



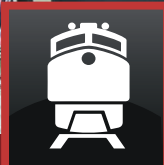
Natural Gas for High Horsepower

SUMMIT

October 11-13, 2016
Chicago, Illinois
McCormick Place

EVENT OVERVIEW

**SAVE with value
registration
through
October 7.**



RAIL



MARINE



MINING



DRILLING



PRESSURE PUMPING



POWER GEN

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NORTH AMERICAN
 PRODUCED

Welcome

Join us in Chicago, October 11-13, at McCormick Place for North America's largest conference and expo on the use of natural gas to fuel HHP applications—including marine, rail, mining, drilling, pressure pumping, and stationary power generation.

As an end-user focused forum, HHP Summit provides a unique opportunity to gain insight from early adopters of natural gas technologies on the strong business case for displacing diesel fuel, including:

1 - \$50 Oil is a Short-Term Phenomenon

North American shale oil and global economic weakness has created a recent respite in the \$100/barrel price of oil that was thought of as "the new norm" a few short years ago. However, \$50 oil has proven to be an exceptionally painful price point for global producers. Countries like Saudi Arabia, Russia, Nigeria, and others that rely on \$80 or more per barrel are facing significant economic and political challenges that will only worsen at today's oil prices. Prices will again rise as global producers face mounting geopolitical hardships resulting from continued low oil revenue—as exemplified in Venezuela in recent months.

2 - Abundant Natural Gas Resources Provide a Long-Term Stable and Low-Price Environment

Experts predict that oil will rebound to \$70 to \$80/barrel in the near-term. With natural gas prices in the \$2.50 – \$3.00/MMBtu range, HHP operators have an opportunity to save 30 to 50% on fuel costs. In addition, as we have seen from \$2.00 – \$4.00/MMBtu natural gas for the last seven years, the lack of volatility in the North American natural gas market provides significant budget predictability for large energy consumers well into the future.

3 - Today's HHP Asset Operators Must Consider Long-Term Trends

In the HHP sector, where equipment investments have 20 to 40 year asset lives, it doesn't matter what fuel prices are today. The real question is: what will the price of oil be in 2020? 2030? 2040? There is little question that oil prices will not remain at today's levels in this time horizon. Meanwhile, natural gas prices are likely to remain stable and flat.

4 - North American Environmental Policies Continue to Strengthen the Market for NG Power

Environmental regulation at all levels in both the US and Canada will continue to drive the market for lower emission natural gas powered equipment. Whether it be via increasing policies putting a price on carbon emissions, or increasing regulation on NOx emissions and ozone pollution, those using natural gas to fuel their operations will be in a better position to comply with these environmental policies and regulations at a lower cost than those burning diesel fuel.

5 - Improved Industry Performance

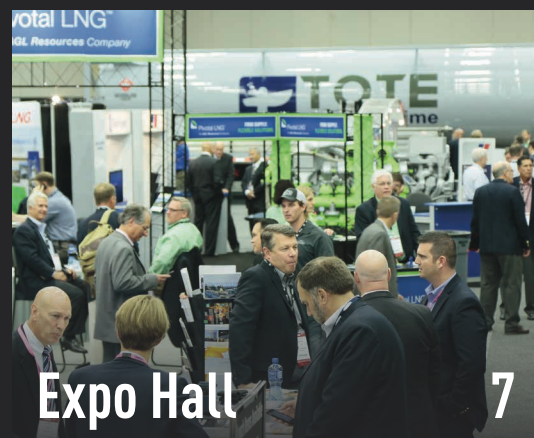
While the recent rollercoaster oil prices have served as a stress test for the natural gas industry, it has also helped to strengthen the industry. There is more alignment among suppliers around providing a comprehensive solution to end-user customers. Operating costs have been reduced and performance improved in every HHP sector. Despite the market stresses, in each HHP market segment, we are seeing growth and opportunity, a storyline that will underscore the HHP Summit programming and the year ahead.

We invite you to be a part of this important conversation and leverage the opportunity to network with leading high horsepower and natural gas industry stakeholders this October. We hope to see you in Chicago!



Erik Neandross
Chief Executive Officer
Gladstein, Neandross & Associates
www.gladstein.org

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Agenda

Tuesday, October 11

1:00 p.m.



ALL SECTORS

WORKSHOP

A Closer Look at Methane 2.0: Best Practices to Design, Develop, and Implement Projects That Achieve Positive GHG Benefits

1:00-2:25 – Background and Overview

2:25-2:35 – Break

2:35-4:00 – Best Practices from Well to Wheels

- How natural gas-powered HHP projects can deliver tremendous GHG emission benefits and economic returns when implemented with both operational and environmental performance in mind
- Industry best practices on methane management to ensure optimal environmental performance
- How carbon pricing is driving investment in LNG power solutions, particularly in the Canadian HHP market
- Lower carbon LNG production plants powered by renewable energy and the use of renewable natural gas (RNG) sources
- Get an overview of some of the basic terms and issues such as well to wheels, methane slip, and GWP

1:00 p.m.



ALL SECTORS

WORKSHOP

Comprehensive Training Programs for Successful Deployment in the HHP Sector

1:00-2:25 – Case Studies

2:25-2:35 – Break

2:35-4:00 – Training Services & Opportunities

- Get an overview of the progressive and comprehensive training programs being implemented to ensure personnel safety and achieve operational success and maximum project results
- Gain insight into the comprehensive training programs that leading HHP end-users in the rail and marine sector have already implemented, including timelines, costs, and other requirements
- Learn about the leading players and partners available to assist with training program development and implementation, including regulatory agencies and public and private sector organizations

4:00 p.m.

Expo Hall Grand Opening Reception

Relax and unwind with a cocktail and appetizers as you explore the largest show floor in the industry. Get hands-on access to the latest natural gas engines, LNG/CNG equipment, tanks, regasification units, ISO containers, and more.

Wednesday, October 12

9:00 a.m.

GENERAL SESSION

Summit Welcome & Opening Address

9:45 a.m.



ALL SECTORS

GENERAL SESSION

EXECUTIVE ROUNDTABLE | North America's Leading Natural Gas HHP Investments

- Hear about the latest LNG production facilities now coming on line to support the forward market
- Understand which applications and areas are seeing strong opportunity and growth
- Learn from market leaders that continue to drive new projects forward despite the recent low oil-price environment

11:15 a.m.

GENERAL SESSION

Keynote Address

12:00 noon

Luncheon in the Expo Hall

2:30 p.m.



ALL SECTORS

GENERAL SESSION

EXECUTIVE ROUNDTABLE | Critical Path Issues: Preparing for Market Growth

- Hear from leading industry executives on areas of opportunity and growth in today's market
- Learn how the industry is addressing remaining critical path issues—codes, safety standards, permitting process, fuel specifications, training, and others—in order to prepare for continued growth, particularly when higher oil costs return
- Understand how ongoing environmental regulations, carbon programs, and sustainability initiatives will continue to drive investments in natural gas technologies across the marine, rail, mining, E&P, and off-pipeline industrial sectors

3:30 p.m.

GENERAL SESSION

Keynote Address

4:00 p.m.

Networking Reception in the Expo Hall

The evening reception provides the perfect setting to connect with other end-users and industry stakeholders and make the contacts you need to successfully deploy your natural gas project. Enjoy a cocktail and appetizers as you debrief on the exciting projects and trends you learned about during day one.

Agenda

Thursday, October 13

9:00 a.m.



POWER GEN

TECHNICAL SESSION #1.1

Innovative Natural Gas Solutions for Power Generation and Utility Applications

- Case studies that demonstrate how natural gas continues to be one of the most economically and environmentally effective means of generating power in remote geographies
- Innovative supply chain solutions that are being developed and implemented from the northern Yukon territories to the Caribbean to support projects well beyond the reach of a natural gas pipeline
- Insight from end-users on the challenges, benefits, and considerations associated with remote power generation

9:00 a.m.



DRILLING



PRESSURE PUMPING

TECHNICAL SESSION #1.2

How E&P Operations Can Meet EPA Tier 4 Final Regulations, Reduce Costs, and Remain Profitable

- The impact of and compliance options for increasingly stringent US EPA Tier 4F emission regulations
- Why fuel suppliers are no longer providing natural gas to customer well pads, but are instead delivering electrons to customers via a comprehensive and integrated solutions approach
- Case studies on how E&P companies are staying profitable in a difficult economic environment through innovative natural gas
- Advancements in natural gas-powered technology, considerations for maximum diesel displacement, and strategies to decrease fuel costs

9:00 a.m.



MARINE

TECHNICAL SESSION #1.3

One Year of LNG Operations and Dozens of Ships to Sail Soon

- Case studies on in-use LNG vessels from some of the industry's most progressive leaders
- Key lessons learned during the last full year of LNG marine operations
- More than two dozen LNG-powered vessels already under contract for deployment and confirmed natural gas operations in North America
- Where the forward market for LNG marine operations is headed and where the 'hot spots' for market growth will be in the next few years

9:00 a.m.



RAIL

TECHNICAL SESSION #1.4

Natural Gas Locomotive Projects Gain Steam as Additional Units Hit the Tracks

- Case studies from Class I and short-line railroads demonstrating, testing, and deploying natural gas locomotives and infrastructure
- International and North American projects transporting natural gas as a commodity via LNG ISO containers, tanker cars, and as a compressed gas

11:00 a.m.



POWER GEN

TECHNICAL SESSION #2.1

Virtual Pipelines: Delivering Efficient, Cost-Effective, and Low-Emission Energy Solutions

- Case studies demonstrating how natural gas supply chains are delivering lower-cost and lower-emission energy solutions to customers beyond the reach of traditional utilities
- Challenges and opportunities associated with using a "virtual pipeline"
- Innovative fuel transport methods, including ISO containers, tube trailers, and rail cars, and key decision points when choosing a fuel provider and fuel delivery method
- Logistics and management considerations when implementing natural gas into daily operations

11:00 a.m.



MINING

TECHNICAL SESSION #2.2

Another Day at the Mine: Innovation, Cost Reductions, and Environmental Performance Improvement

- Case studies demonstrating how natural gas is being used to deliver the power needed to run a modern mine, from greenfield development projects to the conversion of existing diesel-based operations
- How natural gas solutions can provide the most cost-effective and efficient pathway to meeting the regulations impacting a modern mining operation, both today and into the future
- Key supply chain fueling and infrastructure considerations

11:00 a.m.



MARINE

TECHNICAL SESSION #2.3

Supply Chain and Technical Considerations for LNG Marine Bunkering

- Insight on innovative solutions for LNG bunkering—multiple ISO containers, purpose-built barges, direct shore-to-ship operations, and more
- Key sizing considerations and tank configurations for optimal LNG bunker barge design and operations

11:00 a.m.



RAIL

TECHNICAL SESSION #2.4

Critical Path Issues for the Growth of the Natural Gas Rail Sector

- Next steps on FRA/AAR standards for natural gas tender cars
- Key considerations for infrastructure development, including a look at synergies with other regional transportation hubs
- Current and next-generation engine technology for natural gas operations

Agenda

Thursday, October 13 (cont'd)

1:00 p.m.



DRILLING



PRESSURE
PUMPING

PRESENTED BY:



WORKSHOP

Exploring Tier 4F: Compliance Considerations for Drilling and Frac Operations

Full implementation of US EPA's Tier 4 Final regulation is imminent. Although there is surprisingly very little awareness of this significant regulation, the impacts of this rule will be substantial. Some potential impacts to drilling and pressure pumping operations can include:

- Increased concerns about site noise
- Fuel savings via more efficient Tier 4 engines
- The additional of diesel exhaust fluid (DEF) and changes to fuel supplier contracts and invoices
- Larger equipment size and weight; thus impacts on rig moves and site layouts
- Near smokeless engines leading site personnel to suspect there is an engine problem
- Opportunities for activist groups to target companies continuing to use Tier 2 engines
- New considerations for dual-fuel engine deployment
- Potential complications resulting from consistent low engine load

Attend this workshop to ensure your operation is prepared for this potential "cliff event." This workshop will cover the basic parameters and timelines of the rule, and will provide operators with knowledge and information on:

- How to begin planning for and effectively manage all of the potential impacts noted above
- How all operators in the US and Canada will be required to purchase Tier 4F equipment beginning in approximately one year
- Common misconceptions around the continued use of Tier 2 engine technologies and how and when mandatory Tier 4F emissions retrofit requirements will impact existing equipment already operating in the field
- Where mandatory Tier 4F retrofit requirements are already being put into place via Sustainable Shale Development programs in the Marcellus, Bakken and elsewhere
- The increased level of technology, after-treatment, and exhaust after-treatment fluids required to meet EPA Tier 4F emission standards
- The challenges and opportunities in managing noise, power, fuel efficiency, exhaust after-treatment, and fluids/fuel delivery and storage on the well pad
- The advantages, disadvantages, and overall Tier 4F compliance considerations for the various technology options in the marketplace, including dual-fuel, dedicated spark gas, retrofit, and others
- How natural gas power can provide a more effective and cost-efficient compliance solution
- How all partners in the supply chain—E&P companies, drilling contractors, pressure pumping operators, equipment suppliers, engine OEMs and others—can work more closely to optimize compliance solutions and minimize costs

Natural Gas for High Horsepower
SUMMIT



"Great conference that allowed us to get together as an industry and confirm our confidence in natural gas as the fuel of the near future. The confidence and knowledge of the experts was wonderful to hear."

— BNSF Railway

hhpsummit.com/agenda

Featured Speakers



Andrew Evans

Chairman, President & CEO,
Southern Company Gas



Brian Cothran

President & CEO North
America, GE Oil & Gas



Doug Stout

Vice President, Market Development
& External Relations, FortisBC



Cameron Brown

Vice President Engineering,
Western Copper & Gold



Sam Thomas

Chairman of the Board &
CEO, Chart Industries



Peter Keller

Executive Vice President, TOTE



Stephen Nelson

Chief Operating Officer,
Longview Power



John Grubic

Team Lead - LNG Business
Development Americas, Shell



Matthew Jackson

Vice President LNG Business
Development, Crowley



Shea DiMauro

Director of Operations
Support, BNSF Railway



Joel Feucht

General Manager of Gas & Medium
Speed Engines, Caterpillar



Dan Britton

President & Chief Executive
Officer, Fairbanks Natural Gas



Chad Verret

Executive Vice President Alaska & LNG
Operations, Harvey Gulf International



Stephen Sheridan

Senior Manager, Pacific Gas
& Electric Company



Paul Cheliak

Director, Innovation and New
Markets, Canadian Gas Association



Eric Evans

Vice President,
Carnival Corporation

Expo Hall

HHP Summit's expo hall floor boasts the largest and most comprehensive display of natural gas-powered engines, equipment, technology, and fueling solutions providers for high horsepower applications.

2016 Confirmed Exhibitors:

- ABB Inc. BU Turbocharging
- ANGI Energy Systems
- Acme Cryogenics
- Air Flow North America Corp
- Air Liquide Global E&C Solutions
- Applied Cryo Technologies
- Caterpillar
- Chart Industries
- CIMC - Transworld Equipment
- CIMC ENRIC
- Clarke Energy USA
- Clean Energy Cryogenics
- ComAp
- Corban Energy Group
- Cryogenic Industries
- Cryostar
- Cummins
- Diesel & Gas Turbine
- Dixon Valve & Coupling Company
- Dresser-Rand
- ECU Power Drives Inc
- Emerson Industrial Automation
- FIBA Technologies
- Ferus
- FortisBC
- GE
- GP Strategies
- Galileo
- Gas Technology Institute
- HIPOWER SYSTEMS
- Hexagon Composites
- Hitachi High-Tech AW Cryo, Inc.
- INOXCVA
- Industrial Combustion
- Intertek Automotive Research
- Karl Dungs, Inc.
- LightSail Energy
- MIRATECH
- MSA – The Safety Company
- Matrix Service – Matrix NAC
- PSB Industries
- Parker Hannifin
- Perma-Pipe
- Pivotal LNG
- Rev LNG
- Shell LNG
- Southwest Research Institute
- Stabilis Energy
- W&O Supply, Inc.
- Wärtsilä
- Worthington Industries

EXPO HALL MAP ►

hhpsummit.com/expo-hall

"I found that the static display of equipment in the expo hall highlighted good **cross sections** of interest in the natural gas industry."

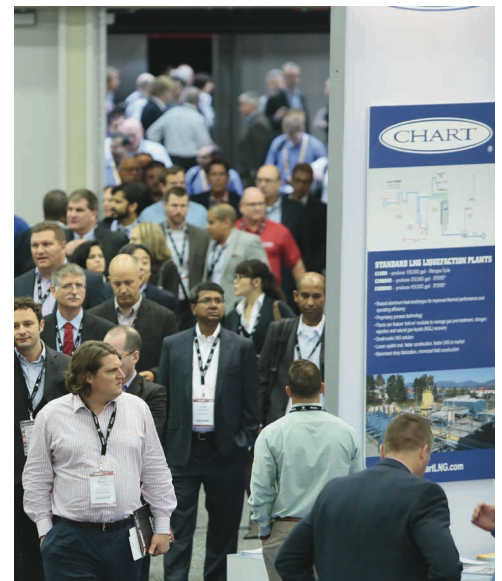
-TOTE

Expo Hall



"My #1 takeaway was learning about the various **advancements in technology and delivery systems** in the expo hall."

—North American Coal



Who Attends?

HHP Summit 2015 drew 1000+ attendees from marine, rail, mining, power generation, and E&P operations.

SAMPLING OF COMPANIES REPRESENTED IN 2015:



SAMPLING OF TITLES OF 2015 REGISTERED ATTENDEES:

Assistant Manager of Shipping
Assistant Operations Manager
Assistant Vice President Advanced Technology
Assistant Vice President Energy, Mechanical & PPC
Assistant Vice President, Operating Policy & Procedures
Associate Director, Organization
Chief Executive Officer
Chief Financial Officer
Chief Mechanical Officer
Chief Operations Officer
CNG Advisor
Detachment Chief
Director Locomotive Shop Operations
Director of Fuels Origination and Strategic Development
Director of Operations
Director of Research

Director of Technology
Director, Strategic Sourcing
Director, Energy Procurement and Strategy
Director, Environmental and Regulatory Affairs
Director, LNG Business Development
Director, Operations Analytics
District Maintenance Manager
Drilling Engineer - Well Construction and Technology
Drilling Manager
Drilling Operations Coordinator
Engineer
Engineer II - Lab and Testing Services
Engineering Team Leader
Executive Vice President Alaska & LNG Operations
General Director, Strategic Studies
LNG Business Development Analyst

LNG Engineering Manager
Locomotive Planning Coordinator
Manager II, Mechanical Engineering
Manager LNG Technology
Manager Locomotive Engineering
Manager of Engineering
Manager, LNG/CNG Development
Manager, Market Research & Analysis
Managing Director
Market Research Manager
Mechanical Engineer
Office of Design and Engineering Standards, Facilities
and Vessel Operations Requirements
Operations Manager
President
Procurement Supervisor

Project Director/ECI Group
Senior Business Development Manager
Senior Locomotive Project Manager
Senior Manager, Maintenance, Global Operations
Senior Manager, Small Scale Development
Senior Staff Engineer
Senior Vice President LNG Technical
Senior Vice President Operations
Staff Director, Hazardous Materials Division
Strategic Business Manager
Vice President, Boat Maintenance
Vice President, Business Development
Vice President, Operations
Vice President, Planning
Vice President, LNG
Vice President, LNG Business Development



**SAVE with value
registration through October 7.**

*Need help registering? Call 888-993-0302
or email Audrie.Bieganowski@gladstein.org.*

www.hhpsummit.com/register

General

\$595

Includes:
Conference
Expo Hall
Networking Events
Add Workshops - \$50 each

End User*

\$295

Includes:
Conference
Expo Hall
Networking Events
Add Workshops - \$50 each

** See Qualification rules at www.hhpsummit.com/register*

Location

■ **McCormick Place West**
2301 S Lake Shore Drive
Chicago, Illinois 60616

Hotel Reservations

HHP Summit hotel room rates are available until
September 12, 2016, or until the room block is sold out..

■ **Hyatt Regency McCormick Place**
(\$229/night)



www.hhpsummit.com

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Natural Gas for High Horsepower **SUMMIT**

October 11-13, 2016 | Chicago, Illinois

ORGANIZED BY:



HHP Summit is produced by Gladstein, Neandross & Associates (GNA)—a US-based clean transportation and energy consulting firm with more than 20 years of market development experience for low emission and alternative fuel vehicle technologies, infrastructure, and fuels for both on- and off-road applications. To ensure the agenda reflects the most relevant information for our domestic HHP industries, we collaborate with policymakers, HHP operators, economists, infrastructure developers, and technology and fuel providers. www.gladstein.org

