

*THE NATIONAL BUSINESS CONFERENCE 2005
ASIAINC FORUM - 27 APRIL 2005*



*Downstream Diversification
Real or Imaginary?*

*John Perry, Chief Executive Officer
The Brunei Economic Development Board*

Brunei Aluminium to contribute 2% to Brunei's GDP

BruAl
Brunei Aluminium

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HIGHLIGHTS

- ❖ Smelter to create 1,000 jobs at start-up
- ❖ 4,000 indirect jobs envisaged
- ❖ Financial close in Q4 of 2006
- ❖ Second pot line to be added
- ❖ EPC bids for 800MW power plant by April



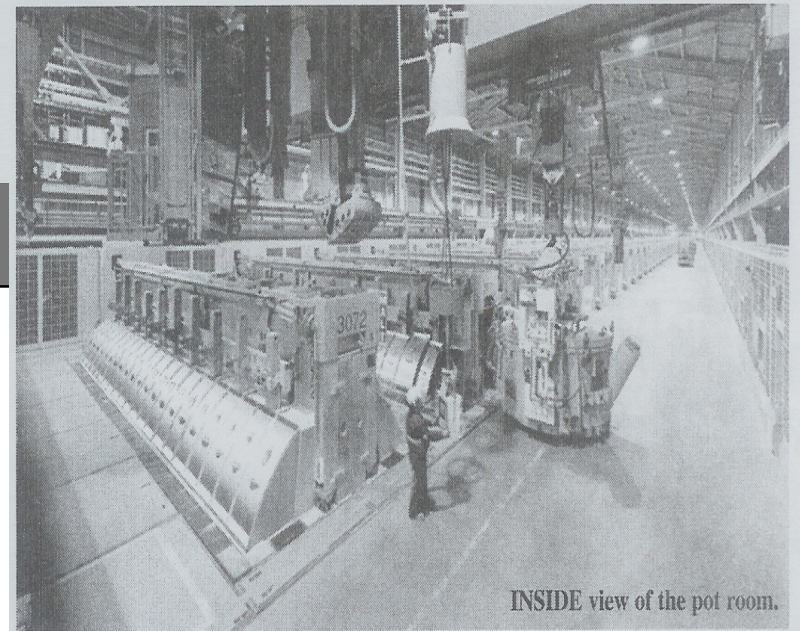
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Sohar Aluminium to contribute 2% to Oman's GDP



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Aluminium – Brunei's New Economic Stimulus



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HIGHLIGHTS

- ❖ Six spin-off industries established:
 - Aluminium Powder & Pellets
 - Extruded Parts
 - Wires & Cables
 - Flat Sheet Products
 - Wheel Alloy & Fabricated Wheels
 - Alloy Metal
- ❖ **Total annual contribution of US\$560m to economy**
- ❖ Smelter employs 2,770 workers (87% local)
- ❖ Spin-offs employ 1,883 workers (90% local)

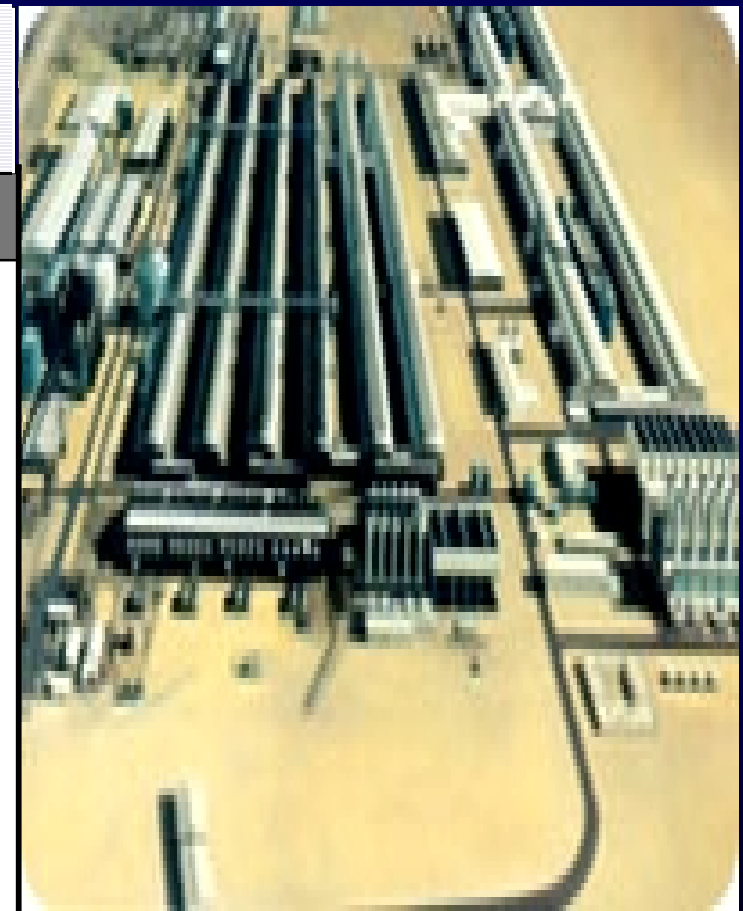


Impact of Aluminium Industry on Bahrain's Economy



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Business Development Concept

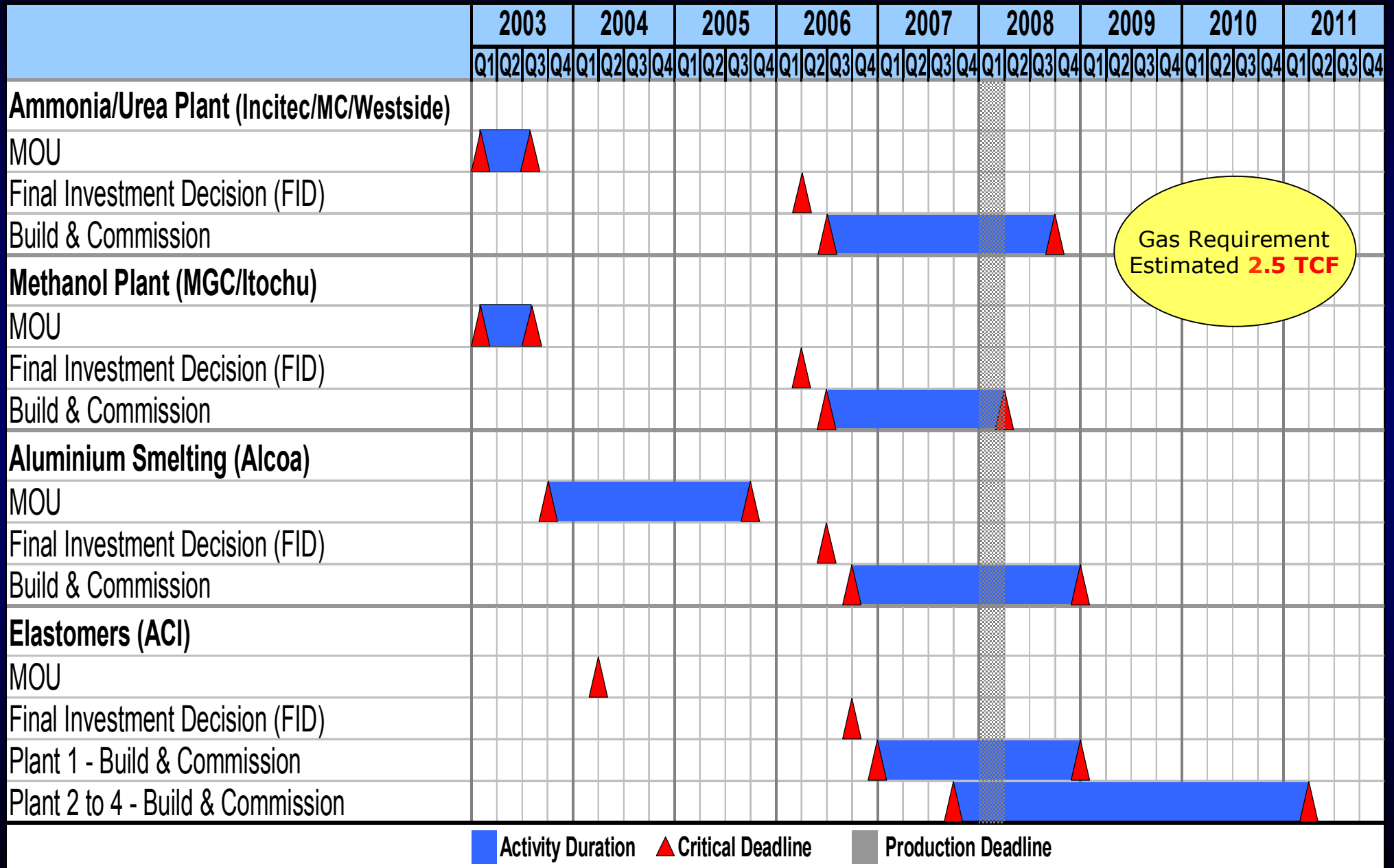
‘Create Opportunities’



Opportunity Knocks

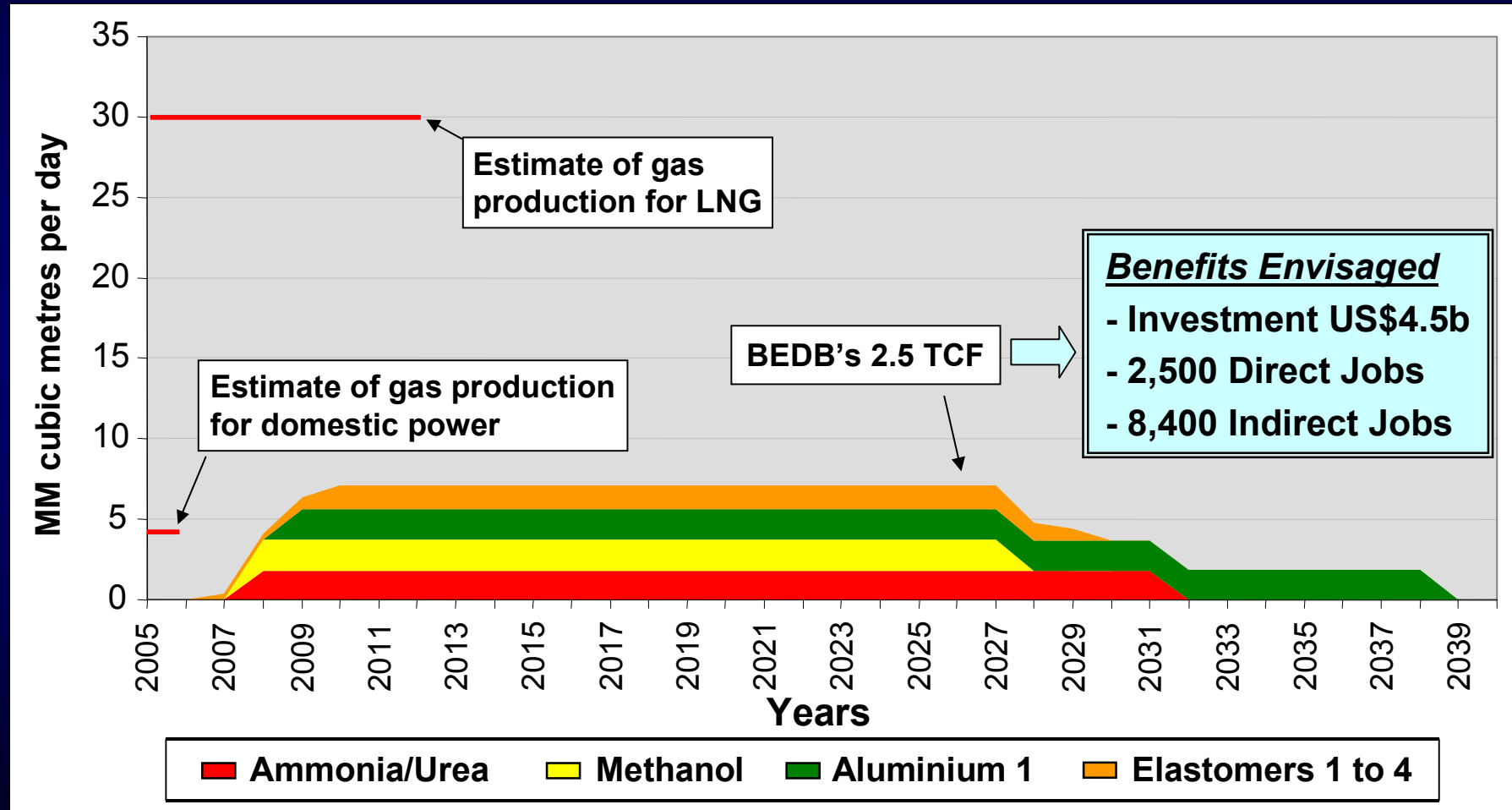
Projects	Status	Potential Investments (US\$ Million)			Potential Jobs		
		Total Investment	FDI	HMG	Direct	Indirect	Total Jobs
Ammonia/Urea	Finals	725	615	110	205	300	505
Methanol	Finals	370	222	148	130	600	730
Aluminium Smelting	MOU	1,500	1,500	-	1,000	4,000	5,000
Elastomers	MOU	1,820	1,820	-	1,220	3,500	4,720
Total		4,415	4,157	258	2,555	8,400	10,955

Opportunity Schedule





BEDB's Gas Requirements





Real Opportunities

	Sectors
Transportation	Freight Movement; People Movement; Logistics; Distribution
Finance	Banking; Insurance Agents & Brokers
Trade	Building Materials; General Merchandise; Automotive Dealers
Personal Services	Doctors; Dentists; Nurses; Teachers; Cosmetic; Food Stores
Business Services	Engineering; Accounting; Architecture; Real Estate
Packaging	Boxes; Sacks; Plastics; Bags
Tourism	Hotels; Apartments; Travel Agents; Tour Guide; Restaurants



Real Spin-Offs

Products	Potential Spin-Off Industries
Ammonia / Urea	Pharmaceuticals; Corrosion Inhibitors; Resins; Paper Laminates
Methanol	Agricultural Chemicals; Disinfectants; Adhesives; Coatings; Fibre Reinforced Plastics
Aluminium	Aluminium Foil and Cans; Reflector Sheets; Roofing Sheets; Vehicle Bodies, Frame Components & Wheels; Computer Parts; Wires & Cables
Elastomers	Tyre Production; Conveyor Belts; Mechanical Rubber Goods; Wire & Cable Jackets; Seals; Injection Moulded Products; Rollers; Belts; Hoses



Spin-Offs from Methanol Project

Main Derivatives	Uses
DME (Dimethylether)	Aerosol Propellant, Refrigerant ('Green' Substitute for CFCs)
Formaldehyde	Glue for Plywood/MDF, Urethane Plastics, Preservatives
Paraformaldehyde	Polyacetal (for making Hi-tech Plastics), Disinfectant, Fungicide
MMA (Methyl Methacrylate)	House Paint, Acrylic, Pulp Paper Production
Methylamines	Pharmaceuticals, Fuel Additive, Insecticides, Photographic Agent
Acetic Acid	Raw Material For Plastics (E.g. Rayon, Photographic Films)
Formic Acid	Textile Dyeing, Leather Tanning, Solvent For Perfumes/Food Flavoring
Neopentylglycol Trimethylolalkanes Pentarythritol	Polyesters (Textile)
MTBE	Substitute for lead in unleaded petrol (BSP uses this to produce unleaded petrol for sale in Brunei Darussalam)

[RED] – Products available for licencing from MGC



Managing the Environment

‘There are NO issues that cannot be managed to meet Brunei’s environmental standards.’

- ◆ *An Environmental Impact Assessment (EIA) for each project using World Bank Standards*
- ◆ *An Environmental Management Plan (EMP) to cover the project life*



Seizing the Opportunity

Cooperation Agreement

- ◆ *Human Resource Development*
- ◆ *Small and Medium Enterprise Development*
- ◆ *'Spin-Off' Industries Development*



'Quantifiable Objectives'



Critical Success Factors

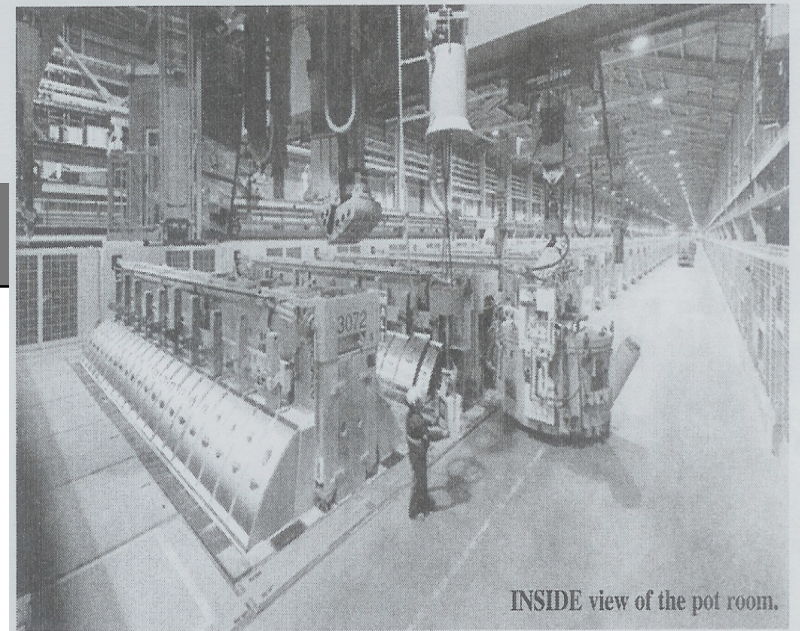
- ◆ *Capacity*
- ◆ *Conviction*
- ◆ *Courage*

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