



GRT Inc.

21st Century Gas Conversion Technology

A Chemical Process Technology for Natural Gas Conversion to Gasoline

**GRT, Inc.
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Summary

- There are more than 20,000 natural gas sites where the gas is underutilized. This resource, if harnessed using gas-to-liquids conversion technology, could produce **billions** of gallons of gasoline.
- GRT has developed a chemical process to convert traditional (natural gas) and renewable (biomethane) feedstocks into high value products (gasoline and petrochemicals). This technology is ideally suited for small-to-medium size gas fields.
- GRT is pursuing a royalty based business model and does not plan to build and operate commercial facilities. Licensing to only 1% 200 gas sites and converting this gas to fuel represents approximately a \$100 MM annual royalty opportunity to GRT.
- GRT has invested \$18 MM in technology development, \$11 MM of which was funded by partnership and license agreements with large companies on specific fields of application, including petrochemicals and renewable chemicals. GRT will collect royalties for all commercial applications of the technology in these applications.
- GRT recently closed a transaction with Marathon Oil Company whereby the companies will cross-license and jointly develop the technology for rapid commercialization, while preserving the vast opportunity for small gas fields exclusively for GRT. Additionally, Marathon took a 20% equity position in GRT.
- **With commercial activity starting in 2009, GRT is actively seeking commercialization partners to convert natural gas to liquid fuels in the following areas:**
 - Onshore and Offshore Gas to Fuels facilities of up to 1500 BBl/day
 - Synthetic methane conversion
 - **Biomethane conversion to Fuels**

Demonstration Facility for the Direct Conversion of Natural Gas



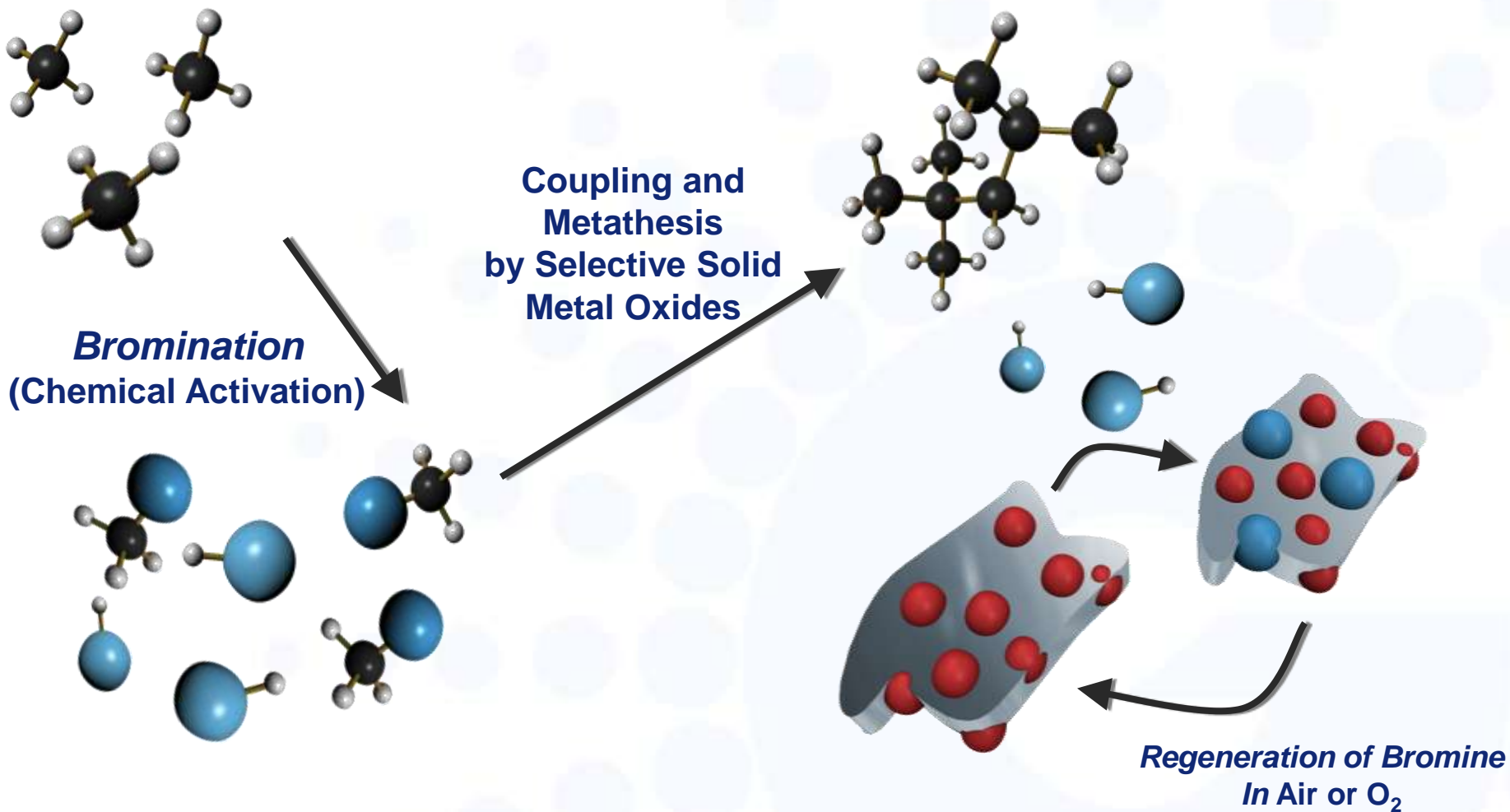
Image from:

www.marathon.com/content/documents/investor_center/presentations/9_03_08_business_update_lehman_final_web_version.pdf



The Technology

Solid Cataloreactant Process Chemistry



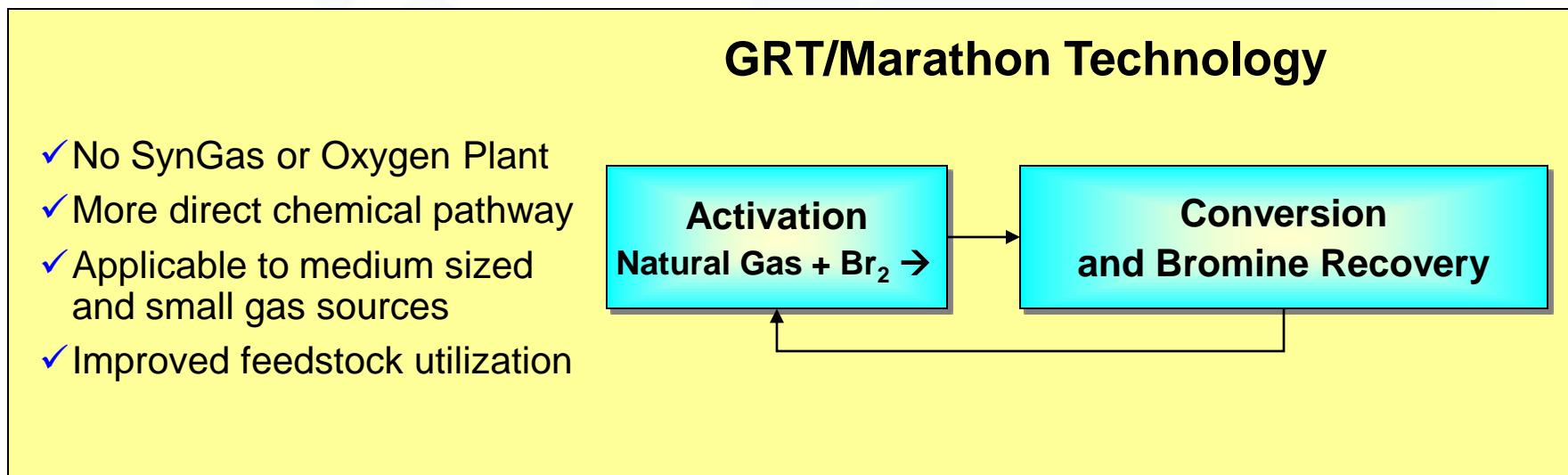
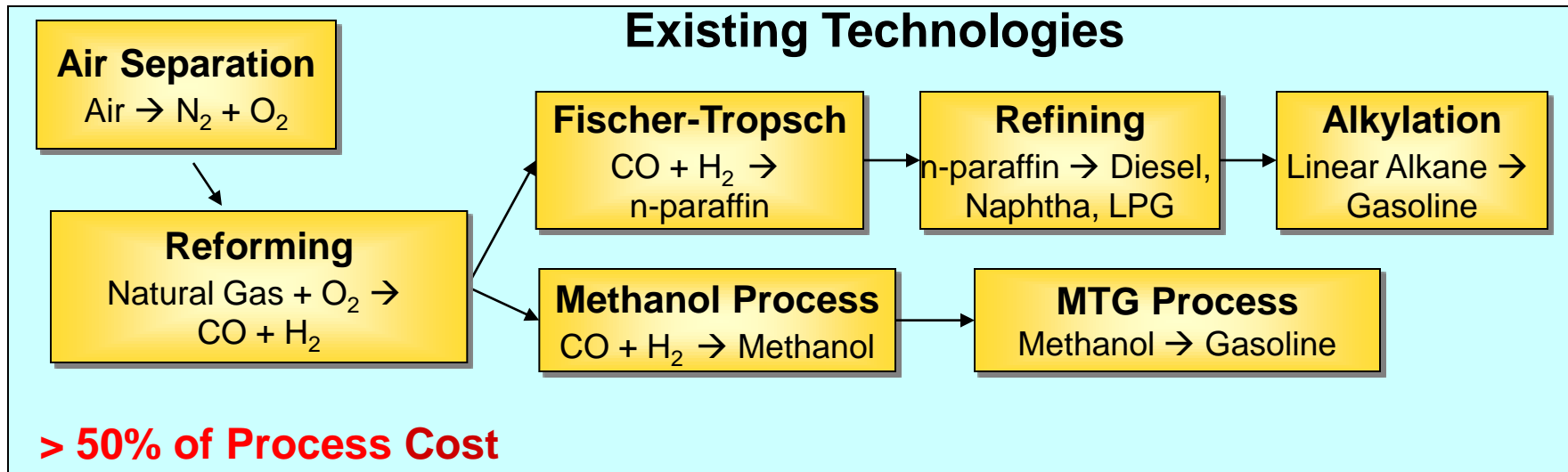


The Biomethane Opportunity

- **Current U.S. Petroleum Demand (EIA) = 20 MM BBI/Day**
 - **10 MM BBI/Day for Transportation Fuels**
- From U.S. Department of Energy (**DOE**) estimates –
 - **Existing Biomethane Sources** → **100 million gallons of high octane gasoline.**
 - **Total Available Biomass** → **Displacement of 1/3 of the petroleum used in the U.S. is possible.**
- Conventional methane conversion technologies **unsuitable** for biomethane:
 - **Require high temperatures and pressures** to convert methane to form an intermediate "synthesis gas" for subsequent conversion to products.
 - **Require enormous plants to be cost effective**
 - **Highly sensitive to biomethane contaminants**
- **Bromine is one of the few chemicals that reacts with methane under mild conditions. GRT uses bromine to transform methane into activated intermediate compounds which are converted efficiently to products.**
 - **The technology is relatively insensitive to sulfur and is immune to carbon dioxide**
 - **Over 70% Carbon Efficiency**
- **The GRT-Marathon technology has undergone over 2 years of pilot plant and demonstration facility testing on Natural Gas.**
- **GRT has the worldwide exclusive rights to biomethane feedstocks and is developing a 1 BBI/day biomethane pilot plant.**



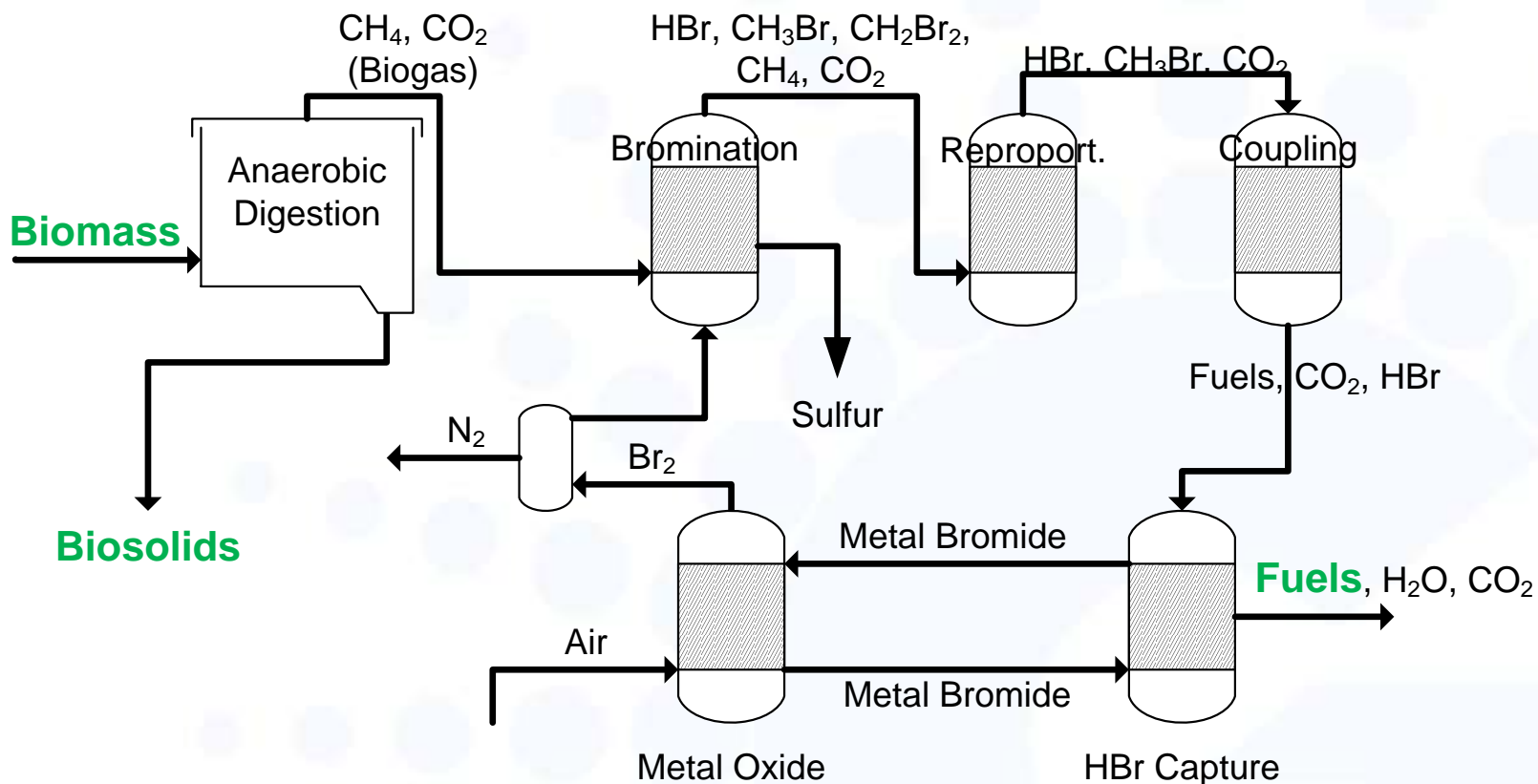
Technologies for Gas to Liquid Conversion





The GRT Biomethane Pilot Facility

1 BBI/Day of High Octane, Renewable Gasoline



Project Scope includes fuel testing in automotive engines



Value Proposition

- **Efficient Royalty Based Business Model**
 - GRT technology licensed in exchange for royalties.
 - No large capital investment by GRT for plant construction
 - Modest ongoing personnel costs; small team for continuous technology improvement, sustained competitive advantage, marketing, and technical support.
 - Aggressive protection of intellectual property
- **Recurring income**
 - Annual royalty payments of \$1 million per 1000/bpd new GTL unit built
- **Enormous fuels market**
 - Easily supports addition of 100 new GTL units per year
- **Future opportunities will be examined for greater returns through additional integration, such as facility construction and servicing, as well as facility operation and toll processing**
- **Additional long term revenue streams from GRT technology include applications for natural gas to chemicals and renewable bio-feedstock conversion to chemicals**



Intellectual Property

The protection of intellectual property is paramount to the success of GRT. We have sought to protect our technology through the domestic and foreign patent systems since the founding of the company.

- GRT co-invented the initial technology with scientists from the University of California Santa Barbara (UCSB)
 - GRT is the exclusive licensee of UC with the right to sublicense.
- 12 US patents and many foreign patents have been issued to date on the technology.
- Over 10 US patent applications (and corresponding foreign applications) are pending.
- In July of 2009, GRT and Marathon (who was developing a similar technology) agreed to cross-license their respective Intellectual Property, resulting in an exceptionally strong patent portfolio.
- For at least the next 4 years, GRT and Marathon will cooperate in the generation of additional Intellectual Property related to the technology.



Summary

- The markets for gasoline and other fuels are greater than \$500 billion and among the most important for society.
- With the price of oil expected to remain around \$100/bbl, an alternative cost-effective route to fuels and chemicals using relatively low cost and abundant methane has enormous demand.
- With a total investment to date of \$25MM, GRT has invented, validated, and patented the a process to produce high octane gasoline and major chemical intermediates amenable to small to medium gas fields including stranded gas and biomethane.
- In conjunction with our development partner, Marathon, the GRT technology will be operated at the demonstration plant scale starting in the 4th quarter of 2008. The validation from the demonstration facility will provide the highly accurate technical and cost assessments required to design commercial facilities.
- GRT is seeking Commercialization Partners, including Engineering and Construction Firms, Oil Field Services Companies, and gas resource owners with an interest in converting methane to liquid fuels.