

APT Allgas Energy Pty Limited Access Arrangement Revisions 2011



AER Public Forum

28 October 2010

Brisbane

Introductions

- John Ferguson
 - General Manager Networks

- Sashie Naidoo
 - Manager Queensland Networks

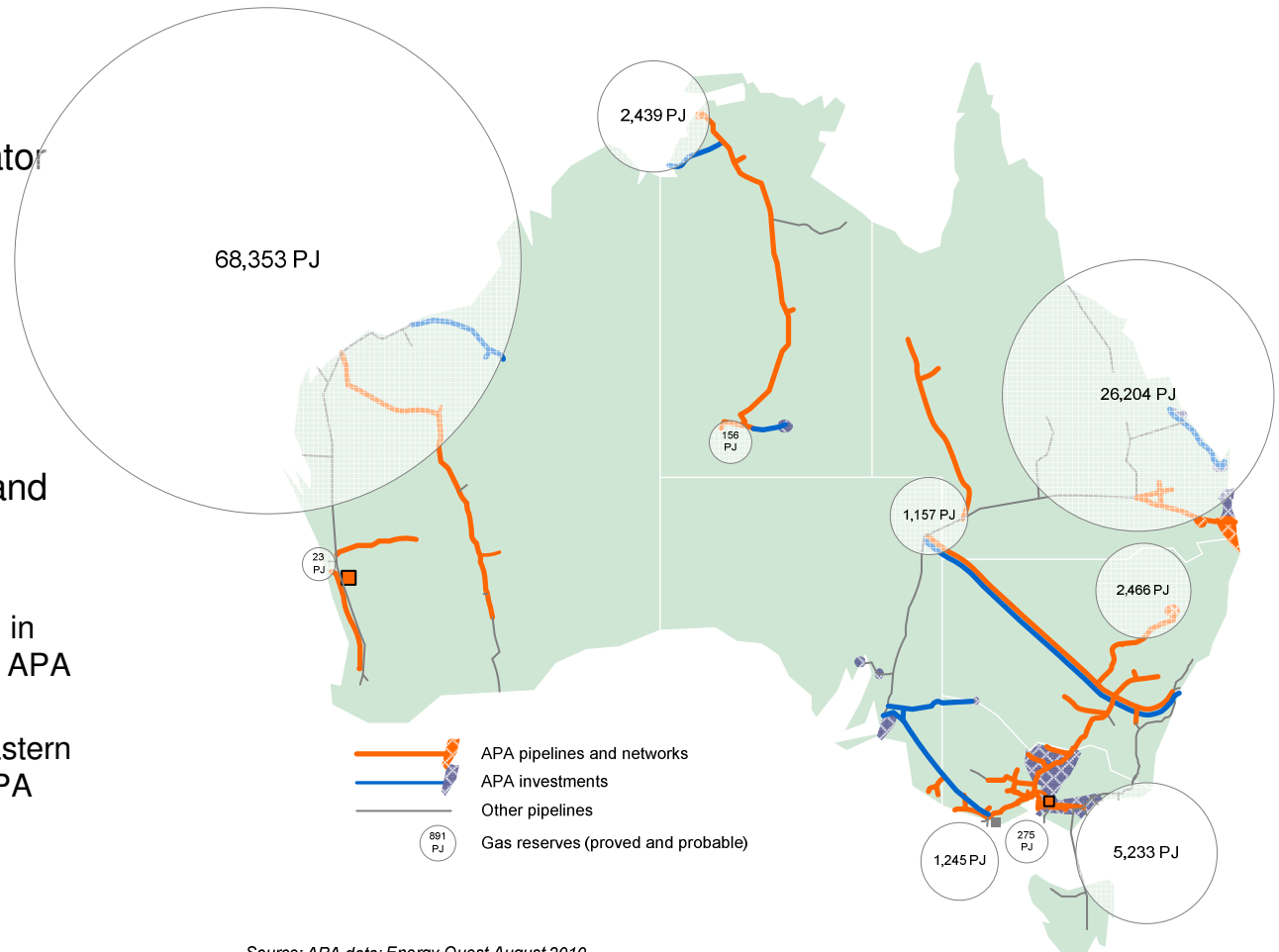
- Scott Young
 - Regulatory Manager

Outline

- About APA Group
- About APT Allgas
- Performance against QCA 2006 AA
- Forecasts for 2011-2016
 - Load forecast
 - Capex
 - Opex
 - Depreciation
 - Tax
 - WACC
 - Total Revenue Requirement
 - Tariff movements

About APA Group

- APA is a major ASX-listed infrastructure owner and operator of Australian regulated gas transmission and distribution infrastructure
- APA has pipelines in all mainland states
 - > 50% of natural gas used in Australia is transported by APA
 - > 70% of natural gas in eastern states is transported by APA



Source: APA data; Energy Quest August 2010

The majority of APA's activity is gas transmission and distribution

APA Group Overview

- APA's principal activities are:
 - Gas transmission:
owns or has an interest in over 12,000km of regulated gas pipeline infrastructure and gas storage facilities, transporting more than 50% of natural gas used domestically in Australia
 - Gas distribution:
owns or has an interest in 23,000km of regulated gas distribution networks, with 1.1 million connections
 - Asset Management:
provides a range of asset management, operating and maintenance services to a number of related parties, including Envestra Limited, the Ethane Pipeline Income Fund, Energy Infrastructure Investments and SEA Gas Pipeline
- APA has an internalised management structure with direct operational control over its assets and investments
- APA employs over 1,100 skilled and experienced people who perform all commercial, regulatory, government and stakeholder-related functions, as well as engineering and the day-to-day operations and maintenance of APA assets and investments

Energy Infrastructure – QLD



Morney Tank Compressor Station



X41 Power Station, Mt Isa - EII



Ellengrove Gate Station – gas from Roma Brisbane Pipeline enters APT Allgas Network



APT Allgas Network – steel main construction

History of Qld Gas Distribution Networks

- The Brisbane Gas Company

- 1864, Petrie's Bight, 12,500 Consumers.
- Newstead in 1883
- 1889 – Restricted by QLD Government to North Side
- 1970 Boral - Origin Energy - Envestra



- Brisbane Gas and Light Co. Ltd

- 1885, West End
- 1889 – Restricted by QLD Government to South Side
- 1969 – Moved to Natural Gas
- 1971 – Allgas Energy Ltd
- 2006 Australian Pipeline Trust purchased Allgas Network from Energex



Qld Market

- Natural Gas is a Fuel of Choice
- Residential utilisation in QLD is much lower than southern states:
 - VIC ~55 GJ/a
 - NSW ~ 21 GJ/a
 - QLD ~ 10 GJ/a
- Penetration rates also much lower ~30% on line of main and ~12% overall
- Distribution network revenue for residential customers ~\$260pa excl GST
 - Approximate average household spend on natural gas is \$550pa compared to \$1,600pa for electricity, \$360pa for phone line rental or \$500pa for Foxtel
- Growth opportunities in new housing estates
 - lower installation costs
 - higher penetration rates
 - less pressure on connection times
 - scope to influence appliance choice

***Natural gas is a Derived Demand,
where demand for one good or service is driven by demand for another.***

APT Allgas Market

Customer Base

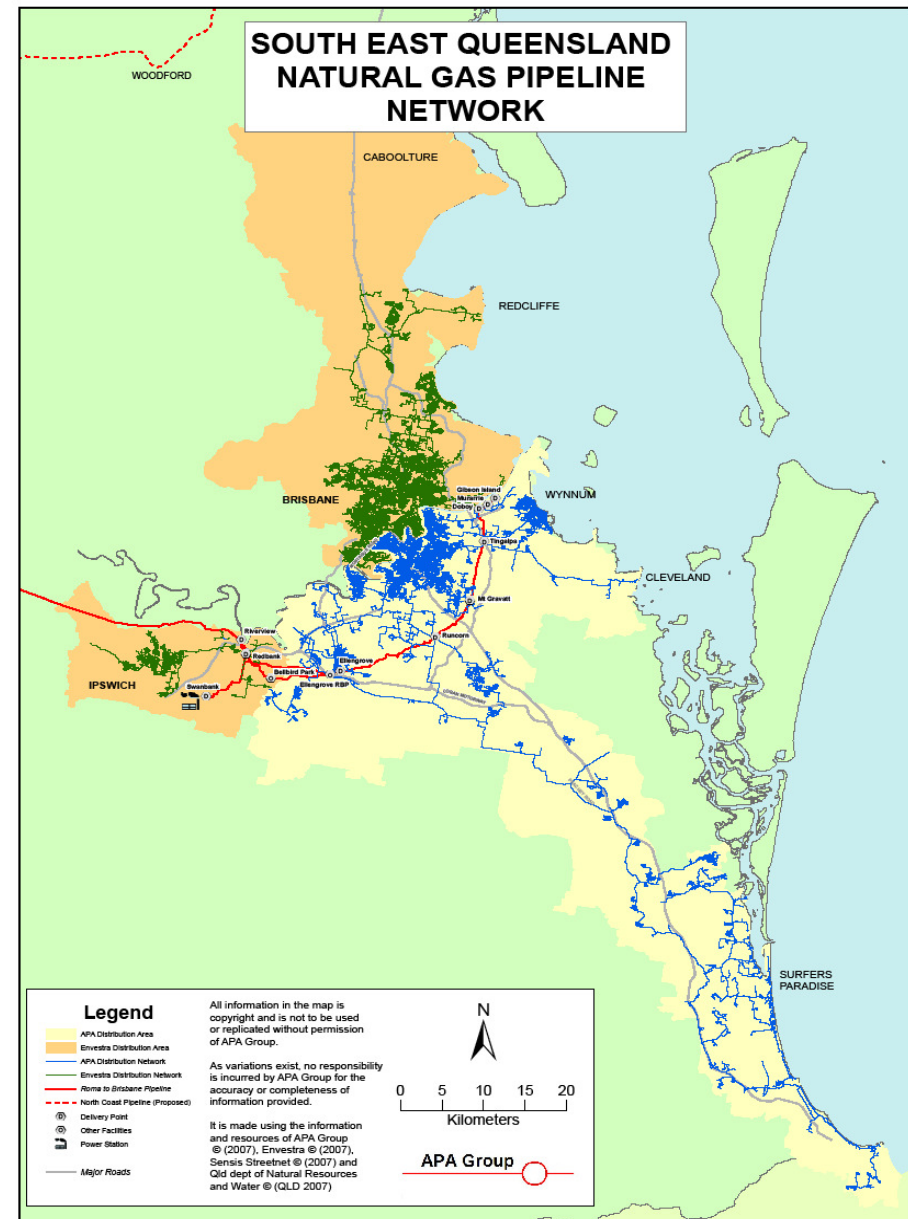
- Approximately 80 000 residential and business End Users (customers) – Volume Tariff <10 TJ/a
- Approximately 100 large Industrial End Users – Demand Tariff >10TJ/a

Retailers :

- AGL, Origin, AP&G
 - Purchases gas from Producer
 - Arranges transmission/ distribution
 - Bundles costs and bills End User

Infrastructure

- South Brisbane, South Coast, Northern NSW, Toowoomba and Oakey



Natural Gas – Distribution Network Main Uses

- **Industry** (typically feed off high pressure steel mains)
 - Furnaces – glass works, brick works, steel mills
 - Boilers – steam generation – process heating, cleaning, sterilisation
 - Feedstock – fertiliser/explosive production, petrochemical
 - Drying – plasterboard, malt, paper
 - Baking – bread, biscuits
 - Transport – natural gas buses

- **Commercial**
 - Cooking
 - Hot water
 - Steam

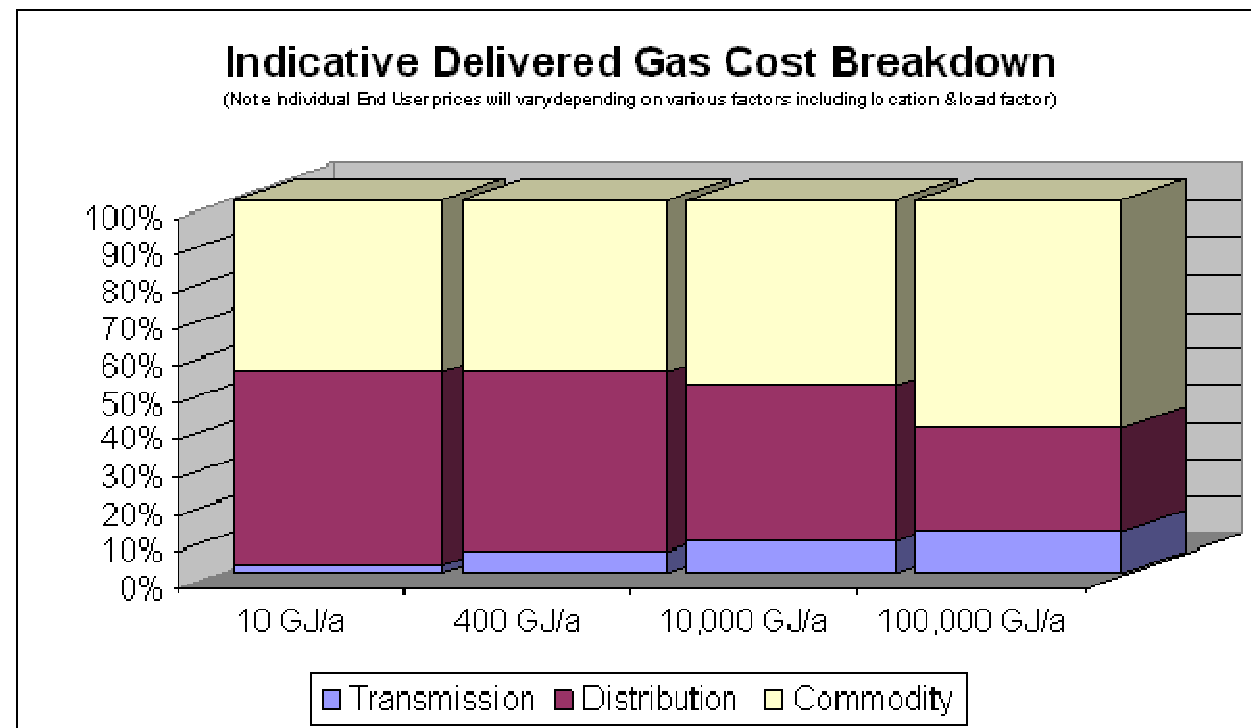
- **Residential**
 - Cooking (~2 GJ/a)
 - Hot Water (~8-10 GJ/a)
 - Heating (~3 GJ/a) typically Toowoomba/Oakey only

Distribution pricing in perspective

- The price of gas delivered to an End User is made up of a combination of:
 - the cost of gas (production and retail)
 - transmission and
 - distribution

- Distribution prices make up only a portion of the delivered price of gas

- About half the bill for “small” customers’
- About a quarter of the bill for “large” customers

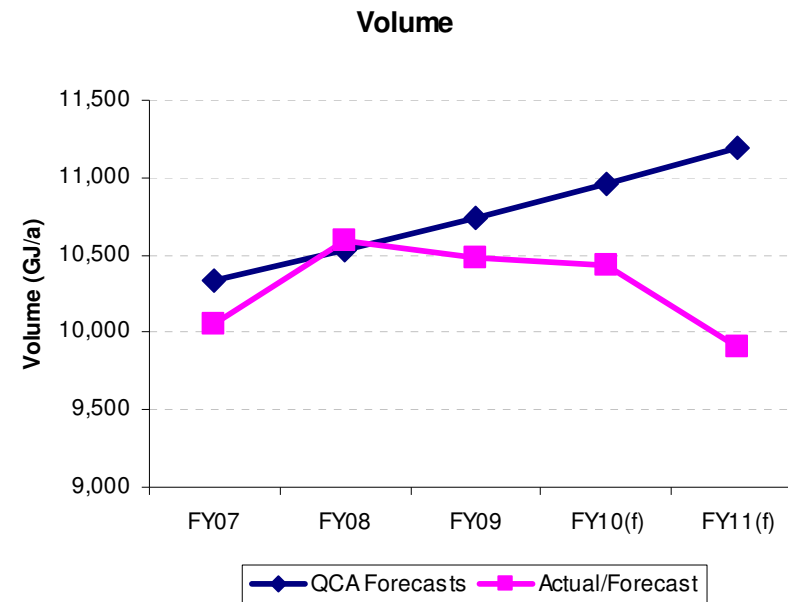
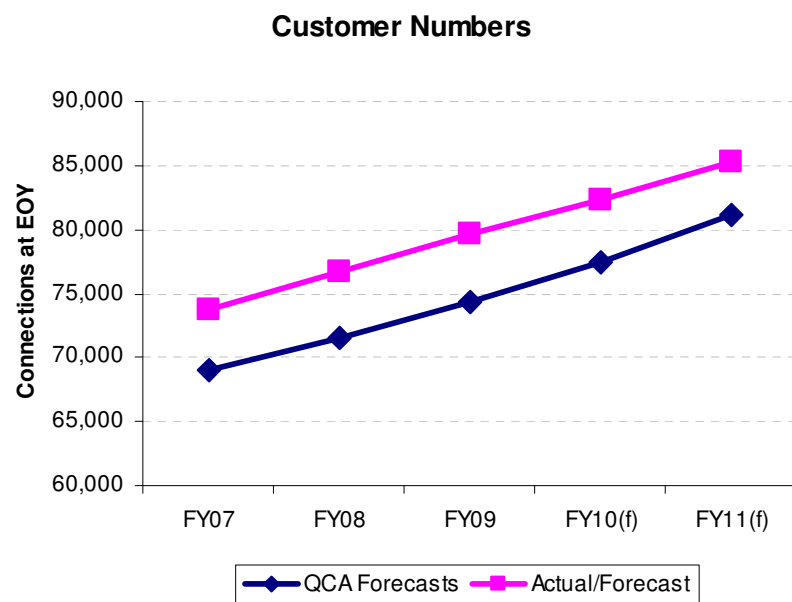


The APT Allgas Access Arrangement

- The Access Arrangement is a key element to the Third Party Access framework
 - Governs the arrangements under which a retailer can transport gas over the distribution network to serve its customers
- APT Allgas does not own the gas and does not participate in its sale
- Access Arrangement is reviewed and approved by the AER
- Access Arrangement governs price, terms and conditions, etc
- Subject to a scheduled review process
 - Current AA runs from 2006-2011
 - Forecast AA runs from 2011-2016
- This Access Arrangement is governed by the National Gas Law and the National Gas Rules
 - Previously under the National Gas Access Code

Performance against 2006-11 QCA forecast

- In summary, APT Allgas connected more customers than forecast but suffered a decline in volumes
 - customer numbers in the Volume Class were consistently above the QCA forecast levels
 - Actual connections at the end of FY11 forecast at 84,290 against a QCA forecast of 80,962.
 - consumption levels were consistently below the QCA forecast levels
 - total 5-year Volume class consumption forecast at 14,371 TJ against QCA forecast of 16,100 TJ



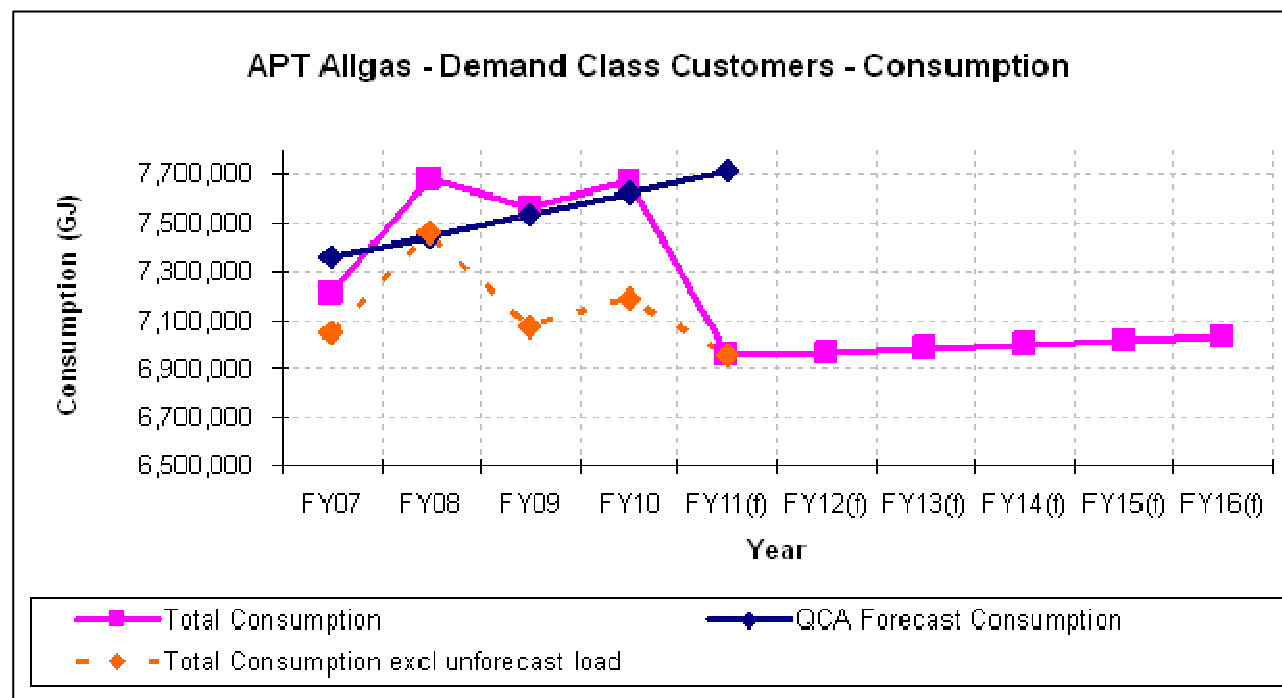
Industrial load

- Previous QCA forecast reflected ambitious Industrial load forecast
 - One unforecast customer connected but subsequently disconnected

- Industrial customers and retailers surveyed to ascertain future plans for gas usage and network demand

- One additional Industrial customer forecast to connect each year

- Assumed to consume at average levels



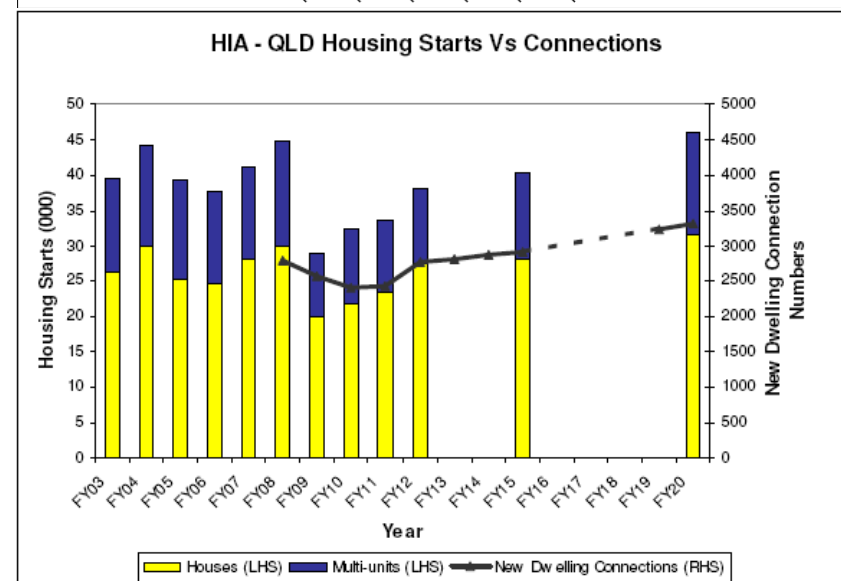
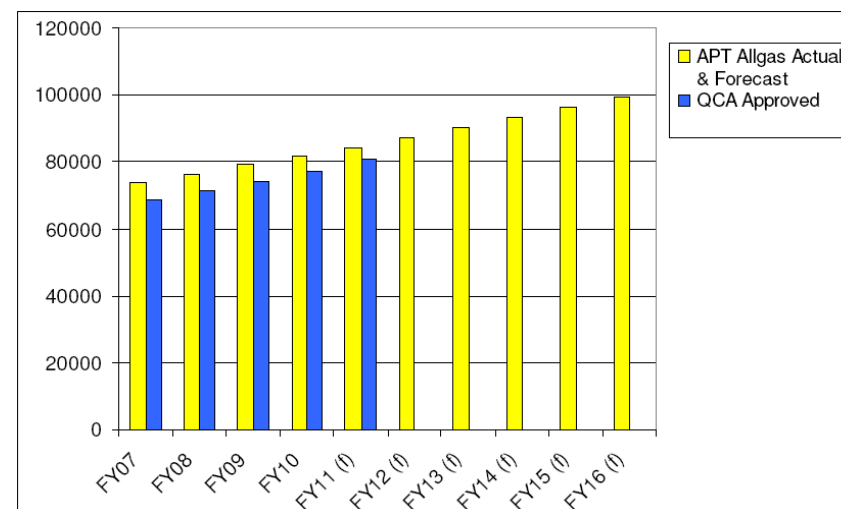
Volume Class customer number forecast

- Majority of new customers connect in new subdivisions
 - Allows some influence over appliance selection

- Macro economic forecast sourced from Housing Industry Association
 - Relevant forecast for new housing development

- Forecast customer growth based on average penetration of new customers in new development

- New domestic customers forecast to increase at 3.4% per year



Volume Class load forecast

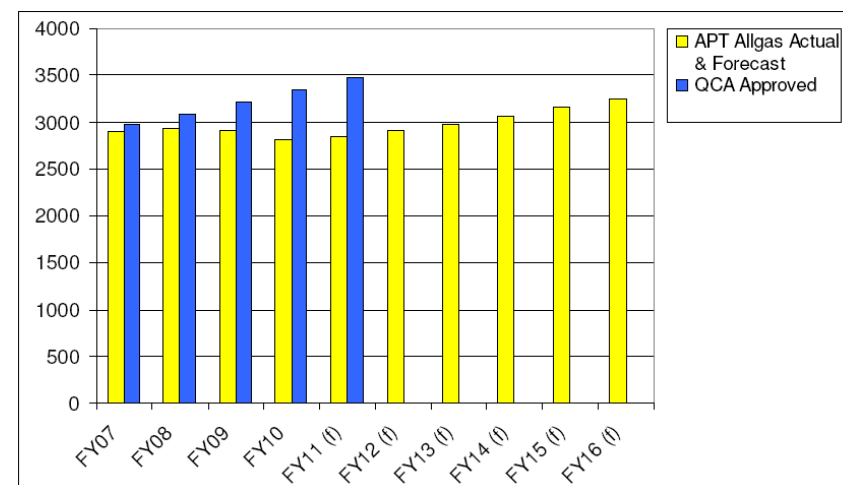
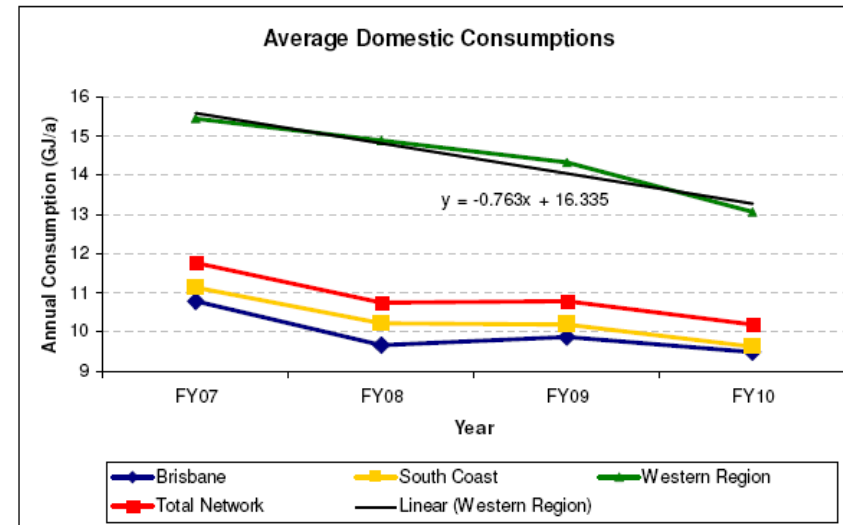
Usage per customer based on observed trend in domestic usage

- Impacted by loss of hot water load caused by water restrictions
 - A permanent change in the market

- Reduction in space heating load in Western region (Toowoomba and Oakey)
 - Arising from high penetration of reverse cycle air conditioning

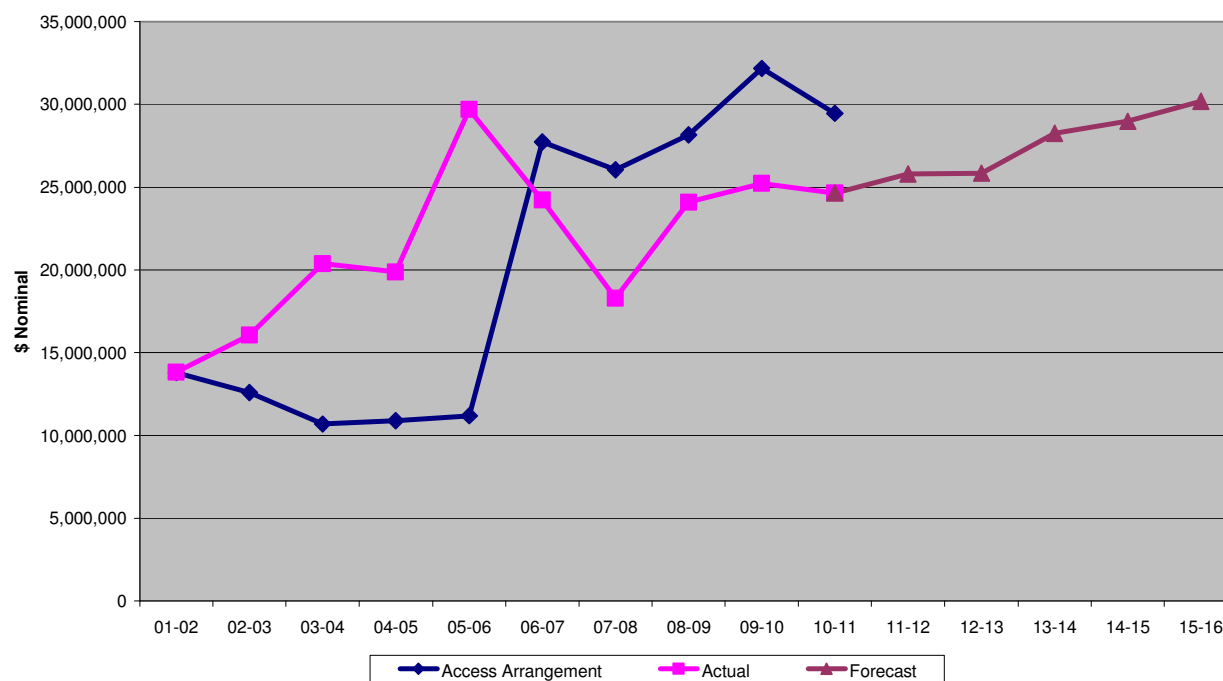
- Hot water usage impacted by incentives for solar and heat pump applications

- Average residential consumption forecast to decline to 9.1 GJ per customer per year



Capital Expenditure

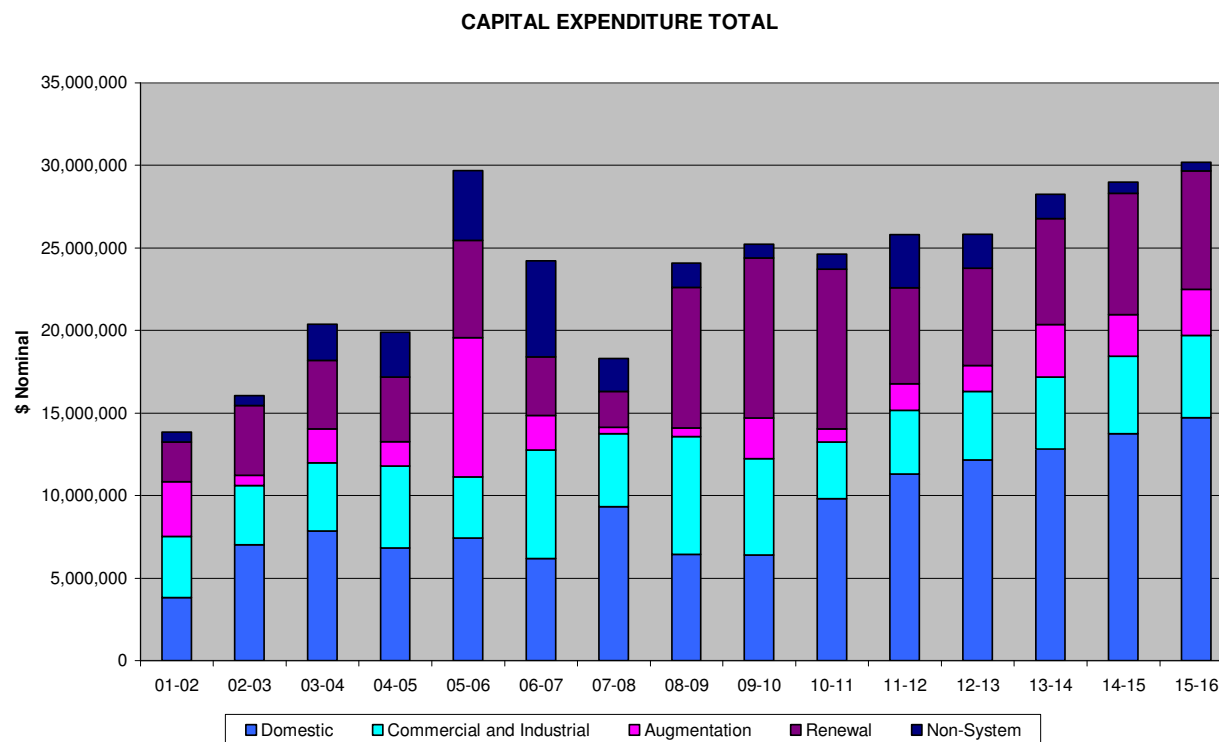
CAPITAL EXPENDITURE - TOTAL



Forecast capital expenditure is based on:

- Historical capital expenditure
- Customer connection and demand forecast,
- Peak hourly load forecast,
- Risk Management Plan,
- Current schedule of rates with tendered contractors,
- Current direct labour cost,
- Current material cost,
- Current overheads,
- Forecast cost increase (CPI and labor cost escalation)

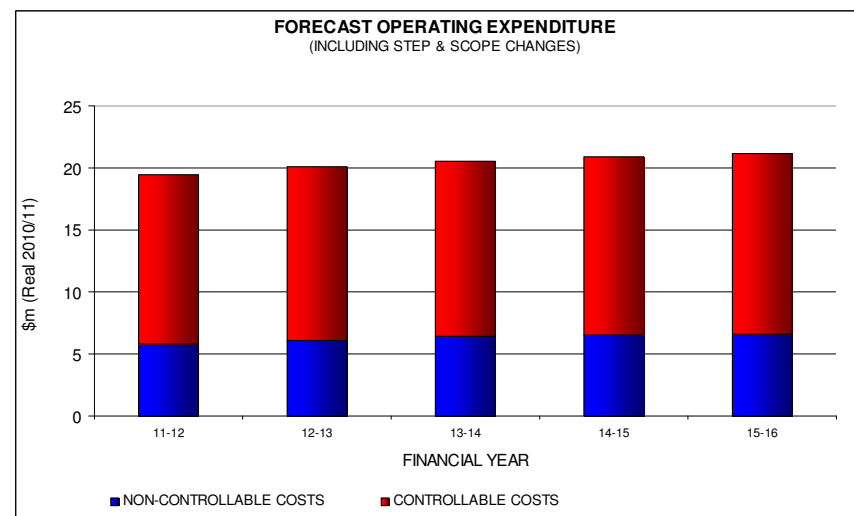
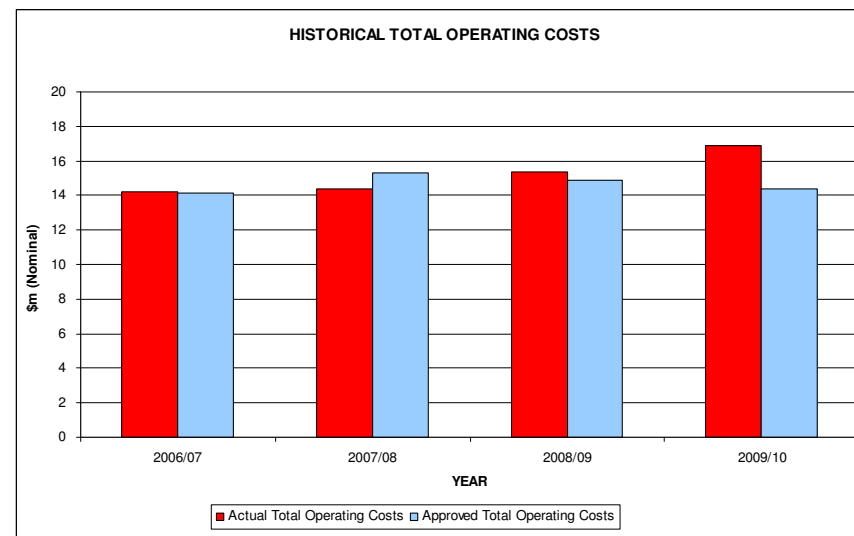
Forecast Capital Expenditure by driver



- Domestic growth targeted at new developments with minimal headworks costs, common trenching and minimal rectification costs
- Renewal projects targeted at higher density and opportunistic areas
- Augmentation relates to Gold Coast supply augmentation
- Capex costs subject to rigorous public tender process

Opex

- APT Allgas incurred greater opex costs than approved by the QCA for the 2006-11 AA period
- Key drivers of opex include normal network design and operation, leak detection and repair, UAG.
- Opex costs correlate with proportion of unprotected steel and cast iron mains
 - Opex forecast to grow with length of mains
 - Leak repair costs and UAG forecast to decline with Mains Replacement Program
- UAG volume forecast to decline
 - Price pass through due to market uncertainty
- Real cost escalation has been applied as per AER Access Economics report



Depreciation

- Historical depreciation taken from QCA determination
- APT Allgas proposes changes in its depreciable lives going forward

- Historical lives based on incorrect application of technical lives
- Amendment proposed to align with other regulatory decisions
- Prospective application

Table 5-2 Asset Economic Lives (years)

Asset Class	Allgas previous AA	ActewAGL approved	APT Allgas proposed
HP Steel mains	105	80	80
HP Services	105	50	50
Distribution mains and services	PVC – 30 PE – 80 Steel – 45 Copper – 85 Cast iron – 80	50	50
District Regulators	50	15	40
Contract Meters	30	15	15
Tariff Meters	25	15	15

Tax

- Post tax approach adopted in this Access Arrangement
- Rules require APT Allgas to develop a regulatory Tax Asset Base (TAB)
- Approach:
 - Start with tax register at commencement of National Tax Equivalent Regime
 - Roll forward by capex and estimated tax depreciation
- Tax allowance calculated using the PTRM

Cost of Capital

- Financial markets continue to exhibit a “flight to quality” arising from the GFC
 - Yields on Government funds are falling
 - Cost of corporate debt and equity are rising
- We are currently seeing a disconnect between the WACC arising from the AER’s approach and what is being observed in the marketplace
 - eg QCA June 2010 decision on Gladstone Water Board
 - Cost of debt higher than the cost of equity!
- APT Allgas has adopted a “sensible outcomes” approach
 - Within the current parameter ranges
- Currently a number of appeals and investigations outstanding on WACC issues
 - The final WACC position will need to accommodate those findings

■ Parameter Estimates:

Risk-free rate	5.07%
Debt to value	60%
Debt margin	3.85%
Debt raising costs	0.108%
Market Risk Premium	6.5%
Gamma	0.2
Equity beta	1.1
Corporate tax rate	30%
Cost of equity	12.22%
Cost of debt	9.03%
Post tax nominal vanilla WACC	10.30%

2011-2016 Total Revenue Requirement

Table 9-1 APT Allgas Forecast Revenue Requirement (\$'000 nominal)

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Return on capital	43,453	46,013	48,673	51,600	54,610
Return of capital	1,911	986	911	854	1,263
O&M	19,981	21,069	22,085	23,084	23,906
Benchmark Tax liability	2,499	2,441	2,238	2,094	2,456
APT Allgas Building Block Revenue Requirement	67,843	70,509	73,907	77,632	82,235
Less Forecast Reference Ancillary Service Revenue	624	645	667	689	712
Less Forecast Capital Contribution Revenue	583	612	643	676	715
Reference Tariff Revenue Requirement	66,636	69,252	72,596	76,267	80,808

Approach to tariff setting

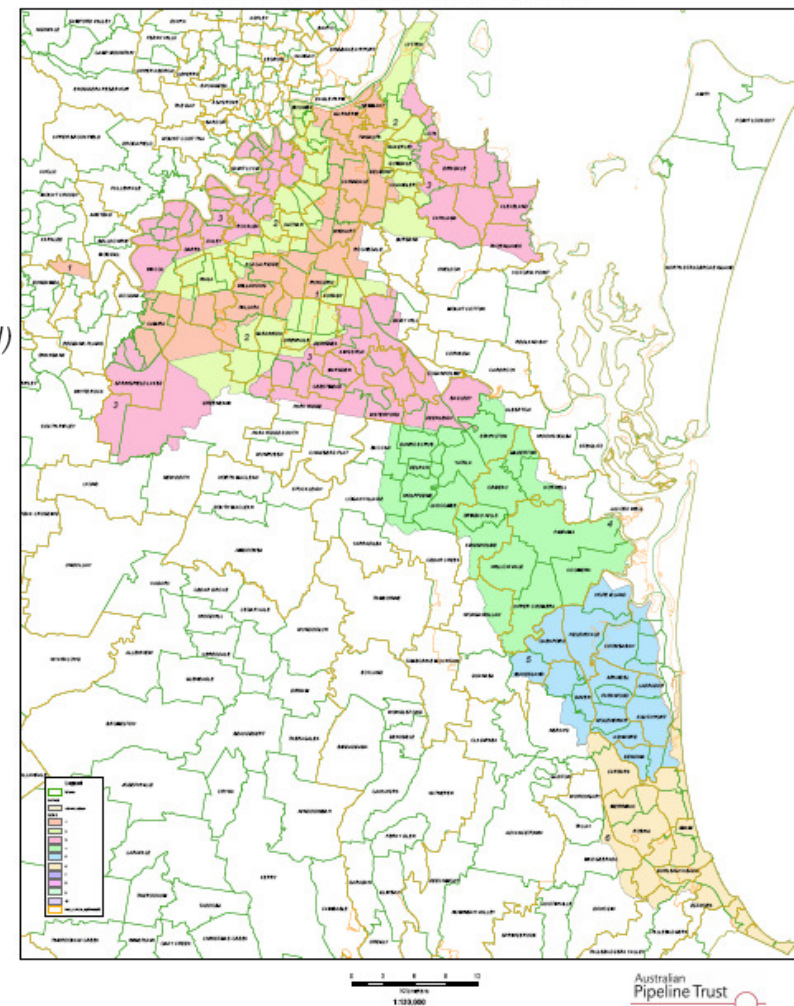
- Many Demand customers have bypass or fuel substitution opportunities
 - Some major industrials still use coal
- Vast majority of system required to serve Volume customers:

Table 9-5 APT Allgas Avoidable and Standalone Costs 2011-12 (\$'000 nominal)

Year	Avoidable Cost	Expected Revenue	Standalone Cost
Demand Class Revenue	337	17,301	23,631
Volume Class Revenue	35,099	41,429	58,393

- Demand customers based largely on a bypass price, ultimately driven by distance from the transmission line
- Volume customers make up balance of Revenue Requirement
- Non locational pricing

Brisbane Gold Coast Tariff Zones



2011-2016 Tariff movements

- Revenues deferred relative to Revenue Requirement to manage price impacts

Table 9-4 APT Allgas Proposed Reference Tariff Revenue Stream (\$'000 nominal)

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Demand Class Revenue	17,301	19,103	21,124	22,740	23,435
Volume Class Revenue	41,429	47,214	53,798	59,766	63,303
Proposed Reference Tariff Revenue	58,730	66,317	74,921	82,507	86,738

Note: The Demand Class revenue forecasts include prudent discount and negotiated service revenues as submitted to the AER in Confidential Attachment 9.1

Table 9-4(a) Reference Tariff X Factors

Parameter	2011-12	2012-13	2013-14	2014-15	2015-16
X_{Volume}	-11.27%	- 8%	- 8%	- 5%	0%
X_{Demand}	-11.27%	- 8%	- 8%	- 5%	0%

- CPI – X regime
- Negative X → price increase

We Deliver Energy

www.apa.com.au