing without proper permits at the proposed terminal site and were sued (State of Washington Department of Ecology, 2011b; Stark, 2013). After Whatcom County took them to court, SSA Marine settled (Stark, 2013). In 2014, PIT released new construction and terminal design plans. These new designs appeared to be an attempt to address environmental concerns while also dramatically changing the design of the terminal. SSA Marine Vice President Bob

Watters had stated that they were “committed to protecting the environment and abiding by our state’s strict environmental standards” and they claimed that the impacts to the wetlands would be reduced by almost 50% (Riordan, 2014, para. 3). Some opponents to the terminal said, however, that the open coal-storage piles were moved closer to the water where strong winds in the winter could dump more coal dust into the Cherry Point Aquatic Reserve. A local attorney even went so far as to suggest that the environmental scoping process from three years earlier should be reopened (Riordan, 2014). However, the process continued and a 2014 vote in the U.S. House of Representatives kept the permitting process going under a rider, when there was a chance to stop it for the Lummi Nation’s treaty rights. The Crow Tribe in Montana was pleased with this decision and with the opportunity to avoid federal overreach (Lutey, 2014). I will discuss the Crow Tribe’s interest and role in the GPT in the recognition justice section.

In 2015, the Lummi Nation wrote a letter to the U.S. Army Corps of Engineers asking them to reject the project’s permit applications (Lummi Indian Business Council, 2015). 16 months later, that request was granted after extensive review that determined that the impacts on the Lummi Nation were “greater than *de minimus*” (Schwartz, 2016; U.S. Army Corps of Engineers, 2016a; 2016b). As a result, the EIS process was never completed. In the end, it wasn’t the EIS process or the economic studies that determined the outcome of this proposal, but the Lummi Nation’s treaty rights regarding fishing. A press release from the U.S. Army Corps of Engineers states, “the Corps may not permit a project that abrogates treaty rights” and Seattle District Commander Col. John Buck stated that the Corps had “determined that the project is not permissible as currently proposed” (U.S. Army Corps of Engineers, 2016b, para. 4). SSA Marine called the decision “inconceivable” and “political and not fact based” (Business Wire, 2016, para. 2). By calling the treaty rights of a sovereign Nation “political”, SSA Marine exposed just

how insincere their consideration of impacts on the Lummi Nation were. Especially taking into consideration the decline of coal, the reaction of SSA Marine to this decision seems more of a desperate attempt to reject national trends. I will address the impact of shifting coal markets more completely later in the discussion.

This process was long and convoluted, with passionate arguments from both sides. In the end, the process could be considered just, though it arguably should not have taken the decision makers so long to come to their decision nor been so limited in scope. SSA Marine and the Crow Tribe were angry at the fact that the permits were denied before the EIS process was finished. They argued that this did not create a fair process and were not allowed the opportunity to make a formal argument (Walker, 2016, May 15; Lutey, 2016). This is a key piece of the definition used here, which calls for the ability for all groups to participate in decision-making (McCauley et al, 2013). While this is true, the Lummi Nation's treaty rights were unchanged throughout the process, and they expressed opposition from the very beginning (U.S. Army Corps of Engineers, 2016b). As tribal leaders celebrated, they knew that this would not be the last time that their rights were pushed back against (Schwartz, 2016). As was stated in the press release about this rejection, "[i]f in the future the Lummi Nation withdraws its objections to the proposal, the proponent could reinitiate processing of the application" and this would need to include consultation with other tribes that discussed impacts on their own treaty rights with this project, as well (U.S. Army Corps of Engineers, 2016b, para. 8).

As I noted in the background section, studies on procedural justice discuss how difficult it is to determine the presence of justice because of the variety of stakeholder experiences of the process, and ideas of what determines a 'fair' or 'just' process. This is the case within the GPT proposal, and demonstrates the complexity of energy issues and the siting processes for

infrastructure, especially when it involves Tribes and treaty rights. This is explored more in depth in the next section on recognition justice.

Recognition justice

As stated, recognition and procedural justice hold some conceptual overlap with each other. The analysis done here keeps them as separate tenets, with recognition justice defined as “affirmation of group identity or difference” (Holifield, 2012, p. 592), and “free of physical threats, offered complete and equal political rights, and have their distinguishing cultural traditions free from various forms of disparagement” (Schlosberg, 2003, p. 82). The recognition justice results and analysis here focus on the most vulnerable and historically oppressed groups involved in the GPT project proposal: Indigenous peoples.

The final and official reason behind the rejection of the GPT project was based on the Lummi Nation’s treaty rights involving access to fishing, which will be discussed in more detail below. Based on the definition of recognition justice, it is important to include the role that the Crow Tribe of Montana also had within this proposal debate. The Lummi and the Crow held conflicting approaches to the fight around this coal terminal, and both presented arguments for very real potential economic and cultural impacts. Their opposing stances create one of the more complicated pieces of this justice analysis, and signify the need for energy justice as a framework that should be treated with nuance and complexity. Below, I summarize the publicly available stances of both the Crow and Lummi governments.

The Lummi Nation has relied on fishing since time immemorial and is said to have the largest tribal fishing fleet in the lower 48 states in the U.S. (Schwartz, 2016). Their treaty rights within Washington State have been very clear in their access to practice this and support their community through fishing (Crowley & Wilma, 2003). The Boldt Decision of 1974 in the

Washington court system solidified Tribes' rights to fish in usual and accustomed fishing grounds given to them in the 1885 Treaty of Point Elliot (Governor's Office of Indian Affairs, n.d.; Turner, 2014; U.S. Army Corps of Engineers, 2016a). The waters around Cherry Point are an area that traditionally the Lummi had fished and were within their usual and accustomed fishing grounds, though did not spend the majority of their time fishing at the time of this proposal. According to their treaty rights and related court cases, it does not matter if they were currently fishing in an area, only that they historically had and could possibly again in the future (U.S. Army Corps of Engineers, 2016a). From the beginning of the terminal proposal the Lummi Nation signaled their opposition to it through activist means such as burning symbolic checks (Greene, 2012) and the creation of a totem pole (Bellingham Herald, 2013). The totem pole was carried from Wyoming coalfields to British Columbia and carried with it a message of standing against the GPT (Bellingham Herald, 2013). This would not be the last totem pole to make this journey. In 2015, another totem pole made the journey back to Montana, reiterating the original message and carrying symbols to encourage wise decisions that protect the environment (Wozniacka, 2015). In addition to their treaty rights, the lands at Cherry Point, or Xwe'chi'eXen, have historical and sacred significance for the Lummi people as an ancient village site and burial ground (Re-Sources, 2016; Schwartz, 2016; Walker, 2016b). Throughout the entire six year process the Lummi were unwavering in their opposition to the building of this terminal. In applying the definition of recognition justice here, it is clear that to the Lummi Nation, this proposal would certainly have violated their equal political rights and cultural traditions. In addition, it is important to recognize that as a researcher, I did not find any sources that indicated that there was much, if any, support that came from Lummi community members for the

terminal. This is mainly a result of the methods used, and indicates the need for a diversity of methods in future research.

The Crow Tribe within Montana has relied on and utilized its coal resources for the last 50 years. Westmoreland Resources obtained the first coal lease from the Crow Tribe in 1972 and began operation in 1974 (U.S. Department of the Interior: Indian Affairs, 1977; LaDuke, 2014). Since then, Crow Tribal members have received regular payments that are relied upon by some for providing basic needs like food and clothing (Martin, 2015; LaDuke, 2014). This level of reliance and poverty is part of the legacy of colonization, which will be touched on later in the discussion. In 2013, the GPT proposal was underway, and the Crow were keen on continuing to bolster their economic supports for their community. Cloud Peak Energy entered into a deal with the Crow Tribe in January of 2013 to begin a five-year exploratory phase for coal resources to develop the Big Metal Mine. However, the outcomes of that exploratory phase were largely dependent on whether a west coast terminal would get built to export the coal (Olp, 2013).

Both the Lummi and Crow peoples are focused on their treaty rights within this debate, and the impacts that the coal terminal would have on both of their ways of life and of economically sustaining their communities. This is an important piece of the definition of recognition justice, “offered complete and equal political rights, and have their distinguishing cultural traditions free from various forms of disparagement” (Schlosberg, 2003, p. 82). As described, the Crow Tribe in Montana has recently come to rely on the extraction and burning of coal in order to support their community. A significant distinction here could be made that the Crow did not use or rely on coal pre-contact with white settlers, while the Lummi Nation’s fishing is a traditional practice. This does not negate the importance of coal to the Crow, but it is important to note the impacts that colonization had on Tribe’s use and reliance on natural

resources. According to Ishiyama (2003), historical geography plays a key role in tribal decision-making and that this “prolonged process of historical colonialism over people and land has produced a landscape of injustice in which the tribe’s choices have been severely structurally limited” (p. 135). This will be addressed more in the conclusion. At the time of the proposal, the Crow Tribal chairman, Darrin Old Coyote, made claims about their treaty rights and way of life being threatened if this terminal was not built (LaDuke, 2014). As a sovereign Nation that does heavily rely on and use their natural resources available to them, coal plays a big role in their financial stability. The significant decrease in coal use within the US in the past 50 years has created an added pressure for the Crow Tribe to get this terminal built so that their coal can find export markets (U.S. EIA, 2020b). Cloud Peak Energy, also an investor in the GPT, said that international customers are critical to their survival, and this terminal was one of their last chances to secure that trading route (Martin, 2015).

Old Coyote has said that “coal is life”, and has sustained their community and economy since that first coal lease in the 1970s (LaDuke, 2014). According to Indigenous environmental activist Winona LaDuke (2014), coal mining in this community is what happens “when things are stolen from you—your land, reserved under treaty” (para. 9). The Crow’s reliance on coal has not been part of their identity for a long time, but today, in a very real sense it is a big part of their economic survival. Darrin Old Coyote sees coal as a path towards his Nation’s survival. He states that he does not want to be dependent on the U.S. government, and that the jobs and revenue that come from coal are “essential to his community” (Martin, 2015, para. 7). Crow’s deal with Cloud Peak and its past coal agreements have given the Tribe not only regular payments to all members of the Tribe, but also other benefits like scholarship funds, vocational training, and jobs (Olp, 2013). While there is some recognition from the Crow’s representative to

the Montana legislature that the world market for coal does not look very good, it is clear that the Crow Nation saw this opportunity as vital to their survival, in a country that has thrown “assimilation, warfare, small pox” at them (Martin, 2015, para. 10).

In 2015, the Crow Nation signed a partnership with SSA Marine to ship Crow coal through the proposed terminal (Lutey, 2015). This support and financial investment from the Crow Nation comes in conflict with the stance of the Lummi Nation, whose proximity to the terminal is much different. As one article from 2015 stated, “neither Tribe created the modern energy economy” but they are both caught in the crosshairs of it (Yardley, 2015, para. 1). With the two Tribes at odds over the development of coal, a member of the Lummi tribal council countered that the argument is not the “tribe against a tribe” it is “a resource against a resource” (Yardley, 2015, para. 7). Lummi Nation member Jay Julius acknowledged this divide and even the fact that the developers tried to capitalize on it and sow division (Schwartz, 2016). According to Julius, “I don’t really want to go too much into this and buy into their division and attempt to divide, but they definitely took that approach. It’s an old tactic,” (Schwartz, 2016, para. 34). Watters of SSA Marine did, in fact, quote Old Coyote after the permits were denied and seemed to stand in union with them and their treaty rights (Walker, 2016a). As a researcher relying on existing documentation, I could not find much more evidence regarding this. But, this is a clear violation of recognition justice if the developers employed this tactic. For the Lummi, their traditional fishing resources are a clear part of their treaty rights, and to them, their “treaty rights cannot be mitigated” (IndianZ.com, 2015, para. 3).

Indigenous Tribes across the country are conflicted on how, and if, to utilize and access their energy resources. According to Dr. Len Necefer, “for some Tribes (sic), fossil fuels have been the one source of income that is relatively stable, and they don’t want to touch it”

(Patterson, 2016, para. 12). For the Crow Tribe, this rings true. However, the nearby Northern Cheyenne Tribe has repeatedly said no to developing their coal resources and focus on their role as “environmental stewards of the land”, despite high poverty and unemployment rates (Patterson, 2016, para. 3). The differences between the Crow and Cheyenne are representative of the larger divide on drilling and mining natural resources among Tribes in the U.S. (Volcovici, 2017). The Crow still care about environmental impacts from the use and export of coal, but have come to the conclusion that their community’s concerns and poverty levels are much more immediate (Whitney & Ashern-Earthfix, 2016).

Old Coyote has stated that “When we go to D.C., coal’s a bad four-letter word, but if there’s a blackout in the U.S. every so often because they say we want to rely on renewable energy, they’re going to be saying bad four-letter words to try to get that power back on” (Yardley, 2015, para. 20). He is not wrong. As the U.S. attempts to transition to a low-carbon economy, the problem of integrating large amounts of renewables into the electric grid will force the U.S. to rely on baseline power plants that are dispatchable. Dispatchable generation is generation over which an operator has control to turn on whenever the energy is needed. These are often electricity generators that rely on fossil fuels, like coal and natural gas (Borenstein, 2012). Solar and wind are intermittent resources, meaning they cannot be turned on whenever demand requires, but only when the sun is shining and the wind is blowing (Heal, 2017; Borenstein, 2012). Old Coyote makes an important point that we are going to need baseline generators that are not intermittent until we figure out how to integrate large amounts of renewable generators into the grid. However, natural gas is quickly outstripping coal as the preferential fuel (Rhodes, 2020). Later in the discussion the impacts of coal economics on this proposal will be analyzed more deeply.

When the U.S. Army Corps of Engineers passed down their decision regarding the rejection of the terminal's proposal, the Crow Nation was deeply disappointed and upset. Though the Lummi Nation is mentioned often in the official rejection, the Crow Nation is not (U.S. Army Corps of Engineers, 2016a). Old Coyote stated that the Army Corps "disregarded Crow treaty rights" and failed to consult with the Tribe in a meaningful way (Whitney & Ashern-Earthfix, 2016, para. 15). However, the Lummi Nation celebrated, along with other regional Tribes in the Northwest that sided with them in opposition (Affiliated Tribes of Northwest Indians, 2013). Today, the Crow Tribe is still holding out hope that they can capitalize on their coal resources. Under the Trump administration, they were optimistic that President Trump would provide a boost to the faltering coal industry and potentially even reopen the GPT proposal (Turkewitz, 2017). This failed to materialize and the new Biden administration does not hold the same promise, choosing instead to focus on a transition to cleaner energy (Brownstein, 2021).

In the end, this analysis of the Crow and Lummi Nation's involvement in this terminal brings up the larger complexities of national energy trends and the legacy of colonization and tribal sovereignty. Without forced assimilation, genocide, and the creation of reservations the Crow Tribe likely would not be so reliant on a fossil fuel that is so environmentally degrading. It is not the Lummi or Crow's fault that they were pitted against each other in the conflict over the export terminal. The Lummi treaty rights in regards to fishing was critical to resolving this decision, even though it took the U.S. government six years to acknowledge that those rights actually mattered and should be respected. And yet it feels almost impossible to fully address this question without recognizing the complexities of settler colonialism and the meaning of sovereignty in tribal decision-making. Settler colonialism affects Indigenous peoples in nations

like the U.S., where it “produce[s] multiple intersecting environmental hazards for which indigenous peoples are put particularly at risk relative to privileged settler populations” (Whyte, 2016, para. 3). This is a separate subject that requires its own close analysis and understanding, preferably written and told from the perspective of Indigenous communities themselves. As will be discussed in the conclusion, it is prudent to consider including Indigenous rights as a separate tenet within the energy justice framework, since it is at the very center of the complexity of Land-based resource extraction and distribution. Ishiyama (2003) recognizes this complexity and the political-economic and historical contexts that need recognition and a front seat in these kinds of analyses. Making a definitive call on what was the just outcome is difficult without fully acknowledging the context within which both of these Tribes and our energy systems sit. Distributional justice can give us another lens through which to look at this issue, based on the potential impacts and the goals for that energy that would have been shipped out of the terminal.

Distributional justice

Distributional, or distributive, justice is the allocation of costs and benefits and is one of the foundational pieces of environmental justice (Velasco-Herrejon & Bauwens, 2020). Distributional injustice was defined in this research as the “unequal distribution of impacts, the unequal distribution of responsibilities and the spatialities that are implicated within there” (Walker, 2009, p. 615). Therefore in order for justice to be present, an assessment of the impacts, responsibilities, and localized risks are important. However, this is difficult to do because of the fact that this terminal was not built. These impacts are also deeply connected to and hard to disentangle from procedural and recognition justice. Velasco-Herrejon & Bauwens (2020) point to this overlap as key in understanding the underlying reasons for issues with distribution.

Because this project was rejected and the terminal did not get built, the analysis of distributional justice in this research focuses on the potential impacts from this project and the ways in which distributed impacts were discussed throughout the proposal period. The discussion and analysis here is heavily focused on the localized impacts in Whatcom County, while recognizing that distributive justice can and does transcend political boundaries and includes a wide geographic scope, as mentioned earlier.

The most explicit concerns that the local community had in relation to the distribution of environmental harms from this project were the impacts from coal train travel through the region, on marine resources, and on the Lummi Nation's cultural identity and rights related to fishing and sacred lands. The Lummi Nation's stance was discussed in previous sections, but is worth briefly revisiting here. Any additional harm, inconvenience, or exposure to risk that the Lummi Nation would have had to take on due to this project being built would have been considered disproportionate. Recognition of settler colonialism is vital to assessing the disproportionate impacts that this project would have caused. Because of colonial history, the impacts on the Lummi Nation and the additional harm added to the historical harm that settler colonialism created and perpetuates could, on its own, be a disproportionate impact.

Perhaps the most frequently mentioned impacts from this proposed project were from the increased coal train traffic through Whatcom County, and specifically Bellingham, the most populated city on the train corridor. Though no official air quality or health impact study was completed during this proposal, a University of Washington Bothell professor conducted his own study on the impacts of increased coal train traffic and air quality for those that live near the tracks. His conclusion was that if rail traffic grew by 50%, then some neighborhoods that were close to tracks would be at risk of exceeding air quality standards (Rosenthal & Spencer, 2013;

Hoekstra, 2014). However, the Alliance for Northwest Jobs and Exports pushed back against this study, calling it biased and stating that rail is a much more environmentally friendly alternative to trucking (Rosenthal & Spencer, 2013). Though this is true, the building of the terminal would result in environment impacts from getting coal to that area regardless of the method. As mentioned previously, the Whatcom Docs called for a health impact assessment (HIA) to be done over concerns about potential health impacts from increased coal train traffic through Bellingham (Whatcom Docs, 2012). This would be focused on those that live along the railroad tracks as well as those local to the Cherry Point region.

Another aspect of potential injustice could be the additional burden to the industrial region at Cherry Point. Because the GPT was going to be built in an area that is already industrializing, adding more to that burden would be unjust. Though assessing specific numbers around environmental health risks like air quality is outside the scope of this research, it is important to acknowledge the already existing industry at Cherry Point and the additional burden this terminal would have created for the populations, both human and nonhuman, living in that area. As described earlier, some communities shoulder the burden of multiple hazardous or dangerous facilities, while others have none (Nakazawa, 2018). Dear (1992, in Nakazawa, 2018) states that communities already containing multiple such facilities should be treated differently when addressing distributional justice concerns. The GPT project would have added to the existing industry at Cherry Point, and so an acknowledgement of the additional localized impacts is important.

Increased marine vessel traffic around Cherry Point was also a large distributional concern for opponents of the terminal. The Cherry Point Aquatic Reserve was designated in 2010 and as shown in Figure 3, essentially surrounds the industrial area at Cherry Point. A 2010

publication from the Washington State Department of Natural Resources on the Cherry Point environmental aquatic reserve management plan discusses potential threats to the habitats and species of the reserve. This includes disturbance from vessels and accidents including oil spills as well as artificial light and excessive intermittent sound (Washington State Department of Natural Resources, 2010). Two of the four threats to the reserve listed on the Cherry Point Aquatic Reserve website are also related to industrial activity in the area and includes invasive species from vessel traffic, and pollution from marine debris and accidents (Aquatic Reserves, n.d.). During the EIS process, a vessel traffic study was conducted and introduced mitigation strategies that the developers claimed would be enough to mitigate the threats (Glosten Associates, 2014). Though these mitigation strategies were included in the EIS process, many community groups, including marine resources and environmental groups, continued to speak out against the terminal and request further studies. These comments with issues of concern came from organizations like the National Oceanic and Atmospheric Administration (NOAA), Washington Department of Fish and Wildlife, Washington State Department of Natural Resources, and the Whatcom County Marine Resources Committee (U.S. Army Corps of Engineers et al., n.d.c).

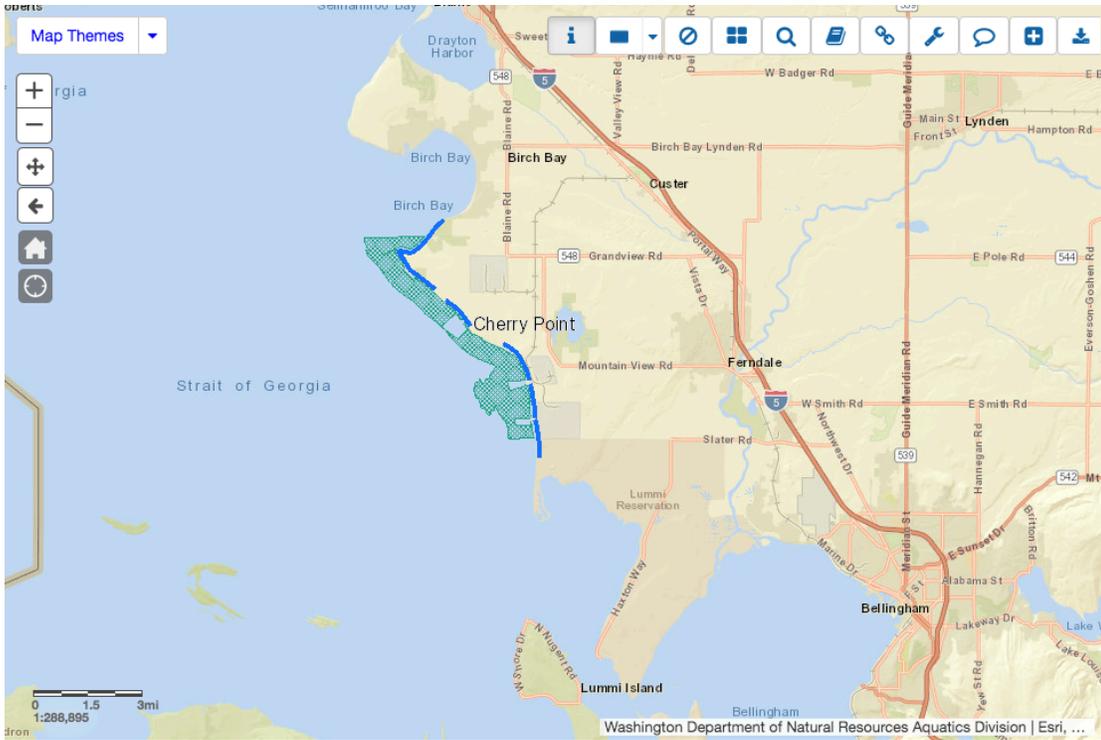


Figure 3: Cherry Point Aquatic Reserve (Washington Department of Natural Resources, n.d.)

The increased marine vessel traffic from the GPT project would have added to the existing traffic in the Puget Sound vessel traffic lanes, including Strait of Juan de Fuca, Rosario Strait, Boundary Pass, and Haro Strait (Glosten Associates, 2014). According to the memorandum for record rejecting the permit as well as the Glosten Associates vessel traffic study, the GPT terminal proposed a full operational capacity of 487 annual vessel calls. This would have resulted in a Lummi fishing disturbance increase of 76% (U.S. Army Corps of Engineers, 2016a; The Glosten Associates, 2014). This number of vessel traffic would have significantly impacted wildlife and aquatic resources as well, but the focus throughout these conversations was on the Lummi Nation’s fishing rights.

A full consideration of distributional justice concerns also includes the distribution of benefits. It is first important to recognize that this project would *not* have provided energy to the surrounding community. Considering the plethora of anti-coal activists and groups associated

with the opposition of this project, they would likely not have been interested in increasing the amount of their electricity generated from coal. However, it is still important to note where the all of the impacts would have landed. The only benefit regularly discussed in source documents was the economic benefit to the surrounding community in Whatcom County. These benefits included conflicting numbers about long-term job opportunities and localized economic development because of the port (Stayton, 2013). Because this terminal was not built, we do not know how many short-term and long-term jobs this project would have actually provided. SSA Marine hired two different firms to run economic analyses: Martin Associates and the Finance and Resource Management Consultant. Both of these studies reported conflicting numbers of jobs and other economic benefits (Stayton, 2013; Knudson, 2011). The developers did recognize this difference in employment numbers and stated that they would go with the average employment projections between the two studies when discussing economic projections with the public. It should be noted that the study that resulted in the lower job numbers came from local economic experts who were familiar with Western Washington, while the higher employment numbers came from a consultancy with more national numbers (Knudson, 2011). This uncertainty is one of many that the GPT proposal faced throughout its life and though there would certainly be some local employment, it is difficult to draw a threshold of what would be considered a benefit big enough to outweigh the discussed costs.

The distributional impacts of this project would undoubtedly have significantly altered the Cherry Point region. The increased marine vessel traffic, coal train traffic, and localized impacts on the federally protected fish and wildlife at the Cherry Point Aquatic Reserve only add to the impacts on the Lummi Nation and their sovereign rights to fish. Though there were potential localized economic benefits, it is important to note that throughout the six-year process

of this proposal, markets for coal changed significantly. The following section is a discussion of what this meant for this project overall, and the impacts of domestic coal markets on the viability of this terminal.

Changes in the coal market

Context is important. Energy justice is myopic without environmental justice and an acknowledgement of political economic structure. In the couple of years leading up to the rejection of the GPT, there were clear indications that this export terminal was no longer financially feasible and that coal itself was a bad investment. In 2015, Alpha Natural Resources Inc, the second largest coal company in the U.S., filed for bankruptcy (Bellingham Herald, 2016). Surprisingly, August 2015 was also when the Crow Tribe became partners in the GPT with an option to own 5% from Cloud Peak Energy's 49% share in the project (Business Wire, 2015). Cloud Peak Energy, the Wyoming-based company with a financial stake in the GPT project, had announced two months before that that it was halting coal exports through a terminal in British Columbia due to low coal prices (Bellingham Herald, 2016; Williams-Derry, 2015). In 2016, just one month before the rejection of the GPT proposal, Peabody Energy themselves announced they will likely file for bankruptcy and would no longer be involved in the project. Peabody Energy had, in 2011, announced that it might export around 24 million tons of coal through the proposed terminal (Bellingham Herald, 2016). All of these events are indicators of a falling market for coal, and at the same time a sustained push for the permitting of this export terminal.

Between when the permits and proposal were filed for the GPT project in 2011 and when it was rejected in 2016, coal continued on its steep decline in the U.S. as a viable industry and

resource for electricity generation. The introduction of fracking as a major producer of natural gas sped this decline up and ultimately the GPT turned into a risky long-term investment (Bellingham Herald, 2016). However, this did not dissuade the developers as it did the investors, and when the permits were rejected in 2016, SSA Marine vowed to keep fighting. Up to today, however, that fight has not materialized. Whatcom County has also continued to extend a six-month moratorium on fossil fuel development at Cherry Point for over four years (KGMI, 2020). Though the Trump administration had promised coal's triumphant return and projects like the GPT looked like they might get newfound support, the coal industry and its supporters were again disappointed (Milman, 2020). After the GPT proposal was rejected, industry analysts acknowledged that this action was likely putting a no longer economically viable project out of its misery (Mapes, 2016). Even without considering the Lummi Nation's treaty rights, this terminal seems like it would have been a failed project.

It is also vitally important to acknowledge the very real human impact of this transitioning energy economy. The decline of coal in the U.S. is leaving many communities unemployed and economically devastated. Towns that have thrived on mining jobs continue to watch mining companies go bankrupt and power plants retire. Communities built on a single resource extraction tend to become overly reliant and specialized, and thus their entire economy becomes dependent on that resource (Carley et al, 2018). The decline of coal has therefore had some severe economic impacts in certain places in the U.S., namely the Appalachia region and other coal mining areas in the Western U.S., including Wyoming and Montana. This “dramatic change has meant tens of thousands of lost coal jobs, raising many difficult social and policy questions for coal communities” (Davis, 2016, para. 3). While the national workforce of coalminers is relatively small (only about 45,000 in 2020), the impacts of the decline of coal are

felt on a visceral level in Appalachian mining towns now “blighted by unemployment and opioid addiction” (Milman, 2020, para. 15). In November of 2020, Arch coal in Wyoming, which employs about 23% of the state’s coal miners, announced that it was closing its mines. This continues to signal the end of an era in coal mining, especially in the PRB where University of Wyoming Economist Robert Godby says that there is “no scenario where Powder River Basin coal recovers” (Bleizeffer, 2020, para. 21).

The national shift and push from fossil fuels to cleaner forms of energy are accompanied by the idea of a “just transition”. This framework attempts to address the issues of coal, oil and gas workers and their communities that have relied on these jobs for decades that are now becoming obsolete. The average coal plant in the U.S. is over 40 years old, and in the past several decades more than 500 coal-fired power plants have been retired (Jakob et al, 2020). There is not much that would reverse the tides of these trends, despite some politician’s pledges. Some argue that the transition, both social and economic, within coal communities has already begun, and false promises to revitalize the coal industry are only damaging progress that has already been made (Carley et al, 2018). A “just transition” hopes to find solutions that do not leave these workers, their families, and communities behind, though that is yet to be seen (McCauley & Heffron, 2018; Jakob et al, 2020).

This additional piece of the analysis provides adequate evidence for the expansion of the energy justice framework to include a political economic analysis. Without this, vital context is missing.

Conclusion

As I complete this analysis, I find that there is a need for the inclusion of further considerations in the chosen framework. Two major issues that I found with the three tenets framework in research are: the lack of the prioritization and clear inclusion of Indigenous rights and justice and of a political economic context. It is clear that the GPT would have violated treaty rights of the Lummi Nation and to some, created an environmental and social impact too large to be acceptable. The support of the coal industry and use of coal as a resource alone, regardless of local impacts, seemed to be enough to make some community members wholeheartedly oppose this project. But the projected economic impacts and the impacts of this decision on the Crow Nation is enough to force a conversation regarding the structure that our energy system, specifically our coal industry, sits in. It is possible to determine pieces of this process and the proposal where justice was realized. But, overall, the complexity of this issue and the convoluted ways in which our energy systems function create a scenario where determining the presence of justice overall is not black and white.

The most difficult conclusion to come to is reconciling the roles, rights and desires of both the Lummi Nation and Crow Tribe. I struggled with questions of how solutions can be reached to support the Crow Tribe in achieving their real financial needs within the analysis of recognition justice. My own positionality and the original goals and methods of this research play a clear role here, but acknowledging the role of settler colonialism is imperative in these discussions. While recognition justice is one path to explore this, it does not go quite far enough. Future research must place Indigenous rights and justice at the forefront of energy and environmental justice analyses. Some researchers have recognized this gap and have come to the

conclusion that our modern environmental justice framework does not adequately include Indigenous communities (Hernandez, 2019; Ishiyama, 2003).

In terms of procedural justice, it is clear that the EIS process and its components can be criticized. Yet, the process of generating an EIS did lead to the rejection of the terminal in favor of pre-existing treaty rights. But the fact that it took six years for the decision makers to come to that conclusion could be considered an injustice in time, energy, resources, and emotional toll on an Indigenous community that has already had to suffer the effects of colonization for generations. Regardless of not being made earlier, the decision here clearly upholds the Lummi Nation's treaty rights. But the purpose of this analysis was not to look at the outcome of the process, but rather the process itself. Based on the existing documentation of this six-year fight, procedural justice is present. The scoping process generated an incredible number of public comments and attendance at public meetings. The scope of the EIS was adapted and shifted as public concerns were brought forth, like the health impact assessment. But, local community members and activist groups questioned the depth of commitment and objective analysis throughout the process. More broadly, the lack of inclusion of cross-border impacts seems to be a failing of the EIS process. While SSA Marine and the supporters of the terminal criticized the decision being reached before the EIS process was completed, the developer's comments towards the Lummi Nation and protection of their cultural resources were, at best, surface level. By calling the Army Corps decision a political one, SSA Marine reveals that in the end, all they truly cared about was getting this terminal built. Deeming the Lummi Nation's treaty rights 'political' rejects the Lummi People's humanity and irrefutable ties and claims to the land at Cherry Point. SSA Marine betrays their statements about mitigating impacts to the Lummi Nation as mere lip service by prioritizing profits and infrastructure that upholds a declining

energy resource. Political economic context is vital to understanding these energy decisions and the nested ways that our energy choices and those deeply entangled in our energy systems experience resource extraction, production, and consumption.

Justice is hard to measure. While one Tribe celebrated the rejection of this proposal, another mourned the lost opportunity to economically bolster their community. While local opponents and community activist groups cheered the blow to the coal industry and the disappearance of the threat of health impacts and coal dust, coal industry workers and entire communities got hit with another uncertainty about their financial futures. It is impossible to determine justice without asking, justice for whom? This paper's goal was not to dive into the philosophical underpinnings of justice, but future research should take this into account when looking at the presence and overall role justice has in our energy systems. Our energy systems and resource choices come with social, economic, and environmental impacts, and they always will. Investors will follow the money and communities will try to protect themselves, while everyone across the U.S. and the world demand to keep their lights on. Tradeoffs are inevitable, and climate change will continue to throw wrenches into how we maintain reliability and integrate renewable generation into our resource profiles. There is no clear answer here, and future research that looks at these issues should acknowledge that energy justice analyses often bring more questions than answers. Siting energy infrastructure will always be an issue, and analyses like these may not provide all of the answers for how to do that well. But, as our globalized energy trade shifts and different resources become more dominant, it is vital to ask questions surrounding the allocation of costs and benefits, and historical and political economic context. This is only if the focus stays anthropocentric as well. A discussion about the other-than-human could also be a valuable one in terms of energy justice, but was not touched on here.

Pellow (2018) cites the thread of intersectionality through various group's oppressions, including other-than-human, as a key component of critical environmental justice and should also be included in future research. The problem of scope is clear here, and brings up further questions of how far energy justice can and should go.

The investigation of these three tenets of justice have demonstrated that in order to assess the presence of justice, there is irrevocable overlap, and perhaps to state it more succinctly an interdependence, among the tenets and the ways in which justice can be shown. The energy justice framework as a tool needs to address political economic context and the prioritization of Indigenous rights and justice. Tribal sovereignty and settler colonial historical context are vital to understanding energy decisions within Native Tribes, especially when it involves resources that tribes directly own. A political economic analysis is not part of this framework either, but the impacts of markets and the shift away from fossil fuels clearly plays an integral role in the future of energy decision making. This framework is one tool that needs to evolve to continue to understand how we can continue to work towards a more equitable and sustainable world, while recognizing the complexity and myriad ways that stakeholders experience energy and understand justice.

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