Exhibit 6

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

ENERGY DEVELOPMENT AND TRANSMISSION COMMITTEE

Thursday, November 14, 2019
Harvest Room, State Capitol
Bismarck, North Dakota

Senator Rich Wardner, Chairman, called the meeting to order at 9:00 a.m.

Members present: Senators Rich Wardner, Brad Bekkedahl, Kathy Hogan, Ray Holmberg, Merrill Piepkorn, David S. Rust; Representatives Dick Anderson, Mike Brandenburg, Alisa Mitskog, Todd Porter, Don Vigesaa

Member absent: Representative Tracy Boe

Others present: Senator Joan Heckaman, New Rockford, and Representative Karen M. Rohr, Mandan, members of the Legislative Management
Senator Dale Patten, Watford City
See Appendix A for additional persons present.

It was moved by Senator Rust, seconded by Senator Holmberg, and carried on a voice vote that the minutes of the October 23, 2019, meeting be approved as distributed.

NATURAL GAS DEVELOPMENT AND STATUS

Gas Capture and Transmission

Chairman Wardner called on Mr. Lynn Helms, Director, Department of Mineral Resources, for testimony (Appendix B) regarding a status update on gas capture.

In response to a question from Representative Porter, Mr. Helms said generation zero refracks are tracked. He said an operator has developed a technology that would go into the generation two and three wells, cement a liner in place, and apply generation four technology. He said refracking technology is developing as rapidly as the new completion technology. He said because the technology will be applied to the 5,000 to 6,000 wells drilled in 2009, 2010, 2011, and 2012, a production increase from those wells is expected, as well as to the new wells being added.

In response to a question from Chairman Wardner, Mr. Helms said the developing refracking technology will increase both oil and gas production from the refracked wells. He said because those wells are depleted the wells have a higher gas-oil ratio than the new wells. He said a two-to-four fold oil production increase can be expected along with a four-to-eight fold gas production increase.

In response to a question from Representative Porter, Mr. Helms said in August 2019, it was estimated 33,000 barrels a day were self-curtailed by operators to reach 81 percent capture. He said the number was zero in July but in June it was 88,000 barrels a day to get above that 80 percent number. He said the estimate is solely on a statewide basis. He said an operator-by-operator basis estimate cannot be made because there is no data for such an estimation.

In response to a question from Senator Piepkorn, Mr. Helms said the most common tax incentive used is a sales tax exemption. He said, for example, in 2019 the Legislative Assembly enacted a sales tax exemption for petrochemical type facilities. He said natural gas gathering pipelines, compressors, and gas plants do not pay any sales taxes on their investment, which is an enormous incentive. He said a state incentive for ethane collection may be needed in North Dakota. He said a state incentive system wherein ethane credits could be used was tried in Pennsylvania, enticing the Shell ethane cracker and ethylene processing plant to locate in Pennsylvania.

In response to a question from Senator Bekkedahl, Mr. Helms said the incentives in Pennsylvania and Alberta for ethane collection incentivized the capture, keeping, and adding value to ethane within Pennsylvania and Alberta. He said the incentive proved to be very successful for Pennsylvania and Alberta. He said the incentive also should incentivize the capture and exportation of ethane, with the market deciding whether exporting or keeping the ethane within state boundaries is more beneficial.

Representative Anderson said California has a huge demand for electricity but does not want to use fossil-based fuels. He said no one will invest in transmission lines or gas plants if they cannot sell the product. He said the federal government may have to rein in the states that do not allow electricity produced by fossil fuels.

Chairman Wardner called on Mr. Justin Kringstad, Director, North Dakota Pipeline Authority, for testimony (Appendix C) regarding an overview of natural gas gathering, processing, and transmission needs in North Dakota.

In response to a question from Representative Mitskog, Mr. Kringstad said the biggest hurdle for pipeline expansion is getting the shippers to commit to the projects. He said everyone understands an expansion needs to happen.

In response to a question from Representative Brandenburg, Mr. Kringstad said conversations about gas-powered generation are happening. He said some in-state and out-of-state companies are looking at large-scale power generation as one of the solutions for adding generation to their future needs, in addition to potential export options on a traditional pipeline system.

Chairman Wardner called on Mr. Larry Oswald, Director of Business Development & Energy Services, Montana-Dakota Utilities Co., for testimony (Appendix D) regarding an overview of natural gas service in North Dakota and costs and other barriers to getting natural gas to communities.

In response to a question from Senator Rust, Mr. Oswald said the upfront cost for natural gas service connection for each residential customer in Gwinner and Milnor was $1,700. He said since the cities covered 25 percent of the connection cost, both cities paid $425 for each homeowner to be connected to natural gas service. He said the upfront connection costs for business owners was based on the size of the business or how much gas the business would use, but the city capped its contribution portion at $1,300 per business.

In response to a question from Representative Mitskog, Mr. Oswald said the 63-mile line serving Wahpeton was built in the 1960s and is a six-inch steel line. He said he is unsure how the new pipeline safety rule passed this year by the Pipeline and Hazardous Materials Safety Administration will impact the line. He said curtailments have happened mostly to grain dryers in the southwestern part of Minnesota. He said because of the recent cold snap, curtailments also have happened in northeastern parts of North Dakota. He said curtailments also have occurred in the Billings, Montana area.

In response to a question from Senator Bekkedahl, Mr. Oswald said service capacity to Wahpeton could come from the Alliance Pipeline and does not have to come from the Viking transmission line. He said the Alliance Pipeline is one of the options Montana-Dakota Utilities Co., (MDU) is considering for adding additional capacity in the Wahpeton area. He said MDU also is looking at the option of a 53-mile pipeline from Mapleton, North Dakota to Wahpeton. He said the 53-mile line would come from the WBI Energy, Inc., line that was put into service 2 years ago.

In response to a question from Chairman Wardner, Mr. Oswald said the Alliance Pipeline is the shortest connection for gas capacity, but it is very heavy in natural gas liquids. He said the Alliance Pipeline was built to take those liquids to the Aux Sable processing facility near Chicago, Illinois, to remove those liquids, and provide the 1,050 British thermal unit (Btu) natural gas to the existing pipeline market. He said because the line was built for the Aux Sable processing plant, any entity that taps the line before the liquids reach the Aux Sable processing facility has to pay an Aux Sable liquids charge because of the reduction of liquids Aux Sable receives in Illinois. He said the liquids charge adds to the total cost of natural gas for the Wahpeton community.

In response to a question from Representative Vigesaa, Mr. Oswald said the economic benefit of a potential project to a community includes consideration of the residential density and whether a big anchor industrial customer using natural gas 365 days a year is present. He said the more gas and more customers you can get, the more economical the extension. He said Rugby had a good-sized, natural gas-using manufacturer, but not enough of a user to get Rugby over the hump.

Representative Anderson said because Rugby Manufacturing Co., is planning to expand, deciding to get natural gas service to Rugby may be something MDU could consider at a later date.

Representative Mitskog said communities unserved or underserved with natural gas will not attract industrial users or new industry without having natural gas. She said it is difficult to understand how there are 366 communities in North Dakota unserved with natural gas considering the abundance of natural gas in western North Dakota.

Chairman Wardner called on Mr. Brent Lohnes, General Manager, North Dakota Operations, Hess Corporation, for testimony (Appendix E) regarding an overview of Hess infrastructure and investment for gas gathering, an update on current gas gathering, projected gas gathering demands, and gas challenges and policy issues.

In response to a question from Chairman Wardner, Mr. Lohnes said metering takes place after the heated separator.

In response to a question from Senator Holmberg, Mr. Lohnes said flaring can occur at the wellhead. He said it also can occur at the compressor station if there is a malfunction at the compressor station or there is a compressor trip.

In response to question from Chairman Wardner, Mr. Lohnes said building gathering lines and getting easements can be very time-consuming and costly, but expanded lines, trunk lines, and additional gathering lines are needed throughout the state.

In response to a question from Senator Bekkedahl, Mr. Lohnes said property tax incentives may be a good method to incentivize easements but when that idea was discussed, the response was property taxes are so low the idea would not be much of an incentive. He said another possible incentive is opening a utility corridor for trunk lines, utilizing a section line when the section line will not be used as a road.

Chairman Wardner called on Mr. Dick Vande Bossche, Vice President, Commercial Gas Supply, ONEOK Rockies Midstream, for testimony (Appendix F) regarding a general overview of ONEOK investments, assets, and growth in North Dakota; industry challenges that lead to gas capture delays and ways those challenges are being addressed; and industry integration, capacities, and announced growth projects.

In response to a question from Chairman Wardner, Mr. Vande Bossche said a significant capital investment would be needed to be able to remove the ethane from the Y-grade liquids. He said ethane resides either in the residue or in the Y-grade liquids stream. He said as currently configured, their facilities allow them either to put the ethane molecule in residue or in Y-grade liquids, depending on pipeline takeaways and the value. He said they have to invest capital and add a process to an existing facility to send pure ethane to Canada.

Pore Space

Chairman Wardner called on Mr. Reice Haase, Policy Advisor, Governor's office, for testimony (Appendix G) regarding pore space updates and policies, and the current status of pore space in North Dakota.

In response to a question from Senator Rust, Mr. Haase said the Environmental Protection Agency (EPA) grants aquifer exemptions for underground injection. He said the EPA granted an aquifer exemption for the Dakota Aquifer in North Dakota in 1983. He said the EPA requires an aquifer to be a saline aquifer that can never be used as an underground source of drinking water before the EPA will grant an exemption allowing injection into the aquifer.

Natural Gas Usage

Chairman Wardner called on Mr. Mark Kornhaus, Executive Director, Development, NextEra Energy Resources, LLC, for testimony (Appendix H) regarding natural gas usage.

Gas Innovations

Chairman Wardner called on Mr. Cully Cavness, President and Co-Founder, Crusoe Energy Systems Inc., for testimony (Appendix I) regarding digital flare mitigation.

In response to a question from Senator Bekkedahl, Mr. Cavness said Crusoe Energy Systems Inc., provides high-speed WiFi at every location at which it operates. He said if a site does not have cellular service, that pumper can make a call using Facetime or Skype. He said Crusoe also provides high-quality video monitoring to every location it operates to allow an operator to access a real-time video stream of the production site. He said Crusoe has been thoughtful on how it includes all the stakeholders, including the state, the royalty-interest owners, and the operator. He said Crusoe, in some cases, purchases the gas and in other cases it is deemed onsite use. He said Crusoe is experimenting with the right business model and is attempting to find the right mixture of economical variables. He said Crusoe pays income taxes in North Dakota, and pays other payroll-related tax benefits to the state.

In response to a question from Senator Patten, Mr. Cavness said Crusoe has made proposals of up to 6.4 million cubic feet per day at a specific site. He said above that level creates air permitting issues that are not impossible to resolve but require a longer permit application process. He said the 6.4 million cubic feet per day is enough for most multiwell pads. He said in aggregate that amount is not limited because there is more demand in the world for electricity for computing than the company reasonably expects to be generated any time soon.

In response to a question from Chairman Wardner, Mr. Cavness said Crusoe takes raw gas after the separator. He said the company is working with 1,600 Btu gas in the majority of its projects. He said the company has implemented rich burn engines specifically designed for untreated gas other than just not having free liquids to prevent water from entering the generator.

In response to a question from Representative Anderson, Mr. Cavness said Crusoe has had a conversation with an entity doing methane capture from coal mines in Colorado. He said that project has not advanced but that might be an opportunity to be pursued.

In response to a question from Senator Hogan, Mr. Cavness said Crusoe has not provided its computing support services to any governmental organization but would be happy to have that discussion.

In response to a question from Senator Patten, Mr. Cavness said Crusoe intentionally has been going after public data or processing data that is inherently public, and therefore does not have any privacy or security risks associated with it. He said if private data processing occurs in the future, it would have to be addressed with procedures and rules to ensure a breach of the data does not become an issue.

In response to a question from Representative Anderson, Mr. Cavness said recruiting employees is a challenge in the technology world. He said there is an abundance of opportunities for individuals with an educational background in science, technology, engineering, or mathematics but there is a shortage of such individuals.

Chairman Wardner called on Mr. Ed Woods, Vice President, Business Development, Alkane Midstream LLC., for testimony (Appendix J) regarding gas innovations and usage.

In response to a question from Representative Anderson, Mr. Woods said Alkane Midstream LLC., is considering projects on the eastern side of the state. He said the company has transported liquefied natural gas about 300 miles to Wahpeton cost-effectively.

In response to a question from Chairman Wardner, Mr. Woods said liquefied natural gas can be used when a gas pipe goes out. He said the facility in Wahpeton with liquefied natural gas storage tanks anticipates calls from customers who want to be set up for curtailment season.

Petrochemical Industry

Chairman Wardner called on Mr. Shawn Kessel, Deputy Commissioner, Department of Commerce, for testimony (Appendix K) regarding the historical background and a status update on the petrochemical industry in North Dakota, including potential challenges and issues to the petrochemical industry and petrochemical industry projections.

Comments

Mr. Jonathan Razink, Facility Manager, Cargill, Inc., provided testimony (Appendix L) regarding natural gas service curtailments in Wahpeton and the benefits of supplying Wahpeton with additional natural gas services.

Mr. Steve Dale, Mayor, City of Wahpeton, provided testimony (Appendix M) regarding the natural gas distribution system serving Wahpeton and the curtailment of natural gas services. He said Wahpeton has had a shortage of natural gas for at least 4 years. He said there was a soybean crushing operation that was considering operating in either Wahpeton or Aberdeen, South Dakota. He said the operation chose to operate in Aberdeen primarily because of the lack of natural gas in Wahpeton. He said that decision to operate in Aberdeen was a big loss to not only Wahpeton, but to North Dakota.

Mr. Scott Stofferahn, Executive Vice President, Golden Growers Cooperative, said the cooperative has 1,550 members, of which 600 members are in North Dakota. He said the lease agreement with Cargill, Inc., to operate its Wahpeton plant includes an option for Cargill to purchase a 50 percent interest in the plant and become a co-owner with Golden Growers Cooperative. He said a main reason for the co-ownership option to be exercised is the option potentially would bring additional developments and resources to that plant. He said Cargill is facing the problem of not being able to move forward with exercising the co-ownership option when it knows it is energy deficient. He said there is great growth potential but very limited ability to accomplish the potential.

In response to a question from Senator Patten, Mr. Stofferahn said Cargill and Minn-Dak Farmers Cooperative have used liquefied natural gas, but it is a very expensive charge and must be trucked from Tioga. He said it is an economic decision whether to temporarily curtail production or to transport natural gas by truck. He said compressed natural gas is difficult because of the number of trucks needed for delivery on a daily basis.

Ms. Carlee McLeod, President, Utility Shareholders of North Dakota, said Xcel Energy Inc., determined it was cost-prohibitive to expand operations.

In response to a question from Representative Brandenburg, Ms. McLeod said for the utilities it is the costs that are impeding expansion. She said Mr. Oswald explained the balancing of what must be considered, such as community size, number of costumers, and the ability to carry surcharges for a certain period of time.

Representative Anderson said he knows of an elevator that depleted its supply of 12,000 gallons of propane in 48 hours. He said that limits the elevator's drying to 2 days a week. He said there is a huge need for natural gas or propane now.

No further business appearing, Chairman Wardner adjourned the meeting at 3:00 p.m.

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Christopher S. Joseph
Counsel

ATTACH:13

A New Technology for Flare Mitigation

Crusoe Energy Systems Inc.



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A Digital Flare Mitigation Solution

A NEW TECHNOLOGY IS AVAILABLE TO CONVERT WASTED NATURAL GAS INTO COMPUTING

- **Crusoe converts "stranded" natural gas into electricity for energy-intensive computing on the well site**
- **Digital Flare Mitigation (DFM) solves critical regulatory challenges for oil and gas companies by achieving beneficial use and reducing emissions**

Crusoe's Objective: help operators maintain and increase oil production by solving the regulatory and environmental challenges of associated gas





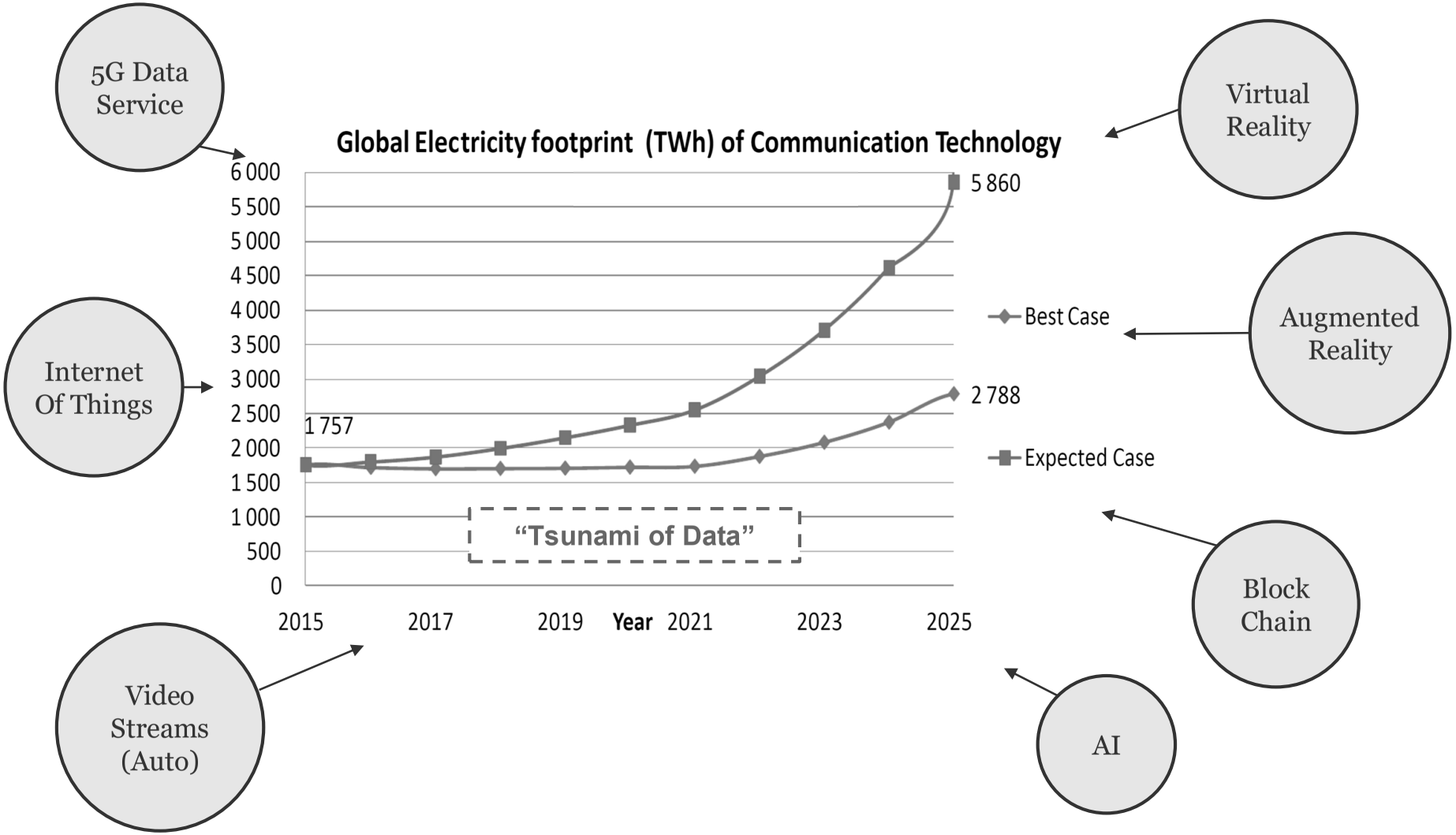
Why Digital Flare Mitigation?

- ✔ **DFM is the most cost-effective solution in flare mitigation**
- ✔ **Modular design allows for rapid turnkey deployment and mobilization**
- ✔ **Highly scalable from 70 mscfd to multiple mmscfd**
- ✔ **High reliability with few failure points**

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Energy Intensive Computing

RAPID GROWTH IN DATA NEEDS

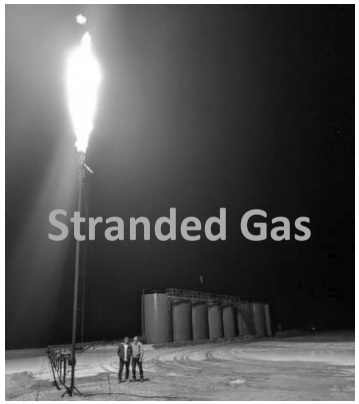


Source: Total Communications Technologies Power Forecast, Anders Andrae, Huawei Technologies, October 2017

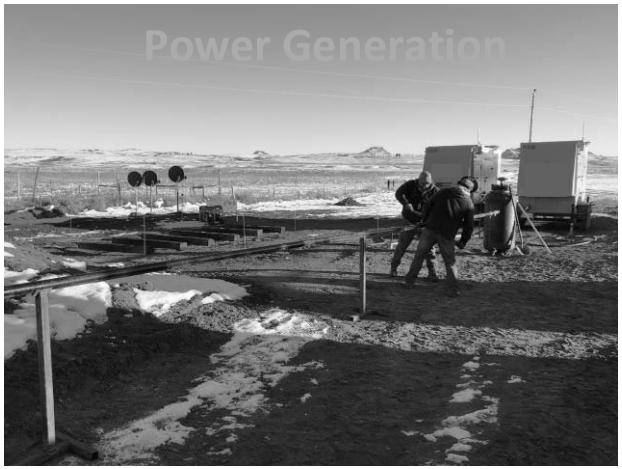
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Digital Flare Mitigation

COMPONENTS OF A DIGITAL FLARE MITIGATION SYSTEM









- The Digital Flare Mitigation System is a mobile and modular assembly of power generation, computing and remote telecommunications systems optimized specifically for stranded gas resources
- Designed for portability, rapid commissioning, rugged oilfield conditions and modular scalability

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Easy Integration, Compact Footprint

DEPLOYMENTS COMPLETED IN AS FEW AS 4 DAYS





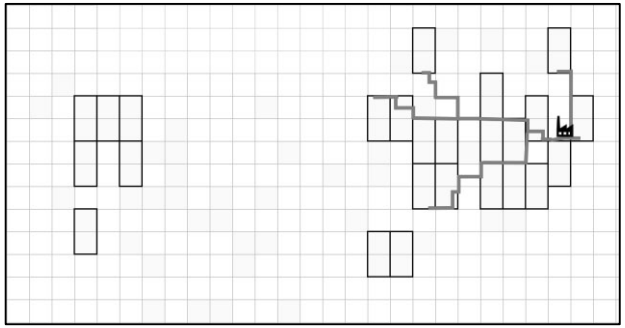
Step 1: Connection Point	Step 2: Generator	Step 3: Compute Module	Step 4: Startup
Operator provides simple manifold and valve to existing gas line Typically, manifold directly onto line leading to flare	Crusoe provides generator system, delivered on portable trailer or skid	Computing modules delivered by truck Satellite antennae installed and aligned after delivery	Computers connected to generator Generator start up Flare becomes back-up gas plan
1-2 Days	***1 Day***	***1-5 Days***	***1 Day***

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Digital Flare Mitigation Use Cases

ACHIEVE REGULATORY COMPLIANCE WITHOUT MIDSTREAM INFRASTRUCTURE





Existing Flared Gas

Superior gas-capture alternative for producing wells that are currently being flared

USE CASES

- ✔ Producing wells without midstream infrastructure
- ✔ Delayed pipeline arrival
- ✔ Extended gas plant downtime
- ✔ Pipeline capacity challenges
- ✔ Joint Power Generation

Development Flexibility

Gas offtake plan for future wells to be drilled outside existing infrastructure

USE CASES

- ✔ Drilling exploratory step-out wells ahead of pipeline build
- ✔ Satisfy expiring leases outside of existing infrastructure service areas
- ✔ Delineate acreage prior to formal midstream agreement, avoid minimum drilling commitments

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Case 1: ROW Issues

SOLUTION FOR GAS ON LONG-TERM STRANDED ACREAGE

ROW Issues can leave wells without access to a market for associated gas

Topography

Badlands and other natural features have caused midstream challenges for years



Severe topography has no impact on DFMS effectiveness

Surface Owner Challenges

Inability to get Right-of-Way agreement executed by Surface Owner(s)



DFMS operates under existing Surface Use Agreement and does not typically require additional approvals

Digital Flare Mitigation Systems:

- Remove the need to build out physical infrastructure
- Provide beneficial use for gas outside traditional markets

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Case 2: Offload Capacity

PRODUCING OIL WITH TAKEAWAY ISSUES

Decreases in offload capacity can leave a well without gas takeaway for extended periods of time

Extended Gas Processing Plant Downtime

Interruptible Gas Contracts

Compressor Station Issues

Downstream Capacity Issues



Digital Flare Mitigation Systems:

- Allows operator to continue oil production while addressing regulatory requirements
- Decouples well's run-time from downstream performance

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Case 3: Exploration Wells & Delineation

GAIN COMFORT IN DRILLING WELLS AHEAD OF INFRASTRUCTURE



Digital Flare Mitigation Systems:

- Facilitates regulatory compliance while evaluating performance of exploration wells
- Allows operator to continue to delineate acreage position before agreeing to midstream contract with minimum volume commitments
- Easy mobilization allow DFM to act as stop-gap prior to arrival of pipeline

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Case 4: Midstream Partnership

BRIDGE SOLUTION FOR MIDSTREAM PROVIDERS



Digital Flare Mitigation Systems:

- Gas-capture tool for midstream partners prior to build-out completion
- Improve midstream economics by deferring capital expenditures until production levels warrant pipeline construction
- Stop-gap solution allows midstream partners to propose more competitive deal terms which delay implementation of minimum volume commitments

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Joint Power Generation

OPTIMIZE ON-SITE POWER GENERATION CAPACITY

Crusoe as Power Provider

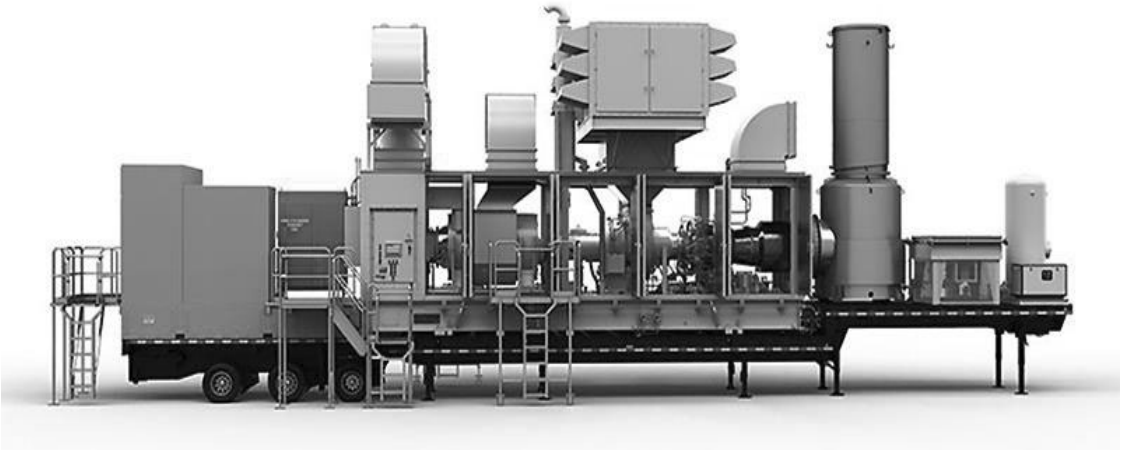
Purchase electricity directly from Crusoe by the kWh at a fraction of the cost of renting generators directly

- ✔ *Crusoe utilizes large volumes of stranded gas to power turbine generator, 1MMcfd+*
- ✔ *Operator pays only for electricity used to run ESPs or other well site needs by the kWh*
- ✔ *Remainder of power utilized for energy-intensive computing*

Excess Power Gen Capacity

Monetize consistently underutilized excess power generation capacity by selling electricity to Crusoe on the well site

- ✔ *Large turbine generators like ones used for electric frac fleets consistently underutilize generation capacity*
- ✔ *Crusoe's trailer-mounted compute modules follow turbines and pay by the kWh*
- ✔ *Operator monetizes spare capacity while maintaining stable load regime*



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Crusoe's Background

OIL & GAS INDUSTRY OPERATIONS TEAM

- ✔ **Operating since 2018**
  - Digital Flare Mitigation Systems operating in Powder River Basin (WY), Williston Basin (ND) and DJ Basin (CO)
  - Ongoing simultaneous multi-basin operations
- ✔ **Excellent safety record: zero injuries to date**
- ✔ **Approved MSAs with multiple publicly traded oil and gas companies**
  - PEC and ISN third party verification of safety procedures and training policies
- ✔ **Crusoe consults with leading regulatory, permitting and public relations firms to ensure positive stakeholder management**
- ✔ **Operations & business development teams assembled from high-quality E&P and service companies:**

THE CRUSOE TEAM

- ❖ **Chase Lochmiller, CEO**
  - Technology and cloud computing background
- ❖ **Cully Cavness, President**
  - E&P, midstream and power generation finance background
- ❖ **Ken Parker, VP Facilities Engineering, Operations & Safety Manager**
  - Lifetime safety record: EMR of 0.2 vs. industry average of ~0.6-2.0
  - 25 years of operational experience domestically and internationally
- ❖ **Andrew Likens, VP Business Development**
  - Former Land Manager, facilitated several multi-rig development programs
- ❖ **Nick Corredor, Field Operations Manager**
  - Field operational leadership roles within oilfield service companies

PIONEER NATURAL RESOURCES

LIBERTY OILFIELD SERVICES

BG GROUP

BAKER HUGHES

CAMINO

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Key Points

TECHNOLOGY FEATURES

- ✔ **Facilitates flare mitigation and regulatory compliance**
  - Achieves a bona fide beneficial use and 3rd party gas offtake plan
  - Reduces flaring, waste and emissions of NO_X, SO_X and VOCs (smog precursors)
- ✔ **No lengthy land acquisition, right-of-way negotiation or pipeline permitting process**
- ✔ **Modular, easily mobilized and scalable to match available gas resource**
  - 70 mcfpd up to multiple mmcfpd, can add or subtract modules as gas resource changes over time
- ✔ **Fast to implement**
  - Commissioned in days once components arrive on-site
  - System delivery lead time of several weeks to several months dependent on gas volumes
- ✔ **No minimum drilling commitments or onerous volume guarantees**
- ✔ **Fully interruptible**

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Appendix

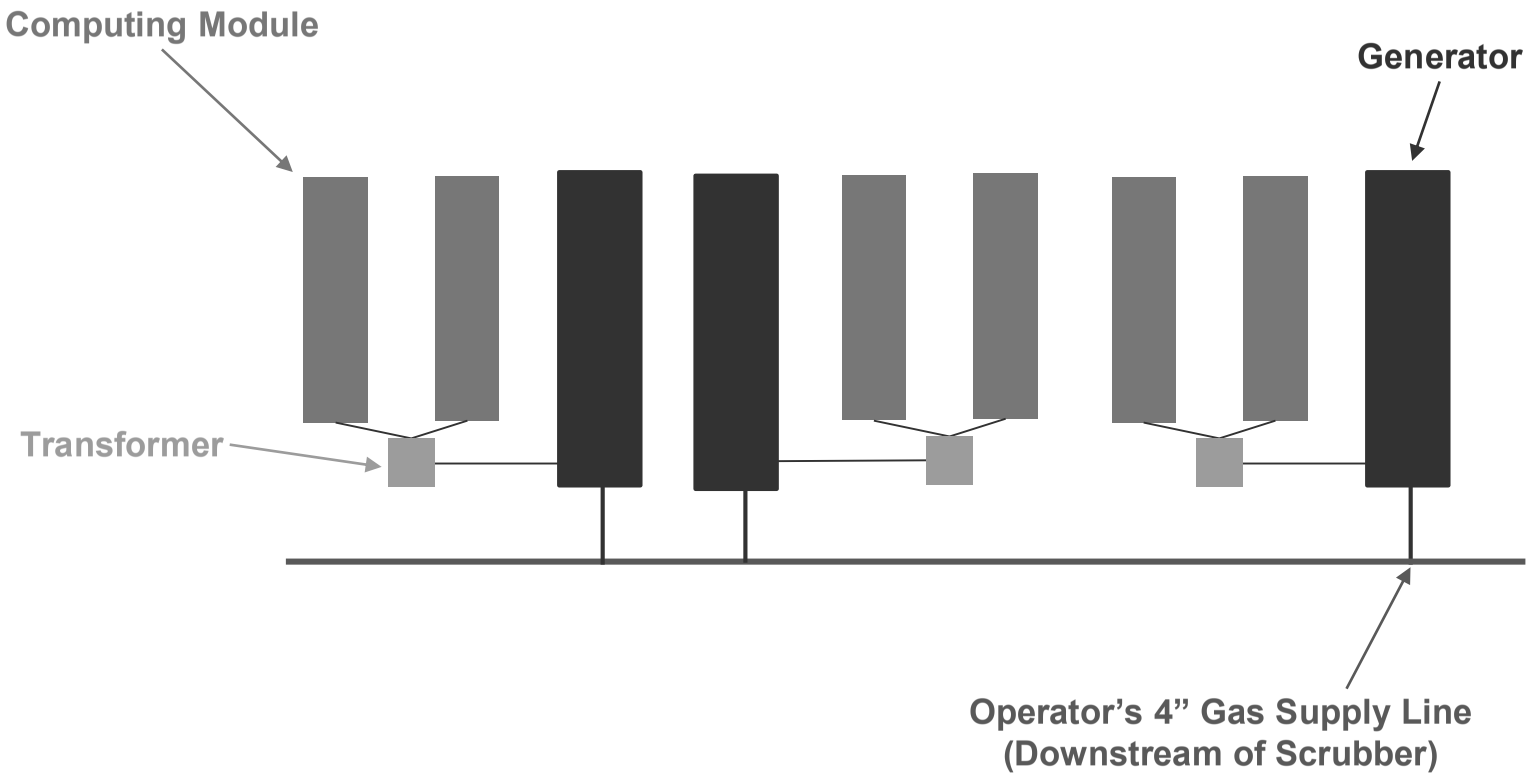
Crusoe Energy Systems Inc.
September, 2019



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Site Diagram w/ Skid Generators

600 MCFD LAYOUT ILLUSTRATION



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Easy Integration, Compact Footprint



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APPENDIX J

ALKANE MIDSTREAM

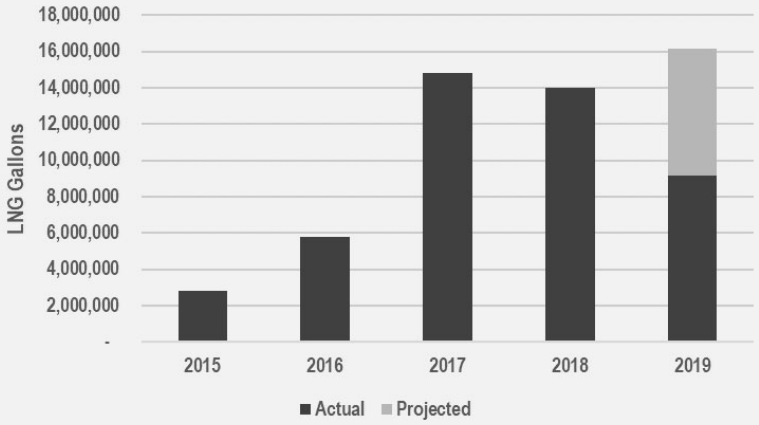
ND ENERGY AND TRANSMISSION COMMITTEE

NOVEMBER 14, 2019

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Background

Founded in 2014 as North Dakota LNG, we are a pioneer in alternative fuels delivering nearly 50 million gallons of Liquefied Natural Gas (LNG) through July 2019





About Us

Virtual pipeline solutions for natural gas in the Williston Basin. We provide turn-key alternative fuel, power, and stranded gas solutions helping customers save money and increase production while reducing their environmental impact.

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Virtual Pipeline Solutions For Upstream and Downstream



Flare Capture

Year-round applications

Full utilitzation of flare stream. 4mmCFD of Flare produces 25,000 gallons per day of LNG and >30,000 gallons per day of NGLs



Drilling & Completions

Year-round LNG applications

Consumption averages 2,150 gallons per day on drilling rigs to 12,000 gallons per day on frac spreads



Water Heating & Recycling

Water heating is a Winter application only.

Water Recycling was piloted in August and is year-round.

Consumption averages 5,000 gallons per day



Remote Power

Short-term project based applications

Applications can range from 5,000 gallons per day to 40,000 gallons per day of LNG



Off-Grid / Commercial / Community

Permanent LNG applications

Consumption typically between 2,000-5,000 LNG gallons per day

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LNG Production Capabilities

Tioga facility built for redundancy with three production trains



Plant 1

- 2-Train turbo expander plant with production capacity of 10,000 gallons per day
  - Train-A: 5,000 gallons per day
  - Train-B: 5,000 gallons per day

Plant 2

- Single train ANGLE mixed refrigerant plant with production capacity of 80,000 gallons per day
  - Train-C: 80,000 gallons per day
  - Expansion to 100,000 gallons per day possible

Storage

- 2-fixed storage 55,000 gallon horizontal bullet tanks at the Tioga facility
  - Transportation trailer fleet with 70,000 gallons of storage capacity
  - On-site customer storage vessels with 300,000 gallons of storage capacity

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We work with the biggest names in the Bakken and Beyond:

Oil & Gas



Wholesale



Remote / Off-Grid / Community Power



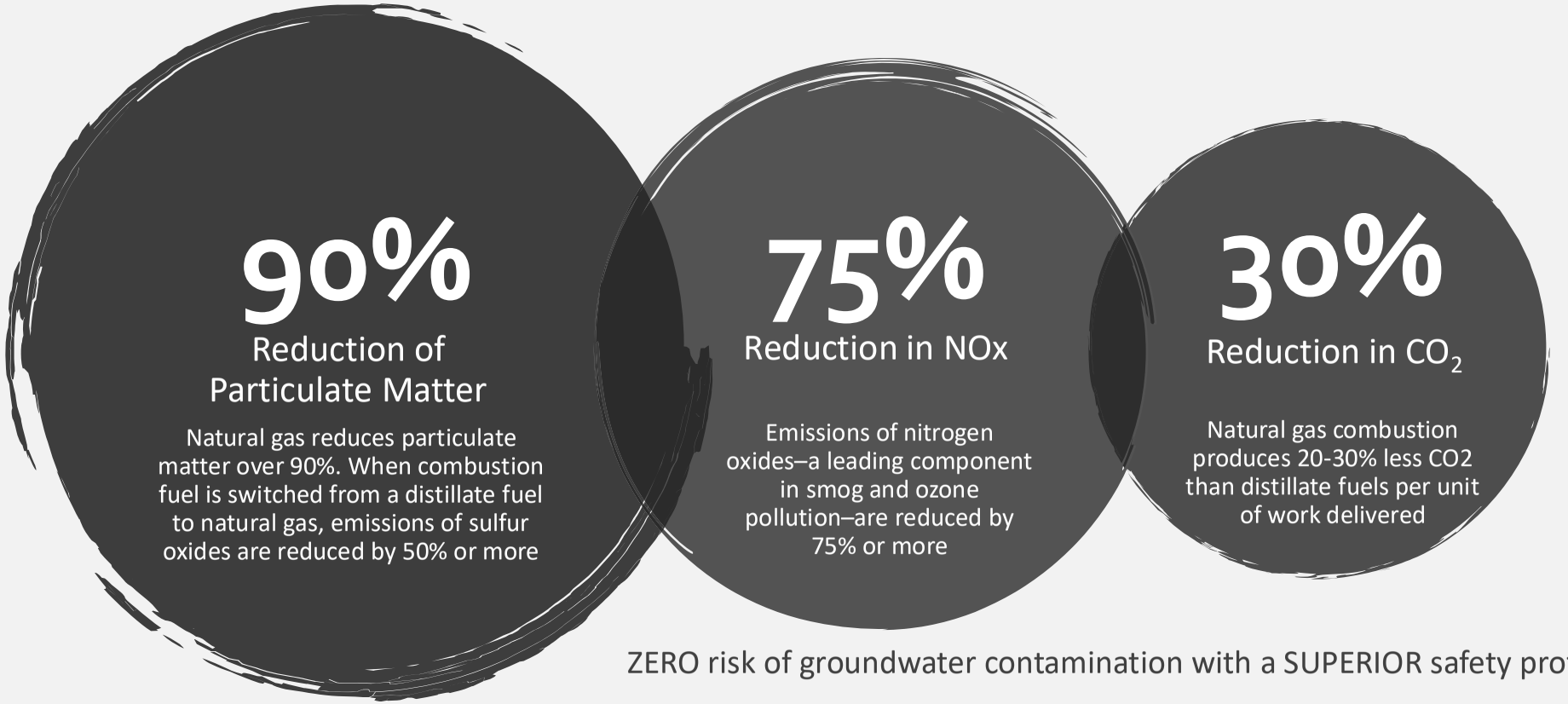
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THE BUSINESS CASE FOR LNG

- ENVIRONMENTAL IMPACT
- SAFETY
- FUEL SAVINGS
- ECONOMIC BENEFITS

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LNG Emissions Benefits vs. Distillate Fuels and Propane



ZERO risk of groundwater contamination with a SUPERIOR safety profile

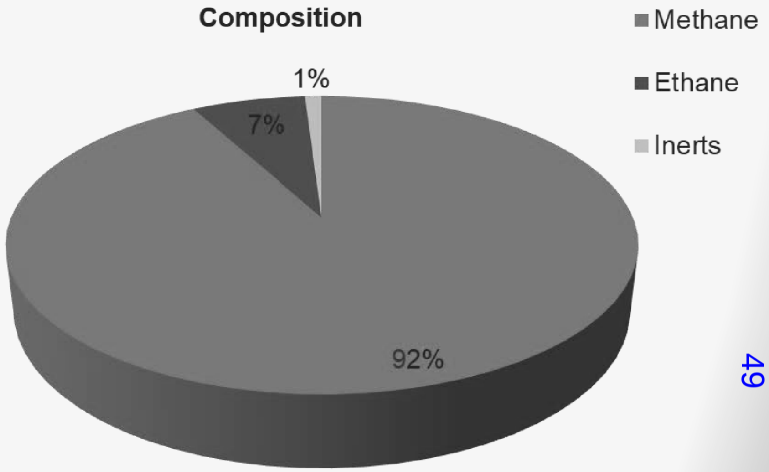
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LNG – Safety and Environmental Advantages

Liquefied Natural Gas (LNG)

- Is colorless, odorless, non-toxic, non-corrosive cryogenic liquid that is produced by cooling natural gas until it condenses into a liquid (-250 ^{o}F)
- Looks like boiling water when placed into a beaker
- Leaves no contaminants, eliminating risk to ground water if released
  - When LNG comes into contact with any warmer surface such as water or air, it evaporates rapidly, returning to a gaseous state
- Low flammability range (5-15%)
- Cannot explode in open atmosphere
- Provides significant emissions benefits over fuels including:
  - Fuel oil, Diesel, Propane
- Provides increased operational reliability
- Reduces O&M costs on many applications

Alkane Midstream LNG Composition

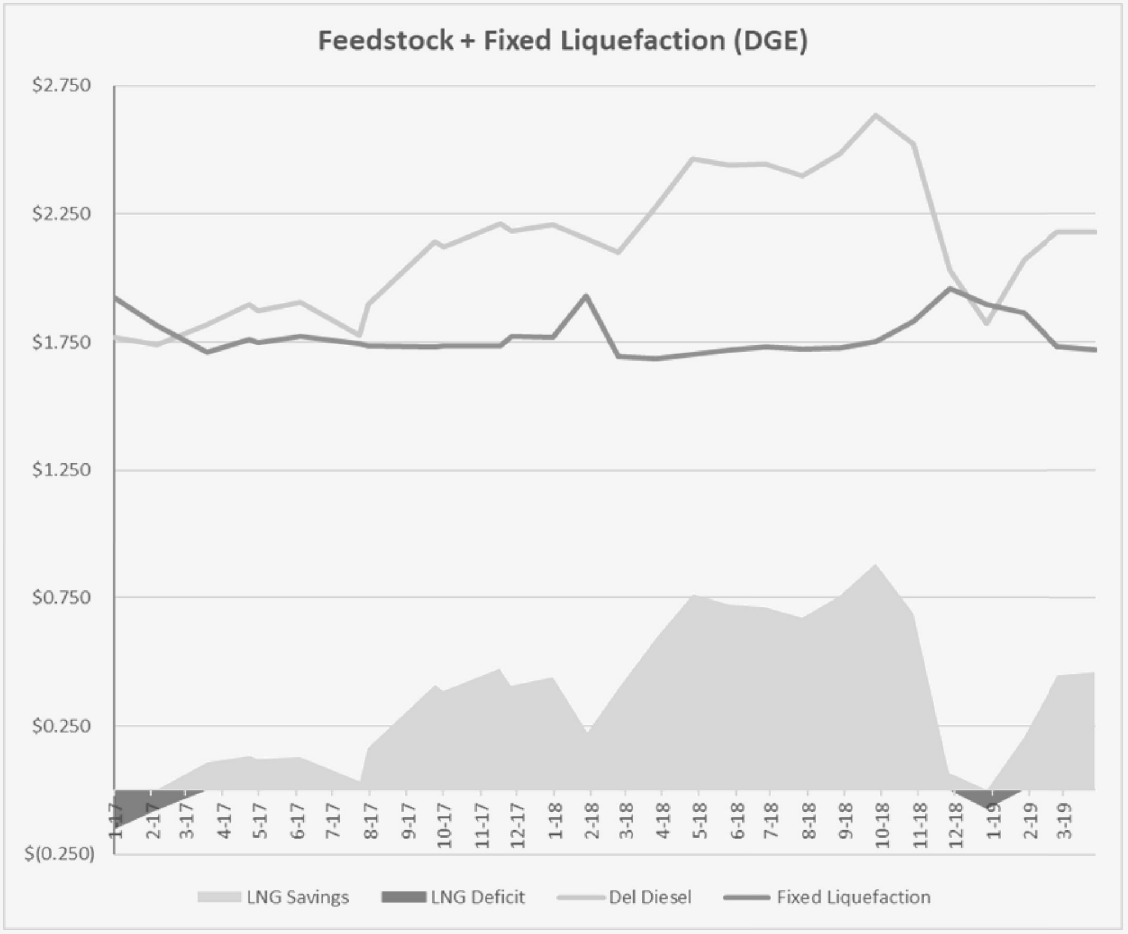


	LBS	BTU	DGE	PGE	SCF
Per LNG Gallon	3.55	82,644	1.68	1.10	80,707

ALKANE MIDSTREAM

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LNG – Stable Price v. #2 Diesel Fuel



Two Feedstocks

- #2 Diesel tracks with oil.
- LNG tracks with Natural Gas.

Feedstock (Nat Gas)	LNG DGE	Delivered Diesel	
$ 3.104	$ 1.775	$ 2.126	Avg
$ 2.460	$ 1.686	$ 1.740	Lo
$ 4.430	$ 1.959	$ 2.634	Hi
0.542	0.0753	0.2579	Std Dev

* DGE = Diesel Gallon Equivalent

Data

- 01/2017 – 03/2019
- #2:Mandan Rack + Transport
- LNG: Chicago City Gate + Fixed Liquefaction

ALKANE MIDSTREAM

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Market Desire for LNG

North Dakota Oil Production Flat As Operators "Self-Restrict"

North Dakota oil production remained relatively flat in May, as operators "self-restricted" output as much as 25,000 BOPD to meet state gas flaring limits.

The ND Dept. of Mineral Resources said oil production rose to 1,393,284 BOPD, up only 799 BOPD over April, while gas production came in at 2,821,672 Mcf a day, down approximately 11,000 Mcf over April.

The state saw a record number of wells setting a new all-time high record at 15,698, with 94 coming on line in May, leaving 985 wells still to be completed. The inactive well count dropped by 69 down to 1,556.

LNG DEMAND / CO2 REDUCTION / FLARE CREDITS / FLARE CREDIT BENEFIT

Application (Gas Oil Ratio = 1) ($60 WTI, $29 Breakeven)	Qty.	GPD ea. (approx.)	Total GPD (approx.)	Fuel Cost Reduction ($)	CO2 Reduction (TPD)	Flare Credits (MCFD)	Flare Credit Benefit/day ($)
Drill Rigs (45% Diesel Substitution)	6	5,018	30,109	$ (3,831)	(18)	405	$ 11,198
Frac Spread(s) (12 Trucks per)	2	20,592	41,184	$ (8,830)	(60)	1,661	$ 45,950
Frac Water Heating (18 Wk Season)	2	31,562	63,124	$ (4,754)	(29)	2,545	$ 70,427
Pad Power (100% LNG)	-	-	-	$ -	-	-	$ -
Total (Daily):			**134,418**	**$ (17,414)**	**(107)**	**4,611**	**$ 127,575**
			Gal/Yr	**Cost Red./Yr**	**Ton/Yr**	**MCF/Yr**	**$/Yr**
Total (Annual):			**32,329,839**	**$ (4,906,507)**	**(30,177)**	**1,020,336**	**$ 28,232,109**

OpEx Reduction. LNG is 15% to 25% lower in cost than diesel.

Flare Credits = Higher Profitability. One-for-one credit of LNG for Flare Gas facilitates increased oil production and profitability.

Emissions Reduction. One-third less CO2 emissions support Oil & Gas Climate Initiative

ALKANE MIDSTREAM

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Benefits to Bakken Operators and North Dakota Communities

Operators in the Bakken realize fuel cost, emissions and Flare Credit benefits when consuming LNG.

Flare Credits, when utilized, allow additional production of oil, resulting in additional profits for the operator and tax revenue for North Dakota.

North Dakota LNG - LNG Production Benefits Bakken Operators and North Dakota						
Year / Month	Avg Oil Price ($/BBL)	LNG Production (LNGg)	MCF Credit	Additional Oil Production (BBL)*	Additional Operator Profit*	Additional Production Tax*
2018-10	$ 70.16	732,800	59,097	59,097	$2,196,036	$ 207,311
2018-11	$ 56.25	1,063,899	85,798	85,798	$1,994,811	$ 241,308
2018-12	$ 49.16	1,510,987	121,854	121,854	$1,969,157	$ 299,517
2019-01	$ 52.27	1,782,217	143,727	143,727	$2,769,623	$ 375,631
2019-02	$ 54.98	1,567,712	126,428	126,428	$2,778,896	$ 347,552
2019-03	$ 58.27	1,667,580	134,482	134,482	$3,398,367	$ 391,814
* Assumes additional oil production occurred in same month as credits acquired.						

ALKANE MIDSTREAM

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ALKANE PRODUCTS AND SERVICES

- FLARE MANAGEMENT
- PRODUCED WATER MANAGEMENT
- ENGINE FUEL CONVERSIONS
- HYBRID POWER SYSTEMS
- OFF-PIPELINE COMMUNITIES
- HYDROCARBON EXPORT

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Our product and service offering includes:

- Flare Management. A mobile liquefaction plant called the Alkane-in-One (Ai1) which fully utilizes captured flare gas for additional LNG production and NGL capture
- Dual-Fuel Kits. We a distributor for American Power Group's (APG) dual-fuel engine conversion kit (highest ROI kit on maket today) to increase LNG consumption on drill rigs
- Hybrid Gas Generator Set. We are piloting a natural gas hybrid generator set with a leading drilling company using 100% gas and having diesel performance
- Boilers. We are partnering with the Miura Steam Boiler distributor to convert off-pipeline aged boilers to modern, safe, and efficient Miura products
- Water Recycling. We are the distributor for the first production water recycling system in the Bakken
- Power Generation. We have developed technology to use NGLs as fuel for power generation.
- Data and Agriculture. We are securing projects to consume power from NGLs including: Cloud computing, Agriculture and Aquaculture
- Rail Export. We are partnering with rail transportation groups to export LNG and Ethane by rail in ISO containers
- Ethane. We will be producing a refrigerant grade ethane product at our Tioga liquefaction plant for export and EOR



Diversification

Innovative Solutions
that
Solve Problems

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Single Solution for Complete Flare Management

Located on Edge of Pad

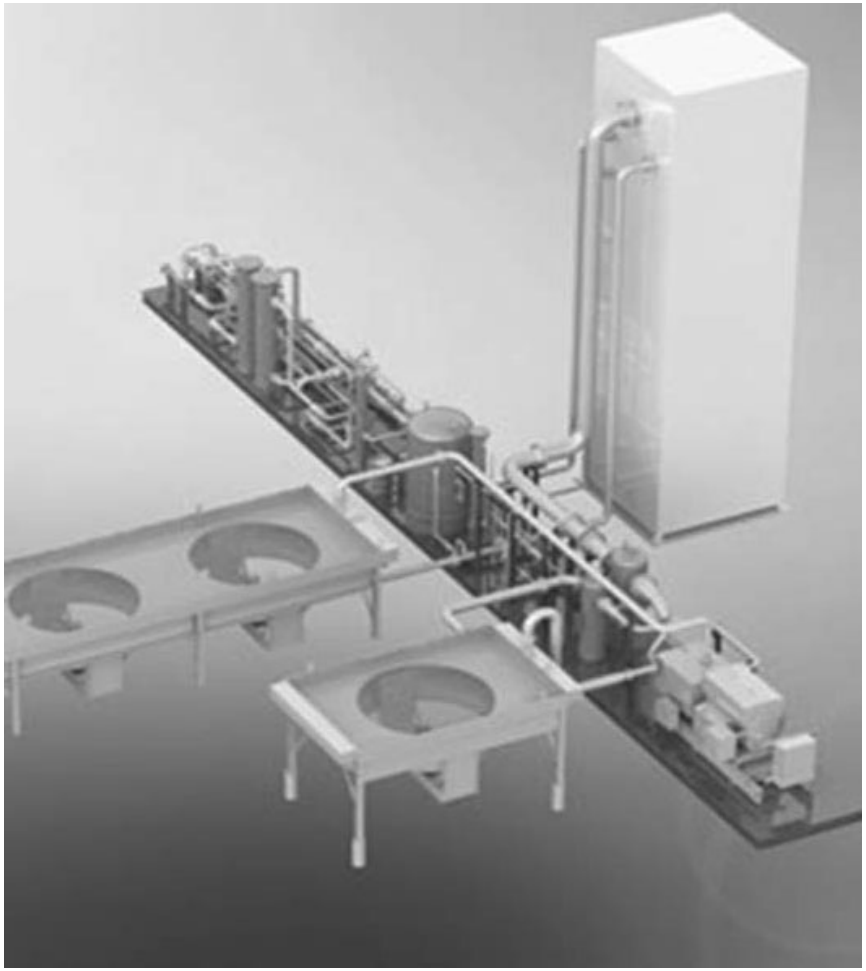
- Connected to Flare Line
- Fully Self-contained
- Manifold for NGL trailers
- Manifold for LNG trailers

Key Components

- Gas Generator Sets
- Electric Motor Driven Inlet Gas Compressor
- Amine CO_2 removal
- Mole Sieve Dehydration
- NGL Recovery
- LNG Liquefaction

System Output (Ref. 3.8MMSCFD Flare)

- NGL's – 38,000 gallons per day
- LNG – 21,000 gallons per day
- Fuel
  - For system power generation
  - For well pad power (artificial lift)



ALKANE MIDSTREAM

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LNG Production from Flare Gas

Located on Pad, Gathering Line or Gas Plant

- Connected to Tailgas or Residue Line
- Fully Self-contained
- Manifold for LNG trailers or Skid Tank w/Pump

Key Components

- Gas Generator Set
- Gas Cleanup Skid
- Gas Liquefaction
- Manifold to Storage

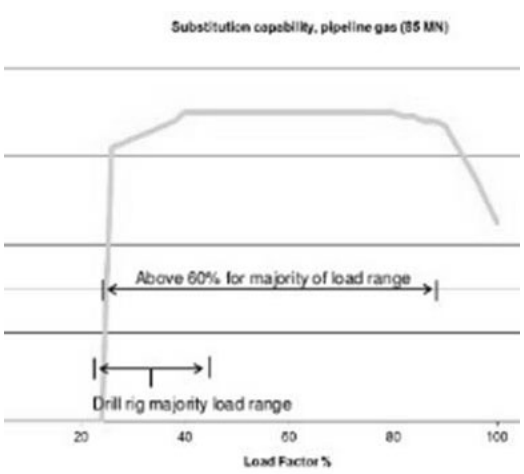
System Input / Output

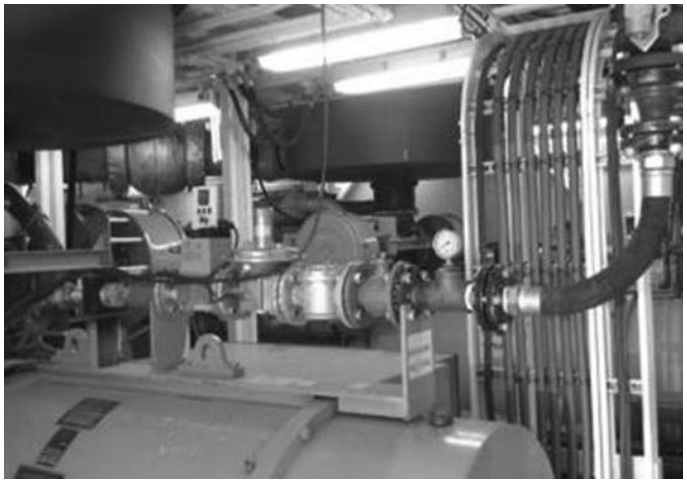
- Feed Gas: 900,000 cu ft/day
- LNG: 9,000 gallons per day



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Diesel Connection on the frac pump
- Threaded into fuel tank
- Dry Disconnect Couplings
- Remote wireless connection to HMI

Natural Gas Connection on the frac pump

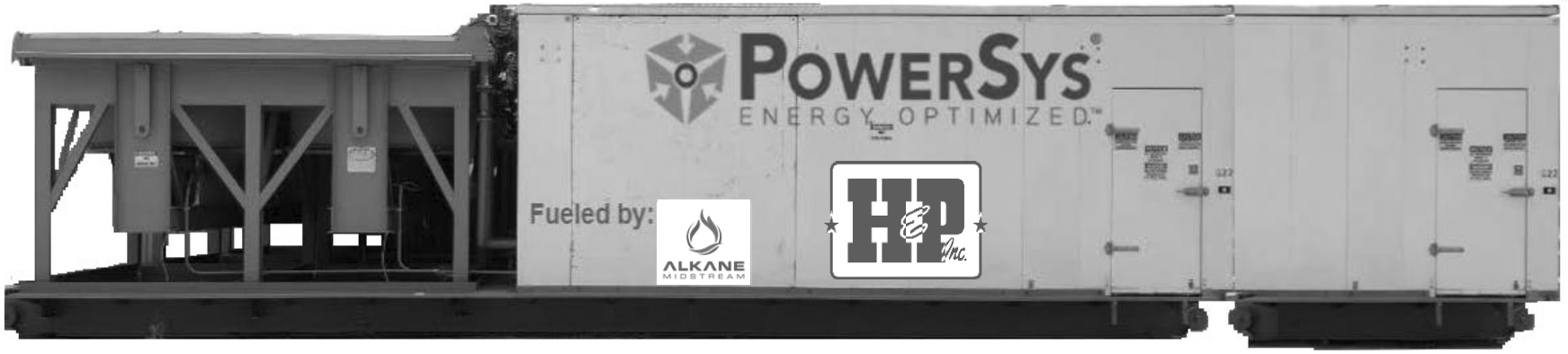
Bi-Fuel Systems
- Displaces diesel with LNG / Natural gas
- Up to 70% diesel substitution
- Kits from OEM and Aftermarket

Applications
- Drill Rigs
- Frac Spreads

Bi-Fuel Systems and Performance

MIDSTREAM

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100% Natural Gas Drill Rig Generator Set with Diesel Performance

- CAT G3516 generator set with integrated battery energy storage
- Uses existing gas generator set + hybrid module
- Electrical and Control connections same as existing rig gensets
- 0.5g NOx, 0g PM, Low methane slip
- 30% Less CO_2 than Diesel (in line with Oil & Gas Climate Initiative)

PowerSys Hybrid Gas Generator Set

US Patent Protected: 7,67,187; 7,969,030; 8,222,756; 8,492,913; 8,829,698; 9,502,943; US & EU Patents Pending

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MIURA



Muira Boilers

- Fast acting, modular, process steam boilers
- Clean burning, 85% high efficient, low NOx, reduced emissions
- Very low maintenance, push-button operations, adaptable
- Highest safety rating, reliable, N+1 redundancy
- Turn-key solutions

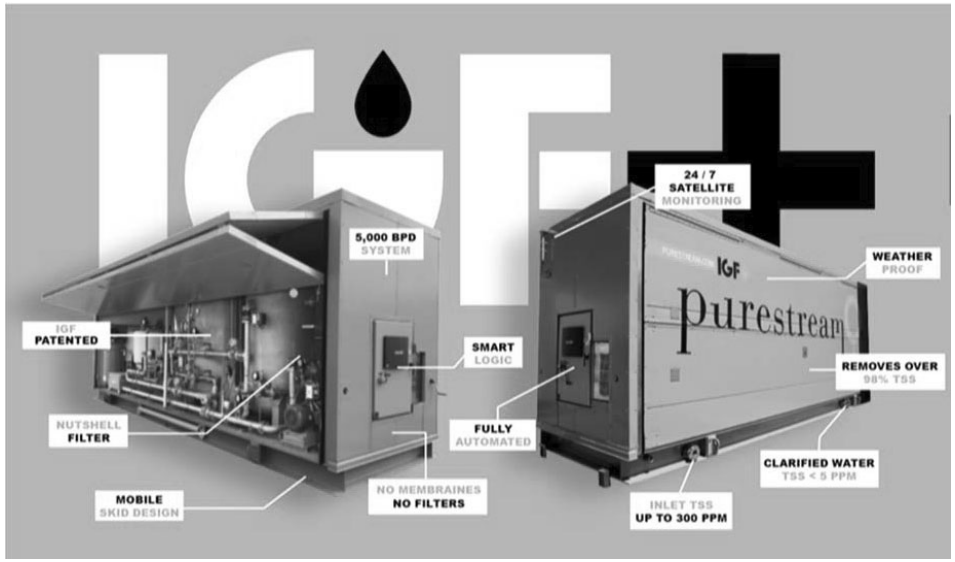
MIURA Boiler Installations

- Japan Corp. since 1927
- Manufacturing facilities in Asia, North America, South America, Europe
- Largest process steam boiler manufacturer in the world
- 140,000 units installed worldwide
- 2,000 units in North American markets
- 600 units in food processing facilities

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Produced Water Recycling: PureStream IGF+ with LNG



Produced Water Recycling: IGF+

Modular system – Scalable to application. Portable. Small footprint.

Produced and Frac Water Recycling. 10,000 BBL/day

98% suspended solids, iron and oil removed

No membranes or filters

Significantly reduces trucking and fluid disposal fees / fluid injected into disposal wells



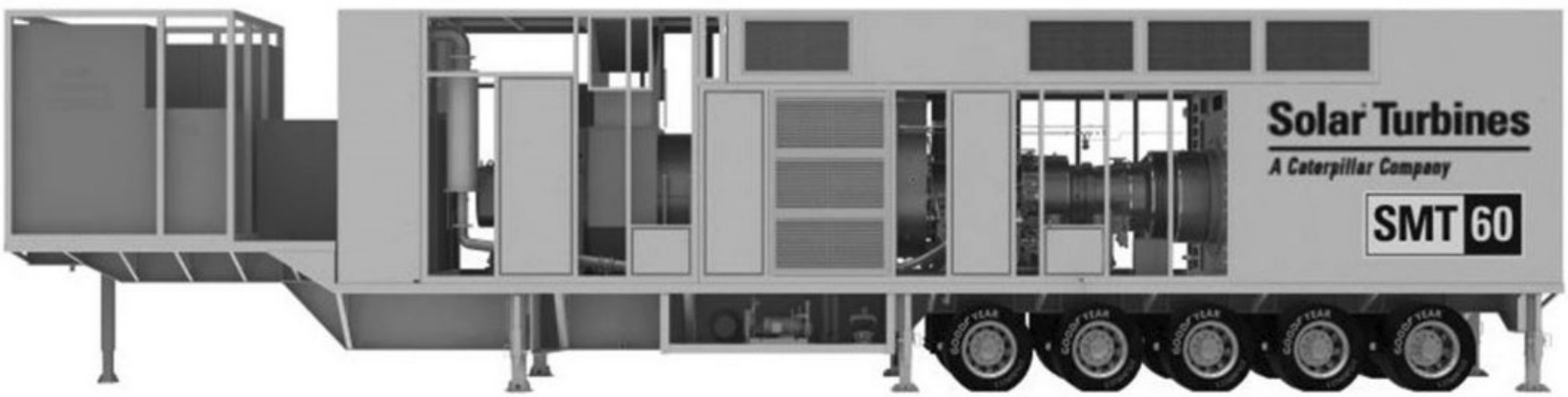
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Produced Water Evaporation: PureStream Flash with LNG



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Gas Turbine Power Generation Providing Offgrid Power to Data Customers

- Trailer mounted for rapid deployment
- No gas treatment required
- Add units as required
- Feed Gas: 2,500,000 cu ft/day
- 10MW Power Generation (option for larger systems)

<u>Power Demand is Standing By</u>

- 6 – 8 Weeks to First Power

Power Generation: On-Grid / Off-grid

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INSTALLATION
APPLICATIONS
MONITORING
DELIVERY

- ON-SITE STORAGE
- REMOTE MONITORING
- COMPANY DRIVERS
- DRIVER TRACKING
- INSTALLATION EXAMPLES

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LNG In Use



Drill Rigs





Water Heating



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LNG In Use

Dual-fuel Frac Spread



- Up to 70% diesel displacement
- Up to 20,000 LNG gpd
- Year-around operation

Water Recycling



IGF+
- 10,000 BBL/d
- 98% Suspended Solids, Iron, Oil removal

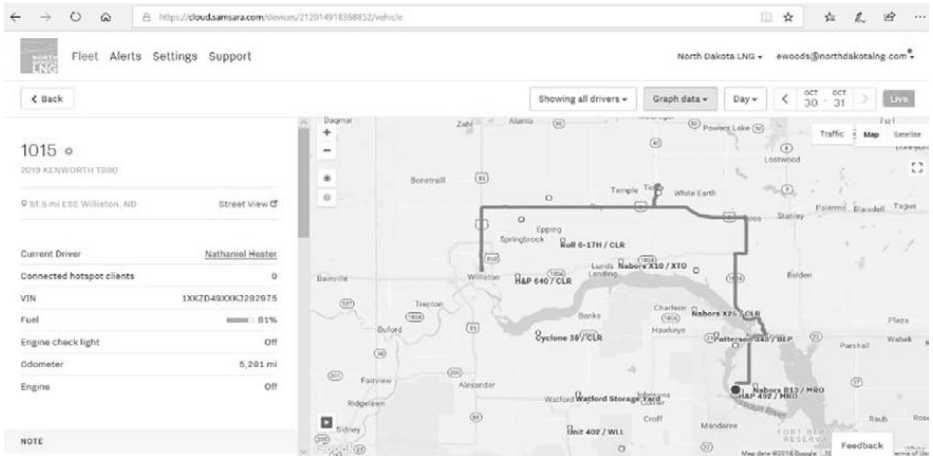
FLASH
- Up to 400BBL/d Evaporation

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LNG Delivery with Real-Time Driver Tracking





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On-site Storage with Remote Monitoring

Ambient Vaporization





Water Bath Vaporization

Electric Vaporization





Remote Monitoring

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THANK YOU

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