Comprehensive Flare Mitigation Solutions: Enhancing Sustainability, Efficiency, and Environmental

Well-being for the Three Affiliated Tribes

Company: Fredericks Custom Solutions (FCS)

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The community that FCS is focusing on is the Mandan, Hidatsa and Arikara (MHA) Nation, also known as the Three Affiliated Tribes, located on the Fort Berthold Indian Reservation in central North Dakota.

The MHA Nation experience a number of challenges and inequities including environmental damage, unaffordable energy cost, limited energy options, shortage of jurisdiction in the energy industry. Historical injustices, including colonialism and land dispossession, have resulted in external entities exerting significant influence over energy development and decision-making processes within Indigenous territories, this has created challenges for the community in asserting sovereignty and control over its energy resources. Despite being located in a region with significant oil and gas reserves, many communities within the MHA Nation do not have affordable or reliable energy. High energy costs compared to household income can exacerbate economic disparities. Negative environmental impacts associated with previous, irresponsible energy development in the area include, air pollution, land destruction, and water contamination. These consequences have disproportionately affected the MHA Nation. Environmental justice concerns arise when these communities bear the brunt of negative environmental externalities while reaping few benefits from energy extraction and production activities.

Pipeline is extremely costly, even more so than typical in the Badlands of Western North Dakota, leading to a lag in the infrastructure needed to properly capture associated gas. Production from a Bakken oil well is also volatile and unpredictable. These two aspects make it difficult to have properly sized equipment to match production from a section of field at any given time, leading to North Dakota having a 7.1% Flaring Intensity (Flared Gas/Total Produced Gas), which is more than 7x the rate of the next highest State flaring intensity in the nation. The MHA Nation is in need of new innovative systems to manage the unique flaring issues in the area, and to reach their goals of promoting economic development and leveraging their energy resources, while maintaining sustainable and environmentally responsible practices.

Our company, FCS, develops Combined Flare Mitigation systems that contribute to sustainable and environmentally responsible operations in the oil and gas industry, minimizing the environmental impact of flaring while maximizing resource efficiency and profitability for the local undeserved community.

