Investing in Our Future--a Program for Continued Growth

Engineers Without Borders

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JGC CORPORATION

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Surviving and Prospering for Over 1,400 Years

Kongo Gumi Co., Ltd.
- World’s oldest construction company
- Established in 7th century, operating over 1400 years

Preamble
What Happened in Our Market?

- Lehman Shock
- Dubai Crisis
- PIIGS

- Awards to Korean E&Cs
- Awards to Japanese E&Cs

Plant Cost

JGC Financial Performance

JGC’s Medium Term Business Plan

Scenario 2010

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JGC’s New Medium Term Business Plan (2011-2015)

Borderless work force

TARGETS

- Expand business domain
  - Upstream, Offshore, Nuclear power, Hydrocarbon energy supply
  - Environmental business, Renewable energy, Social infrastructure

- Grow overseas EPC subsidiaries
  - New profit centers, De-centralized global strategy, Ethnic diversification in human resources

- Increase investment business

- Promote new business model: “Program Management Contractor and Investment Partner”
Why We Lost the UAE Nuclear Power Plant?

[ Japan / US Team ]

ENEC (Client)  
Hitachi - GE / JGC / Exelon

JV  
(Hitachi-GE, JGC)

Nuclear Reactor  
BOP  
Building  
Construction

Comissioning  
Operation

Fuel Supply  
Operation Service

[ Korea Team ]

ENEC (Client)  

KEPCO

Doosan Heavy, Hyundai E&C, Samsung C&T, KHNP, KNF

Const/Comm/Ope

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<th>On-Stream (Actual)</th>
<th>CAPEX</th>
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<td>Japan/US</td>
<td>60-70%</td>
<td>1.2-1.5</td>
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<tr>
<td>Korea</td>
<td>&gt; 90%</td>
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Areva CEO’s Observations

“South Korea was ready to do anything to win, in terms of price and in state financing.”

“Abu Dhabi sought the participation of EDF to operate the reactors, but the state-controlled electricity giant only agreed to join at the last minute.”

“We are comparing two things that didn't offer the same security, the same generating power.”

“Security has a cost.”
Japan Industrial Structure Vision 2010

Rapid Drop of Japanese Share in Global market

Five Strategic Areas

Driving International Competitiveness

*Market creation $1.65 trillion at 2020

1. Infrastructure related / system sales (nuclear power, water, railways, etc.)
2. Environment and energy problem solving industry (smart community, next-generation vehicles, etc.)
3. Creative industries (fashion, content, etc.)
4. Medical, nursing, health and child care services
5. Frontier fields (robots, space, etc.)
JGC Undertaking New Role
**JGC as System Integrator**

- **Japan success model**
  - Manufactured products export

- **New vision for growth in Greater Asia**
  - System sales / Solutions provision
  - Finance, Technology and O&M Know-how with PPP Scheme

- **JGC aims to undertake system integrator role**

**Water business** (China, Japan)

- **CDM business (China)**

- **IWPP (Middle East)**

- **IWPP incl. operation**
  - Algeria O&M

- **Upstream (USA)**

**Investment Business**
- JGC since 2005,
  - Achievements: 17
  - Equity: US$400 million
  - Total project: US$6 billion

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**PM & IP Profit Model**

**Investor’s cost items**
- Market Research
- FS
- License
- FEED
- EPC
- PMC

**Profit from Cost Item**
- Profit from Profit
- Profit on Repayment
- Products selling

**Investor’s profit items**

**Program Mgt. Service is:**
- Selling professional services as a consultant or a contractor for complex projects

**PMI P is:**
- Selling a business scheme
- Adding value to business
- Creating new product, new market
- Managing multi-packages
- Being partner for investors

**Upfront Profit**
- FID

**Cash curve**
- Production
- Investor’s cash curve
PM & IP Case 1: Syn-Crude Business

Ushering in New Era for Two Countries

Oil-Producing Country

Syn-Crude Refinery

Heavy Crude

VGO

Power

Steam

Water

Utilities (IPP / IWPP)

Export

Synthetic Lighter Crude

Oil-Consuming Country

Industrial Cluster

Petrochemical, Alumina, Steel, Cement
PM & IP Case 2: JGC Coal Fuel in Indonesia

Substitution of Oil / Gas by Low Rank Coal as Fuel for Power Plant

**Advantage**
- Usage of un-utilized coal and value addition
- Decrease of crude oil import / increase of LNG export
**PM & IP Case 3: Seawater Desalination in Tianjin, China**

1. Water Shortages
2. Industrial City
Service offered to public improved by applying private capital and know-how at reduced cost.
In Greater Asia

Demand in Greater Asia
- Diversification of industrial structure
- Low-carbon and energy conservation society
- Social infrastructure systems
- Localization and human resource development

Global Competition
- Increased global competition
- Political and economic frameworks
- “New Mercantilism”

JGC as PM & IP
- System integration and creating business scheme
- Fostering local EPC companies and increasing commitment to local needs in greater Asian market
“Look at deep issues and think about them in a deep sense”

(Mr. Salim S. Al-Aydh, Saudi Aramco) at Shaybah Café 2004 in discussing the future of Saudi Arabia’s economy and the role of the private sector in stimulating growth.