# Native Renewables Negative

## File Explanation

This is the case negative file to the Native Renewables affirmative.

A good 1NC against the Native Renewables affirmative might look like this:

--China soft power DA

--Arctic Council DA

--Alaska CP (this file)

--Green colonialism K (this file)

--case and framing arguments (this file)

#### Energy Justice Advantage Answers

The best arguments here relate to the case turns at the end of the frontline. They require some explanation of the terms. The argument is that rushing deployment of renewables into communities that have diesel electricity grids (all Arctic communities) will destabilize the grid. This is for two reasons, but both relate to the **intermittent** nature of wind and solar (ie, the sun doesn’t always shine all of the time, particularly in Arctic Alaska which has permanent darkness for part of the year). The two specific reasons in the file are called wet stacking and spinning reserves.

1. **Wet stacking**. This refers to unburned fuel buildup in a diesel engine that can cause lubrication problems and ultimately engine failure. It occurs because integrating renewables requires diesel generators to run at less than optimal loads, and at lower heat, because renewables are providing a portion of the power that the diesel engine used to supply.
2. **Spinning reserve**. This is similar, but argues that due to intermittence, a renewable-integrated microgrid has to maintain the ability to increase generation quickly (if intermittence means renewable power drops because the wind stops blowing), or decrease very quickly (if renewable power resumes, such as the wind starting to blow again). Without sufficient spinning reserve, renewables are likely to cause power outages.

The most logical affirmative answer is that batteries can solve a lot of the problems with renewable intermittence – they can store power when the wind isn’t blowing. This file has extensions that respond to this. Your main argument are that this won’t always work in the colder temperatures of the Arctic, and that grid operators in small rural communities have no real experience or training about how to use upgraded microgrids.

#### Framing Answers

If you are extending a disadvantage, then you will need to make arguments about why your disadvantage outweighs the case. The Native Renewables affirmative reads several cards designed to say that your extinction-level impacts don’t matter and the only thing the judge should be concerned with is the ethical obligation that the affirmative presents. This section of the file has responses to these impact framing claims.

#### Alaska Counterplan

This counterplan claims to have the State of Alaska do the plan. The **net benefit** is the Arctic Council disadvantage. The plan links because it’s a federal action and is perceived internationally. The counterplan doesn’t link because the State of Alaska has no relationship to the Arctic Council.

#### Green colonialism critique

This is probably the strongest argument in this file. It argues that increasing renewables demand for Alaskan communities comes at the expense of indigenous peoples elsewhere in the world (including the Arctic). It claims that these other communities will be subject to mining for minerals necessary to construct solar and wind technology, and that causes severe harm to those communities (mining is toxic, destroys the environment, and undermines the self determination of indigenous peoples). For example, the Sami people in Norway have called renewables “green colonialism” because they have lost some of their land that they use for reindeer herding to renewable projects from the government of Norway.

# Case

## Energy Justice Advantage

### 1NC – Energy Justice Advantage

#### 1. The status quo solves. Direct grant funding for renewable energy is increasing.

Tim Lydon, 2024 – staff writer “Alaska 2.0” Alaska Magazine, 10/17, <https://alaskamagazine.com/authentic-alaska/alaska-2-0/> //DH

Additionally, in March the Department of Energy announced funding for renewables and grid upgrades in five rural Alaska regions where exorbitant energy costs impact every aspect of life. The projects include solar, heat pumps, battery storage, and hydro development that will benefit dozens of communities from Southeast to the Arctic.

“Many of Alaska’s rural communities are not energy secure,” says Joselyn Fenton, director of programs at the Denali Commission. She explains that rural communities often rely on diesel to feed aging energy grids that lack redundancies. The catastrophic loss of land to thawing and erosion—called usteq in Yup’ik—also stresses energy systems, she says.

The Denali Commission is intricately involved in rural development throughout Alaska and will facilitate projects supported by both federal laws. Fenton also calls the funding unprecedented. She says the investments in broadband, water, energy, and transportation will help rural Alaskans attain comforts other Alaskans have enjoyed for decades.

#### 2. Federal assistance fails – most goes to consultants, it doesn’t serve communities in practice

Rich Stromberg, 2023 - Doctoral student at University of Alaska Fairbanks focused on reuse of solar PV systems for social and ecological benefit. Director of the Equitable Solar Solutions program at Coldharbour Institute. This study was based on interviews of 18 communities across Alaska. “A Study of Technical Assistance on Alaska Energy Projects” 1/31, <https://www.researchgate.net/publication/369089131> //DH

One critique that is not being attributed to any particular respondent is the concern that much of the funding for technical assistance can go to consultants or agencies and their well-paid staffs while local communities only see a small portion of funds to actually implement energy-saving solutions along with a 4-inch binder of plans that sits on a shelf.

“TA is fixing all the things that don't fit into anything else. Should be open ended, nonrestricted funding to fix all this that falls between the cracks.” – Meera Kohler

“Technical assistance is not writing a check. Technical assistance is enabling champions with information and processes that are not readily or inherently available. Technical assistance is as broad as the definition as economic development, but at the end of the day, we've got to train the trainers, we've got to get the next generation engaged and impassionate about sustainable communities which begins with sustainable systems, which is transportation, which is energy.” – Robert Venables

“Technical assistance is providing the knowledge you need to make a decision - sort of helping look at all the options, answer questions to help make a decision about whether to do something or not do something. It's sort of that guidance and counseling towards making the right decision. Technical assistance is not building something and hoping it works. It's more of helping somebody make the right decision to go forward and build it.” – Matt Bergan

“Technical assistance would be showing people how to do things and, in some cases, learning from them and being able to embed some of their experiences into your technical [assistance]. It's not just a one-way street, they the user has something to offer off as well in many cases. Technical assistance is probably not [just] building something. Building something and walking away from it is not good technical assistance. You need to embed ability to operate during the development of the project so it can continue.” – Brent Petrie

#### 3. Collaborative assistance fails. It doesn’t meaningfully engage the community

Julia Loginova et al, 2025 - Centre for Social Responsibility in Mining (CSRM), the University of Queensland, St Lucia, Australia “Enabling Indigenous-centred decision-making for a just energy transition? Lessons from community consultation and consent in the circumpolar Arctic” Energy Research & Social Science, February, <https://www.sciencedirect.com/science/article/pii/S221462962500009X#bb0340> //DH

5.2.1.1. Procedural limitations

A key limitation to company- and state-led consultation and consent is procedural, with studies highlighting issues around the goals, scope, and timing of engagement. Communities often perceive consultations as bureaucratic box-ticking exercises [117], with pre-determined agendas aimed at project approval rather than genuine dialogue. Accommodations are typically limited to project terms and conditions, framing the question as “how” rather than “whether” to execute a project [33]. In terms of timing, there is a perception that engagement: does not start early enough in the planning process [99,118]; leaves insufficient time for preparation, discussion and addressing concerns; and is inadequate in engaging vulnerable and often excluded groups, such as youth [119] or women [89]. In Greenland, for example, “insufficient, late and overly narrow public participation are major themes in the decision phase of the natural resource projects” [120]. A 2014 report by the Greenland NGO “Coalition for Better Citizen Involvement” made recommendations for improving citizen engagement [96], yet procedural issues continue to undermine effective and meaningful communication, impacting the ability of communities and stakeholders to reach agreeable decisions [99].

5.2.1.2. Legal ambiguity and gaps

Another limitation refers to legal ambiguity and gaps regarding land and property rights. Studies highlight the issues of overlapping and unresolved land claims and legal interests across territories and among multiple owners and land users [89,121]. This creates confusion regarding the rights and responsibilities of stakeholders, contributing to disputes and challenges in achieving meaningful consent. In addition, there are uncertainties or inadequacies in legal frameworks concerning triggers for consultation and consent. In Russia, for example, “the federal regulation requires companies to hold public hearings with local communities to discuss environmental impacts as part of EIA [environmental impact assessment] at the stage of state project approval. However, the federal regulation does not require a specific consultation with Indigenous peoples” and there are no requirements for Indigenous consent [78].

5.2.1.3. Weak relationships and lack of trust

Across the north, historical grievances, past experiences of extractive industries and ongoing colonial practices continue to strain relationships between Indigenous communities, governments, and industry [112]. However, these tensions are not merely historical but are rooted in the persistent effects of coloniality, including systemic marginalization and dispossession of Indigenous lands [91]. Centralised top-down structures and processes perpetuate mistrust, diminish self-confidence, and undermine communities' willingness to engage with government- and company-led initiatives [122]. Building trust is strongly linked to effective communication and transparency, and consultation and consent are fundamentally about building long-lasting relations [73,123]. For example, Bowes-Lyon, Richards [49] explained that due to the lack of communication over contamination issues, community members distrusted the Nunavut government in the reclamation of the Nanisivik townsite as part of the mine closure. Furthermore, many engagement activities are perceived as opportunistic and transactional, with organisations engaging communities only when a need arises [73]. From the community's point of view, this reinforces colonial dynamics, as organisations frequently fail to acknowledge historical and ongoing injustices, or invest in creating genuine relationships, which prioritize Indigenous self-determination and agency in decision-making processes.

5.2.1.4. Cultural disconnect

Cultural disconnect refers to epistemological differences in worldviews, values, and decision-making cultures between Indigenous communities and external stakeholders [124,125]. Issues arise from the inability of the engagement process to recognise different ways of gathering and understanding information, or relating to the environment. The Southern Sámi scholar Fjellheim [33] explains that “dialogues” promoted as a prescription of good governance are underpinned by epistemic miscommunications, devaluing Indigenous relations with the landscapes, knowledges, practices, and interests. These differences lead to disagreements over consultation goals, the nature of consent, and ideas of justice. As Table 3 demonstrates, stakeholders have deeply rooted values, ideologies and epistemologies, translating into plural rationalities [126] when it comes to decision-making. Importantly, a diversity of objectives exists within these groups, as neither community, company, nor government are homogeneous entities. A key challenge is how to reconcile different perceptions of participatory mechanisms and FPIC procedures among actors [90,104].

#### 4. Turn: paternalism. Externally driven planning is perceived as colonialism, even if the community agrees

E. Barrett Ristroph, 2018 – A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI‘I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN URBAN AND REGIONAL PLANNING “HOW CAN LAWS, INSTITUTIONS, AND PLANS FACILITATE ALASKA NATIVE VILLAGE ADAPTATION TO CLIMATE CHANGE?” Proquest //DH

**ANVs = Alaskan Native Villages**

Literature on indigenous planning suggests that the externally driven planning processes referenced in the previous subsection can be particularly problematic for indigenous communities. By “externally driven,” I mean a planning process that is guided by (and often initiated by) a private or government planning entity not based in the community. The community approves the plan but may have had limited participation in drafting it. I provide more detail in Section 4.2 on how planning is externally driven for ANVs.

Problems with externally driven processes relate to paternalistic planning approaches that disregard indigenous knowledge, cultural goals, planning traditions, and concepts of space27 (Hibbard, Lane, and Rasmussen 2008, p. 142; Lane 2003, p. 365; Sandercock 2004, p. 95; Matunga 2013, p. 4; Porter 2010, pp. 4, 17; Ostrom 2004, p. 2). Such approaches can perpetuate outside intervention and control, entrenching disparities and repressing tribal capacity (Ford et al. 2016, p. 179; Mannell, Palermo, and Smith 2013, p. 116; Jojola 2008, p. 41). The literature also refers to a lack of indigenous planners or attention to indigenous issues in the planning field (Hibbard, Lane, and Rasmussen 2008, p. 136; Sandercock 2004, p. 95). Finally, even where planning efforts attempt to avoid these problems, they fail to address the legacy of post-settler28 states’ usurpation of indigenous land rights (Hibbard, Lane, and Rasmussen 2008, p. 139). In other words, poor planning can prolong injustice. This injustice takes on another angle in the context of climate change, as many indigenous communities are trying to plan for changes resulting from greenhouse gases emitted primarily by non-indigenous populations (Whyte 2013, p. 523).

#### 5. Turn – Plan causes grid failure

#### A. Wet stacking. Integrating renewables into diesel microgrids forces the diesel generator to run below optimal load levels. This causes incomplete fuel combustion, risking catastrophic failure

Rebecca Meadows, et al 2025 – National Renewable Energy Lab “Renewable Energy Integration in Remote Alaska Communities” January <https://docs.nrel.gov/docs/fy25osti/90685.pdf> //DH

Degradation of Diesel-Fired Generators

A minimum optimal loading ratio (which is the actual load as a percentage of the diesel generator’s rated capacity) of 20%–30% is usually recommended by the manufacturer to minimize wear and tear on the equipment (Mueller-Stoffels 2014). When adding renewables to a diesel microgrid, the power plant must manage a wider variation of loads. Additionally, the average demand for diesel generation is reduced and less predictable, but the peak load remains the same. This can result in running diesel generators at lower capacity factors and below the recommended minimum load ratio to ensure there is adequate spinning reserve to meet load fluctuations as well as potential interruptions in renewable generation. If the diesel generators are run excessively at load levels below the recommended ratio, in addition to lower fuel efficiency levels, a condition called wet stacking can occur from incomplete fuel combustion, resulting in a loss of lubrication that can eventually result in catastrophic failures (Mueller-Stoffels 2014).

“Wet stacking the diesels is one of the concerns, but wear and tear from additional starting and stopping of the diesels and overcooling of the diesels in the shoulder seasons in communities where we have solar projects are also concerns ” —Amy Survant, Alaska Village Electrical Cooperative (AVEC)

#### B. Spinning reserves. Renewables decrease surplus capacity to account for sudden spikes in demand. That destabilizes the grid

Rebecca Meadows, et al 2025 – National Renewable Energy Lab “Renewable Energy Integration in Remote Alaska Communities” January <https://docs.nrel.gov/docs/fy25osti/90685.pdf> //DH

Increased Spinning Reserve Requirements

Spinning reserve refers to the surplus generating capacity kept online and primed to respond to a sudden increase in electric load. This surplus in diesel-only microgrids is achieved by running diesel generators at less than full capacity, ensuring an excess that can be accessed to avoid power outages and meet unmanaged loads. The ability of diesel generators to quickly adjust output makes them ideal for providing spinning reserves, stabilizing the grid, and ensuring consistent power quality amidst fluctuations in demand or supply.

When intermittent renewables are included in the power system, additional spinning reserve is required to account for sudden decreases in renewable power. A lack of readily deployable generation assets to accommodate load fluctuations can result in lower power quality, damage to electrical equipment, and power outages.

To illustrate this point, imagine a power plant has 300- and 600-kilowatt (kW) diesel generators, an instantaneous load of 300 kW, and a 20% spinning reserve requirement to accommodate any load fluctuations. This would require having at least 360 kW of capacity online and running the 600-kW generator at approximately 50% load (300 kW). If the plant receives 100 kW of wind power, it needs to meet the remaining load (200 kW) plus 20% spinning reserve, as well as keep enough additional capacity online to cover the wind generation if it goes offline. If the plant switches to the 300-kW generator, it could meet the instantaneous load but would not be able to cover the 100 kW of wind power if it goes offline. In this case, the plant needs to continue to run the 600-kW generator, albeit at a lower load, which results in lower fuel efficiency. The peak load does not change, but the average output is now lower—and also less predictable and more variable

#### C. This turns the entire case – increasing renewable integration exceeds the sophistication of most rural Alaskan microgrids. That causes severe damage and turns all cost savings

Marc Meuller-Stoffels, 2014 – Alaska Center for Energy and Power, University of Alaska Fairbanks “Renewable Energy Integration Into Diesel Microgrids - Theory and Practice Seminar” 2/6, <https://www.youtube.com/watch?v=ICTHvKMfjEM> Transcribed by otter.ai //DH

What I mean by that is wind and PV, because those are the intermittent power sources that cause all the issues. Hydro turbine, for example, won't just suddenly shut off unless it gets hit by debris, which is another issue we're working on. But generally these two power sources are the variable ones that are kind of causing the diesel operators in the diesel engines a lot of grief. And so the first is the how much renewable energy you can add to your system depends on your overall system sophistication. The more sophisticated the interactions are controlled in in a wind diesel or PV diesel power system, the more you can add, also, depending on how much additional equipment you have. And we'll go a little bit into that. If you have no control, then you can only add very little renewable energy, and we'll look here through what that means. So what? Why are we asking those questions? Well, we're being asked these questions a lot by people around the state. We're actually hoping that we're getting them getting asked these questions even more often, because it's hugely important. What we've seen in the past is often that renewable energy systems were actually oversized and then didn't integrate well, and the benefits to the overall system and the diesel savings wasn't quite as good as expected. And that's something we want to help to avoid and help optimize systems. One of the big problems is that you're integrating with existing infrastructure. And I couldn't find a photo of a really old diesel, so this old Caterpillar loader has to stand in. This kind of stuff is still around, and that's the same in some of the powerhouses around the state. And you won't just be replacing your diesel powerhouse because you're adding wind, and would be better if you did so. You have to work with what's there, and that will also then determine your overall envelope. If you add too much renewable energy, you can do severe damage to your diesels, you can do severe damage to your reputation as well, and you might not be saving any money, and that's at the end of the day. The idea is to help lower the power bills around rural Alaska.

### Extend: Status Quo Solves

#### Renewable integration is increasing in rural Alaska

Ben Anderson et al, 2023 - National Renewable Energy Laboratory, this report is based on interviews with six Arctic communities in Alaska, most are Native. “Distributed Renewables for Arctic Energy: A Case Study” January, <https://alaskarenewableenergy.org/wp-content/uploads/2023/02/Distributed-Renewables-for-Arctic-Energy.pdf> //DH

Remote Alaskan communities have and will continue to lead in community-based renewable energy development, serving as an example for similar communities throughout the world. Many communities have excellent wind, solar, hydropower or biomass resources waiting to be used. Sixty-nine Alaskan communities have so far integrated some form of renewable energy (McMahon et al. 2022), and between 2014 and 2018, 5,210 households in rural Alaska received building energy efficiency improvements to reduce overall energy demand (Alaska Housing Finance Corporation 2018). A variety of funding sources and programs are available to support communities in the complex transition to renewable energy.

#### Alaskan renewable energy is accelerating as fast as possible

Lesil McGuire, 2024 - Lesil McGuire, Charisse Millett and Harry Crawford are former Republican and Democrat state legislators. They are senior advisors to New Energy Alaska, a broad coalition of Alaskans working to bring the benefits of clean energy to Alaska. “Alaska is on the cusp of a new era of energy-powered prosperity” Anchorage Daily News, 8/13,

<https://www.adn.com/opinions/2024/08/13/opinion-alaska-is-on-the-cusp-of-a-new-era-of-energy-powered-prosperity/> //DH

Amidst the wild ride of recent national headlines, it’s easy to miss some big stories — and even easier to miss the broader pattern. So here’s the bottom line: Alaska is entering a new era of energy growth, fueled by our massive renewable resources.

Southeast Conference and Alaska HeatSmart recently secured $38 million in federal funds to bring air-source heat pumps to 6,100 homes in Southeast and Southcentral Alaska. Alaska HeatSmart has already helped more than 100 households install heat pumps, reducing household heating bills by 25-50% using clean local energy.

In the Interior, Golden Valley Electric Association was awarded a $100 million federal loan — with $60 million forgiven — to install a battery energy storage system and interconnectivity for a 16 MW solar farm at Nenana. Doyon Ltd., a regional Alaska Native corporation, is a partner in the project, which has potential to be a game-changer in a region that experiences the highest energy costs along the Railbelt.

The Alaska Energy Authority and Tanana Chiefs Conference were awarded $62 million each in federal funds to install solar technology statewide, saving households money and creating new jobs. “This program will not only offer Alaskans further access to renewable energy, but also provide funding to develop the local Alaskan workforce,” the U.S. Environmental Protect said in awarding the funds.

Across Alaska, communities have long harnessed wind, geothermal, hydroelectric and solar energy. Alaska is endowed with some of the most abundant clean-energy resources on the planet — and we now have access to the funding, technology, and policy tools to develop them at scale.

Alaska ranks No. 1 in the U.S. in installed microgrid capacity, and we are recognized as a global innovator in microgrid technology. In rural Alaska, we are ready to overhaul our rickety, risky, costly diesel systems with the integration of clean and reliable local energy.

On the Railbelt, renewables offer the best opportunity to stabilize long-term costs and supply risks. A recent report from the U.S. Department of Energy found that a 76% renewable system is the cheapest way to power Alaska’s Railbelt, the interconnected grid running from Homer to Fairbanks. Renewables can provide steady, stable, local generation, reducing our dependence on dwindling Cook Inlet natural gas supplies — critical for staving off the need to import natural gas.

Gov. Mike Dunleavy recently signed legislation providing funding and policy tools to smooth the path for renewables. These include a bill and initial matching funds to facilitate transmission and governance improvements on the Railbelt grid — to make sure the cheapest energy can get to consumers. The governor also signed a bill creating the Alaska Energy Independence Fund to help residents and businesses finance energy efficiency and clean energy projects. And he’s set to sign legislation allowing for community-owned renewables projects, so people who don’t own homes can get a share of the financial benefits of solar.

### Extend: Federal Assistance Fails

#### Travel and language barriers limit in-person collaboration

E. Barrett Ristroph, 2018 – A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI‘I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN URBAN AND REGIONAL PLANNING “HOW CAN LAWS, INSTITUTIONS, AND PLANS FACILITATE ALASKA NATIVE VILLAGE ADAPTATION TO CLIMATE CHANGE?” Proquest //DH

**ANVs = Alaskan Native Villages**

As discussed in Subsection 2.3.1, there is a need for stronger connections between a community and those outside of the community that are in a position to collaborate and provide resources (linking social capital). A number of participants (with the majority in ANVs) referred to a lack of communication or cooperation between ANVs and outside government as an impediment to implementing adaptation strategies. Participants talked about poor information sharing and communication between the community and outside entities that are not aware of what is happening “on the ground.” One ANV resident described state and federal agency biologists as “computer biologists.” He said, “They need to feel the pulse of what’s happening—numbers on the computer don’t tell that much.

The sheer size and high price tag of travel in Alaska impede relationship-building between agencies and ANVs. Limited agency budgets mean limited trips to ANVs. When trips occur, they are short. Opportunity for meaningful conversation is limited. As a representative from a Department of Interior Landscape Conservation Cooperative (LCC) explained, “The challenge for the LCC is that it works with 68 tribes and 17 First Nations, most of whom are off road, and there are only two full-time staff. So they can't go into villages and make face-to-face relationships. They know face-to-face is the way to do co-management, but they can't do it regularly.” While in this example the issue was co-management of game, the problem of limited time in communities also applies to collaborative planning.

Another problem in building rapport with external entities is that there are some still language barriers in Alaska, particularly with elders in remote areas. An Interior Alaska elder said that agencies who visit his village tended to talk with younger people, not elders, because it is easier for agencies to communicate with people whose first language is English. This reduces the likelihood that traditional community knowledge will find its way into plans.

#### Turf competition and lack of training prevents effective collaborative assistance

Rich Stromberg, 2023 - Doctoral student at University of Alaska Fairbanks focused on reuse of solar PV systems for social and ecological benefit. Director of the Equitable Solar Solutions program at Coldharbour Institute. This study was based on interviews of 18 communities across Alaska. “A Study of Technical Assistance on Alaska Energy Projects” 1/31, <https://www.researchgate.net/publication/369089131> //DH

There are barriers to collaboration. Training and retention of our workforces is critical. So is recognition that institutional knowledge is essential. Sharing of this knowledge should be fostered throughout an organization and with partner organizations. Kotzebue Electric found their battery to be very beneficial in daily diesel operations – others who design and fund power plants should incorporate KEA’s learning into new power plants and upgrades.

Other barriers exist because of competition for limited funds or turf competition over which provider lays claim to which utility partners. One respondent used the term organizational ego which describes the desire to be the premier, if not sole expert in a given field but to the detriment of others. Healthy forms of ego can exist where people take ownership and pride in a well-executed project. Some barriers are related to funding from a particular agency that only allocates funds to that agency’s personnel when there may be experts from other organizations or private contractors who would provide better service to the end customer/community.

Limited funding can also be a barrier when it prevents providers or system operators from traveling for planning and shared learning or allocating staff time to support other larger initiatives.

“One of the problems that we do have, and it's not just Alaska, is that there is no funding to allow for the collaborators to collaborate. And so, I've certainly been one to try and push conferences and meetings that bring in the collaborators, because I think personal relations and personal engagement overcome a lot of those barriers that that you see around turf wars and funding wars, and all of that kind of stuff. It's much easier to get beyond that when you know the players and you already collaborate with folks. Having resources to be able to have the technical assistance providers collaborate is one of the things that really does need to happen to be successful.” – Ian Baring-Gould

#### Cultural insensitivity undermines the effectiveness of federal assistance

Rich Stromberg, 2023 - Doctoral student at University of Alaska Fairbanks focused on reuse of solar PV systems for social and ecological benefit. Director of the Equitable Solar Solutions program at Coldharbour Institute. This study was based on interviews of 18 communities across Alaska. “A Study of Technical Assistance on Alaska Energy Projects” 1/31, <https://www.researchgate.net/publication/369089131> //DH

Capacity building in the community is critical, both for people operating and maintaining equipment (power plants, building environmental systems, communications systems and water/sewer infrastructure) as well as the administrative, clerical and governance skills needed to sustain organizations. Local and regional champions are needed for self-sufficiency. Investment in local skills and certifications can make a huge difference when it comes to local hiring for major projects.

Lack of cultural awareness is a commonly raised issue. This occurs with people coming from out of state but also from service providers based in Alaska’s main population centers. Cultural insensitivities can prevent successful partnerships and lack of cultural knowledge can result in solutions that only address technical factors and ignore local factors that may be part of the root cause and/or must be included for a tailored, holistic solution.

#### If we win federal assistance fails, it’s offense – it turns the whole case

Rich Stromberg, 2023 - Doctoral student at University of Alaska Fairbanks focused on reuse of solar PV systems for social and ecological benefit. Director of the Equitable Solar Solutions program at Coldharbour Institute. This study was based on interviews of 18 communities across Alaska. “A Study of Technical Assistance on Alaska Energy Projects” 1/31, <https://www.researchgate.net/publication/369089131> //DH

Providers who believe that theirs is the only solution and/or come to a community with unproven technology can lead to failure. Poorly executed technical assistance can negatively impact communities for many years. Another threat is technical assistance prioritized as continued employment for the providers with less focus on a successful outcome for the community.

### Extend: Collaboration fails

#### State-driven consultation inevitably fails

Julia Loginova et al, 2025 - Centre for Social Responsibility in Mining (CSRM), the University of Queensland, St Lucia, Australia “Enabling Indigenous-centred decision-making for a just energy transition? Lessons from community consultation and consent in the circumpolar Arctic” Energy Research & Social Science, February, <https://www.sciencedirect.com/science/article/pii/S221462962500009X#bb0340> //DH

In the context of the global rush to decarbonise, participatory processes of community consultation and consent received heightened importance and urgency. Meaningful consultation and consent are crucial to balancing power relations between governments, industry and affected communities. Despite an unprecedented recognition of Indigenous peoples' rights and their role in just energy transitions, complex challenges continue to characterise consultation and consent driven by states and companies. Based on an integrative narrative and case review of over 100 academic articles, we have identified limitations of company- and state-led consultation and consent across the circumpolar north, with common categories being: inadequate procedures or frameworks for consultation; unclear legal frameworks and gaps; weak relationships and distrust between Indigenous communities, state and industry; cultural disconnect; and asymmetries in power, knowledge, and decision-making authority. They clearly speak to key components of just energy transitions for Indigenous peoples, as conceptualised by Rioux-Gobeil and Thomassin to include justice for Indigenous knowledge renewal and procedural power [22].

Many of these limitations are structural, rooted in colonial legacies, top-down and centralised decision-making, and neoliberal economic systems. These limitations are also relational, stemming from insufficient efforts, resourcing, and lack of trust-building relationships. As cases from the circumpolar north illustrate, each community experience is unique, given the local complexities of histories, cultural practices, political contexts, and resources that Indigenous peoples have at their disposal to engage meaningfully. Only a few cases documented positive community experiences of consultation and consent, reflecting common bias in academic literature to focus on problematic cases. While many of the reviewed studies focus on the lack of Indigenous capacity and ability to engage, other studies discuss activism and resistance to colonial and extractive structures that increasingly impact on resource decision-making [13,40].

#### This was a study based on Indigenous consultation and consent for renewables in Alaska

Julia Loginova et al, 2025 - Centre for Social Responsibility in Mining (CSRM), the University of Queensland, St Lucia, Australia “Enabling Indigenous-centred decision-making for a just energy transition? Lessons from community consultation and consent in the circumpolar Arctic” Energy Research & Social Science, February, <https://www.sciencedirect.com/science/article/pii/S221462962500009X#bb0340> //DH

To better understand Indigenous-centred decision-making, we reviewed community experiences of consultation and consent regarding mining and low-carbon energy projects (wind, solar, and hydro power) across the circumpolar north, encompassing Arctic and sub-Arctic regions of Canada, Kalaallit Nunaat (Greenland), Finland, Sweden, Norway, Russia, and the US. This diverse region provides rich ground to explore models of and barriers to Indigenous-centred consultation and consent. In the circumpolar north, projects encroach on Indigenous lands, impacting traditional cultures and nature-based livelihoods of reindeer herding, hunting, fishing, and foraging [35,36]. Arctic nations (except Russia) are democratic, high-income countries with strong governance, rule of law, trusted judiciary, and adherence to international human rights treaties. Indigenous communities increasingly exercise influence over development on their lands and demonstrate robust leadership [[37], [38], [39], [40]]. While opportunities for fair treatment have improved compared to historical colonisation and industrialisation [41], Indigenous peoples continue to be excluded from decision-making, as conflict situations of complex, prolonged, epistemic and value-based disagreements mark the ‘green’ transition in the north [13,36].

#### Even if they have good intentions, it’s likely to fail in practice. Collaboration has been tried on renewables and failed

Karin Buhmann et al, 2021 – Associate Professor teaching public law and Corporate Social Responsibility at the University of Copenhagen. Dr Buhmann holds degrees in law and East Asian Studies and a PhD from the Department of Law at Aarhus University (Denmark) “Toward socially sustainable renewable energy projects through involvement of local communities” Renewable Economies in the Arctic, edited: David Natcher, Taylor & Francis ebooks //DH

The case of the Sámi people also highlights how the development of industrial and energy projects promoting sustainable development can paradoxically jeopardise the sustainable livelihoods of Indigenous peoples. The lack of meaningful consultation of Sámi communities continues to loom large in the debate concerning the development of energy projects on their traditional lands and questions the adequacy of the legal framework of the Nordic countries to guarantee their rights as an Indigenous people. This case also demonstrates the need to integrate energy justice considerations in order to ensure a transition to renewable energy and economies that are socially sustainable and just for all.

One of the first states to sign the ILO Convention 169, Norway was early to recognise the principle of FPIC. Yet, despite important legislative changes, the lack of meaningful consultation with the Sámi people concerning the development of industrial and energy projects on their traditional lands remains problematic. The Nussir mine case illustrates the problem when stakeholder consultation is perceived as an empty process. On the one hand, the Sámi cases demonstrate the need to improve legislative frameworks that ensure that the rights of the Sámi people as an Indigenous people are protected and respected by states and companies, especially when decision and measures concerning energy projects affects them. On the other, the Sámi and Greenlandic cases demonstrate that for stakeholder engagement to be meaningful, formal legislation must be matched by implementation and planning of consultations that respect existing commitments of affected stakeholders.

The Greenland case also highlights how broadening the range of forms of public participation can increase the perception of consultations as meaningful for those involved. Opportunities for a broad representative voice among local communities can be provided through tailoring the participation form(s) to the specific project, local context, and target groups, with a focus on creating a “safe forum’ for active and collaborative engagement.

The social legitimacy of renewable energy projects and the public and private organisations behind them require careful planning to avoid such injustices. This is a problem across the globe, but its acuteness hits strongly in the Arctic, exacerbated by past injustices between colonial settlers and Indigenous groups that with variations apply to all the areas discussed above. Moreover, the rise of conflicts in rule-of-law based Arctic states discomfortingly reminds us of conflicts that scholars and practitioners in the North often associate with countries with weak governments. Yet the Sápmi, Greenland and Canadian cases above all demonstrate that the transition from the ideals of meaningful stakeholder involvement, expressed in the globally applicable UNGP and elaborated through the OECD Guidelines and related guidance texts, is easier said than done. Moreover, the Greenland example illustrates that even where local law and regulations aim to ensure at a high level of stakeholder involvement, the experienced effects may be different. Jointly, the cases demonstrate that meaningful stakeholder engagement from the perspective of those affected is a core element in upholding energy justice and environmental justice in order to ensure that climate change solutions do not amplify other forms of social inequality. This also confirms findings from studies in a Global South context (for example, Maher & Buhmann, 2019; Zoomers & Otsuki, 2017) that more research is needed on how to transform formal—and often well-intended—rules into practical application that is truly meaningful and effective from the bottom-up perspective.

#### The plan only pays lip service to collaboration – it’s not meaningful

Annika Krafcik, 2024 - Annika Krafcik graduated from UCLA School of Law in May 2024 with specializations in Native Nations Law, Environmental Law, and International & Comparative Law “The Fight Against Graphite: What Tribal Opposition to a Mine in Alaska Teaches Us about The Importance and Limitations of Consultation in the Green Transition” JOURNAL OF ENVIRONMENTAL LAW V42:2, <https://escholarship.org/content/qt3n55r2j8/qt3n55r2j8_noSplash_7ac875d50d34fa76b8b999dc1deafa55.pdf> //DH

Another reason Tribal consultation is considered inadequate is that most statutes or agency guidelines creating a Tribal consultation requirement do not create a judicially enforceable right to sue for lack of adequate consultation. Tribes can sometimes sue for inadequate consultation under the Administrative Procedure Act, but they rarely win because an agency need only tick the box of offering consultation, even if it is not meaningful.126 This incentivizes agencies to simply pay lip service to Tribal consultation without substantively involving Tribal leaders in decisions affecting traditional lands and resources.127 In a similar vein, to comply with Tribal consultation requirements an agency is under no obligation to supply Tribes with capacity-building funds that would allow Tribes to meaningfully engage in the consultation process.128 As a result, even if agencies reach out to Tribes to start the consultation process, Tribes, especially Tribes in Alaska that are often extremely small and economically marginalized, may not have the staff, time, or money to review the documents the agency sends along. Finally, Tribal consultation requirements laid out in Executive Orders or agency guidelines can easily be revoked by future Administrations.129 This leaves Tribal consultation requirements that are not entrenched in statutory language, on unstable ground.

### Extend: Paternalism Turn

#### The plan’s perceived as colonialism and Alaskan Native Villages will reject it

E. Barrett Ristroph, 2018 – A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI‘I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN URBAN AND REGIONAL PLANNING “HOW CAN LAWS, INSTITUTIONS, AND PLANS FACILITATE ALASKA NATIVE VILLAGE ADAPTATION TO CLIMATE CHANGE?” Proquest //DH

**ANVs = Alaskan Native Villages**

Despite the desire for more external financial assistance, there is a sense that assistance that can be “colonizing” or heavy-handed. Several ANV participants said they felt exploited by their lack of power relative to outside government and researchers, and a few said that the outside government should step back and take cues from the ANV communities. One supporter of indigenous rights from a federal agency conveyed this sense of exploitation:

The US government has been involved, influencing the indigenous peoples’ inherent rights and powers for 400 years now…I’m not sure that …solutions we come up with…are the right solutions. I’m not sure that …it’s best to leave it up to the policy influencers and lobbyists in DC but if the federal policy makers took a true listen to ANVs on what their needs are, a better solution could be drawn.

One ANV resident wanted to convey this message to federal and state government: “Leave us alone, let us regulate our own laws.” He explained, “They get in there and just screw everything up for us …. Everything they tell us to do, we’ve been doing for 14,000 years. And we can do it for another 14,000 years.”

### Extend: Wet Stacking Turn

#### Integrating renewables forces diesel generators to operate at lower capacity – that means not all injected fuel is burned, causing wet stacking

Mohamad Issa et al, 2020 – Institut Maritime du Québec à Rimouski, Rimouski, QC G5L 4B4, Canada “Effects of Low Charge and Environmental Conditions

on Diesel Generators Operation” Eng, vol 1, <https://www.mdpi.com/2673-4117/1/2/9/pdf> //DH

Hybrid power systems are commonly used in stand-alone renewable energy-generating grids. To ensure high electricity quality and, above all, supply continuity and reliability, energy storage systems and stand-alone power generation systems such as diesel generators (DGs) are used. Applying DGs in hybrid systems along with other electric power sources also causes the diesel engine to operate at a reduced load for long periods [1]. This leads to “wet stacking,” which increases the commonly known cost of engine exploitation and unfavorable environmental phenomena [2]. Furthermore, operating a DG set at a load level less than 30% of maximum output is the key trigger behind the polishing and glazing phenomena of cylinders [3–5]. These problems are appear in underloaded generator sets in stand-alone hybrid ship grids as well. When attempting to ensure safety during maneuvers and while navigating “diffcult” areas (river, canal, straits, lakes, etc.), the simultaneous operation of stand-alone power generation systems is necessary to ensure continuous power supply, irrespective of the power demand. Under these conditions, DG-driven engines are frequently underloaded (20–30% of maximal power) [6]. In these circumstances, the fuel is not fully burned, which causes exploitative problems in the DG sets’ diesel drive engines.

The overflow of the air supplied for burning occurs when the diesel engine is underloaded (the air-to-fuel ratio will exceed 500:1). Not all the fuel injected will be burned, and this can condense, forming carbon deposits on the engine elements’ surface [7]. Partial oil-burning results in a higher relative CO2 coefficient and emissions of greenhouse gases (GHG). For example, HC, CO, and NOx (g/kWh) emissions are two to three times higher at 25% engine load than at 75% load [8]. Table 1 shows the effects of low load operation and describes the impacts on a diesel generator set’s performance.

#### It lowers temperature, causes soot and fuel residue buildup and damages the generator

Mohamad Issa et al, 2020 – Institut Maritime du Québec à Rimouski, Rimouski, QC G5L 4B4, Canada “Effects of Low Charge and Environmental Conditions

on Diesel Generators Operation” Eng, vol 1, <https://www.mdpi.com/2673-4117/1/2/9/pdf> //DH

Low load diesel engine operations cause lower cylinder pressure and thus lower temperature. Low temperature can result in problems with ignition and poor combustion, causing increased soot formation and the accumulation of unburned fuel in the cylinder [28]. Low cylinder pressure, soot, and unburned fuel deteriorate the sealing capacity of the piston ring, allowing hot combustion gases, soot particles, and unburned fuel to escape through the rings of the pistons. This results in the increased use of lubricating oil and the dilution of diesel [29]. The lubricating oil's fuel dilution decreases the viscosity that could break critical film thicknesses. This may cause pistons, rings, liners, and crankcase bearings to wear prematurely [12,29,30]. Low load mechanisms lead to a process of deterioration, which means that diesel engines running for more extended periods at low loads may become irreversibly damaged. This is demonstrated by a case of engine damage in a generator configuration (see Table 3). The failure case presents a breakage of the engine crankcase initially caused by piston scuffing from the breakdown of the lubrication oil after prolonged low load operations. Figure 3a illustrates piston scuffing, while Figure 3b shows hard carbon deposits on the top land of piston number 4 [31].

#### Heat loss increases the risk of coolant leaks and freezes the grid

Rebecca Meadows, et al 2025 – National Renewable Energy Lab “Renewable Energy Integration in Remote Alaska Communities” January <https://docs.nrel.gov/docs/fy25osti/90685.pdf> //DH

Loss of Power Plant Heat and Heat Recovery

Like the engine in a car, diesel engines in power plants require cooling. This is accomplished by circulating a glycol-water mixture through the engine cooling jacket, then to a remote radiator, where the heat is dissipated to the outside air (Figure 3). The load on the generator directly correlates to the amount of heat the engine generates. Before reaching the radiator, the coolant is generally diverted through a heat exchanger where it warms up the power plant’s hydronic heating loop. If enough heat is available, the generator coolant can also warm an exterior heat recovery loop, which can supplement the heating loads at nearby buildings. As renewables are brought online, the generators carry less load, and at times they can even turn off, resulting in reduced available heat for the power plant and adjacent facilities. The following potential issues can result:

• Reduced temperature in the generator coolant loops: The heat recovered from the generator coolant is generally the only source of space heat in rural Alaska power plants. Without it, the plant can get cold and even freeze. Further, if coolant temperatures are low enough, it can cause seals to contract and leak. Cold coolant can also prevent the timely dispatch of diesel generators because they need time to warm up, especially from a cold start.

• Reduced output for heat recovery: For many buildings, particularly water treatment plants, recovered heat from the power plant is a critical byproduct of electrical generation. Not only does it reduce heating oil fuel consumption by supplementing a building’s primary heating system, but it also provides a critical redundancy that can prevent a catastrophic freeze if the primary heating system fails.

#### Running a low load will reduce lubrication of the diesel engine, causing engine damage

Mohamad Issa et al, 2020 – Institut Maritime du Québec à Rimouski, Rimouski, QC G5L 4B4, Canada “Effects of Low Charge and Environmental Conditions

on Diesel Generators Operation” Eng, vol 1, <https://www.mdpi.com/2673-4117/1/2/9/pdf> //DH

This article investigates the impacts of low load operation on diesel generators. We studied the conditions resulting in performance deterioration for diesel generators. Operational and environmental conditions affect these performances. The main conclusions are as follows.

Low load operations of diesel engines occur when the loads are below 30% of the maximum power. Low load diesel engine operations cause lower cylinder pressures and thus lower temperatures. Lower temperatures can lead to problems with ignition and incomplete combustion, resulting in increased soot formation and the accumulation of unburned fuel inside the cylinder. The effectiveness of sealing the piston ring depends on the gas pressure in the combustion chamber for proper functioning. Low cylinder pressure and piston ring glazing deteriorate the sealing effectiveness and aggravate the initially low cylinder pressure. Deteriorated piston rings allow hot combustion gases and particles to blow past the piston rings and ignite the lubricating oil film, from which liner glazing will result. Hard carbon particles arising from incomplete combustion polish and smooth the liner.

The engine damage presented in this article involves the breakage of the engine crankcase originally caused by piston scuffing. The scuffing results from mechanical contact when a failure or lack of lubrication occurs. Excessive low load operations cause the contamination of the lubrication oil, which eventually leads to a breakdown of the oil film.

Environmental conditions also affect diesel generator performances. Cold start, ambient temperature, altitude, corrosive environment, dust and humidity can negatively affect these performances.

The impacts of low charge operations are of concern if precautions are not taken, according to the engine manufacturers. Diesel engines operating at low loads must be brought up to high loads (at least 40-50% of full power) regularly to avoid operational problems. Increased engine loads raise the pressure and temperature, scrap the liner lacquering, and burn the soot deposits and unburned coal. These guidelines are included in the engine user manuals, without exception.

### Extend: Spinning Reserves Turn

#### Renewables integration forces the diesel generator to be on stand-by to account for intermittency. That increases inefficiency and undermines the lifespan of the diesel generator

Mohamad Issa et al, 2020 – Institut Maritime du Québec à Rimouski, Rimouski, QC G5L 4B4, Canada “Effects of Low Charge and Environmental Conditions

on Diesel Generators Operation” Eng, vol 1, <https://www.mdpi.com/2673-4117/1/2/9/pdf> //DH

By integrating renewable energy with diesel generators, the use of hybrid systems makes it possible to minimize overall fuel consumption, resulting in an environmental and economic benefit. Wind energy has witnessed the fastest growing trend of all renewable energies, at more than 30% annually over the last 10 years. [13,14]. Low penetration WDS (wind-diesel systems) have already been introduced in Yukon [15], Nunavut [16] and Alaska [17] in the Nordic communities. By low penetration systems, we mean that the overall instantaneous wind power is 20-35% of the diesel rated power and that the total wind energy does not exceed 10-15% of the total consumption [18,19]. Generally, the WDS uses an existing diesel power plant and an additional wind farm containing a single model turbine [20]. To these two principal elements are added logic and the components necessary to the hybrid exploitation of the system, including secondary loads for smoothing, a regulator and automated command. The rise in the amount of wind penetration enables better fuel reduction. However, from this viewpoint, the first challenge emerges from the operational constraints of diesel engines. In order to respond to a sudden reduction in wind power, it is important to maintain the engines on stand-by at more than 30% of their nominal power output, above a certain penetration level. This limits the penetration of wind energy to a degree of too poor, and the wind turbines act merely as a negative charge for the network. Wind diesel systems with high penetration without storage are those wherein the output of wind power exceeds the charge for long periods of time. [21]. This enables the diesel engines to stop completely during those times, resulting in a major reduction in fuel consumption. This design is, in the meantime, subject to complex technical problems [22,23]. As a result of these issues, only projects of this kind are currently operational in Alaska, i.e., without energy storage. The diesel engine must also be kept on stand-by during such times as when the excess of wind energy over the charge is reduced so that it can respond quickly to a reduction in wind speed (reduction of engine startup and heating time). This is an important cause of over-consumption and underperformance operation because the engine could turn for tens or up to 50 h without supplying any useful energy, and operate inefficiently (see Figure 1). In the long term and with similar repetitive conditions, the lifetime of the DG becomes premature.

### They Say: “Technology Solves”

#### New technology doesn’t account for existing microgrids – which aren’t optimized for renewables

Rebecca Meadows, et al 2025 – National Renewable Energy Lab “Renewable Energy Integration in Remote Alaska Communities” January <https://docs.nrel.gov/docs/fy25osti/90685.pdf> //DH

**PCE = Power Cost Equalization, a program run by the State of Alaska that reimburses utilities that have high costs, lowering energy prices for consumers**

One of the biggest challenges to successfully integrating a renewable energy project is that the existing power plant and distribution system are likely not optimized for such integration. A baseline power system assessment should include careful evaluation of the existing system to identify any required upgrades for the successful integration of the renewable energy system. Alaska Energy Authority’s Solar Power Best Practices Guide (Alaska Energy Authority n.d.) lists key considerations, including the capacity for the existing controls and switchgear to accommodate renewables, when evaluating the configuration and operation of the power system. Specifically, renewable integration requires modern controls and switchgear that can automatically dispatch generation sources to maintain stable grid frequency and voltage, while accommodating the additional demands of a renewable energy system. These additional duties include managing additional spinning reserve requirements, responding to changes in renewable generation, managing battery charging and dispatch, and switching between diesels-on and diesels-off modes.

The integration of renewable energy may also require upgrades to electrical distribution. Conductors and transformers along the distribution branch, including those at the power plant, that contain the new renewables may need to be verified and upgraded.

#### Grid modernization is a prerequisite to renewables integration – they’d have to get new diesel generators first

Alaska Venture Fund, 2023 – philanthropic organization in Alaska dedicated to funding sustainability. “Energy & Infrastructure Funding in Rural Alaska Barriers & Potential Solutions “ <https://www.energy.gov/sites/default/files/2024-04/Energy-and-Infrastructure-Funding-in-Alaska-Barriers-Potential-Solutions.pdf> //DH

**BCA = Benefit Cost Analysis**

Another challenge is recognizing rural and remote communities' need to modernize their grids7 before they can accommodate renewable and/or alternative energy systems. While the upgrades themselves may not generate immediate cost savings, and therefore deliver a lower BCA, they are a prerequisite for integrating alternative energy sources. Such upgrades also bring non- monetary benefits such as energy security and resiliency and reduction of environmental impacts.

**Footnote 7**

7Modernizing grids may include work to the existing electric utility such as upgraded controls, new automated switchgear, new diesel gen sets and electric distribution system upgrades, for example.

#### Lack of maintenance capacity increases price and undermines grid stability

Rebecca Meadows, et al 2025 – National Renewable Energy Lab “Renewable Energy Integration in Remote Alaska Communities” January <https://docs.nrel.gov/docs/fy25osti/90685.pdf> //DH

In addition to needed power system upgrades, community capacity to operate and maintain renewable microgrids is also an important consideration when evaluating and selecting the appropriate renewable technology for a remote community. As community microgrids become more complex, they also become more challenging to maintain. This complexity brings an increasing dependence on outside experts to solve operations and maintenance issues. Maintenance service calls to remote communities can cost thousands of dollars and can be delayed by inclement weather, which can result in excessive downtime and decrease the overall cost-effectiveness of the renewable energy technology.

The Kodiak Electric Association, the cooperative electric utility in Kodiak, Alaska, sends employees to the General Electric Renewable Energy Learning Center in New York to enhance the capabilities of their local workforce. Darron Scott, the Kodiak Electric Association president and CEO, emphasizes that communities should not pursue a renewable energy project if they do not have a solid operations and maintenance plan with the trained local support that is needed for the successful operation of renewables in remote communities.

#### Maintenance issues alone will have grids down for months and destroy all cost savings

Darin Sauls, 2019 – Manager of Engineering, Copper Valley Electric Association “Alaska and Renewable Energy: A Missed Opportunity?” Alaska Business Magazine, 12/16,

<https://www.akbizmag.com/industry/energy/alaska-and-renewable-energy-a-missed-opportunity/> //DH

One of the largest challenges remote communities still face is economy of scale.

“For example, a wind project in a remote community that uses one or two 100 kilowatt turbines is going to be much more expensive than a project in the Midwest that uses hundreds of 2 megawatts turbines,” Rose says. “In addition to the scale issue, logistical costs to develop renewable energy in remote rural communities are typically much higher than costs along the Railbelt. Most materials must be barged in [as is fuel], and the cost of mobilizing a crane for a wind turbine installation in a remote community can be very substantial.”

Additionally, upkeep costs can be detrimental to the feasibility of projects due to remote, harsh conditions.

Thayer points out that remote communities are also less likely to have the trained workforce needed to maintain the systems. Bringing in trained workers from other parts of the state or from the Outside is very expensive and can lead to significant delays.

“It is not uncommon for damaged installations to go for months before skilled technicians can get out to them,” Whitney says.

### They Say: “Batteries Solve”

#### Batteries fail in Alaska’s cold environment, and they’re too expensive

Peter Asmus, 2025 - is the president of Pathfinder Communications. He has served as senior advisor, microgrid strategy and thought leadership, for the Alaska Center for Energy and Power over the past two years. “Lower or Higher Prices for Renewable Energy in 2025?” Energy Changemakers, 6/19 <https://energychangemakers.com/renewable-energy-prices-2025/> //DH

Alaska also faces limitations when it comes to energy storage. Not all stationary batteries have been able to perform up to expectations or even survive in Alaska due to extreme cold weather conditions. The dominant battery energy storage technology in today’s power markets is lithium-ion batteries. Alaska pricing for battery energy storage systems generally carries a premium due to long-distance shipping, logistics and the need for special heating systems.

#### Arctic temperatures mean batteries will catch on fire

Michelle Wilber et al, 2021 – Alaska Center for Energy and Power “Cold Weather Issues for Electric Vehicles (EVs) in Alaska”

<https://www.uaf.edu/acep/files/projects/Cold-Weather-Issues-for-EVs-in-Alaska.pdf>

The most dangerous effect of cold temperatures on batteries is lithium plating, the formation of metallic lithium around the anode during charging, which can cause batteries to malfunction.19 Li-ion batteries have a lithium metal oxide cathode, but the standard anode material is layered graphite, where lithium ions are stored during charging. Cold temperatures bring the anode potential close to that of lithium metal, leading to slowed diffusion of ions into the anode and causing metallic plating during charging.20 This results in a reduction in battery performance, some of which is permanent. In extreme cases, lithium plating can take the form of dendrites that can grow large enough to pierce the battery separator and cause internal electrical shorts and fire risk.21,22

Lithium plating is a risk in EVs charged at battery temperatures below 0°C (32°F),23 or fast charged below 10°C (50°F).24 In a 2014 study, researchers found that batteries charged at-20°C (-4°F) led to the formation of metallic lithium; the faster the charging process, the more metallic lithium formed, locking up to 19% of the lithium ions normally involved in the charging and discharging process.25 Although a 20-hour rest following a fast charge allowed some of the metallic lithium to react with the graphite in a delayed, slow charging process, part of the lithium plating was permanent. In an experiment at −10°C (14°F) and a 0.5C rate, the battery permanently lost 25% of its capacity after only 40 charge cycles.26 One charge cycle at 0°C (32°F) at a 1C-rate caused a 3.6% irreversible capacity loss. For these reasons, charge rate is generally severely limited at low temperatures (and charge times greatly increased) to protect the life of the battery. Even up to temperatures as high as 10°C (50°F), lithium plating can occur during fast charging. Slow charging (i.e., Levels 1 or 2) is the only way to avoid lithium plating at battery temperatures below 10°C (50°F), and in practice charging speeds are limited and/or the battery prewarmed to avoid damage.27

### They Say: “Empirical Cost Savings”

#### Their studies are on larger villages which make renewables cost effective – not on the small villages that the plan acts on

Henry Lee, 2023 - Senior Lecturer in Public Policy, Harvard Kennedy School “Infrastructure Challenges in the Alaskan Arctic” 8/31, <https://www.belfercenter.org/publication/infrastructure-challenges-alaskan-arctic> //DH

What are the options for meeting the region’s infrastructure needs going forward? Let us start with energy systems. Are there alternatives to diesel oil? In the last two years, the global price of oil has risen, and this trend has driven diesel prices in the Arctic to new heights. Unfortunately, it has also driven transportation costs higher, meaning that moving the equipment to erect solar or wind generators is also costlier. Solar energy costs, which have plummeted in other parts of the globe, remain high in northern Alaska due to very low capacity factors, the absence of cost-effective storage, and high transportation costs. The prospects for wind energy are better. Wind speeds in most areas will result in higher capacity factors than solar facilities, and on a per kWh basis, transportation costs are lower. However, the economics of wind power favor larger units (2-12 Megawatts), and electricity demand in individual villages is too low to justify these larger units. Storage options and technologies that convert electricity to heat could make wind substantially more attractive.

#### Grid integration empirically skyrockets the cost of renewable energy

Jeremy VanderMeer et al, 2019 – Alaska Center for Energy and Power, University of Alaska, Fairbanks “An Alaska case study: Cost estimates for integrating renewable technologies” Journal of Renewable and Sustainable Energy, 12/21, <https://doi-org.proxy.lib.umich.edu/10.1063/1.4986581> Accessed via University of Michigan databases //DH

Adding renewable energy to a grid, especially high penetration in a remote microgrid, requires grid integration to maintain stability and maximize the economic benefit of the new energy source. This analysis of integration technologies in Alaska shows a statistically significant increase of around $27/kW in the total integration cost per percent increase in wind energy penetration. This is an initial estimate based on twenty-four pre-project cost estimates and designs submitted to the State of Alaska Renewable Energy Fund grant program between 2008 and 2015. For integration systems incorporating thermal or electrical storage, the average control integration cost is around 66% of the total cost and storage is 34%. Trends that are being used to integrate higher penetrations of renewable energy in grids include demand-side management, excess generation to heat, energy storage with grid-forming inverters, and advanced control systems.

## Framing Contention

### 1NC - Framing

#### 1. Consequentialism’s the only way to make ethical decisions in non-ideal situations—any alternative theory assumes ideal conditions, which obscures unjust results.

Schmidt, 24—Faculty of Philosophy, University of Groningen (Andreas, “Consequentialism and the ideal theory debate in political philosophy,” Journal of Social Philosophy, August 7, 2024, DOI: 10.1111/josp.12586, language modifications denoted by brackets, dml)

Before surveying arguments against ideal theory, let me add two comments.

First, some such arguments contend that a given methodology results in theoretical shortcomings. Other arguments are more practical and contend that a given methodology makes theories insufficiently action-guiding. Often enough, however, theoretical and practical concerns relate. In normative political philosophy, we typically expect theories to provide both (some) practical guidance (telling us what to do) and a theoretical justification (why we should do it). Even for more applied questions, theorists are interested not only in “picking the right option” but also in providing justificatory reasons for it. For example, imagine a black-box AI system that would reliably tell us which option is most choiceworthy but would never reveal justificatory reasons for it. While useful, such an AI system would not count as a normative theory.

Second, because theories can be ideal or non-ideal in different ways and to different degrees, methodological challenges are really about theories that are either too ideal or that idealize in problematic ways (Stemplowska & Hamlin, 2012).

The first challenge affects utopianism:

Unnecessary: utopianism is unnecessary. When choosing between feasible options in institutional design, we can sometimes say which one is better without knowing what the ideal society would look like (Sen, 2006, 2009, chap. 4).13 I don't need to taste the perfect dish to know that apple strudel tastes better than gruel. Similarly, we do not need a theory of the best to judge what is better.

The next two objections apply both to utopianism and model remoteness.

Unhelpful: sometimes moving from ideal theory to comparative judgements about real-world options does not work, because the theory's ideal principles provide little guidance in cases too different from the ideal model.

Some ideal theories start with formulating institutional principles (or “rules of regulation”) for a society in idealized or remote conditions. To then judge between real-life options, such views must judge which non-ideal option better approximates the ideal. However, that's when—according to critics—ideal theories run into trouble. Distinguish two versions of Unhelpful: theoretical and epistemic.

Theoretically Unhelpful: some ideal theories are sometimes structurally unable to provide comparative judgements. When non-ideal phenomena, like criminal justice, are outside a theory's core, an ideal theory might not contain a path from the ideal towards a non-ideal approximation procedure to assess options from a feasible set (see (Valentini, 2009) for a discussion).

This problem gets compounded when real-life situations are “non-ideal” in several dimensions. For example, Rawls' theory might simply contain no answer on how we can approximate Rawlsian principles in a country marked by various “non-ideal” conditions at once, such as sovereignty conflicts, systematic gender inequality, widespread health problems, significant immigration, speciesist exploitation, and widespread noncompliance. Relatedly, in real situations, ideal theories often fail to guide us when confronted with trade-offs (Farrelly, 2007; Goodin, 1995a; Sen, 2009, 98–101; Wiens, 2020).

A second version of Unhelpful is epistemic and focuses mostly on utopianism:

Epistemically Unhelpful: social reality is both complex and unjust. We cannot rationally judge which of two options is more inclined to bring us closer to the ideally just long-term institutional arrangement, as social reality is just too complex. The ideally just outcome is mostly unhelpful as a guide for social reform (Barrett, 2020).

Epistemically Unhelpful could allow that ideal theories contain within them a theory for comparative judgments—based on the options' propensity to bring us closer to the ideal institutional arrangements—but that epistemic complexity makes such judgments practically unviable.

A slightly different objection holds that sometimes ideal theory is actively counterproductive.

Bad Rankings: the best can be the enemy of the good: ideal theorising might risk giving us bad rankings when choosing among feasible options.

A common dictum, often expounded by an uncle during the holidays, is that communism is a good idea in theory but does not work in practice. However, trying to approximate communism—or whatever is ideal—in the real world might make things worse rather than better. One much-discussed problem is the “failure of approximation”: by using the criteria for the best outcome to approximate a good outcome in the real world, we end up with a worse outcome (Stemplowska, 2016; Wiens, 2015, 2020).

A related but slightly different objection, primarily applying to model remoteness, is as follows:

Blind Spots: abstracting away empirical facts, ideal theories often assume away normatively important issues from their theories. Thereby, they arrive at principles that fail to fully account for important real-world issues.

Blind Spots raises an issue for model remoteness in three ways. First—and related to Theoretically Unhelpful—treating “non-ideal” issues as being outside its core, ideal theory might fail to guide us on how to approach such issues in the real world. Second, which issues to exclude in ideal settings is itself a normative question. Ideal theorists might argue that all scientists must abstract and idealize when building a model. However, in normative theory, excluding certain real-world issues from a theory's core is rarely normatively neutral. For example, excluding bad health, structural gender inequality, or the domination of non-human animals from our theory's core and treating those as peripheral issues requires a normative justification. Finally, excluding such issues from the core model might simply give us the wrong institutional principles. If normative principles fail to capture important real-world problems—or treat those as peripheral—are they the right principles?

Some critics make Blind Spot through worries around ideology:

Ideological Capture: by including blind spots in their normative theorising, ideal theories can produce principles that hide rather than draw attention to real-world problematic power relationships, injustices, and so on. Thereby, ideal theory can help reproduce status quo problems and privileges (See (Mills, 2005) for example). 14

3.2 | Consequentialist answers

I now argue that consequentialism has good answers to all the above challenges. 15 Several features of consequentialism, as described in Section 2, allow it to meet the challenges posed to (overly) ideal theory. I first describe two such features and then address those challenges one by one.

3.2.1 | Two features

First, consequentialism is “non-ideal” about normative institutional principles. In Section 2, I argued that consequentialist political philosophy is primarily about practices and institutions that bring about good outcomes. Institutional principles tend to come in when one wants to characterize the practice-internal normativity of such practices. And what practice-internal normativity such practices will have—say the practice of democracy—is in large part determined by empirical considerations. So, institutional principles are thus not “ideal a priori principles” but are always connected to, and contingent on, empirical evidence about the effects and practice-internal normativity of real-world practices.

Second, consequentialism is essentially comparative. Rather than starting out by enquiring which institutions are fully just or unjust, or good or bad simpliciter, consequentialism tells us which ones are more choice-worthy than others. 16

Now, compare consequentialism with views in political philosophy, such as Rawls or Gauthier, that rely on model remoteness. As mentioned earlier, such views derive normative principles through an abstract and idealized model. Call such theories privileging theories, because they privilege a particular model relative to which they formulate their core principles. For example, Gauthier develops a model of interactions between rational agents. When we assess real-world institutions, we assess them against the principles developed in this privileged model. Or consider Nozick. Nozick posits principles for the just acquisition and transfer of property. Imagining a hypothetical scenario of an original acquisition along with principles for just transfer and compensation, we can then assess real-life property distributions against this privileged hypothetical model. Finally, Rawls has a privileged model of society as a system of fair cooperation between free and equal persons. The hypothetical contract behind the veil of ignorance between able-bodied persons within a closed country is a vehicle for articulating institutional principles for this privileged model.

Consequentialism, in contrast, does not have a privileged model. The standards consequentialism uses to assess outcomes and options do not require such an idealized model.

The above two features help consequentialism meet the objections raised to ideal theory. Start with Blind Spots.

3.2.2 | Blind Spots

Blind Spots was the charge that by formulating institutional principles relative to an idealized and remote model, ideal theories structurally fail to give sufficient importance to important real-world issues. Given its two features outlined above, consequentialism avoids this challenge.

First, being non-ideal about institutional principles forces consequentialism to focus on expected effects. And when estimating expected effects, we must consider all axiologically relevant effects, that is, all factors that influence the expected value of an option. And such effects will include “non-ideal” factors like structural gender inequality, disability, ill health, partial compliance, disagreement about justice and the good, human irrationality, migration, speciesist exploitation, and so on. Accordingly, we cannot rank institutional set-ups by ignoring such factors, because they all influence how likely and good different outcomes will be. Non-ideal factors do not come in after the theorizing is done, they are built into the theorizing itself.

Second, privileging theories have a remote model of society relative to which they formulate their core institutional principles, which are then used as standards to assess options. Inevitably, a remote model must idealize and abstract away from important real-life normative concerns, which means core principles will always either entirely neglect those concerns or treat them as peripheral. Consequentialism, in contrast, does not formulate any core institutional principles relative to a privileged remote model—it is essentially comparative. Because it does not require a remote model for its evaluative standards, consequentialism also avoids neglecting important real-world issues.

#### 2. Existential threats outweigh. Scope neglect means we tend to underestimate the risk

Sebastian Farquhar et al, 2017 - associate member Senior Research Fellow at OATML Oxford at the University of Oxford (Global Priorities Project, Future of Humanity Institute at the University of Oxford, Ministry for Foreign Affairs of Finland, “Existential Risk: Diplomacy and Governance,” Global Priorities Project, 2017, <https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf> //DH

1.2. THE ETHICS OF EXISTENTIAL RISK

In his book Reasons and Persons, Oxford philosopher Derek Parfit advanced an influential argument about the importance of avoiding extinction:

I believe that if we destroy mankind, as we now can, this outcome will be much worse than most people think. Compare three outcomes: (1) Peace.

(2) A nuclear war that kills 99% of the world’s existing population.

(3) A nuclear war that kills 100%.

(2) would be worse than (1), and (3) would be worse than (2). Which is the greater of these two differences? Most people believe that the greater difference is between (1) and (2). I believe that the difference between (2) and (3) is very much greater. ... The Earth will remain habitable for at least another billion years. Civilization began only a few thousand years ago. If we do not destroy mankind, these few thousand years may be only a tiny fraction of the whole of civilized human history. The difference between (2) and (3) may thus be the difference between this tiny fraction and all of the rest of this history. If we compare this possible history to a day, what has occurred so far is only a fraction of a second.65

In this argument, it seems that Parfit is assuming that the survivors of a nuclear war that kills 99% of the population would eventually be able to recover civilisation without long-term effect. As we have seen, this may not be a safe assumption – but for the purposes of this thought experiment, the point stands. What makes existential catastrophes especially bad is that they would “destroy the future,” as another Oxford philosopher, Nick Bostrom, puts it.66 This future could potentially be extremely long and full of flourishing, and would therefore have extremely large value. In standard risk analysis, when working out how to respond to risk, we work out the expected value of risk reduction, by weighing the probability that an action will prevent an adverse event against the severity of the event. Because the value of preventing existential catastrophe is so vast, even a tiny probability of prevention has huge expected value.67

Of course, there is persisting reasonable disagreement about ethics and there are a number of ways one might resist this conclusion.68 Therefore, it would be unjustified to be overconfident in Parfit and Bostrom’s argument. In some areas, government policy does give significant weight to future generations. For example, in assessing the risks of nuclear waste storage, governments have considered timeframes of thousands, hundreds of thousands, and even a million years.69 Justifications for this policy usually appeal to principles of intergenerational equity according to which future generations ought to get as much protection as current generations.70 Similarly, widely accepted norms of sustainable development require development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs.71

However, when it comes to existential risk, it would seem that we fail to live up to principles of intergenerational equity. Existential catastrophe would not only give future generations less than the current generations; it would give them nothing. Indeed, reducing existential risk plausibly has a quite low cost for us in comparison with the huge expected value it has for future generations. In spite of this, relatively little is done to reduce existential risk. Unless we give up on norms of intergenerational equity, they give us a strong case for significantly increasing our efforts to reduce existential risks. 1.3. WHY EXISTENTIAL RISKS MAY BE SYSTEMATICALLY UNDERINVESTED IN, AND THE ROLE OF THE INTERNATIONAL COMMUNITY

In spite of the importance of existential risk reduction, it probably receives less attention than is warranted. As a result, concerted international cooperation is required if we are to receive adequate protection from existential risks. 1.3.1. Why existential risks are likely to be underinvested in

There are several reasons why existential risk reduction is likely to be underinvested in. Firstly, it is a global public good. Economic theory predicts that such goods tend to be underprovided. The benefits of existential risk reduction are widely and indivisibly dispersed around the globe from the countries responsible for taking action. Consequently, a country which reduces existential risk gains only a small portion of the benefits but bears the full brunt of the costs. Countries thus have strong incentives to free ride, receiving the benefits of risk reduction without contributing. As a result, too few do what is in the common interest.

Secondly, as already suggested above, existential risk reduction is an intergenerational public good: most of the benefits are enjoyed by future generations who have no say in the political process. For these goods, the problem is temporal free riding: the current generation enjoys the benefits of inaction while future generations bear the costs.

Thirdly, many existential risks, such as machine superintelligence, engineered pandemics, and solar geoengineering, pose an unprecedented and uncertain future threat. Consequently, it is hard to develop a satisfactory governance regime for them: there are few existing governance instruments which can be applied to these risks, and it is unclear what shape new instruments should take. In this way, our position with regard to these emerging risks is comparable to the one we faced when nuclear weapons first became available.

Cognitive biases also lead people to underestimate existential risks. Since there have not been any catastrophes of this magnitude, these risks are not salient to politicians and the public.72 This is an example of the misapplication of the availability heuristic, a mental shortcut which assumes that something is important only if it can be readily recalled.

Another cognitive bias affecting perceptions of existential risk is scope neglect. In a seminal 1992 study, three groups were asked how much they would be willing to pay to save 2,000, 20,000 or 200,000 birds from drowning in uncovered oil ponds. The groups answered $80, $78, and $88, respectively.73 In this case, the size of the benefits had little effect on the scale of the preferred response. People become numbed to the effect of saving lives when the numbers get too large. 74 Scope neglect is a particularly acute problem for existential risk because the numbers at stake are so large. Due to scope neglect, decision-makers are prone to treat existential risks in a similar way to problems which are less severe by many orders of magnitude. A wide range of other cognitive biases are likely to affect the evaluation of existential risks.75

#### 3. Structural violence isn’t the root cause of war. Prioritize reducing war first

John Horgan, 2014 - Director of the Center for Science Writings at Stevens Institute of Technology, “To End War, Focus on Culture Rather than "Root Causes"”, Scientific American, 8-18, <https://blogs.scientificamerican.com/cross-check/to-end-war-focus-on-culture-rather-than-root-causes/>

When I started researching war, I also assumed that to get rid of war, we have to get rid of its root causes. The trouble is, scholars have identified countless causes of war. One pseudo-explanation (which I'm glad Kloor does not mention, and which I rebut early on in my book and in posts such as this) is that war stems from a compulsion bred into our ancestors by natural selection. Biology underpins war, as it underpins all human behaviors. The crucial question is, why does war break out in certain places and times and not others?

The most popular non-biological explanations of war are what I call the Malthusian and Marxist hypotheses. The first posits that war stems from our tendency to over-reproduce and hence fight over land and other resources. The second holds that war stems from inequality, the tendency of societies (especially capitalist ones) to divide into haves and have-nots.

Scholars have also blamed wars on religion, racism and nationalism, which Kloor mentions above, as well as such fundamental social traits as hierarchy, sexism and injustice. If you cherry pick, you always find evidence to support your favorite theory.

But as scholars such as Lewis Fry Richardson (whom my friend David Berreby recently profiled) have shown, neither the Malthusian and Marxist theories nor any of the other explanations above can account for the vast diversity of wars. Moreover, some factors that provoke conflict, such as religion, can also inhibit it. Religion has inspired some of our greatest antiwar leaders, notably Gandhi and Martin Luther King.

I have found only one theory of war that fits the facts. The theory holds that war is a self-perpetuating, contagious meme, which can propagate independently of other social and environmental factors. As anthropologist Margaret Mead put it in a famous 1940 essay, "Warfare Is Only an Invention—Not a Biological Necessity."

In other words, the major cause of war is war itself, which has a terrible tendency to spread even to societies that would prefer to remain peaceful. I make this point in my book and in a 2010 blog post, "Margaret Mead’s war theory kicks butt of neo-Darwinian and Malthusian models." Here is an edited excerpt:

In his 1997 book War Before Civilization, anthropologist Lawrence Keeley notes that war among North American Indians often stemmed from the aggression of just a few extremely warlike tribes, "rotten apples that spoiled their regional barrels." He added, "Less aggressive societies, stimulated by more warlike groups in their vicinity, become more bellicose themselves." Societies in a violent region, the political scientist Azar Gat emphasizes in his 2006 book War in Human Civilization, have a strong incentive to carry out preemptive attacks. Societies may "attack the other side in order to eliminate or severely weaken them as a potential enemy. Indeed, this option only makes the other side more insecure, rendering the security dilemma more acute. War can thus become a self-fulfilling prophecy. The fear of war breeds war."

Many people are pessimistic about ending war because they assume it will require radical social engineering. World peace will require eliminating poverty, inequality, sexism, racism or [fill in the blank]. We will need to eradicate religion, or all embrace the same religion. We will need to get rid of all nation states and become anarchists, or form a single global government.

My analysis of war suggests that if we want to end war, we don't need to create a society radically different from our own, let alone a utopia. If we want to end war, we should focus on ending war and the culture of war rather than on supposed causal factors. If we can do that, we will take a major step toward solving many of our other social problems, as I argued in my previous post.

And that brings me to Keith Kloor's final challenge to me. He devotes much of his column to a discussion of how extremists on both sides of the conflict between Israel and Palestine have "hijacked the peace process. Horrific spasmodic cycles of violence and death is the result." He asks me how we can "rid the world of extremist groups that sow the seeds of war."

Kloor has his causation backwards. Just as war promotes poverty, tyranny, inequality and resource depletion at least as much as vice versa, so war promotes fanaticism. Once militarism seizes hold of a society, it can transform vast populations into virtual sociopaths. It turns decent, ethical, reasonable people into intolerant fanatics capable of the most heinous acts.

### Extend: Consequentialism Good

#### Prefer utilitarianism – the only ethical rubric is to maximize number of lives saved

Greene 10 (Joshua, Associate Professor of the Social Sciences Department of Psychology Harvard University, Moral Psychology: Historical and Contemporary Readings, “The Secret Joke of Kant’s Soul”, www.fed.cuhk.edu.hk/~lchang/material/Evolutionary/Developmental/Greene-KantSoul.pdf)

What turn-of-the-millennium science is telling us is that human moral judgment is not a pristine rational enterprise, that our moral judgments are driven by a hodgepodge of emotional dispositions, which themselves were shaped by a hodgepodge of evolutionary forces, both biological and cultural. Because of this, it is exceedingly unlikely that there is anyrationallycoherentnormativemoral theory that can accommodateourmoral intuitions. Moreover, anyone who claims to have such a theory, or even part of one, almost certainly doesn't. Instead, what that person probably has is a moral rationalization.¶ It seems then, that we have somehow crossed the infamous "is"-"ought" divide. How did this happen? Didn't Hume (Hume, 1978) and Moore (Moore, 1966) warn us against trying to derive an "ought" from and "is?" How did we go from descriptive scientific theories concerning moral psychology to skepticism about a whole class of normative moral theories? The answer is that we did not, as Hume and Moore anticipated, attempt to derive an "ought" from and "is." That is, our method has been inductive rather than deductive. We have inferred on the basis of the available evidence that the phenomenon of rationalist deontological philosophy is best explained as a rationalization of evolved emotional intuition (Harman, 1977).¶ Missing the Deontological Point I suspect that rationalist deontologists will remain unmoved by the arguments presented here. Instead, I suspect, they will insist that I have simply misunderstoodwhatKant and like-minded deontologistsare all about. Deontology, they will say, isn't about this intuition or that intuition. It's not defined by its normative differences with consequentialism. Rather, deontology is about taking humanity seriously. Above all else, it's about respect for persons. It's about treating others as fellow rational creatures rather than as mere objects, about acting for reasons rational beings can share. And so on (Korsgaard, 1996a; Korsgaard, 1996b).This is, no doubt, how many deontologists see deontology. But this insider's view, as I've suggested, may be misleading. The problem, more specifically, is that it defines deontology in terms of values that are notdistinctivelydeontological, though they may appear to be from the inside. Consider the following analogy with religion. When one asks a religious person to explain the essence of his religion, one often gets an answer like this: "It's about love, really. It's about looking out for other people, looking beyond oneself. It's about community, being part of something larger than oneself." This sort of answer accurately captures the phenomenology of many people's religion, but it's nevertheless inadequate for distinguishing religion from other things. This is because many, if not most, non-religious people aspire to love deeply, look out for other people, avoid self-absorption, have a sense of a community, and be connected to things larger than themselves. In other words, secular humanists and atheists can assent to most of what many religious people think religion is all about. From a secular humanist's point of view, in contrast, what's distinctive about religion is its commitment to the existence of supernatural entities as well as formal religious institutions and doctrines. And they're right. These things really do distinguish religious from non-religious practices, though they may appear to be secondary to many people operating from within a religious point of view. In the same way, I believe that most of the standard deontological/Kantian self-characterizatons fail to distinguish deontology from other approaches to ethics. (See also Kagan (Kagan, 1997, pp. 70-78.) on the difficulty of defining deontology.) It seems to me that consequentialists, as much as anyone else, have respect for persons, are against treating people asmereobjects, wish to act for reasons that rational creatures can share, etc. A consequentialist respects other persons, and refrains from treating them as mere objects, by counting every person's well-beingin the decision-making process. Likewise, a consequentialist attempts to act according to reasons that rational creatures can share by acting according to principles that give equal weight to everyone's interests, i.e. that are impartial. This is not to say that consequentialists and deontologists don't differ. They do. It's just that the real differences may not be what deontologists often take them to be. What, then, distinguishes deontology from other kinds of moral thought? A good strategy for answering this question is to start with concrete disagreements between deontologists and others (such as consequentialists) and then work backward in search of deeper principles. This is what I've attempted to do with the trolley and footbridge cases, and other instances in which deontologists and consequentialists disagree. If you ask a deontologically-minded person why it's wrong to push someone in front of speeding trolley in order to save five others, you will getcharacteristically deontological answers. Some will betautological: "Because it's murder!"Others will be more sophisticated: "The ends don't justify the means." "You have to respect people's rights." But, as we know, these answers don't really explain anything, because if you give the same people (on different occasions) the trolley case or the loop case (See above), they'll make the opposite judgment, even though their initial explanation concerning the footbridge case applies equally well to one or both of these cases. Talk about rights, respect for persons, and reasons we can share are natural attempts to explain, in "cognitive" terms, what we feel when we find ourselves having emotionally driven intuitions that are odds with the cold calculus of consequentialism. Although these explanations are inevitably incomplete, there seems to be "something deeply right" about thembecause they give voice to powerful moral emotions. But, as with many religious people's accounts of what's essential to religion, they don't really explain what's distinctive about the philosophy in question.

#### Refusing to consider consequences makes them complicit in the structures they critique

Michalinos Zembylas, 2025 - Open University of Cyprus, Programme of Educational Studies, Latsia, Cyprus & Chair for Critical Studies in Higher Education Transformation, Nelson Mandela University, Gqeberha, South Africa “Decolonial pathways in education: Walter Mignolo, epistemic delinking, and the risks of ethno-essentialism” Globalisation, Societies and Education, Taylor & Francis Online Journals //DH

In his critical analysis of intellectual decolonisation, Moosavi (Citation2020) cautions that while decolonisation efforts are essential, they come with notable limitations. In particular, he identifies five such limitations that can undermine the effectiveness of decolonisation efforts: the tendency to oversimplify decolonisation as a straightforward task; the risk of essentialising or appropriating the Global South; the failure to recognise the varied and complex nature of marginalisation within academia; the pitfalls of nativism, which may elevate certain cultural knowledge uncritically; and tokenism, which can reduce decolonisation to superficial gestures rather than meaningful change. Moosavi argues that identifying these pitfalls is critical, as certain approaches to intellectual decolonisation may inadvertently perpetuate the very coloniality they aim to dismantle, thereby reinforcing power hierarchies and marginalisation rather than subverting them. His insights serve as a reminder that decolonisation must be approached thoughtfully and critically, ensuring it is grounded in genuine inclusivity and avoids replicating reductive or exclusionary practices.

Similarly, Naicker (Citation2023) warns that decolonial theory’s ‘exclusively and moralistically exclusionary anti-Westernism begins mirroring the rightist tendencies it sought to locate solely within a fabricated Western essence’ (237).Footnote1 Although such a sweeping critique risks oversimplifying decolonial theory, it raises important concerns about the potential pitfalls of an epistemic approach to decolonisation, particularly regarding its reliance on identity politics. When decolonial discourse primarily focuses on rejecting Western frameworks without self-reflection on the consequences of such move, it risks becoming entangled in the same exclusionary impulses it seeks to challenge. This critique points to a crucial tension in decolonial thought: how can scholars engage in meaningful anticolonial work without reducing the complexities of colonial power relations to a binary opposition between ‘the West’ and ‘the non-West’?

#### Reducing policies to moral intent shuts down debate. Assessing consequences is key to effective social justice advocacy

Christopher A. Bracey 6, Associate Professor of Law, Associate Professor of African & African American Studies, Washington University in St. Louis, September, Southern California Law Review, 79 S. Cal. L. Rev. 1231, p. 1318

Second, reducing conversation on race matters to an ideological contest allows opponents to elide inquiry into whether the results of a particular preference policy are desirable. Policy positions masquerading as principled ideological stances create the impression that a racial policy is not simply a choice among available alternatives, but the embodiment of some higher moral principle. Thus, the "principle" becomes an end in itself, without reference to outcomes. Consider the prevailing view of colorblindness in constitutional discourse. Colorblindness has come to be understood as the embodiment of what is morally just, independent of its actual effect upon the lives of racial minorities. This explains Justice Thomas's belief in the "moral and constitutional equivalence" between Jim Crow laws and race preferences, and his tragic assertion that "Government cannot make us equal [but] can only recognize, respect, and protect us as equal before the law." [281](http://web.lexis-nexis.com/universe/document?_m=cd9713b340d60abd42c2b34c36d8ef95&_docnum=9&wchp=dGLbVzz-zSkVA&_md5=9645fa92f5740655bdc1c9ae7c82b328#n281) For Thomas, there is no meaningful difference between laws designed to entrench racial subordination and those designed to alleviate conditions of oppression. Critics may point out that colorblindness in practice has the effect of entrenching existing racial disparities in health, wealth, and society. But in framing the debate in purely ideological terms, opponents are able to avoid the contentious issue of outcomes and make viability determinations based exclusively on whether racially progressive measures exude fidelity to the ideological principle of colorblindness. Meaningful policy debate is replaced by ideological exchange, which further exacerbates hostilities and deepens the cycle of resentment.

### Extend: Extinction First

#### Prefer magnitude over probability. It’s impossible to precisely calculate probability and uncertainty means we’re as likely to underestimate as overestimate it

Dennis Pamlin and Stuart Armstrong, 2015 - \*Senior Associate at Chinese Academy of Social Sciences, Senior Advisor at RISE, a visiting research fellow at the Research Center of Journalism and Social Development at Renmin university, and advisor to Centre for Sustainable Development at Confederation of Indian Industries (CII). AND \*\*James Martin Research Fellow, Future of Humanity Institute, Oxford University. “12 Risks that Threaten Human Civilisation: The Case for a New Risk Category” <https://www.researchgate.net/figure/Number-of-times-global-challenges-are-included-in-surveys-of-global-challenges_fig4_291086909> //DH

Risk = Probability × Impact

Impacts where civilisation collapses to a state of great suffering and do not recover, or a situation where all human life end, are defined as infinite as the result is irreversible and lasts forever.

The slightly tilted bell curve is a common probability distribution, but the shape differs and in reality is seldom as smooth as the example.

The total area under the curve always represents 100 percent, i.e. all the possible outcomes fit under the curve. In this case (A) represents the most probable impact. With a much lower probability it will be a close to zero impact, illustrated by (B). In the same way as in case B there is also a low probability that the situation will be very significant, illustrated by (C).

The impacts (A), (B) and (C) all belong to the same category, normal impacts: the impacts may be more or less serious, but they can be dealt with within the current system.

The impacts in this report are however of a special kind. These are impacts where everything will be lost and the situation will not be reversible, i.e challenges with potentially infinite impact.

In insurance and finance this kind of risk is called “risk of ruin”, an impact where all capital is lost.5 This impact is however only infinite for the company that is losing the money. From society’s perspective, that is not a special category of risk.

In this report the focus is on the “risk of ruin” on a global scale and on a human level, in the worst case this is when we risk the extinction of our own species.

On a probability curve the impacts in this report are usually at the very far right with a relatively low probability compared with other impacts, illustrated by (D) in Figure 2.

Often they are so far out on the tail of the curve that they are not even included in studies.

For each risk in this report the probability of an infinite impact is very low compared to the most likely outcome. Some studies even indicate that not all risks in this report can result in an infinite impact. But a significant number of peer-reviewed reports indicate that those impacts not only can happen, but that their probability is increasing due to unsustainable trends.

The assumption for this report is that by creating a better understanding of our scientific knowledge regarding risks with a potentially infinite impact, we can inspire initiatives that can turn these risks into drivers for innovation.

Not only could a better understanding of the unique magnitude of these risks help address the risks we face, it could also help to create a path towards more sustainable development.

The group of global risks discussed in this report are so different from most of the challenges we face that they are hard to comprehend. But that is also why they can help us to build the collaboration we need and drive the development of further solutions that benefit both people and the planet.

As noted above, none of the risks in this report is likely to result directly in an infinite impact, and some are probably even physically incapable of doing so. But all are so significant that they could reach a threshold impact able to create social and ecological instability that could trigger a process which could lead to an infinite impact.

For several reasons the potentially infinite impacts of the risks in this report are not as well known as they should be. One reason is the way that extreme impacts are often masked by most of the theories and models used by governments and business today.

For example, the probability of extreme impacts is often below what is included in studies and strategies. The tendency to exclude impacts below a probability of five percent is one reason for the relative “invisibility” of infinite impacts. The almost standard use of a 95% confidence interval is one reason why low-probability high-impact events are often ignored.6

Climate change is a good example, where almost all of the focus is on the most likely scenarios and there are few studies that include the lowprobability high-impact scenarios. In most reports about climate impacts, the impacts caused by warming beyond five or six degrees Celsius are even omitted from tables and graphs even though the IPCC’s own research indicates that the probability of these impacts are often between one and five percent, and sometimes even higher.7

Other aspects that contribute to this relative invisibility include the fact that extreme impacts are difficult to translate into monetary terms, they have a global scope, and they often require a time-horizon of a century or more. They cannot be understood simply by linear extrapolation of current trends, and they lack historical precedents.

There is also the fact that the measures required to significantly reduce the probability of infinite impacts will be radical compared to a business-as-usual scenario with a focus on incremental changes. The exact probability of a specific impact is difficult or impossible to estimate.8 However, the important thing is to establish the current magnitude of the probabilities and compare them with the probabilities for such impacts we cannot accept. A failure to provide any estimate for these riks often results in strategies and priorities defined as though the probability of a totally unacceptable outcome is zero. An approximate number for a best estimate also makes it easier to understand that a great uncertainty means the actual probability can be both much higher and much lower than the best estimate.

It should also be stressed that uncertainty is not a weakness in science; it always exists in scientific work. It is a systematic way of understanding the limitations of the methodology, data, etc.9 Uncertainty is not a reason to wait to take action if the impacts are serious. Increased uncertainty is something that risk experts, e.g. insurance experts and security policy experts, interpret as a signal for action.

A contrasting challenge is that our cultural references to the threat of infinite impacts have been dominated throughout history by religious groups seeking to scare society without any scientific backing, often as a way to discipline people and implement unpopular measures. It should not have to be said, but this report is obviously fundamentally different as it focuses on scientific evidence from peer-reviewed sources.

Infinite impact

The concept infinite impact refers to two aspects in particular; the terminology is not meant to imply a literally infinite impact (with all the mathematical subtleties that would imply) but tos erve as a reminder that these risks are of a different nature.

Ethical

These are impacts that threaten the very survival of humanity and life on Earth – and therefore can be seen as being infinitely negative from an ethical perspective. No positive gain can outweigh even a small probability for an infinite negative impact. Such risks require society to ensure that we eliminate these risks by reducing the impact below an infinite impact as a top priority, or at least do everything we can to reduce the probability of these risks. As some of these risks are impossible to eliminate today it is also important to discuss what probability can right now be accepted for risks with a possible infinite impact.

Economic

Infinite impacts are beyond what most traditional economic models today are able to cope with. The impacts are irreversible in the most fundamental way, so tools like cost-benefit assessment seldom make sense. To use discounting that makes infinite impacts (which could take place 100 years or more from now and affect all future generations) close to invisible in economic assessments, is another example of a challenge with current tools. So while tools like cost-benefit models and discounting can help us in some areas, they are seldom applicable in the context of infinite impacts. New tools are needed to guide the global economy in an age of potential infinite impacts.

# Alaska Counterplan

### 1NC – Alaska CP

#### Text: The State of Alaska should increase its collaborative development of tribally-owned solar and wind energy in Native Alaskan Arctic communities.. The State of Alaska should fund it by mandating a 3.1% statewide sales tax on goods and services.

#### Alaska has the capacity to do the plan, it just needs to increase funding

Ralph Andersen et al, 2018 - President and CEO of Bristol Bay Native Association and a member of Clarks Point Tribal Council. Ralph is also Chairman of the Bristol Bay Partnership and the Western Alaska Salmon Coalition, and is former Co-Chairman of the Alaska Federation of Natives. This report was prepared by the Climate Action for Alaska Leadership Team, with 21 members “Alaska Climate Change ACTION PLAN recommendations to the governor” <https://cncnorthconsulting.com/wp-content/uploads/2021/05/ak_climate_action_plan_brochure.pdf> //DH

Action 3.1B: Develop new carbon-neutral models of community economic development that support diversification, leverage local investment, and strengthen the clean energy economy.

• State and local governments should encourage carbon-neutral economic development within Alaska communities by reprioritizing local investment, local production and consumption of goods (including food and seafood), recycling, and community development processes.

• As applicable, the Department of Administration should add criteria to State Requests for Proposals (RFPs) that gives preference to proposals with clean energy or energy efficiency components. Similarly, municipal government RFPs can give preference to proposals supporting clean energy or energy efficiency.

• State and municipal governments can consider microloans to businesses that focus on carbon-neutral products. This can be done in collaboration with Alaska Native Tribes, tribal consortia, and Alaska Native Regional and Village Corporations.

• The State should increase collaborations for program delivery and the opportunity for public–private partnerships. State and local governments should prioritize ways to make program delivery more efficient and effective, including a review of the opportunity for public–private partnerships and collaborative services.

• The ability to restructure grant, loan, and capital project funding from federal and state budgets to support an energy transition will be important. State and federal funding guidelines will need to remove inefficiencies and barriers that may hinder clean energy use and energy efficiency projects.

#### A 3.1 percent sales tax that includes services can raise 1 billion a year for Alaska without harming its economy

Jared Walczak, 2020 – Vice President of State Projects at the Tax Foundation “Navigating Alaska’s Fiscal Crisis” <https://taxfoundation.org/wp-content/uploads/2020/01/Navigating-Alaskas-Fiscal-Crisis.pdf> //DH

Should Alaska consider a major new tax, the sales tax has its attractions. Because the tax is largely collected by retailers, not individuals, tax administrators deal with far fewer payors—a genuine concern in a large, sparsely populated state where administration and enforcement can be costly. Because it is imposed on consumption rather than on labor (in contrast to an individual income tax), its economic impact is smaller and collections are less volatile than under an income tax. An above-average portion of the sales tax can be exported to nonresidents in a state like Alaska, which swells with both tourists and seasonal workers domiciled elsewhere. And, while it is equal parts challenge and opportunity, adopting a state sales tax would also provide a chance to unify the collection and administration of local sales taxes, easing burdens on sellers and facilitating online sales tax collections.

How Much Could a Sales Tax Raise?

With all taxes, collections are a function of both the rate of tax and the base on which that tax is imposed. As discussed later, sales tax bases in most states have been eroding for years as a share of personal consumption, the consequence of both (1) conscious policy choices to carve out select transactions and (2) changes in the economy, and particularly a greater consumption of services, which were far less significant as a percentage of personal consumption when most state sales taxes were designed.

In this publication, we argue that any sales tax should be imposed on a broad base, and that Alaska, in designing a sales tax, should avoid the carveouts and omissions that characterize sales taxes elsewhere. How much the state could generate with a sales tax depends considerably on sales tax breadth, since—particularly given existing local sales taxes—there are likely practical and political, and certainly economic, constraints on the rate.

There are two ways to think about how much Alaska could generate from a sales tax. One is to compare Alaska to other states which already impose a sales tax, and another is to calculate revenues directly from statistics about state personal consumption expenditures.

On average, states with a statewide general sales tax generate tax revenue worth 2.3 percent of personal consumption in the state (see Table 2). Were all personal consumption taxed, and nothing else, the resulting figure would be the average state sales tax rate, but (1) states exempt vast swaths of personal consumption, (2) states tax a significant percentage of intermediate transactions which do not constitute personal consumption, (3) a certain percentage of personal consumption as reported by federal sources is

not associated with a transaction and thus not properly subject to a sales tax,23 and (4) states never achieve full compliance.

It follows, then, that there are better and worse ways to collect taxes equal to 2.3 percent (or any other percent) of personal consumption, and that those with broader bases will achieve such collections with lower rates—and a more equitable, pro-growth system of taxation. If Alaska were, however, to match the national average, collecting state sales taxes equivalent to 2.3 percent of state personal consumption, it would raise about $852 million a year. Generating $500 million a year would require collections equal to 1.35 percent of personal consumption, and $1 billion a year would require 2.7 percent.

These calculations can provide a rough sense of what Alaska can expect based on the experience of other states. But Alaska need not be limited to the approaches reflected in sales taxes that are, at minimum, a half century old. It is more helpful, therefore, to build from the ground up, projecting revenues based on what Alaska might elect to tax.

The broadest possible well-structured sales tax base would include all final consumption except for housing, financial services furnished without payment, social services, religious activities, and legally or functionally untaxable purchases like internet access, postal services, and other purchases from government sellers, along with grocery purchases made with SNAP and WIC benefits. This base would include both goods and services when purchased for final consumption, rather than as intermediate products in the process of production. With this very broad sales tax base, Alaska could generate an estimated $1 billion with a state rate as low as 3.1 percent, or $500 million with a 1.6 percent rate.

### 2NC Solvency

#### Alaska can increase its funding for Native Alaskan adoption of renewable energy

Ralph Andersen et al, 2018 - President and CEO of Bristol Bay Native Association and a member of Clarks Point Tribal Council. Ralph is also Chairman of the Bristol Bay Partnership and the Western Alaska Salmon Coalition, and is former Co-Chairman of the Alaska Federation of Natives. This report was prepared by the Climate Action for Alaska Leadership Team, with 21 members “Alaska Climate Change ACTION PLAN recommendations to the governor” <https://cncnorthconsulting.com/wp-content/uploads/2021/05/ak_climate_action_plan_brochure.pdf> //DH

Action 4.4C: Improve electric generation efficiency in rural Alaska through optimized power generation maintenance, improved renewable integration strategies, and reduced line loss.

• To optimize the diesel maintenance of existing and future generation infrastructure (a key to efficient and long-term use), AEA’s Circuit Rider program should be integrated with utility financial and operations management training (as is being piloted by AEA) to ensure that the utility operator and manager collaborate effectively to meet customer needs for safe, reliable, and affordable energy. The program should also provide utilities with training on how to diagnose line loss issues and recommend potential resources for reducing losses.

• Many of the State and federal programs that supported improving community power production and increasing renewable energy have been curtailed due to budget cuts and shifting priorities. In order to meet its climate goals, the State should consider investing more in these programs (which include AEA’s RPSU and BFU programs), and altering program structures to encourage maximum value from dollars spent. Proposed changes to the RPSU program should include an increased use of debt financing to both extend the State’s capital funds and provide increased natural incentives for optimum operation. Debt financing, particularly through AEA’s Power Project Loan fund, would allow for greater requirements and a longer-term relationship with the utility than is commonly had through a grant. In selecting a project in a community, the RPSU program should weigh all reasonable energy sources—fossil fuels and renewables—to serve the community’s needs.

• Additionally, the Renewable Energy Fund and the Emerging Energy Technology Fund should be invested in at levels that help the State meet its goals, with emerging energy technology focused on helping to meet reduced carbon emission goals, including within the oil and gas industry. More robust project financing tools, including consideration of a Community Energy Fund for Alaska, should be considered.

• Bulk fuel upgrades, provided by AEA and the Denali Commission, have been beneficial across rural Alaska, and this program will remain a critical part of the safe, reliable, and affordable energy solutions portfolio for rural communities. However, increased investment and guidelines that focus on efficiency and the ability to integrate renewable energy into remote, rural power systems are also necessary.

### They Say: “Permutation”

#### The permutation links to the Arctic Council net benefit. Only federal action is perceived internationally

Alvarez ’20 [Mariano Alvarez, holds a PhD from the University of Leiden (Netherlands), a MA in International Studies from the University of Chile, and a BA in international Relations from the Catholic University of Argentina, 3-17-2020, "The Rise of Paradiplomacy in International Relations", E-International Relations, https://www.e-ir.info/2020/03/17/the-rise-of-paradiplomacy-in-international-relations/]//LASA-AR

This growing activity of non-central governments implies two major challenges. The first is the articulation of paradiplomatic activity with foreign policy. The external action of states or provinces is a very sensitive issue for the central governments, either because they perceive paradiplomacy as a challenge to their sovereignty, or because the multiplicity of voices emanating from the same country to the international arena makes it difficult to present a coherent national foreign policy (Lecours, 2002). In other words, the doctrines of national interest, sovereignty and territorial integrity, at least in the past, have predisposed the central governments against paradiplomacy, even though it neither jeopardizes the territory nor the borders of the country.

Unlike what happens in Europe, this challenge has a unique characteristic in the Americas. The territorial extension of these countries generates situations in which the cities and intermediate governments, located in border areas, have more frequent and deeper contacts with their foreign counterparts than with their own national capitals (Oddone, 2018). This, in turn, has aroused suspicion about the possible effects that this link could have on the bilateral relationship at the central level.

However, even if the paradiplomatic activity continues to expand, both in scope and in depth of topics, the central government will remain the main actor in international relations. That quality is, at least in the foreseeable future, undisputed (Thürer, 2003). Nevertheless, this does not imply that the central government can continue acting without paying attention to the new international actors; on the contrary, it must know how to transform itself into the module that articulates the pressure between the subnational and the supranational levels.

### They Say: “Spending Deficit”

#### Alaska would fund it from their Constitutional Budget Reserve

James Brooks, 2025 - politics reporter at the Alaska Beacon “Legislators Eye Savings To Fix Budget Deficit” Sitka Sentinel, 3/27 [https://web.archive.org/web/20250401055809/https://sitkasentinel.com/2012-05-10-22-08-10/25694-legislators-eye-savings-to-fix-budget-deficit/](https://web.archive.org/web/20250401055809/https%3A//sitkasentinel.com/2012-05-10-22-08-10/25694-legislators-eye-savings-to-fix-budget-deficit/) //DH

Members of the Alaska Legislature said this week that they’re likely to use the state’s Constitutional Budget Reserve to fix a roughly $173 million budget deficit for the 12 months that end June 30.

Lawmakers are confronting another, larger deficit as they craft the budget for the fiscal year that begins July 1, but it remains possible that some tax increases — on oil, business income and online sales — could offset the need to spend from savings for that year.

When it comes to the current fiscal year, things are more certain. Passing new taxes and implementing them would take time, and the state’s budget needs to be balanced by June 30.

While members of the Senate’s bipartisan coalition majority previously rejected the idea of spending from savings, they admitted this week that there is no other option.

“Times change, things change, and sometimes you have to eat crow up here,” said Senate President Gary Stevens, R-Kodiak, during a news conference with reporters.

Spending from the state’s $2.8 billion Constitutional Budget Reserve will require the approval of three-quarters of the state Senate, plus three-quarters of the state House.

### They Say: “Taxes Fail”

#### A sales tax is easiest to implement, won’t harm the economy and our specific proposal to tax services makes it more progressive

Lex Treinen, 2023 – reporter “State sales or income tax? As Alaska lawmakers consider proposals, economists weigh in” Alaska Public Media, 4/25, <https://alaskapublic.org/2023/04/25/state-sales-or-income-tax-as-alaska-lawmakers-consider-proposals-economists-weigh-in/> //DH

Nolan Klouda, director of the University of Alaska Anchorage Center for Economic Development, said there are advantages to sales taxes.

“A sales tax is of course a very efficient way of collecting tax revenue that doesn’t tend to distort economic incentives too much,” he said.

In non-economics speak: sales taxes don’t take a lot of complicated bureaucracy to implement, and they don’t tend to change how much people buy. But they’re regressive — that means poorer people are hit harder.

“Lower income earners generally are gonna pay a higher share of their income in taxes than with a progressive income tax,” Klouda said.

That’s because they still have to pay for essential products, like groceries and gas.

Jared Walczak, a researcher with the right-leaning Washington, D.C.-based Tax Foundation, said there are ways to make sales taxes less regressive. A big one: taxing services like manicures, gym memberships and oil changes, not just goods.

“We know that higher income earners consume more in the services side,” he said.

Covering more services means the overall tax rate can remain low. A 2020 analysis by Walczak’s right-leaning group found a 2.3 % tax on most goods and services could earn the state up to $850 million, basically enough to fill the current budget gap.

Whereas most states have gradually introduced new taxes on services throughout the decades, Alaska is in the unique position that it can design a sales tax from scratch, Walczak said. He said if Alaska can pass a sales tax bill with few exemptions, it would be unique.

“If the legislation currently under consideration were adopted Alaska would have the most progressive sales tax in the country by an enormous margin,” he said.

#### A broad-based sales tax doesn’t harm the tax base and taxes the rich far more than the poor

Jared Walczak, 2020 – Vice President of State Projects at the Tax Foundation “Navigating Alaska’s Fiscal Crisis” <https://taxfoundation.org/wp-content/uploads/2020/01/Navigating-Alaskas-Fiscal-Crisis.pdf> //DH

The sales tax, more than most subjects in taxation, is an area of broad consensus among public finance scholars. Decades ago, tax scholar John Due wrote that “sales tax structure should produce a uniform distribution in consumption, should be neutral regarding methods of production and distribution, and should be collected at a reasonable cost.”24 Another leading tax scholar, Charles McLure, identifies the ideal sales tax as a destination-based tax on all final consumption (but only final consumption).25 These standards are broadly accepted, as are several related precepts and observations:

1. An ideal sales tax is imposed on all final consumption, both goods and services;

2. An ideal sales tax exempts all intermediate transactions (business inputs) to avoid tax pyramiding;

3. Sales taxes should be destination-based, meaning that tax is owed in the state and jurisdiction where the good or service is consumed;

4. The sales tax is more economically efficient than many competing forms of taxation, including the income tax, because it only falls on present consumption, not saving or investment;

5. Because lower-income individuals have lower savings rates and consume a greater share of their income, the sales tax can be regressive, though broader bases that include consumer services (much more heavily consumed by higher-income individuals) push in a progressive direction;

6. The sales tax scales well with ability to pay, because it grows with consumption and is therefore more discretionary than many other forms of taxation; and

7. Consumption is a more stable tax base than income, though the failure to tax most consumer services in many states is leading to a gradual erosion of sales tax revenues as services become an ever-larger share of consumption.

Most states impose their sales taxes on bases that consist of most goods—with economically significant policy carveouts—and relatively few services. With limited exceptions, most state sales taxes are imposed on transactions involving tangible property: appliances but not apps, light fixtures but not landscaping. This was less a conscious choice than an accident of history, a relic of the fact that so many sales taxes were imposed during the Great Depression, when services comprised a far smaller share of the economy. It was administratively simpler in that earlier era to focus almost exclusively on retail sales, and even the later ones tended to follow their lead.

Fortunately for the nation’s economy but unfortunately for the reliability of most states’ sales taxes, today’s economy has little in common with that of the 1930s or even the 1990s. Higher incomes and changing consumer tastes have shifted a greater share of consumption to services, while a digital economy is upending traditional categories.

We subscribe to streaming services rather than buying DVDs, VHS tapes, CDs, or records (all of which were taxable in most states); we purchase e-books (often untaxed) rather than paperbacks (taxable); we obtain programs and games through digital downloads rather than physical media (disks or cartridges). Increasingly, younger generations purchase “experiences” more than tangible goods—and most of those experiences involve services, whether it’s fitness classes or cooking lessons or excursions.

But it’s not just new services; it’s also a matter of older services taking on greater importance in the modern economy. Domestic help has all but vanished, but increasingly, there’s an app for that, or at least a number to call: house cleaning services, dog walking and pet-sitting, ridesharing as an alternative to car ownership, or landscaping services in lieu of buying a lawn mower, to name just a few. The mower was taxed; its replacement (the lawn care service) is not. It is a story that can be told many times over. It is the story of state sales tax codes built around an economy that no longer exists.

Alaska need not make that mistake.

Taxes should apply to all final consumption in service of economic neutrality, the idea that taxes should not interfere with economic decisionmaking any more than is strictly necessary, nor should they pick winners and losers. It is not the role of the tax code to favor piano lessons over baseball bats or e-books over hardcovers. It makes little sense to tax the purchase of a lawn mower but not tax the purchase of lawn care services that obviate the need to own a mower. Yet, in many states, these distinctions still govern, relics of a goods-dominant economy that no longer exists.

The sales tax should also be broad-based in service of tax equity.26 Sales taxes have two potential sources of regressivity: one, the propensity of lower-income individuals to consume a greater share of their income, and two, a scope of taxable consumption that is more likely to fall on the sorts of transactions which dominate the consumption of lower- and middle-income individuals.

Policymakers often exempt or lower rates on certain classes of consumption as a progressive reform. The exemptions many states provide for groceries are one such example—though there is reason to believe it may not be terribly effective. Prepared foods are taxed at the standard rate and most of the regressivity of taxing unprepared foods is addressed by the exemption for SNAP (food stamps) and WIC purchases, while the exemption is enjoyed by high-income earners as well—who often spend considerably more on groceries.

In fact, while not enough work has been undertaken to establish a consensus, there is research finding that lower-income taxpayers would actually be better off if groceries were fully included in sales tax bases (while retaining the federally-indicated exemption of SNAP and WIC purchases), allowing for a lower overall sales tax rate.27 The lower grocery rate is designed to create progressivity but largely fails to do so. Yet, at the same time, policymakers in most states have largely neglected a much more straightforward way to promote equity within the sales tax.

Consumption of personal services tends to be more discretionary than consumption of goods. Consequently, higher-income individuals spend a greater share of income on services, which are frequently untaxed. Unfortunately, most existing state sales taxes are levied on all tangible property (goods) unless expressly exempted, but only apply to services if expressly enumerated in statute.

States have been gradually expanding their sales tax bases, but tax policies are frequently path dependent. Expanding the sales tax base to new transactions can be nearly as difficult as creating the tax in the first place. Should Alaska opt to impose a sales tax, therefore, the state should begin with as broad a base of personal consumption as possible, avoiding politically challenging battles down the road. In so doing, policymakers would adopt a more stable sales tax than that which exists in most other states, but more than that, one that does not commit the accidental wrongs that favor some transactions over others and tend to favor the wealthiest consumers.

With a very broad base, the sales tax could generate $1 billion on a rate as low as 3.1 percent, or $500 million at 1.6 percent; but even with certain exclusions, Alaskans could prioritize a broad sales tax base and a relatively low rate to generate substantial revenue. A broader-than-average base could yield $500 million at a state rate of less than 3 percent.

### They Say: “Trust Deficit”

#### This ignores the fact that there’s a significant infrastructure already in place that can fund tribal renewable energy

Victoria Herrmann, 2018 – managing director of The Arctic Institute, and Assistant Research Professor at Georgetown University’s Walsh School of Foreign Service “Breaking Free: Alaska’s Path Forward for Renewable Arctic Energy” The Arctic Institute, 11/13, <https://www.thearcticinstitute.org/breaking-free-alaskas-path-forward-renewable-arctic-energy/> //DH

State-Level Policy: Three Bills, Two Legislatures, One Alaska

This first section explores how Alaskan remote village energy systems were made sustainable in relation to economic stability by the State Government of Alaska. That shift of parameters for remote energy systems in Alaska can be narrowed down to three key bills from 2008 – 2010. House Bill 152 in 2008, which created the Renewable Energy Grant Fund; House Bill 306 in 2009, which introduced a roadmap for Alaska’s sustainable energy future; and Senate Bill 220 in 2010, which introduced a plan of action to achieve the goals set forth in HB 306. All three bills were instrumental in stimulating and coordinating government action on renewable energy. HB306 established an energy policy to guide the legislature, administration, utilities, conservation groups and Alaskans toward the goal of providing more affordable, abundant and reliable energy. The bill set a goal for Alaska to generate 50% of its electricity through renewable resources by 2025, primarily through hydroelectric projects with contributions from wind, solar, geothermal tidal, hydrokinetic and biomass energy. But it was HB 152, the Renewable Energy Fund, that positioned Alaska as a national leader in funding for renewable energy. The Alaska Renewable Energy Fund (REF) provides benefits to Alaskans by assisting communities across the state to reduce and stabilize the cost of energy. The program is designed to produce cost-effective renewable energy for heat and power to benefit Alaskans statewide. The program also creates jobs, uses local energy resources, and keeps money in local economies. Established in 2008, the REF has appropriated $259 million for 287 qualifying projects, which has been matched with more than $152 million from other sources. The REF was extended 10 years in 2012, until 2023. The REF is managed by the Alaska Energy Authority (AEA) and provides public funding for the development of qualifying and competitively selected renewable energy projects in Alaska. The Alaska Energy Authority estimates that renewable energy projects constructed with funding from the REF displaced 30 million in 2016.

The importance of HB 152 lies not only in its catalyst to break financial and technical lock-in of diesel systems in remote communities; the Bill shifted the parameters for engagement by broadening the scope of which actors enjoyed agency in energy decisions, changed the interactions between actors, and in turn created the potential for a path the villages then took. The Bill itself was conceived and advocated for by a diverse group of stakeholders in Alaska led by the Renewable Energy Alaska Project rather than the State Legislature. REAP’s mission is to increase the development of renewable energy and promote energy efficiency in Alaska through collaboration, education, training, and advocacy. It currently includes more than 710 organizational and contributing members representing small and large Alaska electric utilities, environmental groups, consumer groups, businesses, Alaska Native organizations, and municipal, state and federal entities. Founded in 2004, REAP can be understood as a consensus building organisation,10) and importantly, these deliberations included the Alaska Federation of Natives. In a 2012 message, then AFN President Julie Kitka noted that, “AFN is very concerned about the high costs of energy to all Alaskans, especially those in rural Alaska. We all know that “energy is the oxygen of the economy,” so it is no surprise with our high cost of energy, that we have underdeveloped local economies. In order to address our energy needs, AFN felt it was important to develop new and healthy forms of collaboration that can cross boundaries, including national, public-private, cross industry, business–nonprofit, and tribal entities.” Those entanglements from this net of agency made the Renewable Energy Fund possible, but they were not the only emerging constellations of actors to come together during this timeframe. A similar parameter shift was occurring at the national level, the Obama Administration’s push for renewable energy and initiatives during the US Arctic Council Chairmanship (2015 – 2017).

### They Say: “Consultation Deficit”

#### Federal consultation historically fails

Joey Giaramito, 2024 – Masters Candidate at Duke “JUST TRANSITION: NATIVE ENERGY SOVEREIGNTY THROUGH SOLAR ENERGY” <https://dukespace.lib.duke.edu/server/api/core/bitstreams/3a3563d6-339f-4578-9826-a08ba58a4bed/content> //DH

One of the chief regulatory issues tribes face relates to the failure of the federal government to honor its trust responsibility to tribes. Over the past several decades of successive case law and policy such as the National Historic Preservation Act, the definition of tribal sovereignty has evolved to incorporate a requirement of ‘prior consultation’ of Native nations on the part of federal agencies in decisions related to development on Native land (Grosse & Mark, 2023). While mandated by law, these requirements have often fallen short in being consistently enforced, with many agencies perceived as viewing prior consultation as a “check the box” requirement rather than a meaningful attempt to engage in consensus with Native communities, leading to disputes over development projects (Lee et al., 2023). Lastly, federal agencies tasked with overseeing matters directly related to tribal energy development, their role as neutral arbiters and trustees of tribal sovereignty, often suffer from internal issues that can further delay deployment of tribal solar projects and limit exercise of tribal energy sovereignty. Mismanagement in the form of erroneous record keeping, understaffing, and subpar coordination with relevant federal agencies key to tribal energy development by the Bureau of Indian Affairs has manifested in significant permitting setbacks and administrative delays that underpin the federal government’s poor stewardship of tribal sovereignty (Dreveskracht, 2012).

# Green Colonialism Critique

### 1NC – Green Colonialism

#### Promoting renewable energy in the Arctic relies upon green colonial extractivism and renders the Arctic a sacrifice zone. Their reliance on state-driven consultation depoliticizes colonialism and disempowers resistance to it.

Ksenija Hanaček et al, 2024 - Post-doctoral Fellow & Joan Martinez-Alier, Emeritus Professor, Institute of Environmental Science and Technology (ICTA), Autonomous University of Barcelona (UAB), Catalonia, Spain. “Green and climate colonialities: Evidence from Arctic extractivisms” <https://journals.librarypublishing.arizona.edu/jpe/article/5512/galley/5638/view/> //DH

**Italics in original**

The sixteen cases reveal four significant tendencies surrounding green extractivisms and climate colonialities in the Arctic (Figure 2). The first is a *positive solution framing of new Arctic extraction by its proponents*, in which discourses, promotions, technological innovation, as well as support from nation states and multinational companies, are performed in an environmentally responsible manner. This includes greening the full supply chain including raw material extraction, processing and production, waste management, transport, and distribution (Garbis et al., 2023). The trend also involves specific references to the Nordic context, where oil and mining activities have (supposedly) always been committed to environmental and socioeconomic improvements (Egerman et al., 2003).

In Russia, greening the supply chain is associated with the modernization of industrial (Soviet) facilities, which would allow for further development of emerging energy transition materials, LNG and nuclear power utility in the supply chain, and overall global trade (Venovcevs, 2021; Wu et al., 2021). In the Canadian and the US parts of the Arctic, the need for additional infrastructure or expansion of existing mines (copper, iron) are justified and promoted because of the growing demand for energy transition metals and infrastructure. In Greenland, uranium and rare earths, both of which are radioactive, are promoted as helpful for combating climate change and for independence. These findings are in line with the work of Össbo (2023), who proposes that green colonialism blends past expropriation with contemporary deprivation. Historically contested energy and mining projects have previously been discussed as part of the contemporary green transition and "sacrifice zones" in the Arctic. We connect such processes to the climate emergency affecting Arctic peoples. The region's extractivism-based development has resulted in a scenario in which the interests of the fuel, mining, and now green energy complexes are framed as "required" to deliver a "solution" to climate change (Dorn et al., 2022; Gelderloos, 2022; Voskoboynik & Andreucci, 2022). Arctic Indigenous peoples regard climate change problems and solutions to it as a continuation of colonialism, with strong ties between capitalism and extractivisms' past and current acts (Callison, 2014; Whyte, 2017).

The second tendency is that *Arctic socio-environmental and atmospheric violence becoming inextricably linked* (DeBoom, 2022; Hughes et al., 2023), forming colonial atmospheres through a variety of political, social, economic, and environmental means (Mahony & Endfield, 2018; Osborne & Carlson, 2023). In this (neo)colonial climate-led resource frontier expansion, non- and anti-extractivist forms of knowledge and ways of being are systemically ignored (Kröger, 2022), and serve as a foundation for global green extractivism, increased energy use, and the destruction of human and other-than-human nature (Sheller, 2023; Sultana, 2022). We came across several Arctic "sacrifice zones" that can be compared to other studies explaining climate-induced crises of green accumulation and hegemonic profiteering in colonized countries and regions (Andreucci et al., 2023; DeBoom, 2022; Dunlap, 2023). Here, epistemic, ontological, infrastructural, and atmospheric violence are central to colonial-extractivism(s).

The third tendency is the *increased harm done to Arctic Indigenous Peoples' territory, cultures, knowledge, practices, health, and lifeways* (Figure 3 a). Fifteen out of the sixteen cases reported these life and death concerns (Batalla, 2020; Kuokkanen, 2023). The Sámi, Iupiat, Nenets, Doglan, Evenki, Dena, Entsy, Inuvialuit, and Nganasan are Indigenous communities actively resisting them (Figure 3 b). Their primary concern is the loss of reindeer herding or caribou migration and survival, along with their knowledge, practices, landscapes, sacred sites, and overall human-nature relationships. This cultural revival throughout the examples analyzed reveals that reindeer herding is essential to Sámi and Nenets culture. Normann (2021) explains that shared memories, interactions with other communities, and collective activities are effective modes of mobilization against green colonialism, which continue to damage reindeer herders and other Arctic peoples. Thus, the continuation of historical extractivist colonial pressures intensifies through the green shift, territorial invasion, and socio-cultural and environmental erasure (Clark, 2021; Kuokkanen, 2023). Access to hunting, fishing, whaling, and sealing is also a source of contention. As Inuvialuit hunters and community members of Baffin Island stated ''[…it is] our right to eat, and our right to continue to live off the land as we choose, as we have always done'' (Bennett, 2021). Yet, the long history of anti-mining and anti-oil struggles has had a significant influence on both the physical, the emotional, and mental wellbeing of the Arctic peoples (Bjørst et al., 2022). Extractivisms cause emotional anguish to locals by turning highly political issues into apolitical and technical questions (ibid). Corporate-state nexuses also try to dissuade people from radical resistance, but instead to express their views by colonial and often Eurocentric forms of private negotiation, participating in certification, stakeholder dialogue and other non-contentious politics, such as sustainable mining roundtables or even state consultation and corporate dialogue in green colonial contexts (Fjellheim, 2023). Dunlap & Riquito (2023) discuss in depth the psycho-social damage that the pro-mining corporate-government nexuses contribute to in green extractivism attempts, such as lithium mining.

The fourth tendency is *rising resistance to Arctic extractivisms*. Impacts of climate change have long influenced mobilization of socio-environmental conflicts across the Arctic (Balzer, 2015; Fedorova & Mitryaykina, 2021; Magomedov, 2019). In fact, the links between land and nature, livelihoods, and survival and resistance are all intertwined with Arctic climate challenges. Concerns over water, land, culture, hazardous waste, and climate change have surfaced as key elements in the anti-colonial efforts in the Arctic (Figure 2). In the Arctic, the resistance revolves around historical and green extractivisms in particular. This is because green extractivisms perpetuate climate colonialities and establish an uninterrupted axis of false climate solutions, exacerbating an already worrisome situation on Arctic changing territories and climates. Increasingly, anticolonial movements, in the broad sense, reshape extractivist trajectories. Opposition does this by similar strategies to those used in other contexts, including for example collective resistance, media activism, and blockade actions against extractive colonialities that devastate the people and the Earth (Dunlap & Jakobsen, 2020; Kröger, 2020).

#### The ethics of green extractivism create divisions between who should live and who should die. This is the foundation for the violent eradication of all life

Meredith J. DeBoom, 2022 - University of South Carolina “Climate coloniality as atmospheric violence: From necropolitics toward planetary mutuality” Political Geography · November 2022, Research Gate //DH

Atmospheric violence does not simply happen. It is cultivated through practices of division—simultaneously material and immaterial, social and environmental—that dehumanize and devalue the lives of those deemed ‘other.’ For Fanon, this dehumanization-through-division lies at the heart of colonial violence. He describes colonialism as creating a “world divided in two” (Fanon, 1963/2004, p. 3), a Manichean bifurcation that condemns the colonized to “a zone of nonbeing … an incline stripped bare of every essential from which a genuine new departure can emerge” (Fanon, 1952/2008, p. xii). By reducing human beings to conditions of abstract disposability in which the colonized are “born anywhere, anyhow” and “die anywhere, from anything,” the colonizer seeks to destroy all possibility for community both across and within difference (Fanon, 1963/2004, p. 4; C´esaire, 1955/2000).

The use of dehumanizing abstraction to attack the necessary conditions of life and community is not unique to colonialism. It is the defining feature of necropolitics: the distributive politics of death, of which colonialism is but one example. Mbembe (2003, p. 11) defines necropower as “the power and capacity to dictate who may live and who must die.” It is a relational violence that prescribes social or literal death (for some) in the name of life (for others). Abstraction and extraction are thus mutually constituted. Dehumanization through abstraction and legitimation through fraudulent universalism are two strategies through which necropolitics facilitates the uneven imposition of conditions of “death-in-life” (Mbembe, 2003, p. 21). Such a politics resonates with the endless cycles of abstractive and extractive harm that Sultana describes.

We can interpret climate coloniality as founded upon and underwritten by necropolitics. It is a violent division of planetary life that treats both the conditions of life and life itself as objects from which to extract ever more for ever fewer. Climate necropolitics—by which I mean the processes, practices, discourses, and logics through which climate violence (death, literal and symbolic) is rendered legitimate in the name of an exclusive life (DeBoom, 2021)—enables the violence of climate coloniality. This occurs most obviously through climate change inaction. Climate necropolitics underlies, for example, arguments that the deaths of the marginalized are necessary to ensure the ‘life’ of the economy. Climate necropolitics also manifests, however, in climate change action (DeBoom, 2021). Its perverse logic facilitates the extraction of climate solutions from those who hold the least responsibility for climate change and yet bear its highest costs, from adaptation projects that depoliticize (Grove & Pugh, 2018) and weaponize vulnerability (Thomas & Warner, 2019) to extractivist mitigation strategies that deepen the burdens already borne by the world’s marginalized majority (DeBoom, 2021; Jerez, Garc´es, & Torres, 2021; Riofrancos, 2019).

#### The alternative is decolonization of the mind. Reject the plan as a rupture in colonial epistemology. The first step of material resistance requires interrogating climate colonialism in educational settings

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In conjunction with confronting the material injustices, securitization of profit, and geopolitical planetary control, how can we better understand the ways colonialism, imperialism, capitalism, and development co-constitute one another for those deemed expendable and disposable – past, present, and in the future? Addressing discursive and epistemological climate coloniality becomes evident. First would be to address knowledge production and epistemic underpinnings of climate coloniality. Imperialism is buttressed by colonial forms of racialization and race science, devaluing Othered knowledges and expert voices from marginalized populations, often undergirded by Orientalism (cf. Said, 1978). This raises the urgency to decolonize knowledge production on climate change (Bronen & Cochran, 2021; Schipper et al., 2021). Who is the expert producing climate knowledge and what expertise is generally of value to media, policy-makers, the public? Who is setting policy agendas and planning outcomes? It is often the same talking heads (often Global North, white, male experts) who tend to dominate climate conversations, rather than those experiencing longstanding climate devastation or producing place-based knowledge (see also Tandon, 2021). A white ‘manthropocene’ (Di Chiro, 2018) still endures in framings and analyses despite critique. Whitewashing of climate discourses and intellectual spaces persists. For instance, narratives of a climate apocalypse or dystopian futures, popular in hegemonic climate framings and the media, is not a futurity for all, but a past and present of colonial oppression of people of color (H. Davis & Todd, 2017; Whyte, 2020). Yet common climate narratives are often about white futures that ‘de-future’ racialized Others which reinforces white supremacy (Erickson, 2020; Grove et al., 2021; Mitchell & Chaudhury, 2020). This is but one example. Thus, decolonizing climate is very much about knowledge production (who is cited, which epistemologies, whose ontologies, and so on), and who is invited to speak, who is heard, and who helps set agendas. As a result, it is a shifting of the critical geopolitics of knowledge production as well as re-evaluating expertise and experts (cf. Walsh, 2007). In many ways, it is not just about having a seat at the table (e.g. participation at the COP26) but determining what the table is, i.e. the terms of the debate or framing of the conversation and having decision-making power.

Epistemological and ontological work is needed to confront the universalization and Eurocentrism in how climate is presented and understood, filtered through colonial science and gaze, differential valuation of human and non-human life and systems across Eurocentric and Other spaces. Pluralizing knowledge through interdisciplinary and transdisciplinary work, but also valuing plural epistemologies and ontologies, become important (Castree, 2020; Dhillon, 2021). Pluriverse, whereby many worlds become possible instead of just one world, is increasingly gaining traction (Escobar, 2018; Kothari et al., 2019). Western hegemony is challenged and resisted, or ignored and sidelined. However, barriers persist in the universalist logics of contemporary planetary governance (e.g. COPs, SDGs, etc.), the universalization of Anthropocene discourses, as well as coloniality/modernity in international development institutional frameworks, and global trade rules. These seek conformity, efficiency, compliance, and are resistant to refusal. But decoloniality of knowing and being (Quijano, 2000) requires Indigenization of knowledge and politics. Throughout history, this is not only ignored, silenced, and resisted in dominant discussions on climate, but often violently oppressed or erased.

Climate coloniality is thus perpetuated through mundane and institutionalized ways of subalternization of non-Eurocentric, non-masculinist, and non-capitalist understandings of climate, ecology, and nature- society relations (Chakraborty, Yangjee Sherpa, & Pidcock, 2021; Escobar, 2018). As a result, decolonizing educational systems are fundamental, as this is where systemic cognitive injustices often begin through formal Westernized education that has gone global. Decolonizing knowledge and the academy have been strident in recent years across disciplines in Eurocentric universities and curricula (Bhambra et al., 2018; Cupples & Grosfoguel, 2019). To decolonize climate knowledge and authority, intentional changes are needed in citational politics (cf. Ahmed, 2017) and confronting intellectual impoverishments by lack of accounting for how neoliberal capitalism works in academic knowledge production and who produces what knowledge (cf. Mohanty, 1988). Beyond this, training and education that perpetuate Eurocentric and colonial models of science globally create structural barriers to change. Epistemic violence and colonization of the mind need to be acknowledged and undone across universities, training centers, non-governmental organizations, and state institutions. This is part of disrupting climate coloniality.

Similarly, concepts of ecocide and epistimicide help further clarify how knowledges were erased and devalued, but in need of recovering and reconstituting. Epistemic violence rooted in colonialism and Eurocentrism is not simply rooted in ideology, but material harms in the creation of the Other (Spivak, 1988). Epistemic violence can also include silence, whereby erasing or excluding of testimony and evidence of erasures and harm become routine. Epistimicide and genocide are historically linked (Grosfoguel, 2013), as it is to the violence against women (Federici, 2018) and nature (Mies & Shiva, 1993). While epistemic erasures (cf. Cusicanqui, 2012) are not uncommon, recovering Southern epistemologies have been written about (Connell, 2014; Santos, 2014), although who speaks for whom has also been problematized (Puwar, 2020). Dominant narratives can be resisted along various pathways (feminist, decolonial, anti-racist, post-colonial, anti-speciesist, etc.). The decolonization of the mind remains critical for epistemic justice and pluriverse, where recuperation of collective memory, dreams, desires, and cultural practices to foster conviviality are important to overcome the colonial matrix of power. Deconstructing climate coloniality allows for an understanding of how climate change continues to condition the material realities and discourses not only around nature-society relationships, but also the epistemic violences that follow in its wake. It is the undoing of this that is at stake, and then the remaking of futures not haunted by the past and present. Epistemic disobedience that disavows functioning of neoliberal capitalism can come from rooted place-based practices (Jackson, 2020) and global counterinsurgency to imperial and military control (Parenti, 2011), while acknowledging the various challenges of doing this kind of work (Haverkamp, 2021).

Therefore, while climate coloniality temporally and spatially causes eroding and erasure, there are also fissures that rupture through it weight, resist its imposition, and rework it. For instance, Bawaka Country and collaborators (2019) point to weathering and multiple Indigenous knowledge that are excluded in hegemonic climate discourses and practices, but are valuable cosmologies of decolonial knowledge and resistance that center accountable, reciprocal, and ethical relations and processes. There are many different ways that decolonization is enacted, ranging from direct action, law, care networks, leapfrogging alliances, cultural resurgence, and more to center BIPOC futures. For instance, blockades, resistance movements, and land back claims are community claims-building for liberatory praxis (Estes, 2019). Speaking in one’s native tongue, collective memory and culture rebuilding, retelling of historiographies, and celebrating human-nonhuman kinship are some of the strategies (Todd, 2017). Native singing and dancing are resistance (L. Simpson, 2021), and valuing storytelling is decolonial action (Mignolo & Walsh, 2018). Reclaiming sacredness is anti-colonial (Wane et al., 2019), and counter-stories and counter-mapping are strategies of opposition (Tilley, 2020). Defending territorial ontologies is decolonial politics (Cifuentes, 2021). Recognizing relational entanglements and healing foster wellbeing and convivialities (Escobar, 2018). To celebrate resurgence in cultural practices of art, literature, oral traditions, poetry, and dance is to claim agency, desire, futurity, and spirit. Traditional folk songs and dances, plays and street theater, poetry and literature recitals, arts and handicrafts fairs, seasonal festivities and flower ceremonies, puppet shows and oratory recitals, collective cooking and sharing food, giving alms to wandering mistrals and holy folk, prayer ceremonies and rain dances – for many these are simultaneously coping mechanisms, refusals, resistance movements, and decolonial actions, where recollections of collective memories and practices as well as enactments for liberation remain the goal. However, it is vital to not fetishize pre-histories as frozen time or culture as magical solutions to systemic oppression, but recognize how they further propel decolonization and revolutionary resistance. They also constitute oppositional counterbalances to the coloniality of cannibalization of cultural artifacts, practices, and linguistics. It is a refusal of poverty porn and only-victim narratives, but cultivates fleshing out theories and grounding concepts. It is an affirmation of the humanity of the oppressed, and of fostering radical equality. At the same time, it is an understanding of our complicities in perpetuating harms and actively working to redress it through everyday praxis and re-education.

### They Say: “Framework”

#### Prioritize epistemology first. Their affirmative is based on white saviorism and assumes indigenous peoples are good development subjects. Challenging what we know about the world in policymaking is the first step to developing stronger material solutions

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Ultimately, coloniality discursively limits the terms of global debate, hegemonizes knowledge of and about climate change, and what actions are possible, thereby destroying other epistemologies (cf. Maldonado-Torres, 2007). Hierarchical power relations and knowledge production are maintained in the enduring colonial matrix of power (Quijano, 2000). Cognitive coloniality is maintained in a colonization of the mind in terms of what is knowable and what has value (Nandy, 1983; Wa Thiongʼo, 1986). This co-exists with epistemic violence in knowledge production and valuation of expertise (cf. Santos, 2014). A lack of cognitive justice and epistemic decolonization (Mignolo, 2017; Ndlovu-Gatsheni, 2018; N’krumah, 1965) is perpetuated in the reinforcement of climate coloniality along with Western hegemonization of climate narratives, financing, and solutions. Epistemic racism is internal to Eurocentric knowledge production (Grosfoguel, 2013), such that ‘methodological whiteness’ (Bhambra, 2017) is normalized in education, training, policy-making, and public discourse on climate. Uncritical adoption and internationalization of colonial gaze of assumptive Western superiority and techno-fetishism are ever-present. Since Eurocentrism internalized racism and colonialism, this system of power is hegemonic globally now in how climate is talked about, planning that is pursued, and dominant education around it.9

Simultaneously, the colonial white gaze that saw non-white Others as inferior and lacking continues to desire to ‘fix’ the ‘third world’ and further white saviorism in climate solutions (Andreucci & Zografos, 2022; Chambers, 2018). It cultivates epistemologies of deficiency yet relies on ‘resilient’ locals to be good development subjects who ‘adapt’ (Mikulewicz, 2019; Moulton & Machado, 2019). The critique of coloniality in development and humanitarian aid can be extended to climate solutions and technocratic managerialism in green capitalism as well as in climate adaptation projects (Bigger & Webber, 2021; Eriksen et al., 2021; Haverkamp, 2021). Chaudhary (2021) argues that extractive capitalism linked to colonialism and imperialism is maintained through circuits of development interventions, FDI (foreign direct investments), flows of economic growth and transnational capitalism, which come at the expense of the racialized and gendered poor in a “colony of the exhausted” that is then normalized. This perpetual exhaustion is fodder for the saviorism in climate. Extractivist logics that devalue matter – geology, species, ecosystems, communities – is elaborated by Yusoff (2018) in a ‘grammar of geology’ that adds to scholarship on scientific racism which can be extended to colonial logics in climate saviorism.

While climate coloniality is experienced materially and viscerally, it is also an epistemological site of struggle. One can be from a frontline community and made vulnerable, feel and endure displacement and dispossession, but it is important to note that agency and resistance exist in different forms. For instance, Perez (2021) draws from Pacific Islands to critique the caricatures and complicities that are often overlooked, and argues that “we must turn to Pacific Islander voices, stories, arts, and narratives so that we can more fully engage feeling and affect, correlation and storiation, with(in) Anthropocene islands.” (p.4) Similarly, Simpson (2021) argues for decolonizing epistemological understandings and relationships to the earth. Mignolo (2017) reminds us to resist the ways colonized Others are made to feel and think as being epistemologically and ontologically deficient. In other words, we need to problematize what it means to be human and the praxis of being human (Wynter, 2003; Wynter & McKittrick, 2015).

It may be comforting to know that colonialism and imperialism have always faced an opposition (C´ esaire, 1972; Fanon, 1963). It exists in ongoing environmental and Indigenous struggles globally (Guha & Martinez-Alier, 1997) and also in the ‘ontological disobedience’ (Burman, 2017) that attempts to overcome the Othering and colonial wounds (Ahenakew, 2019; Mignolo, 2007). Challenging epistemic violence requires overcoming coloniality of power through epistemological and ontological shifts that foster pluriversality instead (Escobar, 2020). This means recognizing and accepting the co-existence of multiple ways of knowing and being in the world, whereby the Eurocentric colonial model is but one way of existing and relating to socio-ecologies. This decolonizing oeuvre results in both epistemic and material challenges to climate coloniality, to which I now turn.

#### Focusing on theory doesn’t ignore material conditions. Instead, it’s a prerequisite to determine what kinds of material action need to be taken

Fúnez-Flores, 24—Assistant Professor of Curriculum Studies and Teacher Education in the Department of Curriculum and Instruction at Texas Tech University (Jairo, “Anibal Quijano: (Dis)entangling the geopolitics and coloniality of curriculum,” The Curriculum Journal, Volume 35, Issue 2, June 2024, pp. 288-306, dml)

The power of concepts cannot be underestimated insofar as they simultaneously enable us to interrogate the world and take action to unsettle colonial, racist, capitalist and heteropatriarchal structures. Theories and concepts can either serve as behaviour-regulating discursive systems (Wynter, 2003) that maintain the modern/colonial order of things or they can serve as catalysts for collective action seeking to dismantle said order. When concepts are imposed on others, however, they have the pedagogical ability to distort the understanding of social reality; justify material dispossession, domination and exploitation; and prevent collective action. When concepts emerge within sites of struggle, they find their theoretical validity in their praxis orientation towards radical social transformation. González Casanova (1987) claims that it is impossible to wage a collective struggle without concepts, that is, without conceptual tools to read, interrogate and comprehend the world in which our actions unfold. Take, for instance, decolonial theories and their concomitant concepts, which are not problematic in and of themselves, as some critics like to claim, but are rather problematic when concepts are abstracted from the material contexts from which they emerge. In other words, when the symbolic (cultural) is underscored over the material (political–economic) and when both are understood as ontologically separate domains, this tends to obfuscate how they are entangled in everyday practices.

#### The assumptions they make in research practices matter – they shape the outcome and implementation of policy and must be considered prior questions

Emilie S. Cameron, 2012. - Department of Geography and Environmental Studies, Carleton University “Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation Approach to the Human Dimensions of Climate Change in the Canadian Arctic.” Global Environmental Change 22 (1): 103–114. <https://doi.org/10.1016/j.gloenvcha.2011.11.004>.

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Indeed, even scholars who conceive of themselves and their work as a response to colonialism must reckon with the tradition within which they operate, and with potential continuities between recent interest in Indigenous peoples, knowledges, and experiences, and past exploitation and domination. I have highlighted, here, the ways in which research investigating the human dimensions of climatic change in the Canadian Arctic, and particularly work undertaken within the vulnerability and adaptation framework, risks perpetuating colonial assumptions, knowledges, and practices even (and indeed especially) as it aims to improve the lives of Indigenous northerners. It does so by perpetuating a longstanding delimitation of Indigeneity to the local and the traditional, by rendering climatic change a field of technical intervention, and by excluding from its frame of reference the broader colonial and political–economic context within which northern Indigenous peoples struggle to respond to climatic change. As a result, the literature overlooks one of the most important human dimensions of climatic change in the Canadian Arctic resource exploration, extraction, and shipping and renders Inuit interests, knowledges, and claims to these dimensions of climatic change illegible. Such a move, however unwitting, is profoundly consequential.

As I have emphasized, the focus throughout the human dimensions of climate change literature on traditional livelihoods and cultures is not necessarily problematic in and of itself, nor is the use of community-based study to develop fine-grained, locally derived understandings of climatic change. All studies involve choices around subjects, methods, and scholarly audience, and no study can address all dimensions of an issue. Promoting and maintaining traditional knowledges and practices is a priority shared by northern Indigenous peoples, and scholars working in this realm have made a number of important contributions, not least highlighting the serious effects of climatic change on traditional cultures and practices. What is at stake, here, is the equation of Indigeneity and the human itself with the traditional and the local, and the ways in which such a formulation extends colonial forms of knowledge and practice. The human dimensions of climate change literature is partial and limited in ways that have not been identified or addressed, and insofar as it is received as a comprehensive, accurate, participatory, and community-based assessment of how climatic change is and will impact northern Indigenous peoples, it must be subjected to critical scrutiny, and its policy implications problematized. Furthermore, to the extent that remedying ‘‘local’’ vulnerabilities to climatic change is occasioning a new round of intervention into the lives of Indigenous northerners, attending to the continuities and presence of past colonial policies, practices, and knowledges is vital. Governmental intervention has never been neutral for northerners, even and perhaps especially when it was well-meaning and designed to specifically prepare Inuit for a changing world.

### They Say: “Mining is safe”

#### Mining for renewables rare earth in Alaska is more harmful than anywhere else. It turns the entire case because it wipes out subsistence resources that Alaskan Natives depend upon

Annika Krafcik, 2024 - Annika Krafcik graduated from UCLA School of Law in May 2024 with specializations in Native Nations Law, Environmental Law, and International & Comparative Law “The Fight Against Graphite: What Tribal Opposition to a Mine in Alaska Teaches Us about The Importance and Limitations of Consultation in the Green Transition” JOURNAL OF ENVIRONMENTAL LAW V42:2, <https://escholarship.org/content/qt3n55r2j8/qt3n55r2j8_noSplash_7ac875d50d34fa76b8b999dc1deafa55.pdf> //DH

Just below the Arctic Circle, in the shadow of the Kigluaik Mountains, the Imuruk Basin is one of the most biologically productive areas in the country.1 It is also a spiritual place to the three nearby Tribes: Native Villages of Teller, Brevig Mission, and Mary’s Igloo. Twelve years ago, Tribal members and local residents of the nearby town of Nome fishing in these historic waters started to notice something: an incessant whirring sound circling above them. Helicopters were flying in and out of their Kigluaik Mountains. But why? Unbeknownst to the Tribes or the nearby town of Nome, a Canadian mining company had started drilling in the Kigluaik Mountains, exploring for graphite. In the Kigluaiks, the company discovered the largest known reserve of graphite in North America. The Tribes were never notified of the start of exploration. Adding insult to injury, in July 2023, the Department of Defense (DoD) granted Graphite One $37.5 million dollars to expedite the feasibility study for this mine. To this day, the DoD has not consulted with the Tribes regarding the Graphite One mine, despite the incredible risk it poses to their subsistence resources, the Imuruk Basin, and the Kigluaik Mountains.

The story of the Graphite One mine is becoming a familiar one. As climate change causes extreme weather events—sea level rise, wildfires, and drought—the global community is becoming more and more amenable to a move away from fossil fuels and toward renewable energy.2 Renewable energy technology, such as wind turbines, solar panels, and batteries that can store their power, are touted as our saving grace. But often omitted in the discussion of renewable energy is the fact that these technologies, though they harness the renewable energy of the wind and the sun, are made of non-renewable transition minerals,3 such as lithium and graphite.4 In other words, developing renewable energy technology requires mining, and mining can be extremely harmful to the environment and local communities.

In the U.S., where demand for transition minerals far outpaces supply, law and policy addressing the green transition—such as the Inflation Reduction Act (2022) or the Bipartisan Infrastructure Law (2021)—tends to focus on developing transition mineral mines quickly, without addressing the need for fulsome consultation with impacted communities and environmental impact review. This is particularly troubling when considering that transition mineral mines are disproportionately located on or near Tribal land.5 Under the federal trust responsibility, the federal government has a legal duty to consult with Tribes whenever a federal undertaking has “tribal implications”.6 When the federal government expedites the development of transition mineral mines on or near Tribal land and fails to consult with Tribes about this decision—just as the federal government when it granted Graphite One $37.5 million for its feasibility study—the federal government violates this legal duty. Graphite One is just one example of this.7

Another example is the Stibnite Gold mine on Nez Perce Tribal land in the State of Idaho.8 The facts of the Stibnite Gold mine closely mirror those of Graphite One. While most of the gold mined in the world is used for jewelry (and thus is unrelated to green transition goals),9 the Stibnite Gold mine also produces a small amount of antimony, which is used for both munitions and energy storage.10 Interest in this potential antimony supply led the DoD to grant $24.8 million to Perpetua Resources, the mining company proposing to re-open the Stibnite Gold Mine, to complete environmental and engineering studies for the proposed mine.11 Just like the Native Villages of Mary’s Igloo, Teller, and Brevig Mission, the Nez Perce Tribe was not consulted before the DoD gave the mining company this grant.12

Advocates for a green transition stress the urgency of making the switch to renewable energy, pointing out the disastrous consequences climate change has already wrought on our planet. This urgency then translates into a kind of moral imperative: because the harms of climate change are so great, anyone standing in the way of the green transition is standing in the way of all that is right and good. But ultimately, just like the fossil fuel industry it seeks to replace, the renewable energy industry relies on extractivism to function. This extractivism, whether it be drilling for oil or mining for transition minerals, disproportionately harms Native peoples.14 To avoid simply replicating the harms of our fossil fuel past—to truly be a force for good, and not merely another industry mobilizing a sense of urgency for capitalistic gain—the renewable energy future must involve at a minimum meaningful consultation and engagement with communities affected by transition mineral mining projects.

To promote this meaningful consultation, this Comment identifies existing tools within environmental and federal Indian law that Tribes affected by mining projects can wield to mandate consultation and participation in mine- related decision-making. Though relevant throughout the U.S., these federal footholds, including the National Historic Preservation Act, the National Environmental Policy Act, and the Clean Water Act, are particularly important in Alaska because: (1) these statutes require the federal government to consult with Tribes using a higher standard for consultation than is prescribed by Alaska state law, (2) these statutes enforce the federal government’s trust responsibility15 with Native Nations, requiring the federal government to act in the best interests of all federally recognized Tribes, and (3) these statutes add procedural barriers to mining on land near Tribes, thus creating a significant deterrent effect for extractive industry.

This Comment focuses on mining16 in Alaska because the conflict between Indigenous People’s Rights and the mining interests for the green transition are deeply at odds in Alaska. Alaska is home to approximately half (229) of all federally recognized (574) Tribes in the U.S.17 There are roughly 180,000 Tribal members in Alaska, comprising around 15 percent of the State’s population.18 Alaska Native people, particularly those living in rural areas off the road system in places like Nome, rely on subsistence resources like salmon, caribou, and waterfowl to practice their culture and nurture their bodies.19 “For Alaska Native communities off the road system, over 80 percent of food consumed comes directly from the surrounding lands and waters.”20 This reliance on the land is both a function of a thousands-of-years old tradition of living off the land as well as a financial necessity. In the Native Villages of Brevig Mission, Teller, and Mary’s Igloo, the nearest well-stocked grocery store is 200 miles away.21 Prices in grocery stores reflect the incredible cost of transporting goods into the most rural reaches of Alaska where towns may only be accessible by charter plane or boat.22 With four in 10 residents in Teller living below the poverty level, these outrageously high-priced groceries are out of reach.23 Thus, if subsistence resources are wiped out by a mining project, Alaskans living in rural places would have no choice but to leave their homes.

Mining projects in Alaska have a long history of destroying subsistence resources. In Alaska, toxics release from mining is worse than anywhere else in the country. For example, the Red Dog Mine, located around 200 miles north of the proposed Graphite One mine, has produced more toxic substances than any other site in the U.S.24 Alaskan mines hold the top four places in the Toxics Release Inventory,25 releasing dioxin, cyanide, mercury, arsenic, lead, cadmium, polycyclic aromatic hydrocarbons, and other toxins into the environment.26 One reason for Alaska’s poor track record on toxics release is its inadequate implementation and enforcement of environmental law.27

Despite these hazards, the Graphite One proposal in Nome is being fast-tracked, because of graphite’s importance for renewable energy and national security. Graphite is an essential ingredient in lithium-ion batteries used in both electric vehicles and electricity storage, so advocates for the green transition, such as electric vehicle manufacturers, support the mine.28 It is also an essential ingredient in weapons and other defense technologies used for national security purposes, so the DoD supports the mine (to the tune of a $37.5 million grant). The U.S. has not produced graphite since the 1950s, and currently imports all of its graphite from China.29 However, China recently imposed restrictions on the U.S. import of graphite (as well as gallium and germanium), which has left U.S. officials concerned about supply chain access to this critical mineral.30 With all of this demand and pressure to produce graphite domestically, it seems like the Graphite One mine is a done deal.

#### It also accelerates warming by increasing atmospheric soot, making ice sheets less reflective and accelerating melting – it will push us past climate tipping points

Ksenija Hanaček et al, 2024 - Post-doctoral Fellow & Joan Martinez-Alier, Emeritus Professor, Institute of Environmental Science and Technology (ICTA), Autonomous University of Barcelona (UAB), Catalonia, Spain. “Green and climate colonialities: Evidence from Arctic extractivisms” <https://journals.librarypublishing.arizona.edu/jpe/article/5512/galley/5638/view/> //DH

The Arctic is especially affected by the cascading impacts of the climate catastrophe, with its climate warming four times faster in comparison to other regions (Herrmann, 2015; IPCC, 2019). The climate crisis and its purported solutions currently play an increasing role in shaping Arctic life. Climate change is creating a discourse and actions leading to the expansion of green extractivism across the region. While risks are increasing, the Arctic is paradoxically perceived by many domestic and transnational companies as a central point for so-called new green energy solutions and mining of transition minerals (Duxbury, 2021; Hanaček et al., 2022; Len, 2021). For example, western Greenland, where coastal glaciers have been melting, has been a target of new mining ventures seeking to offer minerals for the electrification of energy (Gronholt-Pedersen, 2022). While the climate crisis has been caused mostly by colonial actions and extractivist frontier expansion by the elites and corporations of the core areas of the capitalist world-ecology (Moore, 2016), the Arctic suffers excessively, and is furthermore cast as a "sacrifice zone" for extracting minerals and energy for supposed climate change solutions (Össbo, 2023). The crisis of the capitalist world-ecology, meaning a rush to dwindling natural resources, is fueling a desire to expand extractivist activities in the Arctic, creating a complex and perilous feedback loop, as Arctic extractivism can directly drive the breaching of global climate tipping points (Kröger, 2023). For example, flaring and increased atmospheric soot and dust from mining cause quicker melting and make ice sheets less reflective. An extractive push has increased in some parts of the region alongside worsening socio-climatic crises (Kröger, 2016a, 2018).

### They Say: “Fossil Fuel Extraction is Worse”

#### Extraction for renewable energy causes the same environmental impacts and results in indigenous land dispossession

Nathan King, 2024 – ClimaTalk COP28 Delegate “A Less Rosy Green Energy Transition: How Indigenous Communities Are Being Ignored” 9/9, https://climatalk.org/2024/09/09/green-energy-projects-just-transition/ //DH

Given that renewable energy produces far less emissions than fossil fuels, it is widely viewed as playing a central role in climate change mitigation [1]. Deploying renewable energy at a large scale, however, brings its own social and environmental impacts, especially for Indigenous Peoples [2]. At a glance, renewable projects are part of the same exploitative power structures that flourished within a global fossil fuel-based economy. In fact, the term ‘green colonialism’ has been used to examine the effect that these projects have on indigenous communities’ rights [1].

This article aims to examine the pitfalls of the green energy transition, focusing on two key issues: land grabbing and biodiversity loss. Renewable projects have far-reaching consequences, albeit fewer emissions than fossil fuel projects, including the local impacts to water, soil, and biodiversity where the minerals were extracted and impacts at the site of installation. Impacts at the site of extraction include fossil fuel emissions and biodiversity loss, risking simply replacing one problem with additional dimensions of environmental degradation.

To prevent land grabbing and biodiversity loss, climate justice and intersectionality need to be mainstreamed in climate action. Climate justice emphasizes the equitable distribution of both the benefits and burdens of climate action, ensuring that vulnerable communities are not disproportionately affected. Intersectionality provides a framework for understanding how various forms of oppression—such as those based on race, class, and geographic location—intersect and compound to create unique challenges for Indigenous Peoples.

Land Grabbing for Green Energy

Under the guise of making use of ‘empty spaces’, Indigenous lands are targets for energy projects that are extractive, damaging soil, water, and air quality [3]. The negative impacts to the biodiversity of Indigenous lands, highlight the need for integrating climate justice and intersectionality into green energy planning.

Moreover, ‘green’ land grabbing is land acquisition that occurs when institutional, business, and government interests prioritize renewable energy infrastructure over Indigenous land rights [1, 3]. These types of land grabs (e.g. for solar or wind projects or for mining transition metals like cobalt) can disrupt traditional land use and contribute to habitat fragmentation, which can have cascading effects on surrounding ecosystems.

For example, Argentina, Bolivia, Chile, Australia, and the Democratic Republic of Congo are all countries with rapid increases in mining activities, largely driven by the global scramble for transition minerals and metals for batteries and other green technologies. [1]. However, in this process, Indigenous lands are increasingly appropriated, a process which is argued by some to mirror petroleum extraction as it displaces communities and degrades the environment [1].

#### Expanding renewable production doesn’t substitute for fossil fuels – it just ADDs to energy consumption

Ksenija Hanaček et al, 2024 - Post-doctoral Fellow & Joan Martinez-Alier, Emeritus Professor, Institute of Environmental Science and Technology (ICTA), Autonomous University of Barcelona (UAB), Catalonia, Spain. “Green and climate colonialities: Evidence from Arctic extractivisms” <https://journals.librarypublishing.arizona.edu/jpe/article/5512/galley/5638/view/> //DH

Policymakers, mainly in the Global North, have been implementing new green growth strategies or Green New Deals. The narrative of sustainability and development behind these policies relies on ecological modernization ideology, whose proponents do not question growth (Wilson, 2013). According to them, these tactics promise more sustainable industrialization and downscaling of critical emissions (Chuffart et al., 2021; Dunlap & Riquito, 2023; Zografos, 2022; Zografos & Robbins, 2020). Such strategies create opportunities for national and transnational companies to develop so-called sustainable mining for transition minerals, battery-grid-electrification complexes with major low carbon infrastructural expansion, large scale hydroelectricity projects, industrial wind power or large-scale solar power projects in the global South and North (Avila, 2018; Dunlap & Laratte, 2022; Zografos, 2022). However, these approaches focus on the addition of new sources of energy and materials, rather than their full substitution. Coal production continues to increase (Roy & Schaffartzik, 2021; York & Bell, 2019), not least in the Arctic (Savin et al., 2021). Even nuclear energy and natural gas are seen as two of the solutions to meet net zero targets on the decarbonization journey (IEA, 2022; Kemfert et al., 2022; Namaganda et al., 2023). Nonetheless, nuclear or natural gas-powered projects also face opposition (Temper et al., 2020).

#### The plan just reproduces extractivist injustice in new forms

Ali Trueworthy et al, 2025 – Pacific Northwest National Laboratory “Transforming transitions: The energy futures of community-driven design” Renewable Energy Volume 242, 1 April 2025, Science Direct, accessed via University of Michigan //DH

Underlying the research in renewable energy technology are assumptions about what futures are possible, desirable or inevitable [1,2]. Those futures become apparent in the story that researchers continue to reproduce about renewable energy technology. That story: Because climate change is ravaging our worlds, we need to change the source of our industrial1 energy from fossil fuels to renewable energy and increase renewable energy production to meet increasing energy demand. There are, of course, other stories being told, but this one is undeniably common [3]. The story adopts a vision of the future in which the same or higher levels of energy consumption are sustained by renewable energy technologies rather than fossil fuels, thereby mitigating climate disaster.

That future appears ever more improbable. Overall, industrial renewable energy production has only added to total energy production [4], giving us no evidence-based reason to believe that renewables will replace fossil fuels in the timeframe necessary to address climate change. The technical feasibility of 100% renewable energy scenarios has been strongly debated and defended [[5], [6], [7]], but scholars and activists alike point out the strain that such scenarios are likely to put on human and non-human communities if switches to renewable energy are not accompanied by consumption reduction [[8], [9], [10]]. Mining, transportation, and ecosystem disruption are all causes of ecological harm from extractive industries, and while they take different forms in 100% renewable energy scenarios, they are undeniably present and problematic (i.e. [11,12]). For example, wind farms cause local increases in the temperature of the earth's surface as they force hot air downward [13] and solar panel production produces toxic waste [14]. Renewable energy production and development processes have already reproduced injustices in new forms between the Global North and the Global South [15], rich and poor communities [16], and colonial powers and Indigenous nations [17]. Indigenous peoples are fighting land dispossession associated with wind projects in Isthmus de Tehuantepec, Mexico [18], with copper mining for increased electrification at Oak Flat [19,20], and from numerous other renewable energy or mining projects [21].

### They Say: “Permutation”

#### The permutation is a hollow gesture at collaboration within colonialism. This is anti-political because it serves to defuse wider resistance

Emilie S. Cameron, 2012. - Department of Geography and Environmental Studies, Carleton University “Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation Approach to the Human Dimensions of Climate Change in the Canadian Arctic.” Global Environmental Change 22 (1): 103–114. <https://doi.org/10.1016/j.gloenvcha.2011.11.004>.

Science Direct //DH

The human dimensions of climate change literature fails, then, even on its own terms. It asks ‘‘who and what are vulnerable?’’; ‘‘to what stresses’’; ‘‘in what ways’’; and ‘‘what capacity exists to cope with changing risks?’’, but it fails to account for some of the most significant dimensions of Inuit vulnerability to climatic change and capacities to adapt. The ‘‘vulnerability approach’’ demands critique, however, not only on its own terms, but also from outside its framing of what is at stake in the contemporary and future Arctic, and on what grounds Inuit might intervene in their own futures. Following Ferguson (1994), Tania Li observes that the will to improve can sometimes be about securing politics, about ‘‘antipolitics’’ (2007, p. 8), understood as ‘‘the design of programs as a deliberate measure to contain a challenge to the status quo’’. One need not argue that this realm of research and policy-making is deliberately aiming to contain and secure the politics of climatic change to interrogate its anti-political effects. Indeed, scholars working within this framework are immensely committed to carrying out research that will positively contribute to pressing contemporary dilemmas. But as Li observes, the will to improve is precisely defined by its practitioners’ genuine desire ‘‘help’’ a target population, desires and intentions that do not necessarily correspond with outcomes. To the extent that the human dimensions of climate change literature frames Inuit vulnerability and adaptation to climatic change as a ‘‘local’’ matter, a matter in which only the ‘‘traditional’’ and the Indigenous is at stake, and even then only in specific and limited ways, and that it is received as a comprehensive and systematic understanding of ‘‘local’’ vulnerabilities to climate change, it renders extraneous and illegible pressing political concerns and dimensions of climatic change in the region. It implies that the appropriate place of Inuit is at the ‘‘local’’ community center, participating in focus groups, assessing changes in local ice and weather patterns, not at the meetings where territorial claims will be decided, shipping routes negotiated, or military infrastructure established. It perpetuates a colonial preoccupation with tradition and its contamination by modernity, and reinforces an assumption that Inuit knowledge and concerns about climate change are limited to a narrowly conceived and externally defined ‘‘traditional’’ realm. As such, the literature perpetuates the delimitation of Inuit political interventions into climate change to the local and traditional.

#### The permutation represents inclusion within colonialism. It perpetuates the root causes that contribute to indigenous dispossession and ecological collapse

Leonardo Figueroa Helland, 2022 - Currently an Associate Professor of Environmental Policy and Sustainability Management at The New School, he leads the Indigeneity and Sustainability section of the Tishman Environment and Design Center “INDIGENOUS PATHWAYS BEYOND THE “ANTHROPOCENE”: BIOCULTURAL CLIMATE JUSTICE THROUGH DECOLONIZATION AND LAND REMATRIATION” N.Y.U. ENVIRONMENTAL LAW JOURNAL [Volume 30

<https://www.nyuelj.org/wp-content/uploads/2022/11/Helland_ReadyForPrinter-Round-2-RM.pdf> //DH

**IPs and IKs = Indigenous peoples and knowledges**

Thus, inclusionary attempts that seek to incorporate Indigenous peoples, lands, and knowledges in the neoliberal green economy do not unsettle coloniality. Instead, they reify the technoscientific and economic managerial frameworks that embody the hegemony of Eurocentric epistemologies, patriarchal and state-centric intergovernmental governance, and capitalist market mechanisms that have ravaged the planet, the climate, biodiversity, and Indigenous peoples and territories.172 Indigenous lands, peoples, forests, waters, oceanscapes, and biocultural communities should not be hegemonically incorporated as the compensatory poles of the green economy. They should be recognized, valued, and rematriated in their own terms to restore their self-determination and the sovereignty of land and Mother Earth according to Indigenous spirituality and socioecological organization. This is especially true since Indigenous communities and practices can thrive only if root crisis drivers, like capitalism, colonialism, industrial and consumer civilization, patriarchy, and extractivism, are mitigated or rather dismantled at their source.173 What is needed is decolonization, not inclusion. This requires hegemonic institutions, actors, and frameworks to move over and make room for Indigenous peoples and allow territories to resurge and thrive on their own terms and in accordance with their own relational kincentric cosmovisions and communal lifeways, which are neither state-centric nor market-capitalist, and are not based on reductionist technoscience. Moreover, Indigenous knowledges and practices are not to be used as supplements in the reproduction of the state-capitalist world system, but as means to the liberation of land, Mother Earth, and communities from it.174

#### Community demands for the plan don’t absolve the affirmative from the link. Even if their intentions are noble, the outcomes and implications of the affirmative still reinforce colonialism

Emilie S. Cameron, 2012. - Department of Geography and Environmental Studies, Carleton University “Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation Approach to the Human Dimensions of Climate Change in the Canadian Arctic.” Global Environmental Change 22 (1): 103–114. <https://doi.org/10.1016/j.gloenvcha.2011.11.004>.

Science Direct //DH

Finally, the critique I have outlined here demands qualification and contextualization in at least two ways. First, this critique must reckon with the fact that the vulnerability and adaptation research program has itself emerged, in part, as a response to community demands for localized study of climatic change. If individuals and groups residing in ‘‘local’’ communities want and support this form of research, one might ask, can it still be characterized as colonial, and to what end? A comprehensive response to this question would require another paper, but a partial response would point to work by both Indigenous and non-Indigenous scholars highlighting the problems with assuming that colonial formations position people in two opposing camps, where all that non-Indigenous peoples do, feel, and think is ‘‘colonial’’, and all that Indigenous peoples do, feel, and think is not (see, for example, Alfred and Corntassel, 2005; Coulthard, 2007; Stoler, 2008). People engage in research for a range of purposes, and neither researchers nor participants necessarily anticipate the outcomes and implications of projects in advance. Organizations like Inuit Qaujisarvingat, the Inuit Knowledge Center at Inuit Tapiriit Kanatami, actively foster partnerships with non-Inuit researchers to investigate issues of pressing concern to Inuit, and see such partnerships as important components of their mission to ensure an increasingly active role for Inuit at all levels of research. Such partnerships do not necessarily release non-Inuit researchers from their positions as inheritors of colonial systems of knowledge and practice, however, nor do they certify that all dimensions of the research itself are in keeping with Inuit interests, values, and concerns. Neither do such partnerships disqualify critical interrogation of the cumulative, broader effects of a literature. To fully reckon with the legacy of colonial histories and their ongoing formation in the present, as articulated in and through research in the Canadian Arctic, would require much more than the perspectives offered here, but community partnership, I would argue, is only one (very complex and contested) dimension of this problematic (see also de Leeuw et al., forthcoming).

### They Say: “Pessimism Trap”

#### The alternative’s not pessimistic and doesn’t reject policy action. Material change starts with radical imagination that interrogates the structures upholding coloniality. Questioning epistemology informs stronger policy-making

Farhana Sultana, 2022 - Department of Geography and the Environment, Syracuse University “The unbearable heaviness of climate coloniality” Political Geography 99 Science Direct //DH

There is an urgent need to decolonize climate. Epistemology and materiality simultaneously are central to decolonization – i.e. both knowledge production and epistemological framings, but also engaging with praxis of material outcomes and lived experiences (e.g. fossil fuel capitalism, neoliberal development paradigms, endless growth ideologies, maldistribution of material wellbeing, etc.). To decolonize climate at a basic level means to integrate more decolonial, anti-colonial, feminist, anti-racist, and anti-capitalist critiques and struggles into mainstream climate discourses and practices to redress ongoing oppressions and marginalizations. Fundamentally, decolonizing necessitates the critical interrogations of the complexities of empire, imperialism, and capitalism, and how to decenter and dismantle them. It also confronts and addresses material outcomes of framings and reframing, internalizing a material praxis that takes co-production seriously. It is not about just recognizing the problems, but workings towards distributive justice, reparations, and restitution (Taiwo, 2022). Decolonizing means accounting for and reflecting on the past and present, in order to configure future pathways to remove colonial and imperial powers in all their forms. This requires confronting and dismantling colonial ideologies and racisms baked into power hierarchies, including those that create and maintain climate breakdown. In tackling climate coloniality, the need arises of being mindful of the goal of not only undoing centuries of harm and ongoing devastations through

policies, finance, events, media, and insidiousness of everyday life, but also rebuilding and reconstituting in different ways. In more capacious and equitable ways. Thus, research, activism, and policy-making need to be more critically reflexive of methodologies and methods used, and the cognitive biases that persist (Tuhiwai Smith, 2012).

Decolonizing climate necessitates radical alterity and shifts in imaginations and obligations. “A radical imagination attends in equal measure to experiences of loss and disempowerment as it does to practices of resilience and resistance, as these manifest across grassroots and transnational settings” (Chao & Enari, 2021, p. 45). This requires challenging the normalization of universal truths, technological impositions, Eurocentric dualisms, hegemonies, and modernity. Liberation comes from destroying colonialism’s impacts on lands, bodies, and psyches to overcome the apocalypse that continues to be coloniality – i.e. moving from alienation and dehumanization to self-realization in order to decolonize colonial traumas (cf. Fanon, 1963). Experienced in intertwined and distinct ways, the cumulative harms are further entangled and intersected by interlocking oppressions of race, gender, class, and other relevant axes of differentiation that are local and global. This means accounting for contextual forms of patriarchy, class oppression, or racism that interact with broader processes to co-produce and amplify harms.10 At the same time, healing colonial and imperial wounds through transformative care, empathy, mutuality, and love hold possibilities (cf. hooks, 2000). We desperately need to heal colonial wounds everywhere. To achieve this, concerted work is needed on both the material and political, and the discursive and epistemological, while recognizing how these are but analytical categories for discussion and are intricately intertwined in everyday life in spatio-scalar ways.

#### The logic of pragmatism is historically responsible for colonial violence. The K doesn’t preclude action – but the right kind of action matters, like focusing on the root causes, not symptoms.

Emilie S. Cameron, 2012. - Department of Geography and Environmental Studies, Carleton University “Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation Approach to the Human Dimensions of Climate Change in the Canadian Arctic.” Global Environmental Change 22 (1): 103–114. <https://doi.org/10.1016/j.gloenvcha.2011.11.004>.

Science Direct //DH

Finally, some might argue that the urgency of climatic change demands immediate action and the implementation of specific policies and programs, a process that necessarily requires pragmatic, simplified framings of complex situations. From such a perspective, to delay taking action on climatic change while we work out the complexities of (neo)colonial formations would be folly, and would endlessly defer concrete action. In response, it is crucial to observe that colonial history is replete with examples of sweeping interventions that were justified precisely through their urgency (see e.g., Mitchell, 2006). This dynamic has been observed in the Canadian North, where crises around perceived depletion of wildlife justified extensive intervention into Inuit hunting practices (Kulchyski and Tester, 2007), the perceived urgency of defending Canadian sovereignty rationalized forced displacement (Tester and Kulchyski, 1994), and the perceived urgency of protecting seals from slaughter led to the collapse of trapping economies across the Arctic (Wenzel, 1991). The point is not to delay action on climatic change, but rather to undertake action that addresses precisely the issues and concerns that have repeatedly been identified by northerners, and to do so in a way that attends to the inevitable risks of well-meaning, benevolent intervention into Inuit lives and livelihoods. As Kusugak (2002, p. vi) observed almost a decade ago, ‘‘finding examples of effects of climate change is easy and endless. Like acupuncture, [Inuit] know that the pain is much in their homelands but the needles have to be inserted in the south, since that is where the disease really is.’’

### They Say: “Alternative Fails”

#### The alternative is a process not an event. Cooption assumes the alternative is a singular act. Instead, it requires a constant process over time. Voting negative is the first of many steps

Farhana Sultana, 2022 - Department of Geography and the Environment, Syracuse University “The unbearable heaviness of climate coloniality” Political Geography 99 Science Direct //DH

Decolonization thus must build political community and practical solidarities that foster pluriversality and reparative relations, and restore humanity and agency in the battle against climate change and climate coloniality. The ruthless extractions and dispossessions across territories everywhere showcase the connections across place-based materialities to broader extractive ideologies and colonial-capitalist greed. Indigenous scholarship demonstrates the importance of self- determination and ecological kinship, more-than-human relationality, and multi-species justice. Recognizing and valuing living complex ecosystems and agroecology, instead of marketized nature as commodity, become vital. Indeed in many instances, ecological struggles and decolonial struggles are often linked (Pulido & de Lara, 2018). Ultimately, there is no singular blueprint for decolonizing climate, as decolonizing is a process and not an event; it is ongoing unlearning to relearn. Ultimately it is in the many acts, small and large, acting in constellations and collectivities over time and place that bear results.

The terrors of colonialism foreclosed various conditions of possibilities, of futurities and flourishing that we will never know. We do not know what might have been and must now live through what is, yet continue to yearn for a better tomorrow. Working through this pain and unknowing allows for healing, can promote formulating liberatory praxis. Coloniality has remade and continues to remake the past, present, future of many peoples. Colonialism is not in the past, it is in the present and in the future. We are altered, reconfigured, expendable, but are not passive agents in this, despite constrained circumstances. We live, resist, rebuild, rejoice, and refuse. Yet, we also feel sorrow for a past that never got to be, a present that is incomplete, unknowables that haunt and pique. Our memories are reshaped and respond to local and global forces, we are all different but we share some common histories. These are the fertile grounds where colonial and imperial wounds and resultant rage, grief, and desire are not minimized but recognized as part of the driving forces of resurgence and liberation.

#### The alternative represents an ethical break with the affirmative. Their ethical appeals require violently imposing extractivism on other Indigenous peoples and that turns the entire case. Our advocacy won’t be coopted because it’s not an anti-Western stance; instead it’s an anti-exploitation stance

Oishika Basak and Ivo Wakounig, 2024 – \*Human Geographer and a recent graduate from Utrecht University, where she did her Research Master’s in Urban and Economic Geography. AND \*\*PhD Researcher at Eindhoven University of Technology “Green colonialism in the energy transition” 9/4 <https://illuminem.com/illuminemvoices/about-the-green-colonialism-in-the-energy-transition> //DH

Current energy transition discourses portray renewable energy as the hero helping us achieve our sustainability goals by meeting all our current and projected additional energy demands. There is little to no questioning of whether we actually need all that energy and whether we, not as individuals but rather as societies, need to lessen our demand. Hence, in this utopian world, all our unsustainable energy usage shall be replaced by sustainable renewable energy, and then the energy system will become sustainable. This is the current framing of the energy transition debate and it is and will continue the proliferation of the global energy injustice even further.

To feed the ever-growing (green) energy hunger of the Global North, the Global South will once again be exploited. The current exploitative relationships meted out through fossil fuel extraction have the propensity to shift towards renewables, all under the garb of sustainability. For example, Morocco is poised to play a critical role in the provision of cheap solar electricity from Northern Africa to Europe, so much so that entire landscapes shall be covered by solar PV parks (Source). Many proponents of such expansion like to argue that such plants are built on arid and deserted land where no humans live anyway, but a closer inspection proves that argument wrong. For example in the illegally occupied West Sahara, indigenous tribes have been inhabiting this region for centuries and are now forced to leave their ancestral land for the EU's sustainability goals (Source). Another example for colonial exploitation for the Global North's sustainability goals is the extraction of critical raw materials from Global South countries. For Global North technocrats, the sustainability transition in the transport sector builds on deploying electric vehicles, instead of radically changing the energy-and-material-wasting car-centric transport systems. Painting the inherently unsustainable car-centric mobility system green requires batteries and other technological components which need critical materials, such as Cobalt, Lithium, and Copper. Those critical materials can be found in high concentrations in Global South countries, such as Congo and Bolivia, and Global North countries are poised to exploit those resources no matter the human and environmental costs.

Green colonialism as a moral imperative

As argued previously, we need to deploy renewables worldwide and this will require the extraction of critical raw materials, but the current way of doing it will only further colonial extraction and move energy relations from fossil to green colonialism. Green colonialism, unlike fossil, focuses very much on the extraction of critical raw materials to make the Global North's unsustainable energy system green. This is achieved by sustaining the overconsumption of wasteful energy services in the Global North at the detriment of the Global South. It is also important to highlight that when we talk about overconsumption of the Global North, we are not referring to workers or single mothers, but rather systems and structures that keep reinforcing unsustainable economic growth and selfish consumption. These systems produce individuals like the hedge fund manager and greedy billionaire whose wealth and wellbeing are built on the extraction of people not only in the Global South but also in the Global North.

Green colonialism, unlike fossil colonialism, furthermore has a different moral imperative. Whereas it is easy to question the moral rationale behind fossil fuels, finding opposition to sustainable energy is difficult. The current rhetoric that subliminally justifies the exploitation of human life and resources in the Global South for the greater good - saving humanity from the climate crises - presupposes that certain lives are more valuable than others. Hence, in an atmosphere of increased and blinding support for the marvellous qualities of green energy, any opposition to renewables is not only tabooed but automatically quenched. De-politicisation of the energy transition and desensitisation of people towards topics like injustice and colonialism are the tools invented and furthered by technocrats who want to keep energy debates separated from socio-political questions. A purely technologically oriented energy transition supports the framework that anything that is 'green' is normatively right and does not question the colonial power dynamics which contributed to numerous contemporary problems (with the climate crisis being one) but rather propels them. Even worse, anyone who dares to argue against the deployment of renewable energy is labelled as uninformed or worse, a climate denier.

The current energy transition discourse and structures in place which lead to green colonialism are not there to save humanity, but to aid the greedy energy companies. It is about maintaining high profits, filling up the pockets of the few, and continuing the exploitation of the poor. For example, the decisions currently taken in the European Commission are not so much about making our energy systems sustainable but rather about unleashing the renewable energy companies' might as well as expanding the extraction of primary materials in numerous parts of the world.

Radical alternatives are the foundation of the energy transition

To move beyond unjust structures of energy production and consumption, we need to recognise that simply replacing fossil energy with renewables will be nothing but a symptomatic treatment of the global issues in question. Instead, we must employ a systems thinking approach to facilitate a just energy transition by analysing the underlying structures, patterns and mental models that have contributed to hundreds of years of exploitation and destruction of natural and living systems. This includes colonial practices of subjugating people from the Global South, grabbing resources out of resource-rich regions of the world (most of which are in the Global South), destruction of nature and biodiversity through profit-making business models, and in general a 'We need to maximise economic growth and output' approach to everything.

An energy transition in the Global North is futile if (i) changing our current economic models is not a core part of energy debates, particularly within industries, and (ii) if the transition is only a shift of the pre-existing exploitative business models from fossil to green. Radical change alternatives such as degrowth (Read More) would allow for a just energy transition and enable the wider sustainability goals to be met. In the Global North and the Global South.

### Links: Renewables Cause Extractivism

#### **Renewables depend on Arctic extractivism – it’s a form of green colonialism**

Ksenija Hanaček et al, 2024 - Post-doctoral Fellow & Joan Martinez-Alier, Emeritus Professor, Institute of Environmental Science and Technology (ICTA), Autonomous University of Barcelona (UAB), Catalonia, Spain. “Green and climate colonialities: Evidence from Arctic extractivisms” <https://journals.librarypublishing.arizona.edu/jpe/article/5512/galley/5638/view/> //DH

Climate colonialism is also based on this logic of necropolitics (DeBoom, 2022; Mahony & Endfield, 2018; Sultana, 2022). Imperial and colonial processes shape climate questions, and have been widely recognized in the literature (Dunlap, 2020; Kallianos, Dunlap & Dalakoglou, 2022). Meanwhile, erasure of Indigenous knowledge, imperial climate infrastructure visions, and extraction are the most common features shaping the socio-environmental and political characteristics of a place (Locher & Fressoz, 2012; Mercer & Simpson, 2023). The current climate crisis highlights the importance of understanding colonialism (coloniality) and reacting to the undesirable situation that perpetuates it through "green" extractivism (Bhambra & Newell, 2023; Dorn et al., 2022). A recent publication by Vela Almeida et al. (2023) indicates that the European Green New Deal not only provides opportunities for greater profit, but also buttresses the imperial power structure, leaving little space for anti-colonial ecologies. Altogether, ongoing developments in the Arctic region, such as gas, nuclear, wind, hydropower and the new transition mineral rush in the wake of climate change (Boersma & Losz, 2018; Össbo, 2023), as well as resistance to such projects (Hanaček et al., 2022) illustrate climate colonialities and "green" extractivisms, from old to new (Gritsenko, 2018; Sultana, 2022).

Academics including geographers, journalists, activists, Indigenous and non-Indigenous people, as well as Knowledge Keepers in the Arctic, have increasingly agreed that climate change and the low-carbon transition projects reproduce colonial attitudes. Such attitudes also impose non-stop structural blindness about ontological, epistemological, and axiological struggles on the ground (Cameron, 2012; Lassila, 2020; Normann, 2021).

The green shift is nothing more than a continued extraction of resources [...] The difference is that resource utilization has been given a nice color, green; we call it 'green colonization.' We were first colonized by people from outside our lands, then colonized by climate change itself, driven by people from outside our lands, and are now being colonized a third time by responses to climate change. (Gunn-Britt Retter, head of the Arctic & Environment Unit, Sámi Council). Source: Arctic Today Newspaper (2021).

In this context, significant colonial dimensions of climate change in the Arctic are massive expansion of the extractive, industrial, and shipping sectors (Cameron, 2012), including those emerging from "green" sustainable development promotions (Gritsenko, 2018; Len, 2021). Acknowledging not only colonial history and ongoing colonial effects of such extractive projects but also resistances against multiple imperial and colonial ''shades of green'' (Carminero-Santangelo, 2014), are important for critical examination of these interrelated dynamics. Huggan (2016) explains that colonial aspects in the Arctic context continue through economic, geopolitical, epistemic dominance by the nation states and transnational companies. These aspects are incorporated into ideologies of modernization, green development and progress that rely on Arctic resources. Colonialism, thus, continues to shape debates and developments in the fast changing Arctic today, as well as informing contested visions for its future (Sörlin et al., 2022).

#### Greater renewables demand will be met through Arctic mining

Karin Buhmann et al, 2021 – Associate Professor teaching public law and Corporate Social Responsibility at the University of Copenhagen. Dr Buhmann holds degrees in law and East Asian Studies and a PhD from the Department of Law at Aarhus University (Denmark) “Toward socially sustainable renewable energy projects through involvement of local communities” Renewable Economies in the Arctic, edited: David Natcher, Taylor & Francis ebooks //DH

While scientists’ warnings about climate change and their calls for urgent action are gradually coming to be accepted by politicians and regulators across the globe, the implications of a warmer climate are particularly fast and acute for the Arctic. This has spurred projects in Arctic countries to shift to low-carbon energy sources, in particular wind, hydro and solar power (Business Index North, 2017; McCauley, Heffron, Pavlenko, Rehner, & Holmes, 2016). While these forms of energy are renewable and therefore environmentally sustainable in a narrow sense, decisions on their locations have caused a range of protests by local communities including Indigenous groups. The protests are typically fueled by concerns over the social and/ or environmental implications of the projects. On the one hand, the projects may offer jobs and economic development. On the other hand, they are seen as posing new risks for people living in the Arctic. Just because energy sources are renewable, this does not mean they are free from adverse social impacts or that they are regarded as socially acceptable. Developing and storing energy from renewable sources like wind and the sun depends on technical solutions, some of which in turn depend upon minerals, including rare earth elements (REE), copper or cobalt. In many countries, but particularly in the global South, issues of labor conditions and the environmental impacts of mining and the processing of minerals are well-documented. As deposits of such minerals in the global South are becoming depleted, and the Arctic increasingly more accessible due to the changing climate, Arctic countries are emerging as potent sources of minerals for the global production of wind and solar energy technologies and batteries for storing renewable energy. Scaling up renewable energy infrastructure is in line with Sustainable Development Goal (SDG) 13 on urgent action to combat climate change and its impacts, as well as SDG 7 on access to affordable, reliable, sustainable and modern energy for all (UN, 2015a). However, the texts of the Paris Climate Change Accord and the Sustainable Development Goals recognise that the transition to a low-carbon economy should be implemented with respect for human rights (UN, 2015a, 2015b).

#### Renewable production increases resource extractivism – that reinforces colonialism

Alexander Dunlap and Jostein Jakobsen, 2020 - \*research fellow at the Boston University Institute for Global Sustainability AND \*\*Postdoctoral Fellow at the Centre for Development and the Environment, University of Oslo The Violent Technologies of Extraction, Springer Nature database, accessed via University of Michigan //DH

**The Worldeater is what the authors refer to as “the spirit of power that possesses this world” – it’s a metaphor for consumption, capitalism, colonialism and spirit death**

Offsetting can extend to ‘clean’ energy projects such as solar and wind energy development. While solar and wind energy were present in the environmental initiatives of the Hambach coal mine (Brock and Dunlap 2018), we also see wind and solar projects powering the infrastructure and public imagine of mining industries, notable among them is Grupo Mexico (Dunlap 2017a, 2019a). Solar and wind energy projects are themselves paraded as ecologically sustainable, environmentally friendly and an answer to climate change mitigation and energy transition. There is little, however, to suggest that industrial-scale renewable energy can lead to solving, let alone mitigating ecological crises. In fact, it spreads electrical infrastructure across the world (see Fig. 2 of Chap. 2), energizing mass consumption and life into the Worldeater. The socio-ecological costs of solar and wind energy are under-acknowledged, if not willfully ignored, to blindly expand extractive activities and economic or (delusional) ‘green’ growth (see Hickel and Kallis 2019). It may be argued that, while so-called renewables (or fossil fuel+) do not exhaust the resources that they use, the plantation economy does. We disagree. First, as will be discussed below, renewables require extractivism for securing raw materials and thereby risk the possibility of exhaustion via mining, negligent recycling protocols, misleading ecological ‘solution’ marketing and capitalist growth imperatives. Second, and like most technological interventions, people do not know the long-term impact that wind parks have on ‘the atmospheric boundary layer by (a) reducing wind speeds, (b) generating blade scale turbulence in the wake of the turbines, and (c) generating shear driven turbulence due to the reduced wind speeds in the turbine wake’ (Tabassum- Abbasi et al. 2014: 281). Moreover, absorbing the sun into solar panels— the skin of the Worldeater—and not the land risks unknown site-specific ecological alterations. Theoretical modeling and now ‘concrete evidence’, according to Tabassum-Abbasi et al. (2014: 273), ‘is emerging that large wind farms can influence local weather but are also likely to influence the climate and can bring in significant changes’. Renewable interventions might be less abrasive than mineral and hydrocarbon extraction, yet they remain co-constructed and are producing an infrastructure intervening into wind and solar patterns on a global-scale to harness and absorb vital energy. This deserves greater consideration and research to say the least. Below we will briefly discuss five criteria—raw material extraction, land control, socio-ecological impact, energy use and decommissioning—to assess the viability of solar and wind energy projects in their respective locations.

Where do those fields of solar panels and large-metal wind towers come from? Photovoltaic (PV) solar and wind energy projects require a vast amount of extraction and processes. You will find fossil fuels at every part of the supply chain in mining, manufacturing, transportation and processing of raw materials. This also includes the increasing mechanization of large-scale mining, but consider that according to some sources, ‘PV solar power systems contain approximately 5.5 tons per MW of copper, while grid energy storage installations rely on between 3 tons and 4 tons per MW’ (Strong 2016). Meanwhile, according to Wind Power Monthly, 3.6 tons of copper are used per megawatt in wind energy development (Smith 2014). This includes unknown amounts of various steels (depending on the solar project) for panel frames, while wind turbines use roughly 150 metric tons of steel for reinforced concrete foundations, 250 metric tons for the rotor hubs and nacelles and 500 metric tons for the tower (Smil 2016). The production of steel, as it stands, is impossible without burning metallurgical coal—or coking coal—which is a vital raw material in the processing of renewable energy infrastructure (Dıez et al. 2002). The manufacturing of PV requires hazardous materials such as hydrochloric acid, sulfuric acid, nitric acid, hydrogen fluoride, 1,1,1-tricholoroethane, and acetone (UCS 2013; Yang et al. 2017). Thin-film PV cells also contain toxic material such as gallium arsenide, copper-indium-gallium-diselenide, cadmium-telluride and coolant liquids (Yang et al. 2017). Wind turbines also use a variety of plastics, minerals and rare earth minerals in their permanent magnets, such as dysprosium, praseodymium neodymium, and terbium (Dunlap 2018e). There are numerous variations between type of wind turbines—geared turbines that do not use permanent magnets or direct-drive turbines—and solar panels utilizing different technologies. The list of minerals and processing necessary for use are exhaustive, yet it is important to recognize the extent of the complex fossil fuel and mineral supply chains, and likely accompanying human right abuses that lurk behind so-called renewable technologies (Finley-Brook and Thomas 2011; Kiezebrink et al. 2018), which require further research, public acknowledgment and discussion—to say the least. This collaboration between extractive industries, extracting minerals for renewable energy or using renewable energy for extractive operations, has led Dunlap and Brock (2019, Dunlap 2018e) to calling this ‘the renewable energy-extraction nexus’. This nexus, we would add, aids the Worldeater’s colonizing drive, expanding its grid while remarkably successfully enrolling people into its entrails as it builds public opinion in accordance with selective rational interest.

### Link: Global renewables demand

#### Plan contributes to global renewables demand – other countries will see Alaska as a model

Christopher Len, 2021 – Senior Research Fellow at the Energy Studies Institute, National University of Singapore. “Climate Change and Energy Transition in the Arctic: Key Issues and Trends” 7/19, https://esi.nus.edu.sg/docs/default-source/esi-policy-briefs/climate-change-and-energy-transition-in-the-arctic--key-issues-and-trends.pdf?sfvrsn=bc91c404\_2

While the Arctic has traditionally been a region known for its rich natural resources and been largely defined by the export of its fossil and mineral wealth, it also has a growing role in the development of sustainable energy solutions, beyond the extractive industries. The region is rich in renewable potential and one of the ways to ensure the sustainable development of the Arctic is to ensure sustainable energy access in this region. The Arctic Council’s Sustainable Development Working Group has drawn attention to the Arctic as an energy consumer. The focus in this context is on the use of new low carbon energy technologies to help local Arctic communities achieve energy production and supply that is both affordable and sustainable, often in remote locations. This comes in the form of developing small and off-grid community energy solutions with renewable energy options replacing or supplementing diesel-fired power generation and energy efficiency measures. Beyond technological solutions, efforts to facilitate sustainable energy solutions require sustained community engagement and deep localised behavioural insights to address environmental and socio-economic issues. Remote communities around the world face similar challenges in terms of the high barriers of entry in the deployment and operation of these energy systems, given their location, harsh environment and typical small scale. In this regard, there is a lot of room for local stakeholders to engage with fellow energy communities across the Arctic as well as with the wider world. Arctic stakeholders can contribute to and draw external lessons with the goal to develop resilient remote energy communities through knowledge exchange and partnerships on issues relating to technical know-how, public policy, community engagement and private sector involvement. This carries the potential to develop the Arctic as a key international knowledge exchange centre in this field.

#### Plan will be modeled and increase global renewable demand

International Arctic Research Center, 2025 – at the University of Alaska, Fairbanks “Alaska's Arctic Energy System” <https://uaf-iarc.org/alaska-arctic-policy-trends/energy-issues/arctic-energy/> //DH

Microgrids also serve universities and military installations in Alaska due to district heating needs. Because the Fairbanks area remains without a reliable natural gas supply, the University of Alaska Fairbanks opened the only new coal-fired heat and power plant in the U.S. in 2018, replacing its more than 60-year-old coal plant. Eielson Air Force Base is supported by its own coal-fired power plant for the same reasons.

As Alaska evolves as a leader in implementing renewables and other microgrid technologies, local knowledge and expertise may become a key export for the state. Other cold regions may look to Alaska’s systems as a model. Places with insecure access to energy or that seek energy independence may also learn from Alaska’s technology.

#### What works in Alaska causes a significant demand increase globally

Peter Asmus, 2022 – University of Alaska Fairbanks “How Alaska Fits into the Global Microgrid Movement” 7/29, <https://www.uaf.edu/acep-blog/how-alaska-fits-into-the-global-microgrid-movement%20.php> //DH

Remote regions of the world such as Alaska, once viewed as disadvantaged due to a lack of conventional grid infrastructure, have proven to be fertile ground for sustainable energy innovation. This innovation flows from challenges associated with providing reliable electricity without the benefit of traditional transmission and distribution systems. Economic pressures linked to the high cost of delivering traditional fossil fuels for most energy applications in a part of the world with relatively low per capita income is also a factor and a trait Alaska shares with much of the world seeking solutions for energy access.

Alaska is home to many paradoxes. It is a region of harsh climate and extreme cold, but it is also a global hotspot for microgrids. Alaska has long been a pioneer in deploying high penetration renewable energy microgrids. These microgrid systems—some in continual operation for close to a century—built the business case for renewable energy integration well before the rest of the country, and the rest of the world, moved in this direction. When measured in terms of installed capacity, Alaska ranks No. 1 in the US as of 2021, with over 3,500 MW installed according to Guidehouse Insights. Though the state’s relative market share has declined over the past few years due to accelerated growth in states such as California facing the continual threat of wildfires, it remains the national leader.

Alaska also has one of the highest adoption rates of microgrids in the world. The majority of citizens, businesses and institutions in Alaska are currently served by some form of microgrid, with some of the largest systems nested into the Railbelt grid, the state’s only major transmission system. Unlike the rest of the U.S., where majority of microgrids interconnect with a traditional power grid and primarily serve as a resiliency resource to respond to power outages, most of the microgrids serving communities in Alaska are remote power systems quite similar to microgrids now being deployed throughout Africa, the Asia Pacific and Latin America. In an ironic twist, the lack of traditional infrastructure in Alaska has forced this U.S. state to come up with solutions that not only address harsh climatic conditions, but which seek to displace products that once fueled the entire economy. I’m talking about oil, natural gas and other hydrocarbons.

Ironically, the largest microgrids serving military bases and university campuses rely primarily on natural gas generation. So, they are lagging behind the much smaller community-based systems operating in more isolated sites. Therefore the Railbelt grid, as well as the continental grid, are now looking at the remote microgrid featuring renewables providing the majority of energy and power for lessons learned.

The high cost of diesel in Alaska mirrors the high energy costs that plague much of the world’s emerging economies. Since remote microgrids dominate the global market, what works in Alaska carries major implications for the rest of the world.

Yet, the state also offers insight to industrialized nations where the focus has been on big grid and infrastructure solutions – like gigantic offshore wind farms -- rather than more distributed, resilient energy solutions, such as microgrids. Of course, due to the enduring presence of major oil companies, Alaska is now also exploring larger scale solutions to global climate change, such as conversion of existing fossil fuel drilling, pipelines and export facilities to hydrogen and other climate-friendly energy innovations.

### Impact: Turns Case

#### The aff turns the Arctic into a sacrifice zone subjected to endless colonial extraction justified in the name of climate solutions.

Ksenija Hanaček et al, 2024 - Post-doctoral Fellow & Joan Martinez-Alier, Emeritus Professor, Institute of Environmental Science and Technology (ICTA), Autonomous University of Barcelona (UAB), Catalonia, Spain. “Green and climate colonialities: Evidence from Arctic extractivisms” <https://journals.librarypublishing.arizona.edu/jpe/article/5512/galley/5638/view/> //DH

The Arctic remains a prime target for extractivism, notably for obtaining the commodities to produce "green" or low-carbon infrastructures instrumental in climate change mitigation policies (Kuokkanen, 2023). Moreover, the attack on Ukraine by Russia in February 2022, and the subsequent rush for alternative energy and raw material sources especially in the European Union, has led to major new expansion pushes, also in the Arctic (Kopra & Wall, 2022). The sanctions against Russia, and the worsening climatic-ecological conditions for extraction due to collapsing permafrost for example, have brought difficulties for the sector in some parts of Arctic Russia (Kröger, 2023). Visible resource conflicts and resistance movements are thus just the tip of the iceberg when it comes to local grievances due to environmental, cultural, and livelihood losses experienced by many Arctic peoples (Heininen et al., 2022). This is a topic that can be explored more deeply through the intertwined concepts of extractivism and colonialism, which examine the structural, historical level where extractivist hegemonies have been created for the Arctic.

Extractivism describes those activities that violently remove or extract large quantities of natural resources, causing major social and ecological damage (Acosta, 2011). The type, character and degree of extractivism vary depending on the sector, style of extraction, and context (Kröger, 2022). According to Gudynas (2021), extractivisms – in the plural, as there are many forms, such as mining, fossil fuels, commercial agriculture and forestry – entail breaking down existing local economies and their ecological relationships, with extracted products profiting national or international business classes or governments. Extractivisms, however, are not limited to biophysical overexploitation and transformation of the environment (Acosta, 2011; Kröger et al., 2021; Svampa, 2019). They are based on onto-epistemic violence against Indigenous ways of relating to the Mother Earth (de la Cadena & Blaser, 2018). For example, replacing the latter with modernist assumptions and ideas where nature is seen as external and available, "free" of people or any constraints to exploit and appropriate in whatever manner, as fast as wanted. Therefore, Durante et al. (2021: 20) refer to extractivisms as "a particular way of thinking and the properties and practices organized towards the goal of maximizing benefit through extraction, which brings in its wake violence and destruction." Such forms of colonialism and extractivism, when part of capitalism, do not only mean imposing domination from foreign countries and corporations. Colonialism can also be imposed and continuously sustained internally within a nation state (Casanova, 1965; Churchill & LaDuke, 1992; Maldonado-Torres, 2016). Arctic extractivisms exist with several forms of colonial relations (Hanaček et al., 2022).

The concept of climate colonialism refers to how glaciers melting, sea levels rising, and storms negatively affect those who have least contributed to the climate crisis, such as Indigenous peoples, ethnic minorities, and the impoverished (Landrum & Holland, 2020; Naykanchina, 2012). Systems supporting colonialisms, such as patriarchy, racism, Eurocentrism, and extractivism not only contribute to such conditions, but also further impose their own climate change perspectives and "solutions" (Sheller, 2023). Climate change is in part a result of colonial extractivism, and a greater discussion of this connection in the literature has long been necessary (Bhambra & Newell, 2023; Moore, 2016). For instance, projected green solutions and global climate interventions reproduce extractive understandings and dominant discourses, including viewing climate as merely a biophysical problem to be remedied with technologies, finance, and better economic modelling (DeBoom, 2022; Sultana, 2022). Apolitical approaches, with little to no acknowledgment of global colonial histories, also include adaptation, vulnerability, and mitigation strategies that continue to displace historically impoverished peoples from their land, disrupting plural ways of life and knowledge (Cameron, 2012). According to Gelderloos (2022) and Osborne & Carlson (2023), industrial expansion and present forms of pollution are intrinsically linked to the colonial state. The current climate crisis is the result of a state-corporate nexus responsible for atmospheric change. However, the mainstream crisis solution to this nexus is based on a carbon reduction 2030 goal, which is inherently linked to existing fossil fuel and green extractivist initiatives (ibid).

Put simply, both green extractivism and the climate crisis perpetuate logics of colonialism and imperialism through negative socio-environmental impacts, discursive (green) ignorance, climate crisis denial, and attempts to create domination and hegemony by extractivist forces – all these actions further driving the climate catastrophe (DeBoom, 2022; Dunlap & Riquito, 2023; Sultana, 2022; Voskoboynik & Andreucci, 2022). The term "necrocene," or the new era of death and extinction on Earth, refers to such denial and silencing of historical and present struggles against socio-ecological breakdown (Batalla, 2020; Clark, 2021; Mbembe, 2019). Therefore, the poly-crisis including climatic breakdowns should be seen primarily as a political state and a colonial condition (Sheller, 2023). Combined, green extractivism and climate crises form part of ongoing colonialities.

#### Green extractivism creates green sacrifice zones that harm indigenous peoples and the poor globally

Ksenija Hanaček et al, 2024 - Post-doctoral Fellow & Joan Martinez-Alier, Emeritus Professor, Institute of Environmental Science and Technology (ICTA), Autonomous University of Barcelona (UAB), Catalonia, Spain. “Green and climate colonialities: Evidence from Arctic extractivisms” <https://journals.librarypublishing.arizona.edu/jpe/article/5512/galley/5638/view/> //DH

Activists and academics have highlighted how "green" opportunities are not a solution to this crisis, but rather a continuation of extractivism. Green extractivism, despite its name, still relies on intense material extraction (Andreucci & Zografos, 2022; Dunlap, 2018, 2021; Jerez et al., 2021; Voskoboynik & Andreucci, 2022). In theory it promotes sustainable development and prosperity for all, but in practice turns into intolerable levels of hardship for Indigenous Peoples, fisher, and peasant communities (Akbulut et al., 2019). In what follows, we argue that the extension of green sacrifice zones, as well as the new consensus surrounding the decarbonization path, can be seen as an expansion of commodity and waste frontiers (Martinez-Alier, 2023), building on historical patterns of colonialism and extractivism.

Del Bene and colleagues (2018) argued that "renewable" energy hydropower projects are associated with the oppression of those who oppose them though protest, undermining diverse epistemologies and world views. Meanwhile, industrial wind and solar power development projects shape uneven land conflicts (Avila et al., 2022), occasionally involving occupation and militarization of local territories and displacement of populations. In some documented instances there have been assassinations of activists (Dunlap, 2018; Dunlap & Fairhead, 2014; Fanari, 2021; Tran & Hanaček, 2023).

The mining of green transition minerals have also brought environmental, social, and economic harms (Jerez et al., 2021; Voskoboynik & Andreucci, 2022). Minerals and metals identified as critical to the development of four key green energy technologies—solar, wind, electric vehicles and energy storage—are listed by Church and Crawford (2020).2 They include aluminum, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, molybdenum, nickel, rare earths, selenium, palladium, silicon, silver, zinc, etc. Some are newer transition metals (Dunlap & Laratte, 2022). The rush for rare earths includes various attempts to extract the minerals from the ocean floor or submarine hydrothermal deposits (Glasby, 2002; Levin et al., 2020). Smelters and tailings continue to expose local communities to toxicity (Dunlap & Jakobsen, 2020). We find empirical evidence across Latin America, South-East Asia, Eastern Europe, and the African continent (Núñez et al., 2022; Siti et al., 2022; Sovacool et al., 2020; Zografos, 2022).

#### Renewable energy creates violence against indigenous peoples at every stage of development

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Across industrial sectors, corporate actors heavily implicated in land dispossession and harms against Indigenous leaders and local communities include agribusiness, mining, fossil fuel extraction, hydropower and dams, nuclear energy and waste, industrial fishing, and industrial logging.116 For decades now, we have also seen the dramatic increase in renewable energy industry-related violence impacting Indigenous and local communities, including small-scale peasants, fisherfolk and forest dwellers.117 Consider the following, which are just a few examples of the multiple impacts of expansive renewable industry on Indigenous peoples: hydropower (e.g., impacting Sami, Adivasis, Lenca, Cree, Inuit), agro biofuels and bioenergy (e.g., impacting the Maya, Guarani, Dayak, Mapuche), industrial wind power (e.g., impacting the Huave, Sami, Adivasi, pastoralists in Kenya), solar farms (e.g., impacting the Amazigh, Seneca), lithium (e.g., impacting the Lickanantay and Atacameños),118 rare earth and technology minerals (e.g., impacting the Congo River basin peoples), geothermal (e.g., Maasai), and hydrogen (impacting, e.g., Southwest Turtle Island nations like Pueblo and Diné/Navajo peoples, and North African Indigenous peoples, potentially again impacting the Amazigh and Saharawis).119 These impacts are not only produced at the industry’s operating location, but across the renewable energy product’s lifecycle, from the extraction of raw materials to processing, infrastructure, and disposal of phased-out infrastructure.120 Recent research121 documents and examines the increasing harms of industrial scale green energy transitions as well as reductionist climate change mitigation policies and projects on ecosystems and social groups, including Indigenous, local, and other communities.122 Here as well, Indigenous lands and waters are threatened by new ‘green’ enclosures through the expansion of the neoliberal capitalist ‘green economy,’123 which in addition to green energy transitions, seeks to hegemonically incorporate Indigenous lands into payments for ecosystem services trading schemes that financialize nature in the form of carbon and biodiversity pricing, markets, and offsets.124 Many such schemes allow polluters to continue their activities while displacing the burden of sequestration and biodiversity protection onto the communities least responsible for climate disruption and biodiversity destruction.