1NC---Nuclear Imperialism

1NC

Framing---1NC

First is Framing.

Discourse about the resolution shapes its implementation

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Policy implementation, or the process of putting policies into practice, is a multifaceted and contested phenomenon which involves multiple types of actors and factors (Hill & Hupe, 2014). Public policy studies have dedicated attention to the role of discourses in agenda-setting and policy formulation processes (Fischer, 2003; Rein & Schön, 1996). However, discursive dynamics have not figured prominently in implementation research. This occurs despite the fact that a **large number** of feminist **studies**, particularly those concerning the implementation of international regulations and strategies such as gender mainstreaming and the Istanbul Convention on Violence against Women, show that the **framing** of **policy problems** and organizational and individual opposition are important factors **shaping policy implementation** (Benschop & Verloo, 2006; Mergaert & Lombardo, 2014; Montoya, 2013). **Discursive dynamics matter** in **implementation** processes. Therefore, implementation research would benefit from engaging with gender and **politics studies** to understand the role-played by ideas, **policy frames** and **discursive processes beyond** the **agenda setting** and **policy formation** stages. The analysis of the implementation of gender equality policies, i.e. policies that aim at dismantling gender hierarchies of power and achieve gender transformation (Htun & Weldon, 2018), is an emerging field (Engeli & Mazur, 2018; Mazur, 2017). Care policies represent a particular sub-domain of gender equality policies which is concerned with the provision of benefits and services for the care of children and adults who cannot provide for their own needs. The importance of studying care policies is well recognized, in particular since feminist scholarship in the 1990s brought new attention to the role of women and the family in the provision of welfare (Lewis, 1992; O'Connor et al. 1999; Sainsbury, 1996). Nonetheless, this research tradition shows some limitations. Firstly, its main focus has remained on policy design and the political, institutional and ideological foundations behind the adoption of certain policy models. Implementation has not significantly figured in this literature despite a growing number of studies showing that the outcomes of care policies cannot be easily read off from policy design (Koslowski & Kadar-Satat, 2018; Schadler, Rieder, Schmidt, Zartler, & Richter, 2017). Secondly, the analyses of issues relating to care providers and receivers have generally proceeded on parallel tracks. The traditional emphasis in these studies on women caregivers has offered limited insight about the multidimensional nature of the inequalities involved in care provisioning (Ciccia & Sainsbury, 2018). Despite the growing number of studies employing the concept of 'intersectionality' (Crenshaw, 1991) to investigate how the intersection of gender, class and race inequalities produces specific marginalizations and privileges in care policies (van Hooren, 2012; Williams, 2010), insight on how care policies affect various target groups remains fragmented across different disciplines such as social policy, gerontology, public health and disability studies. This introductory article puts implementation research in dialogue with gender and politics studies to enhance our understanding of care policy implementation. Care policies present interesting problems of implementation because of the multiplicity of aims, values, inequalities, actors and levels of governance involved. Nonetheless, previous research shows two important gaps which relate to: 1) the neglect of discursive factors and processes in implementation research; and 2) the lack of attention to implementation in analysis of care policies and their gender+ inequality consequences, i.e. the intersection of gender with other social divisions (Ciccia & Sainsbury, 2018; Engeli & Mazur, 2018; Lombardo, Meier, & Verloo, 2017). This introductory article frames the various contributions to this special issue by providing a general framework for the analysis of care policy implementation. It suggests that the analysis of discourse as a transversal factor connecting actors and institutions sheds light on important aspects of the process through which care policies are put in practice. 2. Policy implementation research: key contributions and gaps The identification of implementation as a **separate stage** in the study of the policy process is considered one of the most important innovations in policy research since the 1970s (Fischer & Miller, 2007). In previous research, implementation had been regarded prevalently as a **technical task** carried out by **neutral officials** in a **largely unproblematic** and **effective manner**. This view began to shift with the publication of Pressman and Wildavsky (1973) **show**ing that federal programs for the unemployed in Oakland were **not carried out** in the manner **foreseen by legislators**. Studies in **other countries** reached **similar conclusions**, bri nging to the fore the political nature of implementation (Howlett, Ramesh, & Perl, 2009). The early academic debate on implementation was polarized around two perspectives, the top-down vs. bottom-up approaches (Barrett, 2004). The emphasis of top-down studies on the compliance with policy objectives as formulated by policy-makers led to a focus on implementation failures and effective policy design (Bardach, 1977; Sabatier & Mazmanian, 1980). These studies were essentially prescriptive. Conversely, bottom-up approaches emphasized the importance of street-level bureaucrats and other actors in charge of putting policies in practice (Lipsky, 1980). For this approach, 'perfect' implementation was hardly possible and discretion not only inevitable but also necessary to ensure the substantive effectiveness of policies, even if this resulted in considerable deviation from the original intentions of legislators. While both approaches generated valuable insights, they were also affected by a number of shortcomings. For instance, they both **assume**d policy objectives as **clearly set** by policy-makers **rather** than **negotiated** among political actors and thus affected by degrees of **vagueness** and **contradictions** (Howlett et al., 2009).

Structural violence is underestimated, a threat multiplier, and destroys value to life

Hunt 17 (Dallas Hunt [PhD Candidate, University of British Columbia, Canada.], "Biopolitical Disaster: Of course they count, but not right now," Routledge, 2017, 1st edition, https://www.taylorfrancis.com/chapters/edit/10.4324/9781315620213-14/course-count-right-dallas-hunt)//Shwillett

"**There is a hierarchy to care":** theoretical concerns and applications In Frames of War (an extension and preoccupation with similar issues she outlines in her text Precarious Life), Judith Butler focuses on the ways in which particular, violent perceptions of everyday life are normalized and propagated as legible or granted "intelligibility" (through numbers, statistics, etc.). According to Butler, Frames of War follows on from Precarious Life ... especially its suggestion that specific lives cannot be apprehended as living. **If certain lives do not qualify as lives or are, from the start, not conceivable as lives within certain epistemological frames, then these lives are never lived nor lost in the full sense.** (2010: 1) For Butler, then, a primary concern is how these intelligibilities **allow "a state to wage its wars** without instigating a popular revolt" (xvi). Although Butler is writing within the context of the Iraq War and the "War on Terror," her insights on precarity and modes of state violence exceed their immediate rele- vance. Indeed, as is clear below, the notions of war and settler-colonialism and the biopolitical rationalities they allow are eminently applicable to a local, Canadian context. **The frames of war,** Butler argues, are not circumscribed to combat zones with the mobilization of weapons. Instead, to Butler, "perceptual weapons" **are acting on populations consistently to naturalize violences and enlist citizens to tacitly consent to** (and, in some cases, actively participate in) **violent forms that authorize dehumanization**: "[w]aging war ... begins with the assault on the senses; the senses are the first target of war" (xvi). These perceptual violences resonate with Rob Nixon's formulation of "slow violence" as well. To Nixon, slow violence is "a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, **an attritional violence that is typically not viewed as violence at all"** (2011: 3). Further, and "[c]rucially, **slow violence is often not just attritional but also exponential, operating as a major threat multiplier; it can fuel long-term, proliferating conflicts in situations where the conditions for sustaining life become increasingly but gradually degraded**" (4). Conditioning the senses or what is intelligible, then, functions as the way in which state violences are legitimized, as the frames of war dictate the "sensuous parameters of reality itself" (ix). According to Butler, the task at hand is not only to "understand ... these frames, where they come from and what kind of action they perform" (2010: 83), but also to find and articulate "those modes of representation and appearance that allow the claim of life to be made and heard" (81). While Butler is exam- ining conditions of precarity, (in)security, and disposability in the context of "the War on Terror," and Palestine–Israel, her examination of an imperial/ colonial power exerting force and enacting violence on vulnerable and racialized populations (and in the process producing and reproducing these vulnerable populations) can be fruitfully employed in the Canadian context, though not without some alteration. Although we may not perceive the more mundane, i.e. non-military, violences visited upon Indigenous communities as "war" strictly speaking, Sora Han's oft-cited phrase that we must think of the United States (and settler-colonial nations more broadly) not "at war" but "as war" is useful here (cited in Simpson 2014: 153, emphasis in original). If we view the biopolitical man- agement of Indigenous populations and Indigenous territories as rationalities rooted in the organizing frame of settler-colonialism, then the states of emer- gency putatively thought to be produced through war are "structural, not eventful" – that is to say, war is the very condition of settler-colonialism and not a by-product of it (154). Indeed, the largest ever domestic deployment of military forces in North America took place within Canada, in the context of the so-called "Oka crisis." As Audra Simpson writes, the "highest number of troops in the history of Indigenous-settler relations in North America was deployed to Kanehsatà:ke, as this was the most unambiguous form of exceptional relations, that of warfare. There were 2,650 soldiers deployed..." (2014: 152). And, as Roxanne Dunbar-Ortiz and others have noted, Western imperial powers still refer to "enemy territories" abroad as "Indian Country" and to "wanted terrorists" as "Geronimo" (2014: 56). I follow the lineages of these Indigenous theorists who view settler-colonialism as a kind of permanent war, drawing parallels between the so-called everyday violences (displacement, sexual violence) inflicted upon Indigenous peoples in the US and Canada and the death-delivering reaches of empire embodied by the West more globally. Or, to echo Mink, the transformer/shapeshifter narrating the events in Mara- cle's Celia's Song: "This is war" (2014: 9). For Butler, there are varying tactics for distributing "precarity" differently, or what she describes as "that politically induced condition in which certain populations suffer from failing social and economic networks of support," producing a "maximized precariousness for populations ... who often have no other option than to appeal to the very state from which they need protec- tion" (2010: 26). In the depictions provided in her writing, as well as that of Maracle, violence is deployed not only as "an effort to minimize precarious- ness for some and to maximize it for others," but also as a mode of shaping the perceptions of citizens in order to make such acts legible, and hence, in a sense justifiable (Butler 2010: 54). Ultimately what Butler is advocating for is a new ethico-political orientation, one with the potential to disrupt the violent regimes of the sensible, as well as the ways in which precarity is currently allocated and distributed. Paraphrasing Jacques Rancière, Jeff Derksen also advocates for political movements that disrupt "regimes of the sensible": "a politics of the aesthetic could ... redistribute and rethink the possibility of the subject (potentially an isolated figure) within the present and within a com- munity to come" (2009: 73). In sum, Butler's text illustrates the ways in which State-sanctioned (and induced) **precarity "perpetuate a way of dividing lives into those that are worth defending, valuing, and grieving when they are lost, and those that are not quite lives"** (2010: 42), as well as the resistive practices that might disrupt the naturalization of "differential distribution[s] of pre- carity" (xxv). The remainder of the chapter considers to what extent Mara- cle's texts offer such a disruption of the mundane frames of settler-colonial war within the context of an exceptional moment (an epidemic), and asks how her work gestures toward the alternatives that might be offered by Indigenous frames.

The foundation of the aff is colonialist---energy operates through a network of global imperialism that justifies war and neoliberalist extraction

Ashraf and Chaoui '24 (Asmaa Ashraf [Asmaa Ashraf is a Palestinian researcher and organiser based in London. Her work focuses on connecting Palestinian and climate struggles through an anti-imperialist framework], Driss Chaoui [Driss Chaoui is a France-based illustrator with a sharp interest in the queer Muslim identity, and an emphasis on colour], 4-26-2024, "Dismantling green colonialism in the belly of the beast," Shado Magazine, https://shado-mag.com/opinion/dismantling-green-colonialism-in-the-belly-of-the-beast/)//Shwillett

Dismantling Green Colonialism* demystifies** the **political ecology** of the Middle East, subverting the dominant colonial gaze enforced upon it, which the authors aptly explain as "**environmental orientalism**." This narrative sees **environmental derelict** in the Arab region as **natural**, rather than a **manufactured reality** resultant from centuries of **colonialism** and **underdevelopment.** Deconstructing this narrative is therefore the first step in conceptualising a just transition that rejects the expendability of Arab populations. Whether we're talking about occupied Palestine, the reactionary regimes of North Africa, the sub-imperial powers in the Gulf, or neighbouring Yemen, one of the poorest countries in the world currently facing a global economic and military blockade for acting in solidarity with Gaza, the book offers a comprehensive overview of what energy justice looks like in the most militarised region of the world. The **climate movement** must contextualise the role of the region as a **crucial node** in the global flow of **fossil capital**, and begin to see Arab populations as agents of their own resistance whom we must forge **crucial alliances** of solidarity with. As the first widely available collection of critical writing on a just energy transition in the Middle East and North Africa, this text arrives at an important time. Energy colonialism in the Arab region Earlier this year, we blew past 1.5C warming above pre-industrial levels for an entire year – bringing us closer to a limit that world leaders committed not to breach at the 2015 Paris Agreement. With our fate firmly in the hands of bourgeois climate politicians, we are likely on the path towards 3C heating by the end of the century. The impacts of this will be much worse than simply double the catastrophes we see now at 1.5C, because the effects of warming are not linear. With ecological catastrophe on the horizon, why is it then necessary for climate resistance to not simply demand a transition to renewables, but a just and democratic one? Hamza and Katie paint a devastatingly ugly, yet accurate, picture of what energy transition under capitalism currently looks like. While EU countries in the **Global North** endeavour to decarbonise their own economies, they promote **extraction** in the **South** to ensure their own energy **security,** all while **reaping** the **merit** of appearing to move **"closer to net zero"** on the world stage. Hamza gives the example of France, which banned fracking nationally, then offered diplomatic support to its multinational Total to exploit shale resources in Algeria in 2013. European states are once again externalising environmental degradation amidst the war in Ukraine, as Algeria now produces 9 billion cubic metres of gas annually for Italy. Decades of **forced integration** into the global capitalist economy through colonisation have **forced Arab states** to **restructure** their economies, making them outward-looking at the **service** of the **imperial powers**. North African economies are **heavily dependent** on the extraction and **export** of **fossil fuels** to Europe, which will **leave them particularly vulnerable** when the EU further reduces its imports of fossil fuels. Meanwhile, a common thread that connects most case studies in the collection is how **local energy plans** within Arab states **rely entirely on privatisation and full corporate control of the energy sector.** .Tunisia's transition plan, for example, relies on foreign funding and neglects democratic decision-making. Much of the energy to be produced through these **neoliberal renewable projects** is also to be exported to Europe. .This is green colonialism unmasked, which Hamza describes as "the extension of the **colonial relations** of **plunder** and **dispossession** to the green era of renewable energies, with the accompanying displacement of **socio-environmental costs** onto peripheral countries and communities." Contributors to the edited collection also highlight how **green transition** is used to **enable continued occupation** in multiple geographies. While Morocco uses renewable energy development as a red herring for its exploitation of Western Saharan lands and communities, **"Israel" maintains its settler colonial grip in the region through *eco-normalisation* deals with neighbouring Arab states.** The environmental sector is outright leading Arab-Israeli normalisation with trade agreements over solar power and desalinated water. By happily betraying their own populations and shaking hands with the occupier, Arab leaders lock their states into relationships of dependency with the Zionist entity, which exploits the indispensability of water and energy – the bedrocks of life. The logic of these normalisation deals is as follows: **accept the settler** colonial expansionist project of Zionism, **or perish** from a manufactured water scarcity amidst intensified climate crises. Looking beyond the source *Dismantling Green Colonialism* therefore pushes the climate movement to look beyond simply the source of the energy (fossil fuels or renewables) and instead towards the systems of power that underpin energy flow. Why does energy flow in a particular direction? What activities does it fuel? What are the consistent production and consumption patterns maintained regardless of energy source? **Energy flow** through cross-continental pipelines **acts as a tangible manifestation of the global flows of capital** and allows us to trace where power lies and who it is exerted against. There has been no stronger lesson in this for climate organisers than the ongoing genocide and ecocide in Gaza, which cannot be interpreted as separate from the Zionist theft of resources and the deliberate destruction of environmental infrastructure across all of historic Palestine. Israel seeks to ethnically cleanse Gaza to make way for its ethnostate project, while also positioning itself as an outpost for Western imperial interests – including energy interests. **Energy theft and imperialism are** thus in **perfect synergy**: the former fuels the latter to allow continued access to such resources. It is no wonder then that **Western governments offer diplomatic assistance to their multinational energy corporations for the exploitation and extraction of resources in the Arab region**. This was on clear display when a US envoy in November declared that Gaza's offshore gas fields represented potential for "economic revitalisation." Israel also granted licences to a consortium of European companies to explore occupied Palestinian waters for gas, all while Gazans were lining up for days on end to access cooking gas amidst a genocide. Organising for just transition The **climate movement must** be able to **locate** and **resist imperialist energy projects** as they emerge, characterised by the monopolisation of energy production and the export of the capital generated by Western multinationals. Regardless of the "cleanliness" of Israel's energy source in the era of green transition, the **energy** will continue to **fuel** its **war machine** which murders Palestinians and reproduces the settler colonial project. Rejecting the liberal "green transition" and its contradictions is not enough. ***Dismantling Green Colonialism encourages us as climate organisers to adopt a **"justice-centred"** approach to the **energy transition,** that necessarily prioritises the fight for national liberation in the South. Arab states must acquire the sovereignty to look inwards and "satisfy local needs first before embarking on any export initiatives". As anti-colonial struggles emerge attempting to delink their economies from world imperialism, it is our duty to uplift them. The climate movement **must unlearn the internalised logics of aid and development** to understand Arabs as agents of their own struggles with a right to resistance. When we organise and share the stories of European climate camps, we must also tell the stories of the North African climate camps like those of the Sidi Ayad communities which Hamza writes of. Through protests and open sit-ins, these communities have been resisting solar energy projects on Amazigh desert lands that are constructed as "barren" and "underutilised" by the multilateral institutions financing their exploitation. We must stay tethered to the internationalist nature of our struggle and the communities facing the brunt end of capitalist extractivism. *Dismantling Green Colonialism* is essential reading for the climate movement, asking us to start by interrogating our energy-intensive imperial mode of living, looking beyond mere carbon emission targets and towards the nature of the **transition** being proposed which **assumes continued Western access** to and **agency** over **colonised land** and **labour**. Otherwise, we are fighting for the continuation of the current systems of oppression to simply be fuelled by an alternative energy source.

The concept of a smooth transition glosses over the nationalist and capitalist structures that make it violent and counterproductive

Champion '21 (Marc Champion [Senior reporter for international affairs at Bloomberg, citing Andreas Goldthau, Professor of Public Policy at Central European University, Hungary, and Associate with the Belfer Center for Science and International Affairs at Harvard.], "What Countries Will Fight Over When Green Energy Dominates," Bloomberg, 3-16-2021, https://www.bloomberg.com/news/features/2021-03-16/what-countries-will-fight-over-when-green-energy-dominates?embedded-checkout=true)//Shwillett

"You need a new geopolitical model, you cannot simply put renewables into the old coal and oil model," Grimsson says. Until renewable dominance is reached, though, oil could have a **long** and **destructive tail**. For about three centuries, access to fossil fuels has **shaped** the **rise** and **fall** of **great powers**. Plentiful, well-located coal mines helped fire Britain's industrial revolution and the expansion of its empire. Oil and gas fueled the former Soviet Union's military power and shaped "the American century," including U.S. alliances and fleet deployments. "We're **not even close** to a world dominated by renewables," says Andreas Goldthau, who heads research at Germany's Institute for Advanced Sustainability Studies on the systemic impacts of the shift to clean energy. <<<Figure Omitted>>> Changing such a **fundamental** driver of the global **pecking order** could have multiple consequences. Vladimir **Putin** might struggle to **sustain Russia's** rise as an "**energy superpower**." An **implosion** of the U.S. **shale industry**, combined with **China's dominance** in renewables manufacturing, could define the 21st century's great **superpower contest**. The rationale for American **alliances** and **military bases** in the [redacted] **[West Asia]** would **weaken**. A sudden loss of oil revenues could trigger **Arab Spring-style** revolts against the most **brittle** petrostate autocracies. The one thing we know about transitions, Goldthau says, is that "they are **never**, **never linear**." Think of the post-Cold War Yugoslav conflicts, or the shift away from planned economies that the former communist bloc began in the late 1980s. Many ex-republics, from **Ukraine** to **Turkmenistan**, **remain** in **turmoil** or stalled well short of market democracy 30 years later. Nor do transitions necessarily end with a neatly tied bow. The Canadian scientist Vaclav Smil has mapped out coal's fall from 95% of primary energy use in 1900, to just 26% a century later. Yet in absolute terms, global consumption rose from an estimated 800 million tons a year in 1900 to about 5.5 billion tons today. Though the same might not happen to oil, the fuel is likely to burn much longer than most climate scientists would prefer. <<<FIGURE OMITTED>>> It's hard to see a **smooth**, **rapid** energy **transition** taking place in the current **competitive** and **nationalistic** environment, says Eirik Waerness, chief economist of Norway's state-owned energy giant Equinor ASA. He took part in Grimsson's commission, and generally agrees with its optimistic conclusions. "For the energy transition to happen fully, we probably need a relatively **benign** geopolitical **climate**," Waerness says. "There is to some extent a virtuous circle we have to create here." While the sources of clean energy are available to everyone, the **battle** will be over who **profits** from the **products** used to harness them. **Solar panels, wind turbines** and **batteries** will be in such demand that countries are **already jostling** to make sure they get their **share of the pie**. Many will get left behind. <<<FIGURE OMITTED>>> About **60%** of solar panels are **manufactured** by **Chinese companies**, a level of market influence the **O**rganization of **P**etroleum **E**xporting **C**ountries can **only dream of** when it comes to oil. That creates a big trade advantage, but not one President Xi Jinping can easily leverage for geopolitical ends. "What are you worried about? You buy it, you run it and once you have what you have they can't take it away from you," says Karen Smith Stegen, a professor of political science at Jacobs University in Bremen, Germany, who has examined the potential of 165 countries to emerge from the transition as political winners and losers. Global **inequalities** and **rivalries** will instead likely **center** on access to **technology** and **finance**, **standard setting** and **control** of key **raw materials**. China controls more than **90%** of some of the **rare earth metals** needed for electric vehicles and offshore wind turbines. It already used that monopoly power once, cutting off Japan's supply after a 2010 clash near islands both nations claim to own. Japan has since reduced the share of its rare earth imports that come from China by more than a third to reduce its exposure. <<<Figure Omitted>>> In November, Johnson's U.K. will host the COP26 climate summit in Glasgow, Scotland, where countries will negotiate the rules for the road ahead. Leaders want to make sure everyone else is doing their fair share to cut emissions, and that their countries don't lose out. That **fear** could lead to what German economist Hans-Werner Sinn has called the "**green paradox**." He argues the transition could prompt **oil producers**—especially those with **high extraction costs** or **shallow reserves**—to start **pumping** as **fast** as they can **while demand lasts**. The increased supply would **boost carbon emissions** and also **lower** the **price** of crude, making it more **competitive** with renewables and **slowing** the move to **cleaner energy**. Cheap oil could also **decimate** the **budgets** of fragile regimes before they have time to find other sources of revenue. A February study by U.K. think tank Carbon Tracker found that 40 fossil-fuel dependent governments would suffer an average 51% drop in oil and gas revenues if global climate targets are met. That could **destabilize governments** and leave the likes of **Nigeria** or **Iraq** unable to afford security to deal with threats from **terrorist organizations** such as Boko Haram and Islamic State. <<<FIGURE OMITTED>>> A report last month by the European Council on Foreign Relations concluded that rich countries will have to help plug the financial holes. The EU's Green Deal, in particular, it said could have as great an effect on regional geopolitics as on the Earth's climate. The bloc produces less than 10% of global CO_2 emissions, but neighbors such as Algeria, Azerbaijan, Russia and Turkey depend on its market to buy a large share of their exports. Many of these are carbon intensive and vulnerable to the EU's planned carbon border tax. And there's **no guarantee** that making nations more energy self-sufficient will **reduce conflict**. Oil is the most actively traded commodity on the planet, and any steep decline in demand would **reduce** those **interactions**. "What we know is **trade** is a good thing," says Goldthau at the Institute for Advanced Sustainability Studies. "When states are **interdependent** they have a **lower appetite** for **conflict**." Back at Rand, senior policy researcher Benjamin Preston has divided the world into three categories. The first consists of countries such as Iceland, which already made the transition and have little more at stake. The second are the export-dependent petrostates that have most to lose. The third and least-studied cohort is the array of countries in between that are both producers and consumers of fossil fuels. The temptation for these hybrid cases will be to decarbonize their own economies, while maximizing revenue from exports of oil, gas and coal, Preston says. That's a wild card with potential to impact both international politics and the duration of the transition.

Settler Colonialism---1NC

Disadvantage two Indigenous Violence.

Nuclear energy relies on violent settler colonialism and capitalism that exacerbates indigenous genocide

Princeton ND ("Nuclear Princeton." Princeton University, https://nuclearprinceton.princeton.edu/impacts-native-communities-hanford-site)//Shwillett

The **Manhattan project** had profound impacts on a variety of Native communities ranging from Wanapum, Nez Perce, Yakama, and Umatilla tribal nations who were impacted by the Hanford site in Washington state to the Navajo Nation and pueblo nations in the southwest who were impacted by uranium mining and Los Alamos National Laboratory. **Tribal nations** were **displaced** from their **homelands** for **the construction of** these **facilities** and were often denied access to their homelands both throughout the project and to the present day. Ongoing environmental contamination has continued to affect the health of tribal members and the health of the land. **Contamination** and **exploitation** of tribal **natural resources** and **homelands** is an **ongoing** and **everpresent** concern of **settler-colonial development,** including **capitalist exploitation** of resources; industrial air, water and soil pollution; and weapons development. These strategies are a product of **continued** US attempted **extermination** and **genocide** of **Indigenous peoples. Settler-colonial** nations often use **environmental pollution** as a means of **severing Indigenous people** from **their land.** Issues of environmental justice are deeply entangled with the legacy of the Manhattam Project. The National Park Service's (NPS) document, "African Americans at Los Alamos and Oak Ridge: A Historic Context Study" rightfully brings attention to these issues, pointing out that "historically, minority and low-income groups have been disproportionately affected by the environmental impacts of large-scale development by the government, military, and sometimes private entities." NPS brings attention to the reality that the majority of the Manhattan Project's main facility locatoins selected in part due to the demographic of marginalized populations that resided in the area. In northern New Mexico, where Los Alamos was constructed, the community is largely American Indian Pueblo tribal members and Hispanic homesteaders. In eastern Tennessee, where Oak Ridge National Laboratory sits, community members include poor farmers and coal miners. At the Hanford site in eastern Washington, the surrounding community was composed largely of American Indians and small agricultural communities.

State-based solutions can never resolve ecological crisis or indigenous suffering

Mcregor et al. '20 (Deborah Mcregor [Canada Research Chair, Indigenous Environmental Justice, York University.], Steven Whitaker [Research Associate, York University.], Mahisha Stritharan [Research Associate, York University.], "Indigenous environmental justice and sustainability," Current Opinion in Environment Sustainability, Volume 43, pg. 35-40, 4-xx-20, https://www.sciencedirect.com/science/article/pii/S1877343520300075?via%3Dihub)//Shwillett

A distinct formulation of **Indigenous environmental justice** **(IEJ)** is **required** in order to address the challenges of the **ecological crisis** as well the various forms of **violence** and **injustices** experienced specifically by **Indigenous peoples**. This must be grounded in Indigenous **philosophies**, **ontologies**, and **epistemologies** in order to reflect Indigenous **conceptions** of what constitutes **justice** [1, 2, 3, 4, 5,6••,7•]. In contrast to **dominant Western** society's tendency to view the natural world as a **commodity**, **property** or a **'resource'**, Indigenous understandings are based on regarding the Earth as alive and imbued with spirit. In this view, a **reciprocal set of duties** and **responsibilities** between humans and the rest of the natural world exists such that, assuming these obligations are consistently met, relations between human and non-human entities are maintained in a healthy balance [8••,9••,10]. This approach calls into question the **legitimacy** and **applicability** of global and **nation-state political** and **legal mechanisms**, as these same states and international governing bodies **continue to fail** Indigenous peoples around the world [11••,12]. Indigenous peoples' assessments of the world climate and environmental crisis, based on their own knowledge and understanding, have found global approaches thus far to be lacking [13,14•]. Not only do current global, national and local governance and legal systems fail Indigenous peoples, they **fail all life** [15].

Indigenous peoples over the decades have presented a **distinct diagnosis** of the planetary ecological crisis evidenced in the observations shared as part of numerous Indigenous environmental declarations since the Earth Summit in 1992 (including the following: Kari-Oca Declaration, Kimberley Declaration, Indigenous Peoples Kyoto Water Declaration, Mandaluyong Declaration, Manaus Declaration, Kari-Oca 2 Declaration, Rio+20 International Conference of Indigenous Peoples on Self-Determination and Sustainable Development, Lima Declaration) [16, 17, 18, 19, 20, 21, 22, 23]. Increasingly, **scientists** from around the world have **presented evidence** that concurs with **Indigenous** peoples' **analyses**: the health of the planet is indeed failing [24]. The problem   Anthropocentric-induced climate change has been identified as the 'defining issue of our time' by many of the world's leading experts [25, 26, 27]. Given the severity and speed of the alterations in global climate, many are now preferring to use the term 'Climate Crisis', to stress the urgency with which we must act to achieve a sustainable future [28]. The Intergovernmental Panel on Climate Change states that world CO_2 emissions must be slashed to about half of 2010 levels, in the next ten years, and reach net-zero by 2050 [25]. The IPCC has further stated that limiting global warming to 1.5 °C would require rapid, far-reaching and unprecedented changes in all aspects of society [25]. Currently, we are we are nowhere near making that happen. In fact, annual CO_2 emissions continue to rise, by as much as 2.7% in 2018 [29].

Military-Industrial Complex---1NC

Disadvantage three is the Military-Industrial Complex.

Nuclear energy is inextricably tied to a failing military-industrial complex

Ford et al. '18 (Michael Ford [Michael J. Ford is the French Environmental Fellow at the Harvard University Center for the Environment. He previously served a full career as a nuclear-trained officer in the US Navy, with multiple Pentagon tours, including as chief of the Joint Staff Division responsible for the new systems development process], Ahmed Abdulla [Ahmed Abdulla is a research scientist at the University of California, San Diego, and an adjunct assistant professor in the Department of Engineering and Public Policy at Carnegie Mellon University], Granger Morgan [M. Granger Morgan is the Hamerschlag University Professor of Engineering at Carnegie Mellon University, where for many years he led the Department of Engineering and Public Policy], "Nuclear Power Needs Leadership, but Not from the Military." National Academy of Sciences at Arizona State University, Summer 2018, https://issues.org/nuclear-power-needs-leadership-but-not-from-the-military/)//Shwillett

For much of the atomic age, the United States led the world in developing and deploying nuclear technologies. Despite building the world's largest fleet of reactors—99 of which remain operational—and seeding most of the designs built worldwide, US commercial nuclear development has dramatically slowed. Indeed, the **nuclear** power **industry** now **faces** unprecedented—arguably **existential**—**challenges**. The nation's **demand for electricity has decreased**, and the power distribution **grid is rapidly becoming decentralized**. **Nuclear** power **is having trouble competing** in current deregulated energy **markets dominated by low-cost natural gas and renewable energy sources**. The **industry hasn't been able to build new** power **plants** within budget and in a timely manner, as recent efforts in South Carolina and Georgia illustrate. There are concerns about safety, waste management, and nuclear proliferation. And efforts to develop advanced reactors that might meet these challenges have lagged. The industry can't afford major research and development, and efforts by the Department of Energy, once a prime mover in reactor development, have been moribund as a result of inadequate funding and leadership. The decline of nuclear power creates huge challenges for important US policy goals on two fronts. First, national security experts are debating the consequences of a world where China and Russia become preeminent in nuclear science and technology, thus diminishing the ability of the United States and other western countries to set the rules for controlling access to nuclear material and technology. In addition to deploying existing designs domestically and exporting them, China and Russia have extensive and well-financed programs to develop the next generation of advanced, non-light water reactor concepts, many of which were first demonstrated decades ago in US national laboratories. Unfortunately, neither of these countries has displayed a commitment to maintaining and strengthening the international control regime. Second, despite the challenges it faces, nuclear power remains a proven low-carbon technology. Many energy and climate experts think that without a portfolio of low-carbon energy options that includes at least some nuclear power, the nation and the world will be hard pressed in coming decades to sufficiently cut emissions of the warming greenhouse gases that drive climate change. But those assessments do not reflect nuclear power's grim realities on the ground. Often when US **industries** have found themselves **in** especially **dire straits, they have suggested intimate cooperation between the** Department of Defense (**DoD**) **and** technology **vendors** to restore their vitality. In the case of nuclear power, national **security** arguments are being offered to **justify** diverting **large sums of public money through DoD to** catalyze the **develop**ment and deployment of small modular reactor (**SMR**) technologie**s**. Such arguments have flowed from a variety of sources, including the director of research and development at Southern Company; defense-focused organizations such as the Center for Naval Analyses, Defense Science Board, and National Defense University; clean energy experts at Sandia National Lab; and organizations such as Third Way that include nuclear advocacy as part of their clean energy program. **Two decades ago**, some in the **industry recognized that** continuing to build **large**, complex **reactors made little sense**. Companies proposed shifting to a class of smaller systems: small modular reactors with a nominal power output of less than 300 megawatts of electricity. Their costs would be both more affordable and more predictable—assuming they managed to exploit factory fabrication and modular construction, the way airliners and gas turbines have—somewhat ameliorating nuclear power's steep economic cost. In the United States, more than 30 companies are pursuing SMR variants. Most face monumental challenges, lacking as they do the resources or experience to proceed. None has a guaranteed order book that could underpin the commercialization of either a reactor or its manufacturing infrastructure. The Department of Energy is helping one vendor develop a light water SMR plant in Idaho and may consider signing a power purchase agreement for some of the electricity it generates. It may also support another project in Tennessee by the same company. Despite these efforts, some observers see **DoD as the only institution capable of providing a large enough market to justify commercial production**, at least in the short term. We also see SMRs as theoretically attractive, and we believe that DoD can play a role—though a supporting role—in strengthening US fission innovation. However, resorting to national security arguments and placing DoD in the lead is neither a sustainable nor wise way to revitalize the nation's brittle nuclear enterprise. Indeed, a counterargument could be made that this proposed fix could actually weaken national security by diverting DoD's focus and dollars to a lower priority mission. As to the role that DoD might usefully play, we offer three suggestions. DoD and nuclear development The introduction of in **commercial nuclear power** the United States was **intimately tied to the military's quest for rapid nuclear development**. After all, construction of the first commercial demonstration plant near Shippingport, Pennsylvania, was overseen by Admiral Hyman Rickover himself. Building Shippingport was in Rickover's interest at the time, before the Navy's nuclear future was secured and before nuclear power was known well enough to engender strong feelings, one way or another. This approach generated both political momentum for nuclear development and the industrial supply chain for the light water reactor designs his naval program pioneered. Once Shippingport was completed, the government established a firebreak—imprecise and imperfect—between the civilian and military nuclear programs. Political leaders saw much value in distinguishing the sunny side of the atom from its more sinister one. The civilian nuclear industry welcomed this separation. Acutely aware of the association between nuclear power and the bomb, it stressed in its literature, for example, that nuclear power plants cannot explode. The separation was further promoted by the fact that the Navy had achieved its goal of developing a mature nuclear propulsion system and a fairly limited number of carefully managed plants that had proven themselves remarkably safe. Civilian industry, on the other hand, was projecting thousands of reactors. Because the Navy would not develop and deploy these, it had no way of vouching for their safety and security, and it worried that accidents at nuclear power plants might rebound on its program. Separating the two enterprises helped shield a successful naval nuclear program from any accidents that might occur at commercial facilities. Ostensibly, the civilian and military programs have since maintained that separation, though there remains much cross-pollination. Should DoD assume a key role in developing SMRs, there are two types of reactors that it might conceivably pursue. The first is a very small reactor (vSMR) that the military could use on "forward operating bases" or perhaps some main operating bases in support of combat operations. The second is a larger reactor that the military could use to supply power for its domestic (and perhaps international) bases in order to isolate them from potentially vulnerable public electric grids. There are also a variety of program models that **DoD** could adopt in developing and acquiring SMRs, though we see two as most likely. First, the military could initiate a tightly controlled development process, akin to that used in major defense acquisition programs such as the Joint Strike Fighter or the Littoral Combat Ship. Second, it could "bid for service," **offering commercial vendors the opportunity to deliver power to military installations without tightly controlling development and deployment**. The economic and political implications of the two models differ greatly. It is highly likely that DoD would choose the first model for acquiring vSMRs, whereas either model might conceivably work for larger SMRs that power bases. Regardless of model, the practical and normative challenges of such an undertaking would be enormous. Practical arguments If DoD were to consider acquiring a fleet of SMRs, it would start by assessing its need for them and identifying the key mission performance parameters they would need to satisfy. DoD manages the development of new programs through its Joint Capabilities Integration and Development System, which starts by identifying either new threats or gaps in current capabilities. Assuming a valid gap is identified, the process then moves through material solutions analysis—essentially looking at all possible alternatives to fill that gap. There is **little evidence that** the **SMR designs** that **would** emerge from this analytic process would **be appropriate for wide commercial deployment**. In fact, most of the evidence suggests quite the opposite. The operational requirements and performance standards that would be critical in a vSMR slated for use in forward operating bases would most likely yield a very small reactor (nominally less than 10 megawatts of electricity), blunting its broad commercial desirability. In addition to their small size, these reactors would likely be developed with other characteristics that may prove troublesome for commercial industry or regulatory bodies. First, **they would need to have a long core life, which means they would require fuel "enriched" with uranium-235 to a higher level than used in commercial reactors**. Second, they would have to be transportable and thus rugged. Third, for variants that are small enough to be deployed in remote or forward operating bases, the design might have to employ very modest containment structures. Fourth, they would be designed to absorb shocks and to continue operating in spite of these. Fifth, **control systems would most likely have to be automated to a great degree**, because it costs money to train personnel, and DoD would not look kindly on SMRs that turn forward operating bases into superbly guarded power plants that have more plant operators than warfighters. Though SMRs designed to provide power to US military bases could be larger, it is likely that DoD would still want substantially different technical specifications from those of commercial reactors. As with vSMR variants, sound arguments can be made for more highly enriched cores to lengthen refueling intervals, greater ruggedness to support defense and security resilience, and robust standalone control systems to limit vulnerability to cyber and physical risks. The characteristics outlined above would most likely be endorsed by many reactor designers, and some experts have called for DoD to be an early leader to ensure technical specifications such as these are tailored to meet unique DoD requirements. But it is difficult to overstate how **politically unpalatable some of them would be to the Nuclear Regulatory Commission**. This is especially true of any move toward higher fuel enrichment. Should they be incorporated into one system, we have great difficulty envisioning a license being granted without institutional reforms so deep that they would be sufficient to enhance nuclear power's prospects on their own, weakening the case for the military's involvement. Of course, since **DoD regulates its own reactors, it would not have to deal with these institutional constraints**. However, the **argument that its role as first mover could accelerate the commercial licensing process is not very compelling.** Moreover, any **SMR** fit for DoD's needs **would likely be too expensive for a commercial utility to deploy**. As noted above, the same requirements and standards on which **DoD** would insist might **render commercial variants economically uncompetitive** in most of today's markets. In fact, the military variant itself might not be deployed widely: even if the political will did materialize, and substantial appropriations were forthcoming, and industry eagerly participated, the likelihood of successful project execution is still modest. **Given the long history of cost overruns and waste in defense acquisition, the empirical record is now so robust that this statement is almost axiomatic.** SMRs designed to serve a military base would face an even greater challenge since they could be attacked on the same economic grounds as commercial reactors. The arguments in favor of vSMR deployment—that they could minimize the need for long fuel supply lines and thus fill a warfighting capability gap, for example—evaporate when considering large, domestic bases. Even assuming that such a need could be identified and that it justifies new program development, defense programs must be competitive when possible. Unless resilient, independent supply were given far more weight than it now receives, there is little guarantee that a nuclear design would win the day for base power supply any more than it is dominating deregulated energy markets. Other generating sources such as combined cycle natural gas constitute viable alternatives if sound dual-fuel management practices are adopted. In short, SMRs would remain victims of their poor economic competitiveness, absent a hard, statutory mandate or an overly rigid performance parameter that forces a nuclear solution. Regardless, the existence of ready substitutes makes this program a recurring target for the DoD budgeter's ax: it would consistently be the last program in and the first one out of any submission to Congress. One often-cited advantage of having the military act as first mover is its looser restrictions on siting large infrastructure. But even this is not guaranteed to help nuclear power. **The**

military is now the only government institution trusted by a plurality of US citizens. It is certainly sensitive to the fact that this well of trust is not bottomless and that goodwill needs to be cultivated among communities in which it operates. One way of cultivating this goodwill is to follow state environmental guidelines and processes when they do not compromise the defense mission. This is to say that the siting of small reactors would likely still become an issue for DoD in a range of locations, not just those with some of the largest concentrations of military installations, such as Hawaii or California, that reject nuclear power outright. Should a fleet of SMRs developed by DoD somehow succeed in fulfilling its (poorly defined) mission, and should it succeed in spawning a following within Congress, another prosaic question—that of intellectual property ownership and program management—would emerge. Once DoD had deployed several dozen SMRs, and once the infrastructure that supports these SMRs was developed, even following a "fee for service" model, the military might consider bringing the entire enterprise in-house. This would effectively create another Naval Reactors program and would surely engender strong opposition. Given the contentious nature of budget battles across the services, the military does not need additional fiefdoms. The creation of Naval Reactors was initially highly controversial, and any SMR fleet that relied extensively on DoD development and deployment would undoubtedly create another such mini-empire. For such a program not to devolve into a fiasco, a similarly vigorous level of project management, situational awareness, and political lobbying would be required. Military organizations that have been created to address more critical warfighting needs, such as the Joint Improvised Explosive Device Defeat Organization, grew far beyond their original mandate and expected scope. If commercial development lags or fails to materialize, there is also the very real possibility of developing another industrial base component that is entirely reliant on the military for support, much like shipbuilding. Parts of the **military-industrial complex** already resemble a **monopsony**, with programs maintained to support the nation's **industrial base** despite **often-limited warfighting impact**: the controversy surrounding the ***USS Zumwalt***-class guided-missile destroyer, which many critics have called a **boondoggle**, serves as a **prime example.**

SMRs intrinsically enhance the risk of proliferation---exports and development are dictated by the MIC

Green '19 (Green, Jim [Jim Green is an anti-nuclear campaigner with Friends of the Earth Australia. Green is a regular media commentator on nuclear issues. He has an honours degree in public health from the University of Wollongong and was awarded a PhD in science and technology studies for his analysis of the Lucas Heights research reactor debates.], "Small modular reactors and nuclear weapons proliferation." https://web.archive.org/web/20240221023437/https://wiseinternational.org/nuclear-monitor/872-873/small-modular-reactors-and-nuclear-weapons-proliferation)//Shwillett

Small power reactors have been used to produce fissile material for weapons. Examples include:¶ Magnox reactors in the UK which were used to generate power and to produce plutonium for weapons.[11] **North Korea** has tested weapons using plutonium produced in its 'Experimental Power Reactor' – a Magnox clone.[12] **India** refuses to place numerous power reactors (including some of its small PHWR reactors) under safeguards[13] and presumably uses (or plans to use) them for weapons production. Based on historical experience, there's every reason to be concerned about the weapons proliferation risks associated with a proliferation of SMRs. It can be anticipated that countries with an interest in developing weapons – or a latent weapons capability – will be more interested in acquiring SMRs than countries with no such interest ("nations that lack a need for weapons latency often decide not to build nuclear power plants", Shellenberger states[1]). Saudi Arabia's interest in acquiring a South Korean-designed SMART SMR may be a topical case study, and South Korea may have found a model to unlock the potential of SMRs: collaboration with a repressive Middle Eastern state that has a clear interest in developing a nuclear weapons capability, with extensive technology transfer thrown in.[15] A subsidiary of Holtec International has actively sought a military role, inviting the National Nuclear Security Administration to consider the feasibility of using a proposed SMR to produce tritium, used to boost the explosive yield of the US nuclear weapons arsenal.[16] NuScale Power, on the other hand, claims to be taking the high moral ground. NuScale's chief commercial officer said in 2013 that the company is not in business to sell reactors to politically unstable countries.[17] Yet in early 2019, **NuScale** participated in a White House meeting which **discussed**, among other issues, the possibility of **selling nuclear power technology to Saudi Arabia** – a known nuclear weapons wannabe in a volatile region.[18] The CAREM SMR under construction in Argentina was originally a Navy project with the aim of building nuclear-powered submarines and ships.[19,20] Those ambitions resurfaced in 2010. The World Nuclear Association reported: "The Ministry of Defence in Argentina has said it is reviewing the idea of using nuclear reactors to power some of its naval vessels. … One potential supplier of reactors to meet these kinds of requirements would be the nuclear technology firm Invap, which has exported several research reactors and developed the Carem power plant design."[21] SMRs as the proliferator's technology of choice Power reactors (and associated infrastructure) have been used in support of weapons programs[22], as have research reactors.[23] There is a long-running debate about whether (large) power reactors or research reactors are the proliferators' technology of choice.[24-26] Research reactors are relatively cheap (typically several hundred million dollars) but the plutonium production rate is typically low. Power reactors are expensive but produce large amounts of plutonium (and can be run on a shortened irradiation cycle to produce large amounts of weapons-grade plutonium). SMRs could become the technology of choice for proliferators: reactors that produce significant amounts of plutonium each year without the expense of a gigawatt-scale nuclear power program. In the early 1990s, the director of the Turkish Atomic Energy Authority said Argentina's 25-MW CAREM

SMR design "was too small for electricity generation and too big for research or training, however, very suitable for plutonium production".[27] The proliferation risks associated with different SMR designs The IAEA estimates there are around 50 SMR designs. Since they are paper designs, let's assume there are, say, five possible configurations of each design (fast vs. thermal neutrons, different fuels, closed vs. open fuel cycles, etc.) Now let's run through those 250 configurations and consider the proliferation risks associated with each. Or, on second thoughts, let's not. Suffice it to make a few general points. By far the most important point to make is that **any configuration of any SMR design will pose proliferation risks**. As the UK Royal Society notes: "There is no proliferation proof nuclear fuel cycle. The dual use risk of nuclear materials and technology and in civil and military applications cannot be eliminated."28 Ramana and Mian state in a 2014 article:29 "Proliferation risk … depends on both technical and non-technical factors. While the non-technical factors are largely not dependent on choice of reactor type, **SMRs** and their **intrinsic features** do affect the technical component of proliferation risk. In the case of both iPWRs [integral Pressurized Water Reactors] and fast reactors, the proliferation risk is enhanced relative to current generation light water reactors primarily because **greater quantities of plutonium are produced** per unit of electricity generated. In the case of HTRs [high temperature gas-cooled reactors], proliferation risk is increased because of the use of fuel with higher levels of uranium enrichment, but is diminished because the spent fuel is in a form that is difficult to reprocess." Glaser, Hopkins and Ramana compare the proliferation risks of standard light-water reactors, proposed integral pressurized water SMRs (iPWRs) and proposed SMRs with long-lived cores (LLCs) that would not require refueling for two or more decades (typically fast-spectrum designs cooled by helium, sodium, or other liquid metals such as lead and lead-bismuth eutectics).30 The authors state:30 "iPWRs are likely to have higher requirements for uranium ore and enrichment services compared to gigawatt-scale reactors. This is because of the lower burnup of fuel in iPWRs, which is difficult to avoid because of smaller core size and all-in-all-out core management. These characteristics also translate into an increased proliferation risk unless they are offset by technical innovations in reactor and safeguards design and institutional innovations in the nuclear fuel cycle. "Uranium and uranium enrichment requirements are reduced for fast-spectrum SMRs with LLCs, but in this case strong incentives for spent-fuel reprocessing are likely to result from the high fissile content of the spent fuel. This same characteristic also increases the probability of proliferation success in a diversion scenario …" A report by the UK Parliamentary Office of Science & Technology offers these generalizations:31 "There is uncertainty over the extent to which widespread SMR use might increase or decrease non-proliferation risk. Some SMRs require less frequent refuelling than conventional nuclear, reducing high risk periods. However, more integrated designs may be more challenging to inspect, and some designs use more highly enriched uranium than conventional nuclear. Both of these aspects could increase proliferation risk." Uranium enrichment Ramana and Mian note that attempts to reduce one proliferation risk can worsen another:29 "Proliferation resistance is another characteristic that imposes sometimes contradictory requirements. One way to lower the risk of diversion of fuel from nuclear reactors is to minimize the frequency of refueling because these are the periods when the fuel is out of the reactor and most vulnerable to diversion, and so many SMR designers seek longer periods between refueling. However, in order for the reactor to maintain reactivity for the longer period between refuelings, it would require starting with fresh fuel with higher uranium enrichment or mixing in plutonium. "Some designs even call for going to an enrichment level beyond 20 percent uranium-235, the threshold used by the International

Affirming triggers a destabilizing nuclear arms race

IPPNW 19 – non-partisan federation of national medical groups in over 60 countries, representing tens of thousands of doctors, medical students, other health workers, and concerned citizens who share the common goal of creating a more peaceful and secure world freed from the threat of nuclear annihilation and armed violence. ("How Nuclear Power powers the Bomb," International Physicians for the Prevention of Nuclear War, September 2019, https://www.ippnw.de/commonFiles/pdfs/Atomenergie/IPPNW-Information_How_nuclear_power_powers_the_bomb_2019_EN.pdf, Accessed 7-25-2021, LASA-SC)

But **despite the lack of effects on the climate crisis, economic disadvantages, detrimental ecological and health effects and staggering safety issues**, a number of states are **sticking to nuclear energy** and are even investing in the development of new generations of nuclear reactors. **Why do they do this**? The obvious answer is the capacity to develop **military nuclear capabilities**. For states which do not yet have nuclear weapons, promoting a civilian nuclear energy programme in order to acquire nuclear weapons makes sense. But why do states like France, the UK and the USA, which already have several hundreds or thousands of nuclear weapons and substantial quantities of fissile materials such as highly enriched uranium and plutonium still need civilian nuclear energy programmes? To answer this question, it is necessary to take a closer look at the close links between the civil and military use of nuclear technology: Common nuclear infrastructure Both nuclear weapons and nuclear power plants need the same fissile materials—primarily enriched uranium—and the technologies to extract and process them. From uranium mining to the chemical processing of uranium ore, uranium enrichment, transportation, storage and safeguarding, both civil and military nuclear industries rely on the same nuclear infrastructure. In most nuclear countries, it is therefore the same state companies, authorities or ministries that uphold and develop this infrastructure —most often both for military and civil nuclear programmes. The expansion of an extensive nuclear infrastructure for civil nuclear energy programmes makes it much **easier and, above all, cheaper** for a country to pursue military nuclear programme. Already in 1946, an official report by the US government warned that the infrastructure for civilian and military nuclear technology was largely interchangeable and interdependent, posing a substantial risk for the proliferation of nuclear weapons through the development of a nuclear energy infrastructure.13 In the end, the main difference between civil and military nuclear programmes lies in the degree of uranium enrichment: since the high-energy isotope uranium-235 is only contained to a very small extent in uranium ore (0.7%), a higher proportion of uranium-235 must be achieved in order to enable a nuclear chain reaction. This requires enrichment, usually in centrifuges. For atomic fuel rods, uranium needs to be enriched to a proportion of 3–5% of uranium-235. For an atomic warhead, an enrichment degree of 90% is required. The technical step from a civilian to a military nuclear program is thus ultimately a question of the number and the performance of centrifuges. With a functioning civilian nuclear programme, the **essential steps towards constructing a nuclear bomb have already been achieved.** Historical developments of the nuclear industry The nuclear age began with the race to construct a super-weapon for world domination. Thus, uranium was used to produce weapons-grade plutonium. The enormous amounts of energy gene rated by the fission of uranium was secondary and only at a later point in time, this 'nuclear energy' was used to improve the image of nuclear technology in the public eye. Under the marketing slogan "Atoms for Peace", the first civilian nuclear power plants were built in the 1950's: Calder Hall at Windscale in England was a 'dual use' reactor, primarily producing military plutonium and, from 1956 onwards, civilian electricity. One year after Calder Hall was commissioned, the UK tested its first hydrogen bomb. Later UK nuclear reactors were also designed to produce weapons-grade plutonium.14 In its report from July 2019, the German Institute for Economic Research (DIW) concluded that "nuclear power plants were primarily designed to be plutonium factories with appended electricity production". The DIW further states that, regarding the investments in a civilian nuclear infrastructure, "the driving force **was military developments** and interests, primarily generating weapons-grade plutonium and, especially in the U.S. in the 1950s, developing pressurized water reactor technology to power submarines."15 In 1958, the USA connected its first civilian nuclear reactor to the power grid—13 years after the atomic bombs were dropped over Hiroshima and Nagasaki. Gradually, other countries developed civilian nuclear programs, **some of which were used to develop nuclear weapon**s. In the Soviet Union, as in the USA, the civilian use of nuclear power developed from military origins. As early as 1954, five years after the first Soviet atomic bomb was dropped, the country's first civilian nuclear reactor in Obninsk was connected to the grid. Michael Shellenberger of the nuclear-friendly lobby organisation 'Environmental Progress', one of the world's most influential lobbyists for nuclear energy, praises the central importance of the civil nuclear industry for nuclear deterrence and writes that "national security is synonymous with the contribution of nuclear weapons, often the most important factor for a state to enter into peaceful nuclear energy."16 He lists 20 states that have pursued civil nuclear energy programmes **for military purposes**: Argentina, Australia, Egypt, Germany, Brazil, France, Italy, India, Iran, Iraq, Israel, Japan, Yugoslavia, Libya, Norway, Romania, South Africa, Sweden, Switzerland, Taiwan and the Federal Republic of Yugoslavia. He fails to mention China, the UK, North Korea, Pakistan, Russia and the USA, which also invested in civil nuclear energy programmes in order to develop nuclear weapons.17 A **new nuclear arms race** We are currently seeing efforts in all nuclear weapon states to comprehensively renew and expand nuclear weapon systems. In the Nuclear Posture Review of 2018, for example, the US government decided to replace all strategic systems, to procure new nuclear warheads with low explosive power, to increase the range of airborne cruise missiles and to arm sea-based systems with nuclear weapons. Russia and China are also renewing and developing their nuclear systems, the UK and France are launching multi-billion modernisation programmes for their nuclear submarines and North Korea, Israel, India and Pakistan are expanding their nuclear arsenals as well. At the same time, restrictions imposed by **international arms control treaties** such as the ABM treaty or the INF treaty **are being shaken off**. A new nuclear arms race is currently under way and **the risk of nuclear war is rising.** Importance of nuclear submarines for the military strategy of nuclear weapon states Russia and the USA have a so-called triad of nuclear weapons: land-based intercontinental nuclear missiles, long-range aircraft with atomic bombs and nuclear-powered submarines equipped with nuclear missiles. confirms this connection: "A strong domestic supply chain is needed to provide for nuclear Navy requirements. **This supply chain has an inherent and very strong overlap with the commercial nuclear energy**".27 In the USA, the Department of Energy is responsible for both civil nuclear energy and the development, testing and production of nuclear weapons. Only recently, high-ranking US military, politicians, entrepreneurs and former heads of the nuclear regulatory authority NRC recommended in a letter to the current US Secretary of Energy Rick Perry to acknowledge the important role of civil nuclear power for the national security of the USA and to take concrete steps to stabilize the nuclear power plants in their inventory.28

Prolif goes nuclear---first-strike vulnerabilities cause miscalc and accidents.

2nc

1. Recession is inevitable

FT '25 (No Author, "The Big Question: is a US recession inevitable?" Financial Times, 3-14-2025, https://www.ft.com/content/c9092624-c7eb-415b-8d57-df64a832f8fb)//Shwillett

As Donald **Trump**'s tariffs begin to sow the seeds of **market uncertainty**, fears of a US **recession** are **growing**. Both the **S&P 500** and the tech-focused **Nasdaq** Composite reached recent **lows** this week amid concerns from investors over the effeco ahead as planned. **Consumer confidence** is **plunging**, **expectation**ts of the US president's **economic policies**. The Wall Street **sell-off** sent markets in **Europe** and **Asia tumbling** in succession. As the **Vix** index of volatility, often referred to as 'Wall Street's fear gauge', reaches its **highest level** since mid-December, businesses are **slashing** their **profit** and **sales forecasts**. The source of the angst is the volatility surrounding Trump's on-again, off-again **trade war**, a topic Tej Parik explores in his Free Lunch column. On the consumer front, Parik writes, **squeezed US households** face the prospect of a $2,000 increase in expenditure if Trump's **proposed duties** on **Mexico**, **Canada** and **China** gs of **high inflation** and **unemployment** are **rising** and the threat of an **all-out tariff war looms large** – a cocktail Parik calls "an **ominous trifecta**". In an interview with Fox News on Sunday, Trump declined to rule out a recession following warnings from the Atlanta Federal Reserve of an **economic contraction** in the **first quarter** of the year. "I hate to predict things like that," he said. "There is a period of transition, because what we're doing is very big." So what do you think? Is Trump right to be optimistic about the economy's prospects or is the US on an irreversible road to recession? Share your view by voting in our poll or commenting below the line.

2. Economic decline quells rivalries --- empirics!

Clary 15 [Christopher Clary, Ph.D. in Political Science from MIT, Postdoctoral Fellow, Watson Institute for International Studies, Brown University, "Economic Stress and International Cooperation: Evidence from International Rivalries," April 22, 2015, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2597712, recut-WT]

Do economic downturns generate pressure for diversionary conflict? Or might downturns encourage austerity and economizing behavior in foreign policy? This paper provides new evidence that **economic stress is associated with conciliatory policies** between strategic rivals. For states that view each other as military threats, the biggest step possible toward bilateral cooperation is to terminate the rivalry by taking political steps to manage the competition. Drawing on data from **109 distinct rival dyads** since 1950, **67 of which terminated**, the evidence suggests rivalries were approximately twice as likely to terminate during economic downturns than they were during periods of economic normalcy. This is true controlling for **all of the main alternative explanations** for peaceful relations between foes (democratic status, nuclear weapons possession, capability imbalance, common enemies, and international systemic changes), as well as many other possible confounding variables. This research questions existing theories claiming that economic downturns are associated with diversionary war, and instead argues that in certain circumstances **peace may result from economic troubles**. Defining and Measuring Rivalry and Rivalry Termination I define a rivalry as the perception by national elites of two states that the other state possesses conflicting interests and presents a military threat of sufficient severity that future military conflict is likely. Rivalry termination is the transition from a state of rivalry to one where conflicts of interest are not viewed as being so severe as to provoke interstate conflict and/or where a mutual recognition of the imbalance in military capabilities makes conflict-causing bargaining failures unlikely. In other words, rivalries terminate when the elites assess that the risks of military conflict between rivals has been reduced dramatically. This definition draws on a growing quantitative literature most closely associated with the research programs of William Thompson, J. Joseph Hewitt, and James P. Klein, Gary Goertz, and Paul F. Diehl.1 My definition conforms to that of William Thompson. In work with Karen Rasler, they define rivalries as situations in which "[b]oth actors view each other as a significant political-military threat and, therefore, an enemy."2 In other work, Thompson writing with Michael Colaresi, explains further: The presumption is that decisionmakers explicitly identify who they think are their foreign enemies. They orient their military preparations and foreign policies toward meeting their threats. They assure their constituents that they will not let their adversaries take advantage. Usually, these activities are done in public. Hence, we should be able to follow the explicit cues in decisionmaker utterances and writings, as well as in the descriptive political histories written about the foreign policies of specific countries.3 Drawing from available records and histories, Thompson and David Dreyer have generated a universe of strategic rivalries from 1494 to 2010 that serves as the basis for this project's empirical analysis.4 This project measures rivalry termination as occurring on the last year that Thompson and Dreyer record the existence of a rivalry.5 Why Might

Economic Crisis Cause Rivalry Termination? Economic crises lead to conciliatory behavior through five primary channels. (1) Economic crises lead to **austerity pressures**, which in turn incent leaders to search for ways to **cut defense expenditures**. (2) Economic crises also encourage **strategic reassessment**, so that leaders can argue to their peers and their publics that defense spending can be arrested without endangering the state. This can lead to threat deflation, where elites attempt to downplay the seriousness of the threat posed by a former rival. (3) If a state faces multiple threats, economic crises provoke elites to consider **threat prioritization**, a process that is postponed during periods of economic normalcy. (4) Economic crises increase the political and economic benefit from **international economic cooperation**. Leaders seek foreign aid, enhanced trade, and increased investment from abroad during periods of economic trouble. This search is made easier if tensions are reduced with historic rivals. (5) Finally, during crises, elites are more prone to select leaders who are perceived as capable of resolving economic difficulties, permitting the emergence of leaders who hold heterodox foreign policy views. Collectively, these mechanisms make it much more likely that a leader will prefer conciliatory policies compared to during periods of economic normalcy. This section reviews this causal logic in greater detail, while also providing historical examples that these mechanisms recur in practice.

On Climate Change

1. **Nuclear energy detracts from renewables and fails---defaults, construction, outages, and regulation**

Haywood et al. ’23 (Luke Haywood [Luke Haywood is head of climate and energy at the European Environmental Bureau (EEB) in Brussels and guest researcher at the Mercator Research Centre on Global Commons and Climate Change and at the German Institute for Economic Research (DIW Berlin), institutions where he previously held postdoc positions. He holds a PhD from the Paris School of Economics.], Marion Leroutier [Marion Leroutier is a post-doctoral researcher at the Stockholm School of Economics (SSE), based at Misum, a multidisciplinary research center on sustainability and also affiliated with SSE’s Department of Economics. She will join ENSAE and CREST as a tenure-track assistant professor in September 2024.], Robert Pietzcker [Robert Pietzcker is a senior scientist at the Potsdam Institute for Climate Impact Research (PIK) with a background in physics and economics. He leads the National Energy Transitions Team (together with Falko Ueckerdt) in the Energy Systems group of Research Department 3.] “Why investing in new nuclear plants is bad for the climate,” Joule Commentary, 8-16-2023, https://www.sciencedirect.com/science/article/pii/S2542435123002799)//Shwillett

There has been a strong **push** to promote **increased investments** in new nuclear power as a strategy to decarbonize economies, especially in the European Union (EU) and the United States (US). The **evidence base** for these initiatives is **poor.** Investments in new nuclear power plants are **bad** for the **climate** due to **high costs** and **long construction** times. Given the **urgency** of climate change mitigation, which requires reducing emissions from the EU electricity grid to almost zero in the 2030s (Pietzcker et al.1), preference should be given to the **cheapest** technology that can be deployed **fastest**. On both **costs** and **speed, renewable** energy sources **beat** nuclear. **Every euro** invested in new nuclear plants thus **delays decarbonization** compared to investments in renewable power. In a decarbonizing world, delays increase CO2 emissions. Our thoughts focus on new nuclear power plants (not phasing out existing plants) in the US and Europe. In Europe, new nuclear power plants are planned or seriously discussed in France, Czechia, Hungary, Poland, Bulgaria, Slovenia, Sweden, and the United Kingdom. We do not focus on China, where government-set electricity prices and subsidized capital costs make it more difficult to contrast the profitability of different types of energy sources. Nuclear energy is expensive The **cost overruns** on recent nuclear projects are **dramatic**. In an **international comparative assessment** of construction cost overruns for electricity infrastructure, Sovacool et al.2 find that nuclear reactors are the investment type with the most frequent and largest cost overruns, alongside hydroelectric dams. **97%** of the 180 nuclear reactor investment projects included in their analysis **suffered** cost **overruns**, with an average **cost increase** of **117%** per project. More recently, the current estimate of the construction costs of the French Flamanville project stands at V13.2 billion up from an initial V3.3 billion (figures that do not even include financing costs, which the French audit office estimated at V4.2 billion up from an initial V1.2 billion) and those of the recently opened Finish Olkiluoto at V11 billion instead of V3 billion. ''Construction costs are high enough that it becomes difficult to make an economic argument for nuclear,'' Davis3 finds. Similarly, Wealer et al.4 conclude that ''**investing** into a Gen III/III+ nuclear power plant ... would very likely generate **significant losses**.'' Why is nuclear so costly? Construction costs are driven by **safety**. Nuclear **accidents** remain a **possibility**—and damages may be global. Rangel and Le´ veˆ que5 note that huge damages occurring at ''low and uncertain probability'' make it difficult to determine whether safety investments are cost-effective. The nuclear plants built **relatively quickly** in previous decades had **lower safety** requirements. Policy makers' preferences for safety makes sense given that nuclear power plant operators' private insurance coverage is typically very limited. Beyond construction costs, the cost of capital is a critical parameter for evaluating the viability of nuclear power. First, the very long construction times and delays generate particularly large financing costs for a given interest rate. Portugal-Pereira et al.6 report an escalation of capital costs worldwide due to increasing construction delays for the last generation of nuclear reactors constructed since the 2010s. The French court of auditors estimates that the cost of the French nuclear power plant Flamanville will increase from V13.2 billion to V20 billion once financing costs and delays are taken into account. Second, the **historically high** risk of default translates into **higher interest rates**. These two factors make the profitability of nuclear projects very dependent on financing conditions. Finding an economic rationale for continued investment in new nuclear requires optimism regarding costs. The French grid operator RTE (Re´ seau de Transport d'E´ lectricite´) finds a power system including nuclear to be slightly cheaper than a system based purely on renewables in 2050. In their calculations, RTE assumes capital costs for new nuclear plants to be less than two-thirds of the estimated costs of the European pressurized reactor (EPR) plants in Finland and France. This optimism about cost reductions is contrary to experience of cost evolution for past nuclear reactor series in many countries of the world (PortugalPereira et al.6). Costs are **not projected** to come down very much even for the six new reactors planned to be built by 2035 (estimated to cost V52 billion in total, or V8.6 billion per reactor). The most recent EPR construction, Sizewell C in the United Kingdom, is also one of the most expensive projects at around V23 billion (£20 billion). This **pattern** of **increasing costs** over time has generated some interest in the literature (Lovering et al.7 and Eash-Gates et al.8). Most of the candidate explanations (in particular, increased safety regulations) do **not** provide **grounds** for **optimism** for the **future.** In a wide-ranging review of different technologies, Meng et al.9 find nuclear power to be a ''notable exception'' where progress is overestimated with actual costs consistently higher than expected. Small modular reactors (**SMRs**) may not be an exception: their advantages in terms of lower complexity may **not translate** into sound economics given **lower energy production**. Glaser et al.10 note that even **optimistic estimates** require many **hundreds** of reactors to be built before electricity produced is **cost competitive** compared with larger reactor designs. The potential of **modularity** to reduce costs **appears limited** in practice. Nuclear power is not cost-competitive with renewables Despite poor profitability, nuclear power is advanced as a good investment to fight climate change. However, today, the challenge for nuclear profitability does not come from coal or gas but from renewables. It is hard to overstate how strongly the costs of renewables have decreased (see Figure 1). Few publications have anticipated these cost decreases, and public debate is often based on outdated cost assumptions. Baseload and flexibility While renewables may have become a lot cheaper, it is sometimes argued that current electricity market design does not value security of supply. Nuclear, the argument goes, provides stable baseload electricity that is a valuable contribution to a generating mix. This raises two questions: first, can nuclear reliably produce baseload? Second, how valuable is baseload? Regarding the first question: nuclear is not entirely reliable. This was evident in France in late autumn of 2022: although the EU was in a period of limited electricity supply with frequent electricity price spikes above 3V/kWh, around **half** of France's 56 reactors were **unavailable** due to **planned** and **unplanned outages**. Climate change is likely to increase episodes of **extreme heat**, **low river flows**, and associated problems of **cooling** nuclear power plants at short notice (Ahmad11). More importantly, regarding the second question, **flexibility** rather than baseload production is **required** to balance an electricity system based on renewables. However, **ramping-up** a nuclear power plant is **slow**. Also, the cost composition of nuclear power does not fit the role of backup technology for power systems with high shares of wind and solar. Such systems will have low electricity prices for a large part of the year and very **high electricity prices** for a few to several hundred hours of the year, leading to **uncertain** and strongly **varying** revenues for a backup technology. Such a revenue profile is best suited for a technology with low capital costs and high variable costs—in a year with high demand, revenues will be higher, thus covering higher variable costs, and vice versa. Nuclear costs are mostly up front, so the technology is best suited for stable and predictable revenue streams. While renewables' production is variable, their **generation** can be **matched** to demand by storing renewable electricity in the form of **hydrogen**, using **batteries** or pumped

hydro. Bloomberg reports that the price of battery storage has fallen from $1,220 to $132 per kWh between 2010 and 2021. Beyond batteries, demand- and supply-side grid flexibility technologies can complement variable renewable energy sources at generally lower cost than fossil-fuel backup or bulk storage—consumers may also help reduce system costs by adapting their electricity consumption to the availability of renewable energy. Shirizadeh et al.12 find that costs of storing variable renewable electricity production appear manageable, with storage costs of less than 15% of total costs associated with a fully renewable electricity grid for France. Pietzcker et al.1 find that new nuclear constructions would not decrease the costs of achieving EU climate targets. Shirizadeh and Quirion13 find that a 100% renewable system is very cost-effective for France. Shirizadeh et al.12 note that while the optimal combination of different renewable generation technologies depends strongly on the cost parameters for these different technologies, the resulting cost of the renewable mix is fairly robust. Taking into account wider economic impacts does not favor nuclear The business case for nuclear may be poor, but in a world in which the damage done to the climate is not reflected by markets sufficiently, can climate benefits not counter high costs? First, the relatively low carbon emissions caused by operating new nuclear power plants are similar to those caused by wind and solar energy— hydro and bioenergy carbon footprints may be larger. Second, adding non-market benefits to the equation implies that non-market costs should also be considered. This is not easy: how should we account for nuclear waste? Nuclear waste is the unresolved problem of the nuclear industry. Cheap **long-term storage** for anthropogenic **radioactive** substances is **elusive** despite worldwide, decades-old efforts. In absence of any proven low-cost permanent storage technology, nuclear waste will have to be retreated regularly and stored in facilities above the ground. Costs would arise for many thousands of years. The importance of costs and benefits for future generations in today's decisions has been a controversial topic for climate change policy, and it appears even more relevant for nuclear waste. Krall et al.14 argue that SMRs may actually ''exacerbate the challenges of nuclear waste management.'' Third, uranium mining causes **pollution** and **radioactive** **exposure.** As a report of the EU's Scientific Committee on Health, Environmental and Emerging Risks notes, ''almost 100% of the total eco-toxicity and human toxicity impacts over the whole nuclear life cycle is connected to mining and milling ... While mining and milling is regulated [within the EU], 90% of what the EU need globally comes from 7 countries (none in Europe).'' In Niger, for example, the systematic neglect of health and safety procedures in countries producing uranium for EU consumption persists despite evidence of ''grave environmental impacts and rampant institutional failures.''15 Finally, the continued development of nuclear energy could contribute to the risk of proliferation of nuclear weapons, as well as the risk of nuclear power plants being targeted in armed conflict, a permanent risk in Ukraine today Building new nuclear **takes time we do not have** The business case and economics may be poor, but in light of the very real threat of climate catastrophe, should we not invest in all alternatives to fossil fuels? The problem is that building nuclear plants is slow and delivery is uncertain. Even the International Atomic Energy Agency and Nuclear Energy Agency— organizations promoting the use of nuclear energy—assume **construction** times of around **one decade**,13 whereas renewables can come online in a **fraction** of that time. Given **lags** in **planning** and **regulatory** approval, any new nuclear plants would come online **too late** to help **decarbonize** our economies on time. However, even this time frame appears optimistic: all recent nuclear new-builds in Organisation for Economic Cooperation and Development (OECD) countries have been seriously delayed—Olkiluoto took 16 years instead of five, while Flamanville is over 11 years behind schedule. The 5th and 6th EPR plants offer a similarly bleak picture: plans to build Hinkley Point C were first announced in 2008, with an aim of going online in the early 2020s. Grid connection is now planned for 2026. For Sizewell C, community consultation began in 2012, the planning application was submitted in 2020, and the reactor is expected to become operational in 2032. Given these **time horizons**, **delays**, and associated cost **overruns**, investments in nuclear power appear to be very **dangerous bets** in light of the need to quickly reduce EU power sector emissions by 2030 and to close to zero before 2040 in line with climate objectives. Finally, Granger et al.16 investigate various SMR technologies and fail to see how any could make a ''significant contribution to greenhouse gas mitigation by the middle of this century.'' Conclusion: In solving the climate crisis, new nuclear is a costly and dangerous distraction With ample time, it may be possible to build nuclear power to the highest safety standards and remain economical even taking into account costs of storing nuclear waste for thousands of years. However, building nuclear plants takes many years of planning and construction and is costly, while the **climate crisis** demands **urgency** and requires such large investments that **cost efficiency** is of key importance. Relying on nuclear new-builds to achieve the EU climate targets is **virtually impossible**: even under very optimistic assumptions, new nuclear in France will only start providing low-emission electricity in 2035—too late for the much faster reductions of power sector emissions required by the EU climate targets. And what would happen if there is further delay, as was the case for all recent nuclear constructions in OECD countries? In a decarbonizing world, delays in nuclear constructions translate to **increased emissions**. If governments and economic actors believe that nuclear power will come online at a certain date, they will not make alternative plans, and without alternative plans, the current carbonintensive electricity system will remain in place—rendering climate **targets unachievable**.

2. Decreasing US production magnifies upstream emissions

Gross '18 (Samantha Gross [Samantha Gross is the director of the Energy Security and Climate Initiative and a fellow in Foreign Policy. Her work is focused on the intersection of energy, environment, and policy, including climate policy and international cooperation, the transition to net-zero emissions energy system, energy geopolitics, and global energy markets.], "Reducing US oil demand, not production, is the way forward for the climate," Brookings, 8-22-2018, https://www.brookings.edu/articles/reducing-us-oil-demand-not-production-is-the-way-forward-for-the-climate/)//Shwillett

The case for continuing U.S. oil production while working to reduce demand Eliminating **domestic** oil production without an equally ambitious focus on demand will just **increase** U.S. **imports**, rather than reduce consumption. This could result in unintended consequences and **worse** results for the economy and **climate**. Oil production **standards** in many countries are **less stringent** than those in the United States, in terms of local pollution as well as greenhouse gas emissions from the production process. Many foreign sources of oil inherently require **more energy** in their production, resulting in greater emissions of GHGs and other pollutants than production here in the United States. Importing more fuel would also increase the distances of oil transportation, increasing associated GHG emissions. **Upstream emissions** from oil — those that occur in production, transportation, and refining — vary greatly across sources of crude oil. (Although the majority of emissions from all sources of oil come from its combustion, not its production.) The highest 10% of production in terms of upstream GHG emissions has emissions more than four times those of the lowest 10%.[29] Mature oil fields and those that produce heavier oil tend to have higher upstream GHG emissions. Flaring is also a key driver of emissions, as discussed below.[30] These distinctions are small when one considers the challenge of deep decarbonization, but as the world strives to reduce emissions overall, using the lowest-emissions sources of crude oil can **help** during the **transition**.