

PROTEUM ENERGY, LLC
REPORT TO INVESTORS 4Q2020

January 23, 2021

Dear Proteum Energy Member,

We are grateful to you as an investor and to our board of directors and employees for the good work and growth of Proteum Energy during the last quarter of 2020. We have made great strides adapting our patented and proprietary technology to reform flare and residue gas into a midstream fuel processing and sales company. And, our midstream applications continue to address and solve a pressing environmental need for our customers and the planet.

We have continued to forge forward with our product development and business plan, and I offer the following for your review:

What we do: Midstream gas production is the sector of oil and gas business that takes product from upstream at the wellhead and processes natural gas liquids (NGLs) and transports product downstream to refineries and further gas distribution. Our technology taps into the midstream by producing designer fuel for the midstream operator from NGLs and residue gas while simultaneously producing fuel cell quality hydrogen with the goal of being designated a low carbon fuel standard (LCFS) transportation fuel by the California Air Resources Board (CARB).

- 1) We buy y-grade rejected ethane from the midstream operator at a favorable price differential to the fuel products we sell. Because of fractionation and transportation costs (the cost to transport and “crack” ethane or any NGL), fuel price differentials are often most favorable for us where a midstream plant is located an optimum distance from the downstream ethane fractionators (generally located near the US gulf coast);
- 2) We process natural gas liquids (NGL’ s). NGL’ s are collected in mixture of gasses called Y-Grade. Although the HDF system can reform any non-methane hydrocarbon, we have found the most optimum NGL, pricewise, to be ethane. If required, we remove ethane from Y-Grade with a pre-treatment technology called a de-ethanizer to get the best possible “cut” for pricing purposes. We reform this Y-Grade ethane into:
 - Low Emissions Designer Fuels (special fuel blends to reduce NOx emissions and save the operator fuel costs and maintenance expense)
 - Pipeline Quality Methane
 - Hydrogen
 - CO2
- 3) We sell the Designer Fuel to the operator to fuel their own equipment. This covers about 70% of our operating cost, saves the operator money, improves performance, and reduces the emissions from their compressors, engines, and turbines.
- 4) We sell (offtake) fuel cell quality hydrogen, CO₂ and pipeline quality methane that is simultaneously produced on site with the Designer Fuel. If there is a requirement to take the reformat gas from our processor back to methane and sell that as a commodity, this is possible as well.
- 5) The CO₂ product is not emitted in our process but is captured and sold to customers who either sequester (bury) the CO₂ deep under the earth using carbon capture sequestration (CCS) or enhanced oil recovery (EOR) methods. This CO₂ can provide a carbon credit, lowering the carbon footprint of the oil and gas operator. This also may allow

us to further enhance our Carbon Intensity (CI) score for Low Carbon Fuel Standard hydrogen as measured by the California Air Resource Board (CARB).

Engineering and Product Development – We have leveraged five (5) years of development and field testing on our FTF300 technology and we are linearly scaling this 10x with our engineering partners. We are currently focused squarely on midstream operator challenges by providing a modular hydrogen, designer fuel (HDF) solution that can be deployed to strategic locations at midstream operations across the globe. As previously reported, we have engaged the services of Joule Processing, a globally recognized midstream processing equipment design and engineering company. (<https://www.jouleprocess.com>) Joule has been fully engaged in the development of our production HDF unit. We are very proud to participate with Joule Processing and we anticipate a prototype HDF unit by July of 2021. In addition, we are proud to have engaged Jasper Ventures (<https://jasperventuresinc.com/>) for our pre and post HDF treatment and process review and installation partner.

Third Party Validation Testing. As previously reported, we have engaged DNV GL to provide third party engineering and certification of our technology. DNV GL is the global leader in third party validation testing and compliance in the oil and gas industry. (<https://www.dnvgl.com>) We are pleased DNV GL granted the enclosed Stated of Endorsement of our FTF300 technology. We also commissioned Air Hygiene (<https://www.airhygiene.com>) a leading third party accredited environmental testing laboratory to test and validate the emissions benefits of our designer fuel. Designer fuel and performance criteria for our technology will also be regularly third party validated through design models provided by Bryan Research and Engineering (BRE <https://www.bre.com/Support-Technical-Articles.aspx>) BRE is a recognized leader in midstream oil and gas processing engineering and performance modeling. We are pleased to report all third-party validation tests have been completed with very positive results.

Product Development: Joule Processing has done an excellent job over the last quarter to refine the operating parameters of the HDF, allowing us to zero in on the proper CAPEX per unit. This is an essential piece of the puzzle toward determination of effective return on average net assets for our equipment investment. We have determined the best way to classify the CAPEX as an integer factor by heavy hydrocarbon reactor (HHR) modules. We are pleased to report this work has been done in an acceptable fashion that has allowed us to accurately determine CAPEX for important scaled modularity.

Low Carbon Fuel Standard (LCFS) We continue to have a heightened focus on the huge California market where we have the potential to earn a Low Carbon Fuel Standard (LCFS) designation, which is mandated by the California Air Resources Board (CARB) (<https://www2.arb.ca.gov>). LCFS is a complicated analytical “carbon life cycle” process and it is important to note we are engaged in a strategic “pathway process” for achieving a qualifying LCFS Pathway for our low carbon hydrogen fuel. We have engaged leading experts in CARB LCFS Pathways and anticipate a formal submittal to CARB by the end of January. One exciting thing to note is that we are working to develop an entirely new LCFS pathway which differs from the existing one based on Steam Methane Reformation (SMR), a technology which has been around for over 50 years. SMR is the primary fossil fuel reformation process of natural gas and its LCFS pathway is called SMR using North American Natural Gas (NANG). Our entirely new LCFS pathway, (when approved by CARB), will be called Steam Non-Methane Reforming (SNMR) of North American Natural Gas Liquids (NANGLs). We anticipate our pathway to have a lower Carbon Intensity (CI) than SMR. This is primarily due to the fact that NGLs can be “cracked” at lower temperatures (500-600 deg C) vs methane at (1,500 deg C), consuming much lower amounts of energy, thus producing a lower CI. We will keep you informed as we receive feedback from CARB about this exciting, potentially game-changing, factor in our business.

Flare to Fuel: Mexico and Canada. In Q3 there was consideration for the establishment of a licensing arrangement in Canada for the FTF300 technology. After extensive due diligence, and careful review, it was determined the best approach forward would be to table a license arrangement and put on a HDF focus in the US. It was agreed, at the right time and place, to reexamine the potential for license agreements for specific geographical regions.

Regarding Mexico, due to COVID-19, there continues to be delays in the pending PEMEX business negotiations. However, we believe these should materialize in Q3 of 2021. We are continuing to restructure our relationship with our Mexican team. In the meantime, we have reduced monthly costs and we have created incentives for our local teams in Mexico with a participation in the successful deployment of FTF300 units to Pemex.

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Our Team. We continue to be blessed to have an operating team comprised of top engineering talent, supported by a dynamic board of directors with industry experience and a proven record for execution and performance. In my view, there are none better in the industry that are poised to meet the challenge before us. They have certainly risen to the challenge over the last quarter.

Business Development. We are pleased to announce we are in discussions with several midstream processing plants in the US regarding deployment of our technology. The focus is to provide designer fuel from their residue gas that lowers their emissions and provides a format for the HDF system to produce low carbon fuel standard hydrogen.

HDF300H Site Placement: We are pleased to report we are in negotiations for the placement of two (2) owned HDF300H units at a midstream plant in southern California. It is anticipated our HDFs will reform approximately 8,000 gal /day of ethane into methane and hydrogen. We are also in discussions with the leading independent transportation hydrogen fuel provider in the state for hydrogen offtake. There will be CAPEX required for this site placement and we are confident the investors and board of Proteum Energy will rise to the need.

Designer fuel for Power: We are in discussions with two potential operating sites for our production version of the HDF to provide hydrogen and designer fuel for turbines from ethane. A GE Frame 7HA.02 for a 485MW 1x1 combined cycle power plant is capable of 20% hydrogen supplementation in the turbine fuel. That is an 18mmscf / day requirement. Eight of our HHRs are capable of producing the required 44,000 kg / day of hydrogen plus an additional 15,400 mmbtu of methane from approximately 450,000 gallons / day of ethane. We believe we offer a fairly compelling ESG focused solution. It should be noted, our engineering partners are now inviting discussions with EPC partners the likes of Kiewit and Fluor in for designer fuel and hydrogen for turbine power discussions.

Ethane Displacement of LNG – We are engaged in very preliminary discussions with potential partners for a strategy whereby HDF units are placed overseas to convert shipped ethane into methane. There are some compelling fuel arbitrage solutions provided solely around the displacement of LNG with ethane. We think this is very complimentary with the amount of time that may be required for the hydrogen market to mature. When the hydrogen market is ready, the HDF technology can be readily adapted for methane plus hydrogen production for the same intrinsic cost. Calculations show a cost benefit for methane production from ethane of approximately \$1 / mmbtu utilizing Mont Belvieu market priced (no discount) ethane. In addition, our total CAPEX per Million Ton produced per annum is approximately 60% of equivalent LNG on a mmbtu-to-mmbtu basis.

Fundraising:

Warrants: We continue to have strong support from our Members, many of whom are now stepping up to exercise their Warrants to purchase Common Units at \$0.05/Unit. In December approximately \$470,000 was raised by existing Members exercising their Warrants. Given the Company' s prospects and execution, there is significant interest from Members in acquiring Warrants other Members may not wish to exercise. The Company will benefit from exercise of all Warrants, so we have made it possible for Warrants to be transferred from one Member to another or from a Member to the owners of a Member. If you were issued Warrants, but you do not intend to exercise them, please contact Thomas C. Niccoli at (602) 457-8472.

Common Units: Proteum Energy is also offering Common Units to outside investors (as well as existing Members) on a private placement basis. This is our "Round B" equity funding of \$25MM, which we have initially divided into a \$5MM tranche priced at \$0.20/Unit and a subsequent \$20MM tranche at a price adjusted to reflect the response to the offering—a price we are optimistic will be higher. An Investor Deck is available on the Proteum Energy website (www.proteumenergy.com) and our Private Placement Memorandum is available if you are interested in reviewing the subscription materials and purchasing units under the Round B offering.

Our Round B fundraising efforts have focused on several types of investors known to Proteum Energy, i.e., high net worth individuals who have followed the Company' s evolution, family offices with an allocation in the

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O&G/alternative energy markets, O&G sector investors/investor-operators, private equity groups emphasizing green energy, and SPACs (Special Purpose Acquisition Company). We are also pursuing other funding sources such as our application to OIGI and a grant application to the Department of Energy, as well as potential equipment financing options. Given our footing in hydrogen production and carbon reduction, we have had significant interest from potential investors capable of taking down the entire Round B or more.

Rights Offering to Members of Proteum Energy, LLC: Due to the strong Member interest in the Warrants and the limited number of Warrants available, as well as the need for additional time to allow outside investors to complete their due diligence under the Common Units Private Placement, the Board has authorized preparation of offering materials for a "Rights Offering" to the Company's Members. The Rights Offering is anticipated to be a private offering exclusively to Proteum members of 25MM Common Units for an offering price of \$0.10/Unit. We are working with securities counsel to allow Proteum Members to transfer their allocation of Units to their investors who meet accredited investor and minimum purchase requirements (to be determined). We believe this will be a good opportunity for Proteum Members and their investors to acquire additional units at a discount relative to outside investment.

New Offices: We are excited to announce that Proteum's office will be moving to a more appropriate office at 120 N. 44th Street, Suite 400, Phoenix, AZ 85034. The smaller space provides a more efficient and energetic workspace for the team and saves the Company about \$2k per month in office expense. Our move in date is February 1, 2021. As COVID-19 conditions permit, we welcome you to come and see our new space.

We have enclosed with this letter the Company's financials for the fourth quarter of 2020 along with an Addendum to the financials, which provides additional information and disclosures.

As we move into a new year, we want to thank all of you for your interest and support for Proteum Energy. We believe we are poised to do some very big things, on a number of fronts and with a number of potential strategic operating and financial partners. The new administration will be focusing Environmental, Social and Governance (ESG) initiatives in the energy sector. We welcome this and we are excited about how we are positioned, in the market with a front row seat in the hydrogen economy. We have a great team of engineers, board members and investors and we believe we are ready to seize the opportunity before us!

On behalf of the hard-working associates and board members of Proteum Energy, thank you for your support.

Laurence B. Tree, II
President / CEO

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**ENDORSEMENT OF
QUALIFICATION PLAN**

Statement No:
10261734-01

This is to state that:

Proteum’s FTF-300 Basic System

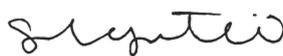
has been evaluated in accordance with DNVGL-RP-A203 - Technology Qualification /1/ for its designated use and that DNV GL considers qualification of the technology feasible and endorsed as defined in DNVGL-SE-0160 - Technology qualification management and verification /2/.

Owner:	Proteum Energy LLC
Description:	The Proteum FTF-300 Basic System uses gas reforming technology to convert larger, non-methane hydrocarbons into methane. The system developed by Proteum is designed to be in accordance with Proteum’s Technology Qualification FTF-300 Basic Design manual /3/.
Designated use:	Designated use is to convert the inconsistent, high heating value raw Associated Flare Gas (AFG) to a uniformly consistent methane-rich fuel. Temp Classification: -40°F to 115°F (below freezing - winterization is required) Catalyst Design Life: 5 years (before replacement) For additional requirements and limitations, see /4/.
Involvement:	DNV GL was involved in the first phase of the qualification process in accordance with /2/. DNV GL facilitated a threat assessment to identify the novel aspects of the system and the potential modes and mechanisms of failure, as detailed in /4/.
Main uncertainties:	Uncertainties and risks identified during the technical workshop /4/ were addressed by mitigations and/or action items.
Qualification and verification:	Following a complete technology qualification in accordance with /2/, the system can be verified per validated requirements arising from the technology qualification.
Reference documents:	/1/ DNVGL-RP-A203, Technology Qualification, September 2019 /2/ DNVGL-SE-0160, Technology qualification management and verification, February 2018 /3/ Technology Qualification FTF-300 Basic Design Manual, 12/08/2020 /4/ Proteum FTF-300 Basic TQ Report Rev. 0

The technology qualification is in progress and new sources of uncertainty might be discovered as qualification progresses. Attention is drawn to the iterative nature of the technology qualification /1/.

Issued at **Katy, TX** on **(2020-12-18)**

for **DNV GL**




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