
Developing Place-Based Understandings of Respectful Community Engagement for Consent-Based Siting

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ABSTRACT:

Through this project, we seek to develop (1) **guiding principles for respectful community engagement** – to support consent-based siting – empirically rooted in the lived experiences of Native Communities; (2) **metrics and indicators of consent**; and (3) a **generative artificial intelligence (AI) tool to facilitate community-based storytelling** of the past and imagining of the future to visualize how nuclear infrastructures have and could in the future alter community landscapes.

Background and relevance: Historically, Indigenous communities in the US have borne some of the worst harms resulting from the development of nuclear technologies. This includes displacements of communities for the siting of key research facilities such as national labs, contamination, and ongoing cleanup at several of these sites (most notably Hanford), loss of access to traditional and sacred lands, and health impacts resulting from living around uranium mines as well as nuclear test sites. As these communities have been the most vulnerable and most deeply impacted by the development of nuclear technologies, we begin this project with the premise that any approach to understanding consent and siting of future nuclear facilities, particularly spent nuclear fuel and waste facilities, ought to be grounded in the experiences of these communities.

Through this project, we aim to create new and more open, transparent, democratic, and decentralized modes of communication, ones that are sensitive to injustices caused by disparities in race and class and more specifically in the case of Native communities, settler colonialism. The proposed work is a response to the double mandate facing the DOE and society writ large – how to address climate catastrophe immediately through the development, use, and stewardship of energy technologies (nuclear energy being one of them and the absence of a definitive plan for nuclear waste management being a significant impediment to use of nuclear energy), but also to deliberate and then act in a new and inclusive manner, one that breaks from the technocratic beliefs and practices of the past.

Research Tasks: The proposed project will unfold as four main research tasks over a period of 38 months with the ultimate objective of developing guidelines, metrics, and visual communication modalities to support a consent-based approach to siting spent nuclear fuel facilities – both interim and long-term.

Task 1. Place-based guidelines for respectful community engagement, equity, and environmental justice in the context of nuclear waste management

Task 2. Developing metrics and indicators of consent

Task 3. Developing an AI Image Generative Model (IGM) to facilitate consent-based siting

Task 4. Community-centered speculative futuring