

# Petrofac Energy Developments: presentation to analysts

June 2007

### Agenda



- Name Change
- Petrofac Energy Developments Team
- Strategy
- Strengths
- Industry Context
- Petrofac Energy Developments Chronology
- Assets
- Future Focus
- Glossary

### Name Change



- Today, Petrofac's Resources division changed its name to Petrofac Energy Developments
- Confusion about the name "Resources"
- Petrofac Energy Developments is active in two sectors: Upstream and Energy Infrastructure; the new name was chosen to reflect both business streams
- The change of name provides an opportunity to reiterate our business model and successes to our key stakeholders
- No impact on our segmental reporting

### Petrofac Energy Developments Team

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- Amjad Bseisu: Chief Executive
- Rory Edwards: VP Business Development
- Mike Clonts: Technical Director
- Jeanne-Marie de Larrazabal: Commercial Director
- Brock Tuppeny: Director Africa
- Ian Beck: Don Area Subsurface Manager
- Maurice Jenkins: Don Area Asset Manager

# Strategy



Petrofac Energy Developments:

- Invests alongside the Group's partners in oil and gas upstream developments and energy infrastructure, offering differentiated risk/reward models
- Has the requisite commercial and technical capabilities for asset management and development
- Has unique access to oilfield engineering and operations expertise
- Enhances the Group's opportunities in engineering & construction, operations, maintenance and training

Petrofac Energy Developments' partnership approach improves alignment, mitigates risks and reduces costs whilst generating more value for Petrofac and our clients/partners

# Strategy

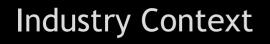


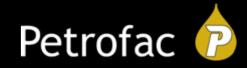
- Our people: entrepreneurial with technical, operational, commercial and asset management backgrounds
- Upstream: identifies and develops opportunities in producing or undeveloped reserves; investment areas include:
  - marginal field developments
  - late life assets and redevelopments
- Energy Infrastructure: identifies and develops brownfield and greenfield opportunities in oil & gas midstream and downstream infrastructure; investment areas include:
  - refineries, pipelines, storage and tolling process plants
- Commercial models include:
  - equity participation, gain-share arrangements, performance-driven service contracts and other quasi-equity structures
  - build-own-operate-transfer where Petrofac designs, builds and operates a facility and ultimately transfers ownership back to the customer

# Strengths

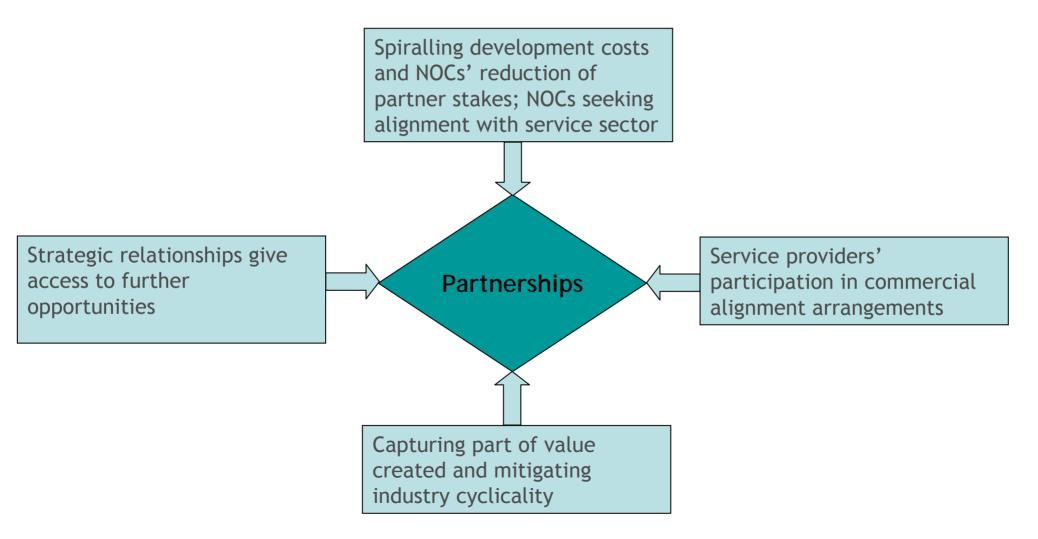


- Experienced team which provides rapid evaluation of opportunities and innovative execution of projects
- Synergistic and unique access to engineering and operations skills
- Successful track record in challenging countries and developing markets
- Combination of oil company skills to manage complex capital projects with service company operational and cost control capabilities





The emergence of partnership models



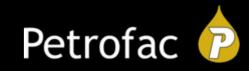
# **Industry Context**



### Challenges

- Cost inflation
  - cost of execution
  - project economics
- Experienced people
  - access
  - cost
- Competition for opportunities
  - high prices
  - fewer undeveloped discoveries

# Petrofac Energy Developments Chronology



2007 PED completes acquisition of interest in Chergui gas field, Tunisia and farms into 2005 PED signs permit NT/P68, interest in West Australia Don field, UKCS 2003 PFD 2000 PED acquires acquires interest stake in Ohanet field in Elke asset, development and UKCS pioneers partnership Ohanet comes business model onstream PED is awarded Fujairah refinery 2006 Cendor field contract produces first oil PED acquires interest 2004 PED acquires in Don Southwest interest in Cendor, field, UKCS Malaysia and 2001 PED is Crawford, UKCS awarded 4 year facilities contract 1997 Amjad Bseisu for San Alberto Gas joins Petrofac to Plant, Bolivia found PED (formerly "Resources") division

First investment in KPC, Kyrgyzstan

### **Current Assets**



Asset	Country	Petrofac working interest	Partners	Year acquired
KPC Refinery Facility	Kyrgyzstan	50% and Operator	KyrgyzNefteGaz	1997
Ohanet gas field development	Algeria	10%	BHP Billiton, Japan Ohanet Oil & Gas Co, Woodside Energy	2000
Elke field development	UK	100% and Operator		2003
Cendor field development	Malaysia	30% and Operator	Petronas Carigali, PetroVietnam, Kupfec	2004
Crawford field development	UK	29% and Operator	Stratic Energy, Fairfield	2004
West Don field development	UK	40% of block 211/18a (contains 64.25% of field) and Operator	Valiant Petroleum, First Oil, Stratic Energy, Nippon Petroleum	2006
Don Southwest field development	UK	60% and Operator	Valiant Petroleum	2006
Chergui	Tunisia	45% and Operator	ΕΤΑΡ	2007
NT/P68 permit	Australia	10% and development Operator	MEO	2007

# KPC, Kyrgyzstan



- Acquisition date: 1997
- Partners: JV with the National Oil Co KyrgyzNefteGaz
- Petrofac working interest: 50% interest and Operator
- Production and refining of crude oil and marketing and sale of products in Kyrgyzstan
- The only integrated oil refiner and producer in the Kyrgyz Republic
- Energy Infrastructure project
- In 2006, the refinery processed an average of approx 1,700 bpd of gasoline, diesel and fuel

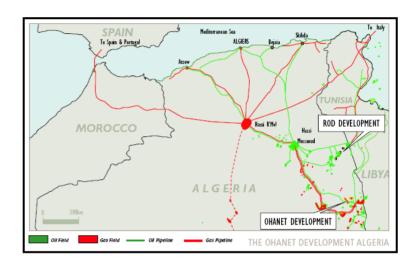




# Ohanet, Algeria



- Acquisition date: 2000
- Partners: Risk Services Contract (RSC) with Sonatrach. BHP Billiton (Operator), Japan Ohanet Oil & Gas Co and Woodside Energy
- Petrofac working interest: 10%
- Field description
  - Location: Illizi province, Algeria
  - Formation: Devonian and Ordovician
  - Depth: Devonian reservoir 2300-2700 metres TVD RKB, Ordovician reservoir 2740 metres TVD RKB
  - Reserves: circa 146 MMB (+ 2TCF gas) P50
- Development concept
  - Rate: average daily production in 2006 approx. 14.6 million m<sup>3</sup>/d gas, 24,240 bpd condensate, 2,770 tonnes per day LPG
  - Sales: liquids and gas to pipeline and marketed by Sonatrach
  - Cost: Capex US\$1 billion; Opex US\$30 million/year
  - Schedule: first gas produced in 2003; total contract 8 years if capped return earned in initial period





# Ohanet Commercial Structure and Highlights

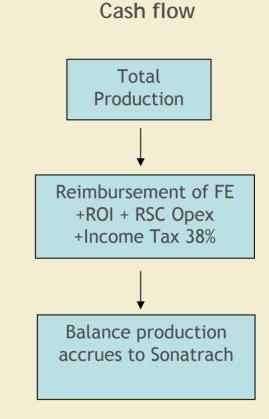


#### **Risk Sharing Contract terms**

- FE = Financial Envelope
- Remaining plan to drill 4 wells

#### Project highlights

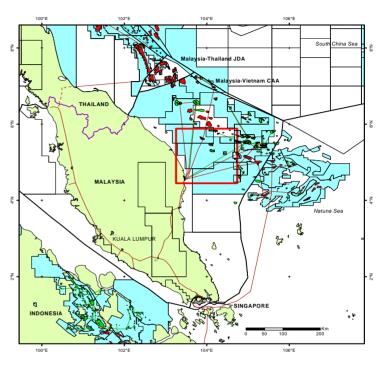
- Pioneered the partnership business model for Petrofac
- Investing in the project made the contractor understand the challenges faced by both the owner and contractor
- More able to produce fit-for-purpose service
- More responsive, able to achieve alignment



# Cendor, Malaysia



- Acquisition date: 2004
- Partners: Petronas Carigali, Kufpec, PetroVietnam
- Petrofac working interest: 30% and Operator
- Field description:
  - Location: offshore Peninsular Malaysia (Block PM304)
  - Formation: Miocene
  - Reservoir depth: 1,600 metres TVD; average well depth 2,900 MD
  - Reserves: 24.6 MMBO (P90)
- Development concept:
  - Rate: daily production 14,000 bpd, declining over 8 years
  - Sales: oil to FSO, marketed by Petronas
  - Cost: US\$52.5 million (Capex only)
  - Schedule: first oil achieved in September 2006
  - Further development phases are planned, with drilling in Q4 2007





# **Cendor Commercial Structure and Highlights**

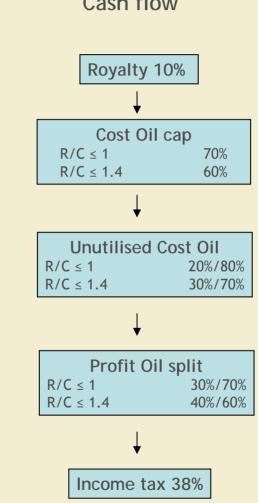


#### **Production Sharing Contract terms**

- R/C = revenue/cost
- Oil price limit set when \$25/bbl with annual escalation of 4% (Oil price limit 2007: \$35.58/bbl); 30% of actual difference in price realised accrues to Contractor
- Project budget Capex: US\$57.5 million Actual Capex: US\$52.5 million
- Opex: US\$40 million/year MOPU and FSO leased

#### **Project highlights**

- Over 30 year period, 3 operators (11 wells) unable to commercialise the field
- FDP submitted in 5 months, a record for Malaysia
- Adoption of novel production solution on a lease basis minimised lead time and financial exposure
- Focused and innovative subsurface programme (AVO inversion, detailed lithology review) used to identify reservoir sweet spots
- 7 wells drilled in record time, all better than previous well tests
- First oil 2 months before PSC deadline and 10% under budget; 16 months from FDP approval to first oil

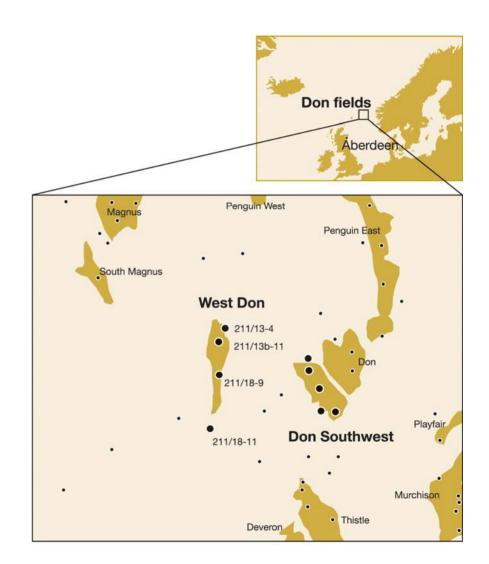


#### Cash flow

### Don Southwest, UKCS

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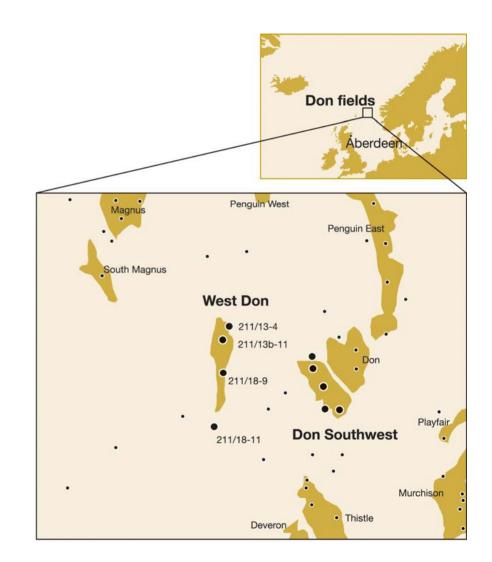
- Acquisition date: 2006
- Partner: Valiant Petroleum
- Petrofac working interest: 60% and Operator
- Field description:
  - Location: NE Shetland basin
  - Formation: Brent sandstone
  - Reservoir depth: 3,400- 3,500 metres
  - Reserves: circa 20 MMBO gross (Petrofac P50 est.)
- Development concept:
  - Two production wells and two injector wells
  - Subsea tieback to Magnus or Thistle
  - Peak rate: 12,000 bpd, declining over 10 years
  - Cost: Capex circa £200 million; Opex £3-5/bbl including tariffs
  - Schedule: commencement of production in 2009
  - Draft FDP submitted to DTI



# West Don, UKCS

Petrofac р

- Acquisition date: 2006
- Partners: Valiant Petroleum, First Oil, Stratic Energy, Nippon Petroleum
- Working interest: 40% of block 211/18a (contains 64.25% of field) and Operator
- Field description:
  - Location: NE Shetland basin
  - Formation: Brent sandstone
  - Reservoir depth: 3,200-3,400 metres
  - Reserves: circa 20 MMBO gross (Petrofac P50 est.)
- Development concept
  - Two production wells and one water injection well
  - Subsea tieback to Magnus or Thistle
  - Peak rate: 20,000 bpd, declining over 10 years
  - Cost: Capex circa £200 million; Opex: £3-5/bbl including tariffs
  - Schedule: commencement of production in 2009/2010

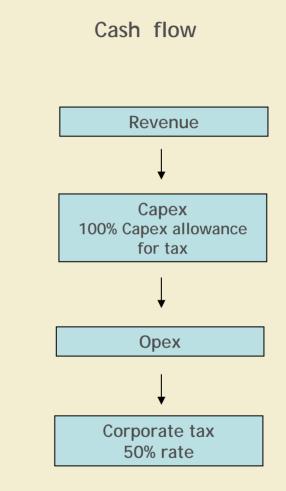


### Don Assets Commercial Structure



#### **Project Highlights**

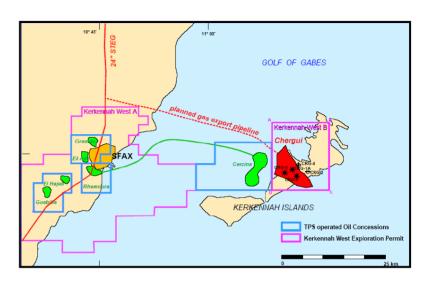
- Don fields to be developed as subsea tiebacks to an existing offshore platform; such tie-backs require modifications to be made to the Host Platform
- Petrofac has assembled an integrated project team, consisting of specialists with commercial, sub-surface, sub-sea, and brownfield engineering expertise
- Petrofac team focusing on delivering the most economically robust development plans for the fields



# Chergui, Tunisia



- Acquisition date: 2007
- Partner: Entreprise Tunisienne d'Activités
  Pétrolières Tunisian state oil company
- Working interest: 45% and Operator
- Field description
  - Location: 30 km offshore Sfax
  - Formation: Upper Reineche limestones and Nummelites
  - Depth: 1,300 metres
  - Reserves: approx. 50 billion cu.ft gas
- Development concept:
  - Rate: 20 million cu.ft/day central production facility
  - Sales: Gas to be sold to Tunisian Electricity and Gas Company (80% of HSFO/MMbtu)
  - Cost: Total Capex US\$80 million (inc. wells), includes prior cost of US\$35 million
  - Schedule: production expected to start around the turn of the year with four years' plateau and further eight years' production





# Chergui Commercial Structure

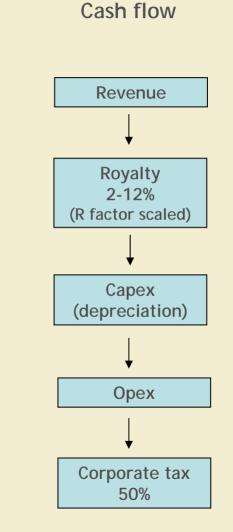


#### Terms

 The depreciation schedule for corporate tax is 20% straight line for 5 years from commencement of production

#### Project highlights

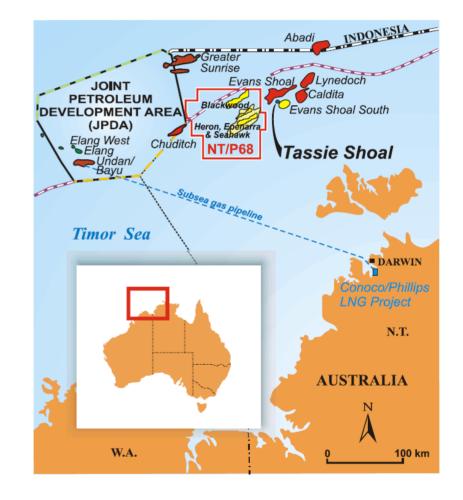
- The field was discovered in the early 1990s, and development of the project commenced in 1999, but was delayed due to sub-contractor difficulties
- Petrofac is using an integrated EPC and Operations team to move the project forward



# NT/P68, Australia



- Acquisition date: farmin agreement signed 2007
- Partners: MEO Australia
- Petrofac working interest: 10% and Operator
- Field description
  - Location: offshore 300 km Darwin
  - Formation: Darwin formation
  - Depth: 3000 metres
  - Contingent resources: >3 TCF gas; 400 MMB condensate
- Development concept
  - Rate: 450mm scfd
  - Sales: condensate from FSO, gas to LNG plant
  - Cost: varies depending on reservoir characteristics and LNG plant location
  - Schedule: appraisal 2007, delineation and FEED 2008, project sanction 2009, first sales 2013
- Acquisition terms
  - Promote 2.5/1 on 2 well programme



### **Future Focus**



- To balance the portfolio by developing Energy Infrastructure projects; various projects under consideration
- Execution of Don, Cendor further phases and Chergui projects
- Future opportunities for business development seen in North Sea (Norway), Africa, Southeast Asia

# Glossary



- AVO: amplitude versus offset
- DTI: Department of Trade & Industry
- FDP: field development plan
- FSO: floating, storage and offloading unit
- HSFO: heavy sulphur fuel oil
- LPG: liquid petroleum gas
- MD: measured depth
- MMB: million barrels
- MMBO: million barrels oil
- MMbtu: million british thermal units
- MOPU: mobile offshore production unit
- RKB: rotary kelly bushing
- SCFD: standard cubic feet/day
- TCF: trillion cubic feet
- TVD: true vertical depth