# HHP SUMMIT 2014 October 6-9 I New Orleans

## **Ernest N. Morial Convention Center**

Natural Gas for High Horsepower Applications

www.hhpsummit.com





MARINE



MINING



# EVENT SUMMARY



PRESSURE PUMPING







PRESENTING SPONSORS



#### **HHP Summit 2014** was made possible with the support and assistance of the following organizations:



# HHP Summit 2014 Triumph in New Orleans!

The 2014 High Horsepower (HHP) Summit drew more than 1,500 stakeholders from the marine, rail, drilling, pressure pumping, mining, and remote power generation sectors for an exciting look into North America's most forward-thinking natural gas fueling projects. Set in New Orleans, the four-day conference and exhibition provided the perfect setting for HHP stakeholders to collaborate on infrastructure development, technology and engine advancements, and the creation of up-to-date regulations.

Nearly 100 exhibitors packed the expo hall, giving attendees hands-on access to the latest engines, tanks, nozzles, valves, instrumentation control systems, regasification units, ISO containers, and more. HHP Summit was one show not to be missed, as several dozen industry announcements and product debuts took place throughout the week and on the sold-out show floor!

With a focus on peer-to-peer learning, the sessions featured dozens of early adopter case studies – including Antero Resources, Apache, Becker Marine Systems, Clean Marine Energy, Crowley Maritime, CSX, Genalta Power, Halliburton, Harvey Gulf, Hawai'i Gas, Indiana Harbor Belt Railroad, Nabors, Noble Energy, Norfolk Southern, Southwestern Energy, Seneca Resources, TOTE, Weatherford, Wellgreen Platinum, and Van Enkevort Tug and Barge, among many others.

Mark your calendars for HHP Summit 2015, scheduled for October 26-29 at the Kay Bailey Hutchison Convention Center in Dallas.



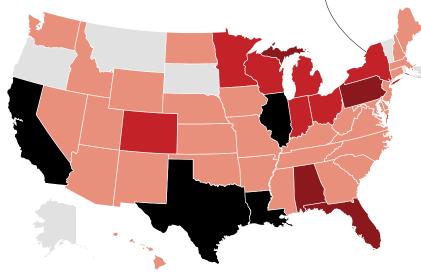
"Excellent event. Well organized, well attended, and very meaningful." -Kevin Nishimura, Hawai'i Gas

#### Who Attended HHP Summit 2014?

#### **Geographic Reach of Attendees**

#### 89% United States Attendees

Highest levels of representation: Texas, California, Louisiana, Illinois, Pennsylvania, Florida, Alabama, Colorado, Michigan, Minnesota, Indiana, Ohio, Wisconsin, New York



#### 11% International Attendees

Highest levels of representation: Canada, Germany, United Kingdom, Austria, Mexico, Turkey, Japan, France, Argentina, Chile, Peru, Italy, Norway, Russian Federation, Spain, Switzerland, Denmark, India, Poland, Sweden, U.S. Virgin Islands, Venezuela

#### Sampling of Titles of Registered Attendees HHP Summit 2014 brought together a diverse mix of high horsepower decision makers, including:

Chief Mechanical Engineer Chief Mine Engineer **Chief Executive Officer Chief Operating Officer** Commercial Manager Demand Development Engineer Director, Energy Procurement and Strategy Director, Equipment and Maintenance Director, Finance Director, Strategic Initiatives Planning Director, Sustainable Development Director. Corporate Commercialization Director, Corporate Drilling and Completions Director, Locomotive Engineering Director, Mine Operations Director, Purchasing & Project Manager Director, Strategic Analysis Director, Technology Director, Transport & Logistics Director, Strategic Sourcing Drilling Engineer **Engineering & Standardization Manager** Engineering Team Leader **Environmental Specialist** 

Equipment Manager General Manager Lead Planning Engineer Maintenance Manager Manager, Fuel Logistics Manager, Operations Support Managing Director Manager, Marine Products Technical Marine Superintendent Mechanical Engineer Mine Engineering Superintendent Mine Maintenance Superintendent Port Engineer President Project Manager Rig Operations Superintendent Senior Locomotive Project Manager Senior Maintenance Supervisor Senior Vice President Senior Sourcing Specialist Systems Manager Vice President, Demand Development Vice President, Midstream Development Vice President, Procurement & Supply Chain

#### Sampling of Companies Represented:

AEP River Operations Alpha Natural Resources American River Transportation Antero Resources Apache Corporation Arianne Phosphate **Bayou Well Services BNSF** Railway Buckskin Mining C&J Energy Services Carib Energy Carnival Corporation Cenovus Energy Certarus Chevron Cloud Peak Energy ConocoPhillips **Crowley Maritime** CSX Desert Valley Disposal / Palm Springs Disposal Services Devon Energy Duluth Seaway Port Authority ELM Energy Engine Systems **EQT** Corporation ExxonMobil Research & Engineering

Florida East Coast Railway Freepoint Commodities Genalta Power Genox Transportation Grupo Mexico Gulf Oil Halliburton Harley Marine Services Harvey Gulf International Hawai'i Gas Hess Corporation Imperial Oil / ExxonMobil Indiana Harbor Belt Railroad Jack B. Kelley John W. Stone Oil Distributor Kiewit **Kiewit Energy Group** Kiewit Mining Group Kirby Inland Marine LEAM Drilling Systems Ledcor Group Lynx Operating Martin Energy Services Martin Marine Matheson Metra Commuter Rail Mitsui O.S.K. Bulk Shipping Nabors Well Services





North Carolina Department of Transportation, Rail Division New Orleans Public Belt Railroad Noble Energy Norfolk Southern Osisko Canadian Malartic Osisko Mining Parker Towing Company Patterson UTI Drilling Company Performance Technologies **Pioneer Natural Resources** Port Authority of New York & New Jersey Port of Jacksonville Port of Long Beach Port of New Orleans Prince Rupert Port Authority SCF Marine SEACOR Marine Southern Peru Copper Southwestern Energy Tesco Corporation The Mosaic Company U.S. Well Services Universal Well Services VanEnkevort Tug & Barge Wellgreen Platinum

#### **Product Debuts & Announcements**

Multiple product debuts took place on the expo hall floor, paired with industry news shared throughout the week during conference sessions, solidifying HHP Summit as THE show to attend to stay up-to-date on natural gas industry advancements.

ANGA released a new report that identifies LNG growth opportunities for marine and rail sectors in three key regions: the Gulf of Mexico, the Great Lakes, and inland waterways.



#### **"HHP Summit is** focused on realworld applications.

-Andrea Selvaggi, Alfa Laval

CMR Group unveiled its new catalyst monitor for gas-fueled engines and its J1939 Connect CAN<sup>™</sup> temperature sensor for high horsepower gas engine applications.





Clean Marine Energy and WesPac Midstream announced a partnership to bring LNG fuel to the marine sector, promising funding for not only LNG engine conversion, but also for infrastructure related to LNG fuel supply and delivery.

Cryostar debuted its new StarLiteLNG<sup>™</sup> liquefiers, offering four frame sizes from 12 to 76 k GPD capacity.

JC Carter introduced its newest LNG nozzle targeted for high-flow applications requiring 200 gallons/min



Accurate Technologies, Inc. introduced a new pocket-sized CANary<sup>™</sup> Interface Module, providing two CAN channels for synchronous data acquisition via USB connection.



Thigpen Energy announced partnership with Intervale Capital in support of both fleet and geographic expansions for Thigpen's HHP natural gas fueling solutions.

**GFS Corp** announced its partnership with Arch Coal as the launch customer for the EVO-MT 8300 system for converting mine haul trucks to LNGdiesel duel-fuel operation.



The 2014 HHP Summit garnered support from 14 official media partners spanning the marine, rail, mining, E&P, and power gen sectors, demonstrating the event's prominent role in showcasing the most forward-thinking natural gas initiatives and key industry partnerships. The event received news coverage from a variety of media outlets, including:

bunkerworld MiningToday DIESEL PROGRESS Energy **Intelligence** MARINELOG mining **RailwayAge** 

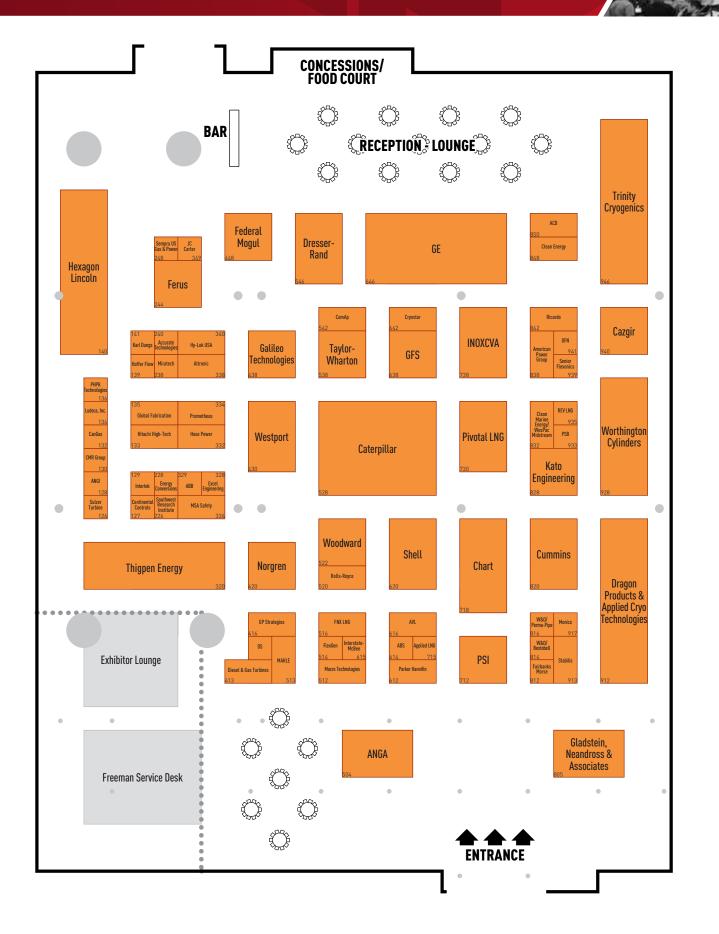
Get an inside glimpse into the exciting events that took place:

- October 7 Issue >>
- October 8 Issue »
- October 9 Issue >>





#### Highlights from the Expo Hall Floor



#### **Exhibitors**

329 - ABB 614 - ABS 240 - Accurate Technologies, Inc. 850 - ACD Cryogenics 448 - Federal Mogul 338 - Altronic GTI 244 - Ferus 838 - American Power Group 504 - America's Natural Gas Alliance 516 - FNX LNG (ANGA) 128 - ANGI Energy Systems 646 - GE 912 - Applied Cryo Technologies 638 - GFS Corp 715 - Applied LNG 616 - AVL 814 - Bestobell 416 - GP Strategies 132 - CanGas 528 - Caterpillar 940 - Cazgir 718 - Chart Inc. 139 - Hoffer Flow 848 - Clean Energy 832 - Clean Marine Energy 340 - Hy-Lok USA 130 - CMR Group 738 - INOXCVA 542 - ComAp 615 - Interstate-McBee 127 - Continental Controls 129 - Intertek 349 - JC Carter 642 - Cryostar 820 - Cummins 141 - Karl Dungs 413 - Diesel & Gas Turbine Publications 912 - Dragon/Applied Cryo 134 - Ludeca, Inc. Technologies 546 - Dresser-Rand 513 - MAHLE





- 228 Energy Conversions 328 - Excel Engineering 812 - Fairbanks Morse Engine
- 514 FlexGen Power Systems
- 438 Galileo Technologies
- 805 Gladstein, Neandross & Associates (GNA) 135 - Global Fabrication 140 - Hexagon Lincoln 133 - Hitachi High Technologies 332 - HosePower USA
- 828 Kato Engineering Emerson Industrial Automation 512 - Macro Technologies

- 238 MIRATECH
- 917 Monico, Inc.
- 326 MSA Safety
- 420 Norgren
- 612 Parker Hannifin
- 816 Perma-Pipe, Inc.
- 136 PHPK Technologies
- 730 Pivotal LNG
- 712 Power Solutions International (PSI)
- 334 Prometheus Energy
- 933 PSB Industries
- 935 REV LNG
- 842 Ricardo
- 520 Rolls-Royce
- 248 Sempra US Gas & Power
- 939 Senior Flexonics
- 620 Shell Oil Products
- 226 Southwest Research Institute
- 913 Stabilis Energy
- 126 Sulzer Turbine
- 538 Taylor-Wharton
- 320 Thigpen Energy
- 946 Trinity Cryogenics
- 814, 816 W&O
- 642 WesPac Midstream
- 430 Westport
- 522 Woodward
- 928 Worthington Cylinders

#### Highlights from the Expo Hall Floor

Nearly 100 exhibitors packed the expo hall, giving attendees hands-on access to the latest engines, tanks, nozzles, valves, instrumentation control systems, regasification units, ISO containers and more.





"This was my first HHP Summit, and I was blown away." -Dave Wall, Parker "HHP Summit was organized in a way that provided people from many professions the opportunity to learn."

-Jeremy Smith, Patterson UTI Drilling Company



#### Agenda in Review

Sector-specific tracks—marine, drilling, pressure pumping, rail, mining, and power generation—offered attendees a customized educational experience.

View the full agenda and speaker lineup at www.gladstein.org.

#### "Very informative. A good variety of industry expertise and technical information."

-Mike Parker, Freepoint Commodities

#### Monday, October 6

TIME ACTIVITY

1:30 p.m. Workshop: Readying North American Ports for LNG Infrastructu 2:00 p.m. Workshop: LNG Plant Development

### Tuesday, October 7

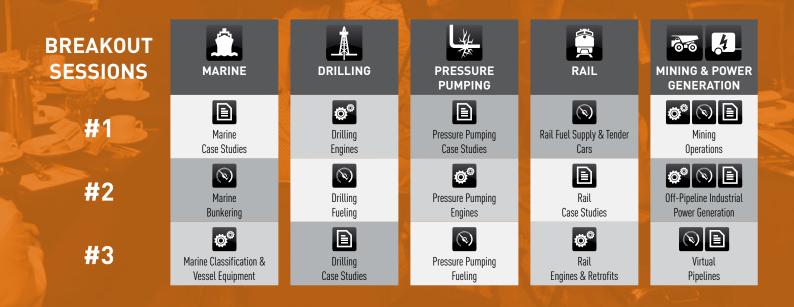
:00 a.m.	Workshop: HHP Project Planning & Optimization
1:30 a.m.	Conference Welcome & Luncheon, sponsored by ANGA
:00 p.m.	Keynote Address: Tana Utley, Caterpillar
:30 p.m.	Plenary Session #1: Partnerships, Investments & Progress
8:00 p.m.	Networking Break
8:30 p.m.	Breakout Sessions (see below)
i:00 p.m.	$\ensuremath{Expo}\xspace$ Hall Grand Opening & Welcome Reception, sponsored by $\ensuremath{GE}\xspace$

#### Wednesday, October 8

TIME	ACTIVITY
7:30 a.m.	eq:continental Breakfast in the Expo Hall, sponsored by Air Liquide
9:00 a.m.	Day Two Welcome & Opening Address
9:45 a.m.	$\label{eq:Plenary} Plenary\ Session\ \texttt{\#2:}\ Navigating\ the\ Regulatory\ Environment$
11:15 a.m.	Keynote Address: Lorraine Bolsinger, GE Distributed Power
12:00 noon	Networking in the Expo Hall
3:00 p.m.	Breakout Sessions (see below)
4:30 p.m.	Networking Reception in the Expo Hall, sponsored by GNA

#### Thursday, October 9

TIME	ACTIVITY
7:30 a.m.	Continental Breakfast in the Expo Hall, sponsored by Air Liquide
9:00 a.m.	Plenary Session #3: Fundamentals of Natural Gas Procurement, Pricing, Contracts, and Risk Mitigation
10:30 a.m.	Breakout Sessions (see below)
12:00 noon	Networking in the Expo Hall
1:00 p.m.	Expo Hall Closes, Conference Adjourns



#### Partnerships, Investments, and Progress

From new LNG production plants to off-road transportation deployment projects, hundreds of millions of dollars are being invested in natural gas HHP projects throughout North America. Project concepts are now transitioning to tangible investments from industry leaders and end-users working together to advance the industry. During HHP Summit's opening plenary session, executives from major HHP companies presented, alongside their industry partners, a compelling case for natural gas deployments in the form of cost savings, emissions reductions and environmental compliance.



Peter Keller Executive Vice President Peter Tumminello Executive Vice President, Wholesale Services

AGL Resources®

Pivotal LNG will supply TOTE, inc. with natural gas from a new LNG plant for two dual-fuel container ships being built to operate between Jacksonville, FL and Puerto Rico. TOTE's new LNG vessels represent \$350 million in U.S. investment and 600 American shipyard jobs.



Curtis Reuter Manager, LNG/CNG Sam Thomas Chairman, CEO & President





Noble Energy and Chart Industries shared development plans for a new LNG plant just outside of Denver, Colorado. The LNG be used to power Noble's E&P operations and other third party drill rigs, frac pumps and additional heavy-duty on- and off-road equipment in the Denver-Julesburg (DJ) Basin.





Chad Verret Executive Vice President, Alaska & LNG Operations



Eddie Green General Manager



Shell and Harvey Gulf discussed the deployment of the Harvey Energy, the first of six LNG-powered commercial marine vessel in North America. Harvey Gulf will operate several LNGpowered offshore supply vessels in a charter service with Shell Deepwater to support the company's offshore drilling rigs.



Matt Jackson Vice President, LNG Business Development, Crowley Maritime



Steve Cittadine President, Pivotal LNG



Pivotal LNG and Crowley discussed their joint parntership to supply and distribute U.S.-sourced LNG to the Coca-Cola bottling plant in Puerto Rico, displacing their current energy source, diesel. This bellwether project will help pave the way for increased LNG fuel use in Puerto Rico and the broader Caribbean markets.

#### Agenda

#### Long-Term Industry Outlook

Throughout the four-day event, high-level industry executives shared their outlook on how natural gas is changing the high horsepower game. Keynote presentations from Tana Utley at Caterpillar and Lorraine Bolsinger at GE Power & Water signaled a strong commitment to the advancement of gas-powered engines for marine, rail, mining, drilling, pressure pumping, and power gen applications. "All parts of the industry must play off of each other," Utley stated, setting the common thread for Caterpillar's HHP Summit message on the importance of collaboration to make tangible progress in driving the industry.

Marty Durbin, president and CEO of America's Natural Gas Alliance discussed key North American regions that are prime for LNG growth in off-road sectors. Dale Nesbitt of ArrowHead Economics reinforced the incredible opportunity presented by natural gas, saying that the abundant resources available from 47 global shale formations provide a positive long-term price forecast. "The world is a literal 'éclair,' everywhere you punch a hole in the crust, cream comes out!" exclaimed Nesbitt.









#### "Very interesting and useful to mining operations." -Wilbert Perez, Southern Peru Copper

#### **Peer-to-Peer Learning**

Attendees took advantage of the opportunity to learn from peers across multiple high horsepower sectors whom have realized economic and environmental benefits as early adopters of natural gas technology. Sharing cross-sector lessons, attendees gained an inside perspective on the conversion process, technology and fueling solutions, regulatory compliance considerations, net cost savings and more. Early adopter case studies were presented by:



#### **Technical Workshops**

Nearly 1,000 attendees joined us at HHP Summit before the official conference start to partake in a series of technical workshops offering a 'how-to' guide for natural gas project deployment. Geared toward high horsepower end-users and North American ports, the workshops addressed the present challenges and opportunities facing the industry as the natural gas market develops. Technical workshops included:

- Readying North American Ports for LNG Infrastructure
- LNG Plant Development: Strategy, Timeline, and Key Considerations
- Navigating Project Development: Key End-User Considerations for HHP Project Planning & Optimization

#### "Understanding the overall market helps educate us on the unique application for rail."

-James Derwinski, Metra Commuter Rail







#### **Natural Gas Engine & Fueling Solutions**

Over the course of the event, attendees had the opportunity to learn about a range of dedicated and dual-fuel engines and conversion kits that have been developed by industry leaders and rigorously tested by early adopters. In addition, sector-specific fueling sessions helped attendees navigate LNG production, fuel sourcing and delivery, regulatory and safety requirements, and other key considerations in the development of a natural gas fueling plan.

#### **Off-Site Tour**

Representatives of Harvey Gulf International Marine and its customer Shell provided a private group tour to marine vessel operators, featuring a visit to the Gulf Coast Shipyard Group's yard in Gulfport, Mississippi, followed by a dockside visit to the Harvey Energy, the first U.S. flag vessel to operate on liquefied natural gas.

## HHP SUMMIT 2015

October 26-29 | Dallas, TX Kay Bailey Hutchison Convention Center

Natural Gas for High Horsepower Applications

# Save the Dates!

Join the Conversation. Share Your Experience.



www.hhpsummit.com