
Ron Paez
Executive Vice President, Y&V Engineering and Construction
Good Afternoon
Buenas Tardes
Bonjour
Buonasera
AGENDA

1. Introduction Plenary Session # 2: Globalization in The Americas, a Growing International Presence
   - Ronald Paez

2. Introduction to Cameron Mason, CEO – President Air Liquide and Overview of AIR LIQUIDE
   - Ronald Paez

3. AIR LIQUIDE’s presentation
   - Cameron Mason

4. Introduction to Dr. Daslav Brkic, VP E&C BBDD Saipem S.p.A. and Overview of SAIPEM
   - Ronald Paez

5. SAIPEM’s presentation
   - Dr. Daslav Brkic

6. Questions and Answers
• One of the biggest American oil and gas booms in decades is changing the dynamics of the global energy business.

• International (foreign-owned) oil and gas companies, owners and contractors, are working in domestic shale gas and oil production, petrochemicals and refining projects, helping the USA to move closer to the goal of energy independence.

• This session will discuss lessons learned from recent experiences executing complex domestic capital projects.
Where is the Headquarter of your Company located?

1. USA/Canada
2. Latin America
3. Europe
4. Asia
5. Other
Low US energy prices bring flood of foreign investment.

Foreign companies have a chance to operate in a stable market with a sound legal system and low political risk.

Since 2008, foreign companies have entered into 21 JV with US acreage holders and operators, and have invested more than US$ 26 billions in tight oil and shale gas development.
Why in America?

Energy giants from China, France and Spain have snapped up stakes in fields in Ohio, Mississippi, Colorado and Michigan.

The EIA stated that both USA and foreign companies benefits from the deals, with USA operators getting support and foreign companies gaining experiences in horizontal drilling and hydraulic fracturing that they may be able to use in other countries.
Crude oil production in USA has increased since 2008 from 5 millions barrels per day to 6,5 millions barrels per day.

Why in America?
The Air Liquide Group

- 50,000 employees
- Present in 80 countries
- Revenue: €15.3 billion
Global E&C Solutions: Key Figures 2012

- Around 4,400 employees
- 15 engineering centers
- 3 manufacturing workshops
- 1,600 + patents

- €785 million revenue
- €1.7 billion order intake
- €4 billion orders-in-hand
Key Driver – Energy
The View As an Owner / Contractor

- Energy at the heart of the change
- Dependence – Independence – Renaissance
- Demonstrated across all our markets
- Lower energy/electricity costs are triggering a revival in North American manufacturing
The Growing International Presence

- Entry or renewed investment
- Access to large markets and export potential
- Stable and efficient capital markets
- Investor protection
- Skilled workforce
- Developed infrastructure
Headwinds for Globalization

- Political gridlock
- Government bureaucracy
- Tax code, rates and regulations
- Legal complexity
- Educational system
Setting the Stage

- Maturity of Operations 0-10, 10-25, 25+
- Maturity impacts growth and development
- Lessons learned are institutionalized
- Become local
- Bring your “A” game and build your “A” team
• Capacity: 120 MM scfd hydrogen
• Location: La Porte, TX
• Start up: 2012
• Owner / Contractor

Project – Gulf Coast SMR
Innovation

- Proven AL/Lurgi Technology in Steam Methane Reformer (SMR)
- High level of safety and reliability
- Simple operation and maintenance
- Standardized plant concepts using pre-engineering and prefabricated components
- Design-to-Cost (DTC) methodology
Highly qualified project team

Resources pulled from three execution centers

Flexibility and mobility were key to the success of the project

Proper craft and field supervision pulled from other recent projects
Cultural Gaps

- Definition of roles early in the project
- Resources availability
- Solution development vs execution
- U.S. - China – Germany - Poland
Barriers, Challenges & Opportunities

- Highly qualified project team
- Resources pulled from three execution centers
- Integration process between design offices and construction site
- Common reference systems for safety and risk management
• ‘Owner Contractor’ view challenges the conventional project methods

• Low cost energy makes the US an attractive market, with it’s own challenges that forces localization and optimization

• Flawless execution is still a peak we are climbing towards
Today in the Gulf Coast

- Biggest industrial gas network in the country
Thank you very much!
What Can a Large, Global E&C Contractor Bring to the North American Market?

Daslav Brkic
Senior Vice President, Business & Technology Development
Saipem S.p.A.
Saipem Today

- 2012 Revenues: ~ 18 B$ (13.4 B€)
- Backlog: ~ 29 B$ (21.7 B€)
- Operating in 60 countries
- 29 engineering and project execution offices worldwide
- 11 fabrication yards

- 48,000 employees from 125 nationalities

(June 30, 2013)
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Why in North America?

- **New opportunities** in rapidly growing markets
  - Deep water offshore
  - Oil sands
  - LNG
  - Petrochemicals

- Worldwide **balancing of project portfolio**

- Strengthen **relationships** with major global clients
A Gradual Market Entrance
From the ’Seventies

Project office and fabrication yard
Houston, USA

New engineering and project execution centre
Calgary, Canada

Edmonton & Nisku fabrication yards, Canada

~ 2000 employees today
(excluding crews on offshore vessels and subcontractors)
Saipem Business Model
Supply of complex solutions for even the largest and most challenging projects on an EP(I)C basis

Major emphasis on HSE and Q cultures
Main Challenges

- Overall, a very positive experience
  - Open and fair markets
- Technical, labor, constructability and legal requirements
  - All learned
- Key issues:
  - Increasing “Brand Awareness”
  - Entering established relationships
  - Today’s contractual forms (*) tend to favor incumbent suppliers
  - Developing a local supply chain consistent with our value proposition

(*) EP(I)C LSTK vs. ‘cost-plus’
Saipem’s Value Propositions for North American Markets

1. **EP(I)C LSTK** and ‘convertible’ **contracts**
   Even for 5 B $ plus projects

2. Most technologically advanced and highest productivity **assets**
   Castorone, the newest and largest pipelayer in the world, for deep water projects in the Gulf of Mexico

3. Leading proprietary **process technology**
   Snamprogetti™ Urea Synthesis for the new petrochemicals revival
1. The EPC/EPIC approach can offer superior performance in large projects execution

TYPICAL EPC/EPIC PROCESS

MOST COST-EFFECTIVE PROCESS

LOW RISK, OWNER’S

TIME-IS-OF-THE-ESSENCE PROCESS

HIGH RISK, CONTRACTOR’S

Integrated Project Management C/Fab.

Reduced EPIC Contract Duration

Saved Time

Increases: Cost, Complexity, Risk
Some ‘Lessons Learned’ in Canada

- In the pre-2008 ebullient market in Alberta, the delays and cost overruns with LS contracts were more limited.

- Fixed price & completion contracts viewed very favorably by the financial community.
Some ‘Lessons Learned’ in Canada

- Need to adapt entire supply chain to operate on LS basis
  Utilize Partners/Subcontractors experienced/adaptable to LS contracts

- Invest in direct involvement in execution
  - Max modularization, own fabrication yards
  - Direct hiring
  - (Re) training of (scarse) labor

- LS construction still an issue in some circumstances - climate, labor scarcity, remote locations, …
  Partial or blended LS contracts a possibility
“Convertible” Contracts: A Compromise Scheme

Reimbursable
- Flexibility, adaptability
- Little guarantee on final cost/schedule

Lump Sum Turn Key
- Guarantees defined budget and completion time
- Requires excellent project definition

‘Convertible’

Project definition, execution plan, cost estimate

CONVERSION to LSTK

Project implementation

3 x market average

High productivity welding under way

PROJECT EXECUTION

F E E D
P
E
C
2. The New Castorone
The Newest and Largest Pipelayer in the World

- Over 1000 ft (>300m) long
- J-Lay or high productivity S-Lay even in water depths > 6000 ft
Some Current Challenges

Initial contracts:

- 3 assignments in GoM, w.d. >7000 ft
- Tupi NE - Cabiunas Trunkline for Petrobras
  Max w.d. 7350 ft
- Ichthys LNG Gas Export Pipeline for INPEX
  889 km (555 miles) 42"

• Optimize project execution (cost, schedule, methodologies) by involving the T&I contractor early, also during FEED/Project Definition

• With ever more complex and exacting deep water project requirements, suggest to move towards EPIC contract structures
3. Snamprogetti™ Urea Technology

Qafco 5 and 6, Qatar
Largest fertilizer complex in the world

- 130 licenses world-wide
- 25 Ammonia/Urea complexes (7 in N. America)

In the quest for economies of scale:

- World largest single train complexes: 3850 T/D
  3 on stream
  2 in design and construction
  3 in design preparation

- ‘Jumbo’ single train - ready! >5000 T/D

US project applications under definition with lead Clients

Technology and proven experience - key factors of success
Project Implementation Ideas

• Striving towards application of EPC LSTK model

• Creating a US supply chain, consistent with
  • Client needs
  • Contract requirements
  • Our business model

• Developing construction execution plan
  • Direct hiring, subcontracts

• US and global sourcing of materials and equipment
Conclusions: Application of Saipem’s Business Model in North America

- Acquired knowledge of market needs and regulations
- Employment of most modern assets
- Supply chain development and alignment with business model
- New investments
- Local engineering
- Sourcing
- Fabrication
- Direct hiring training
- Subcontracts
- Technology development
- R&D with N.A. universities
- Adapt, adapt, adapt!

JUST DO IT…