

Eastern Australian Gas Markets

A Point in History

J. K. McDonald

Interconnect 2001 Conference

21 September 2001

Australian
Pipeline Trust

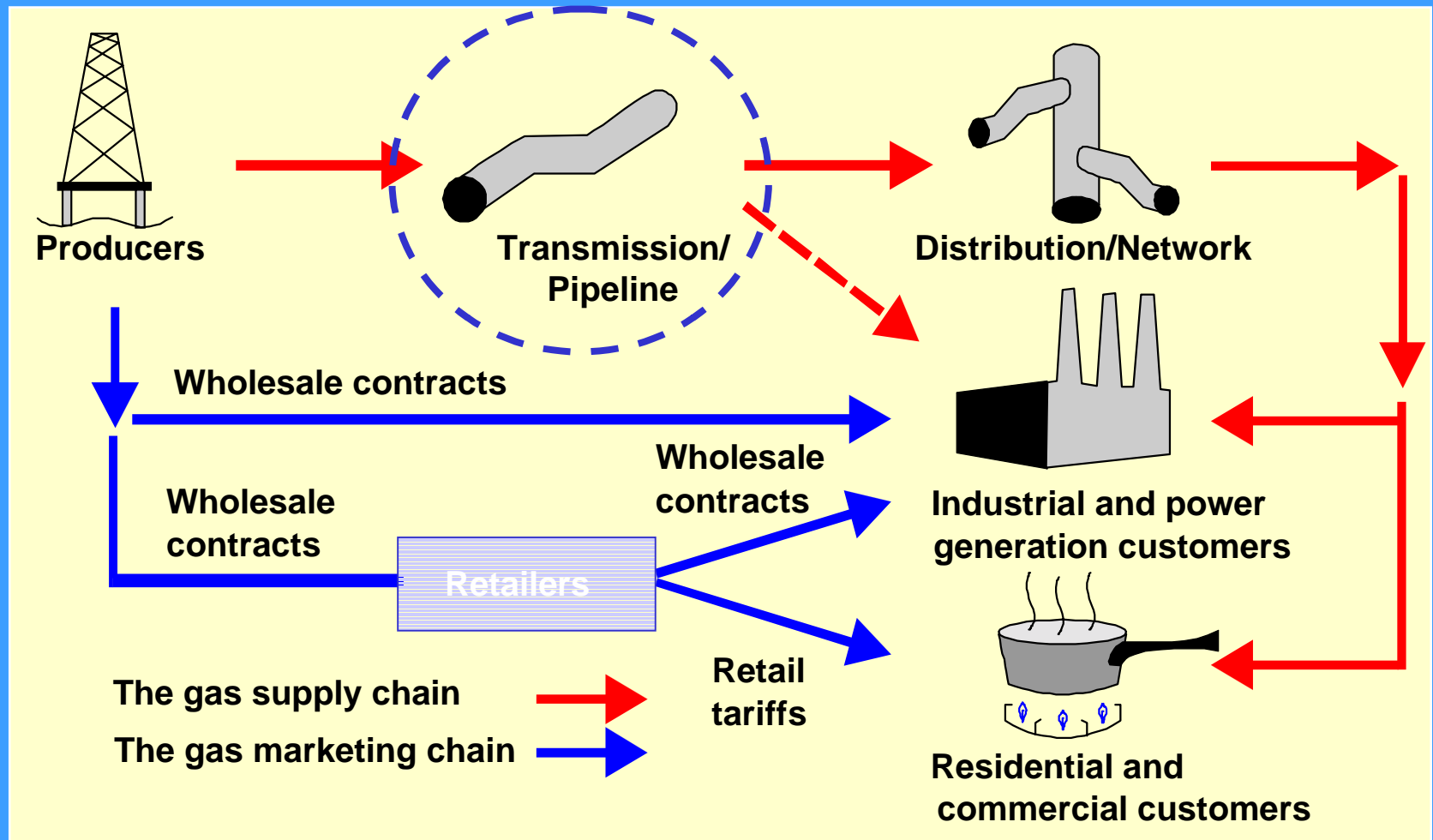


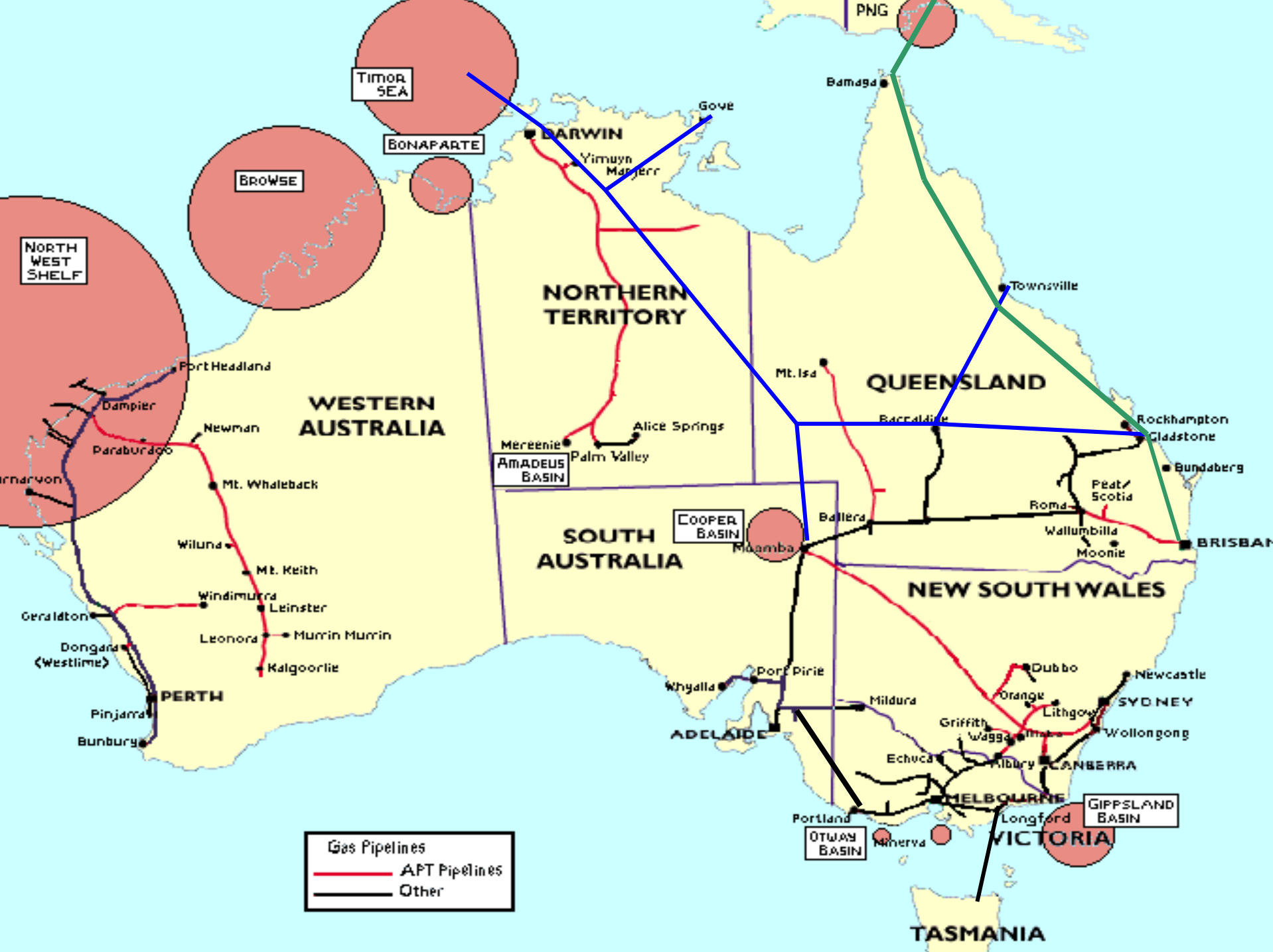
Natural Gas National Market

- ▶ 2015: natural gas = 28% primary energy
- ▶ Competitive reform still “work in progress”
- ▶ Supply shortfall for S.E Australian markets
- ▶ Disincentives must be removed
- ▶ National gas policy essential



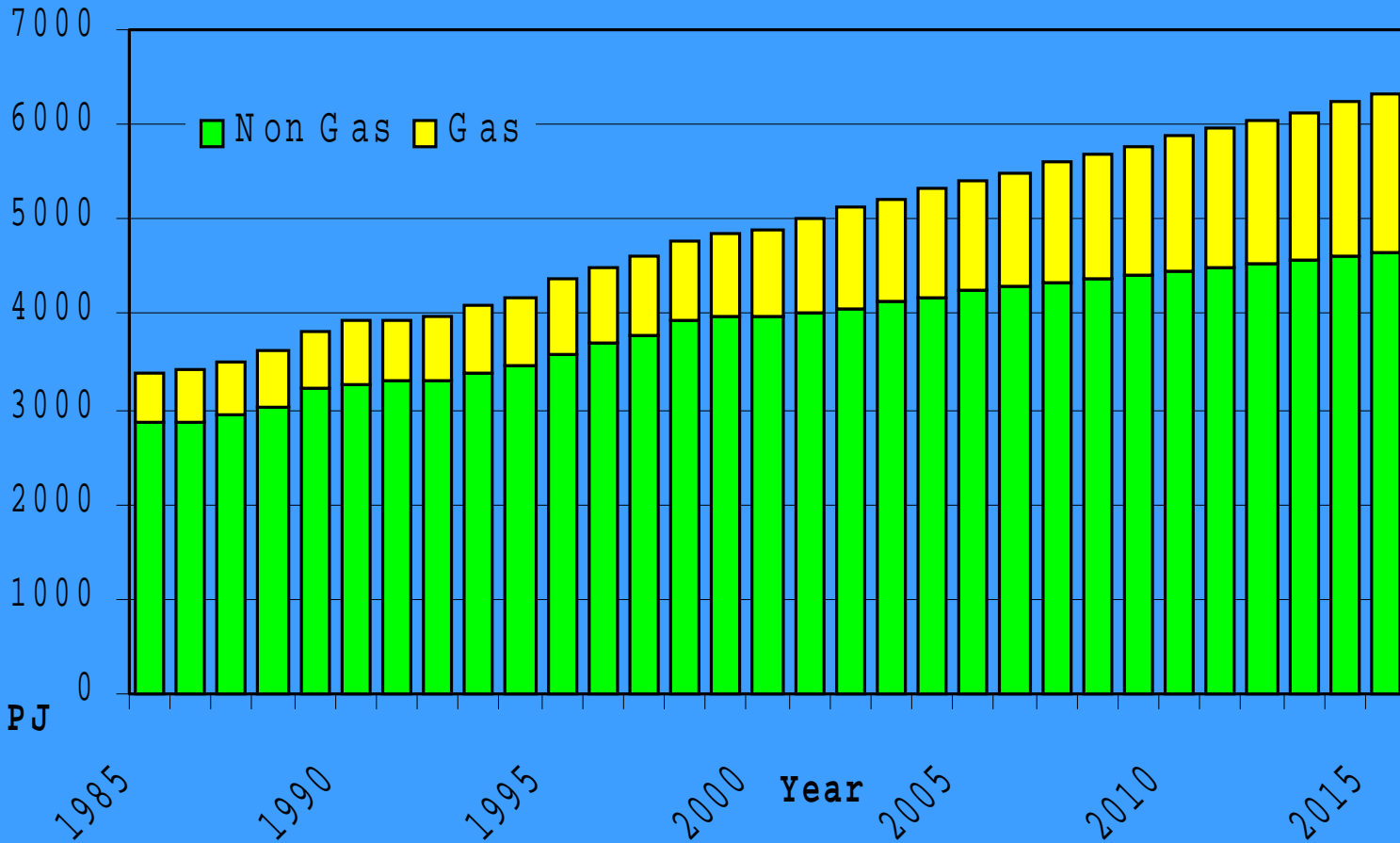
Natural Gas Supply Chain





Gas Pipelines
— APT Pipelines
— Other

Energy Growth - 2015



Source: AGA / NIEIR

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Challenges for Domestic Gas

- ▶ Supply shortfall in S.E. Australia
- ▶ Substantial investment necessary
- ▶ Large industrials locate at gas source
- ▶ Innovative gas applications needed

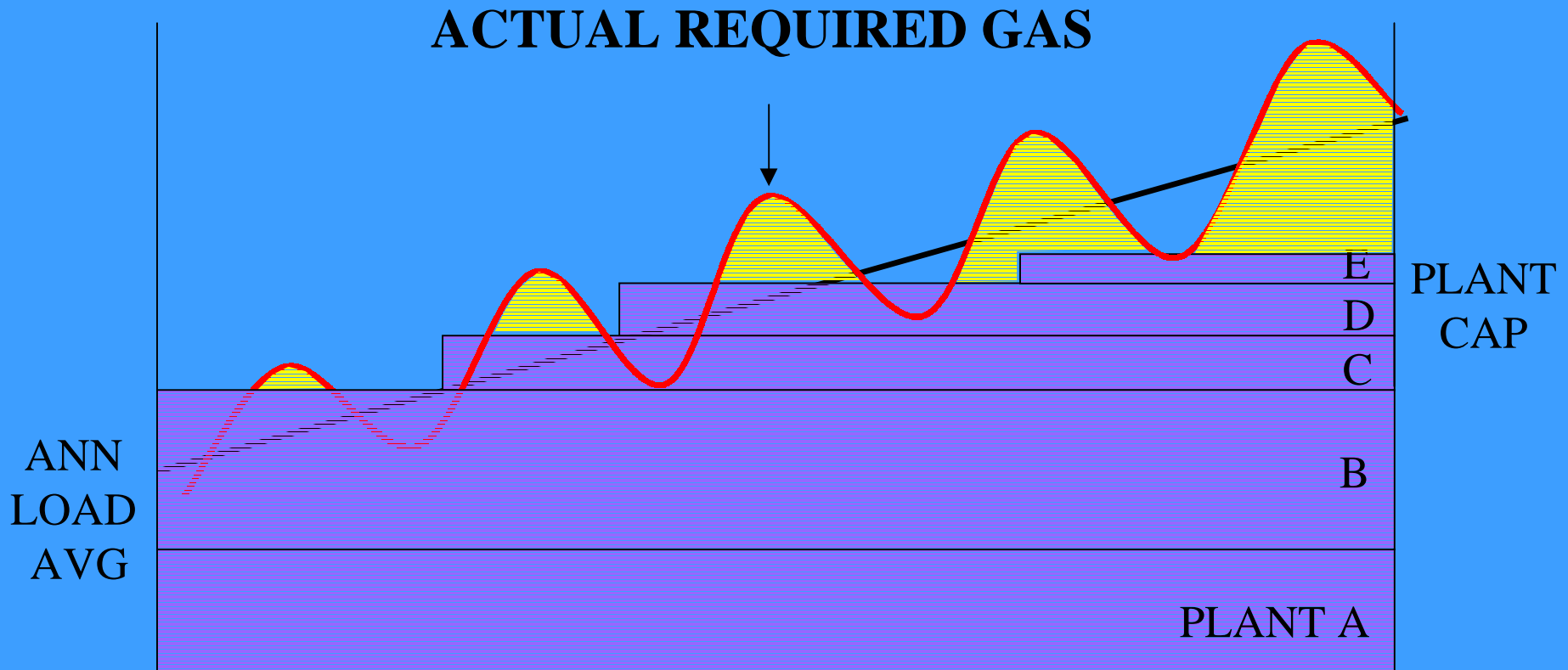


Challenges for Domestic Gas

- ▶ Gas fired power a must
- ▶ Gas is clean but coal is cheap
- ▶ Gas price an issue



Plant Capacity vs Load Factor



Issues for Pipelines

- ▶ Focus must shift to:
 - Efficient use of capital
 - Encouragement of system expansion
 - Encouragement of new pipelines
 - Research to lower capital cost
 - Reliability and integrity of system



Queensland

- ▶ Most important growth market
- ▶ Direct use industrial processes
- ▶ Commitment to gas fired power
- ▶ Value add minerals process plans



Queensland

- ▶ Strong industrial / population growth
- ▶ Needs additional gas supplies - 2004
- ▶ Needs northern gas by mid decade



Victoria

- ▶ Largest average residential loads
- ▶ Largest commercial consumption
- ▶ New gas Otway, Yolla, Patricia Baleen
- ▶ Gas fired power:
 - back on stream Jeeralang, Newport
 - planned Bairnsdale, Somerton, Maryvale



Victoria

- ▶ Self sufficient in gas supply
- ▶ No immediate need for northern gas



New South Wales / ACT

- ▶ Some opportunity for gas fired power:
 - Sithe Smithfield on stream
 - ACT planning gas power
 - Duke planning mixed fuel at Wollongong
- ▶ Energy policy is black coal based
- ▶ By 2015 gas < 20% total energy



New South Wales / ACT

- ▶ Supply contracts expire - 2006
- ▶ Connected to all gas supplies
- ▶ Needs northern gas by mid decade



South Australia

- ▶ Uses gas for > 40% of power
- ▶ Needs more power
- ▶ New pipeline from Otway
- ▶ Needs northern gas by mid decade

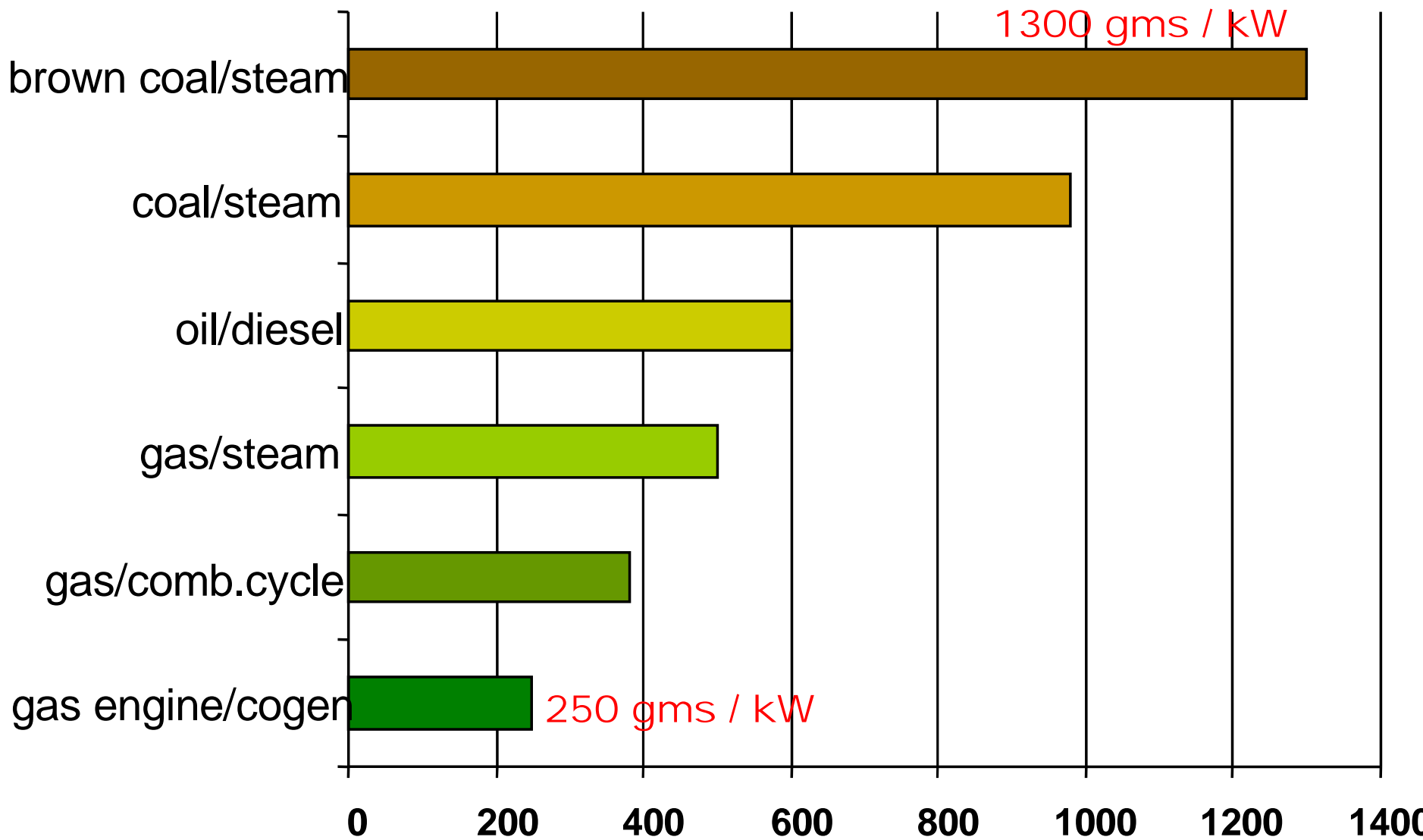


Tasmania

- ▶ Pipeline completed mid 2002
- ▶ Will generate some power with gas
- ▶ Will be supplied from Victoria
- ▶ No immediate need for northern gas



CO2 Emission by Electricity Production



Source: Powerline GES

specific CO2 emissions (g/kWh)

Power Generation Dilemma

- ▶ Gas cannot match coal fuel price
- ▶ Fuel switching requires encouragement
- ▶ If no power generation, no northern gas?



Power Generation Dilemma

- ▶ If no northern gas, rising wellhead prices?
- ▶ Rising wellhead prices, coal wins?
- ▶ Window of opportunity is open



LNG Export Dilemma

- ▶ Australia - world class supplier of LNG
- ▶ Vast reserves and economies of scale
- ▶ LNG export revenue > \$AUS2B p.a
- ▶ World LNG trade increase 6.7% p.a.



LNG Export Dilemma

- ▶ PNG gas and some Timor gas imported
- ▶ Pressure to export all northern gas?
- ▶ Should we reserve gas for domestic use?



Regulation and Gas Policy

- ▶ Present regime unsatisfactory
- ▶ Future projects seriously at risk
- ▶ Investors nervous
- ▶ Role of the Regulator
- ▶ Planned review welcome and timely



Balanced Intervention

- ▶ ACCC: Regulator and community advocate
 - conflict of interest
- ▶ Industry concerns validated: EPIC injunction, EGP coverage decision
- ▶ Theory vs. reality: rate of return models



Balanced Intervention

- ▶ **Government makes policy and the Regulator monitors compliance**



Energy Regulation Review

- ▶ Productivity Commission Part IIIA review
- ▶ Review of Application of Gas Code
- ▶ CoAG initiative: Council on Energy
 - Independent review of energy directions
 - Development of national energy strategy
- ▶ Fiscal regime for long term projects



A Constructive Regulatory Environment:

- ▶ Distribution vs transmission;
Mature systems vs greenfields projects
- ▶ Encouragement to expand infrastructure
- ▶ Removal of structures inhibiting market



A Constructive Regulatory Environment:

- ▶ Streamlined approval processes
- ▶ Appropriate fiscal regimes
- ▶ Cleaner energy programs



A Point in History...

- ▶ National grid can be realised
- ▶ Markets can be linked
- ▶ New supplies can be available
- ▶ New gas applications possible



A Point in History...

- ▶ Foundation vs short term/spot contracts
- ▶ Market “hubs” appearing

COMPETITION CAN BE ENHANCED

- ▶ Governments are listening

BUT.....



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