

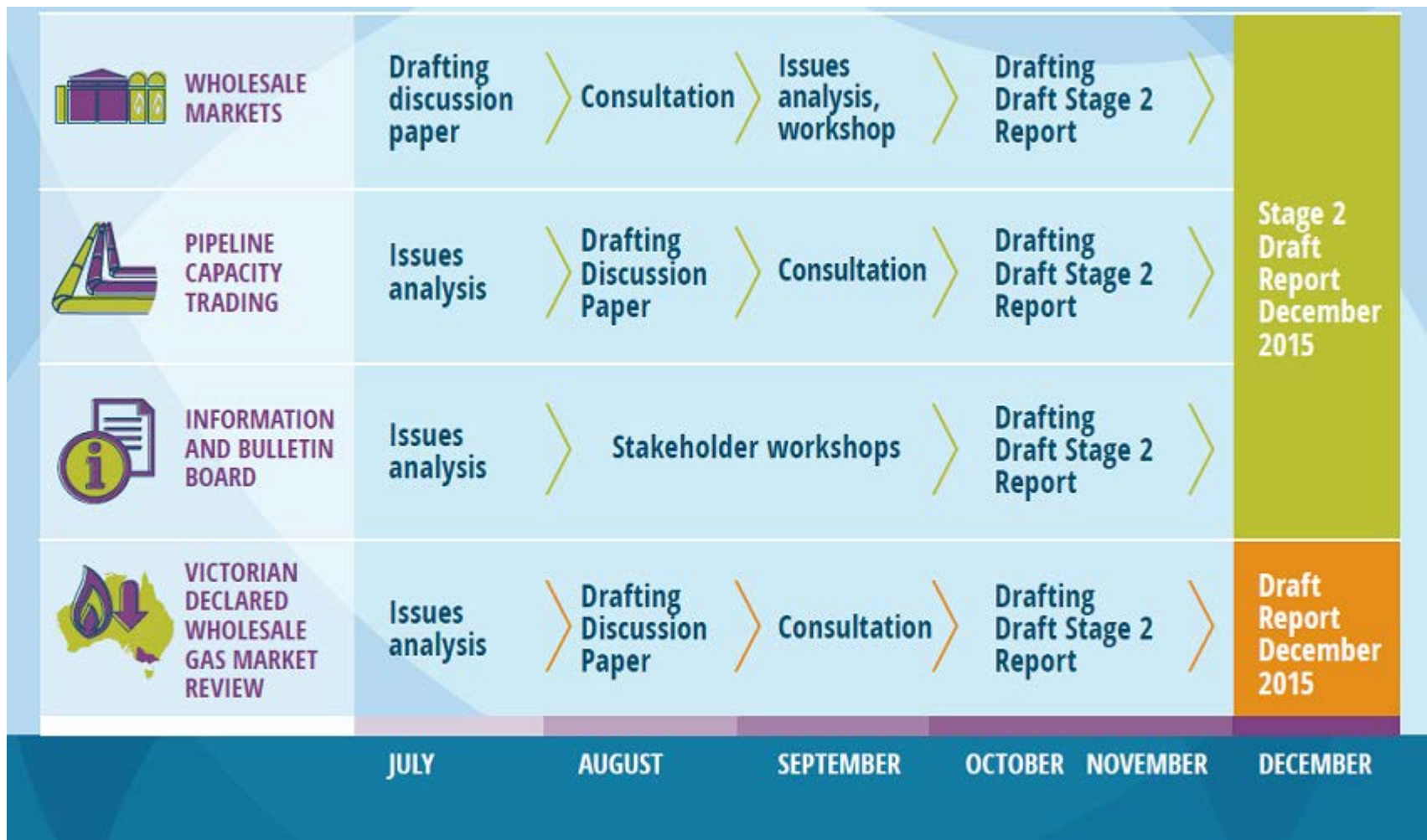
# East Coast and DWGM Gas Reviews

Public Forum, Sydney, 30 September 2015



AUSTRALIAN ENERGY MARKET COMMISSION

# AEMC work program



# Agenda

<b>Welcome</b>	<b>2:00</b>
<b>Session 1 – Wholesale Gas Markets</b> 1.1 Introduction – Daniel Hamel (AEMC Senior Economist) 1.2. Wallumbilla Gas Supply Hub project – Peter Geers (AEMO) 1.3. Hub design – Jason Mann and Pamela Taylor (FTI Consulting) 1.4. Q&A Panel Discussion	<b>2:10</b>
<b>Break – afternoon tea</b>	<b>3:45</b>
<b>Session 2 – Pipeline regulation and capacity trading</b> 2.1. Introduction – Andrew Truswell (AEMC Director) 2.2. Gas third party access regime – Jeff Balchin (Incenta) 2.3. Q&A Panel Discussion	<b>4:00</b>
<b>Close</b>	<b>5:00</b>

# Wholesale gas market design

Public Forum, Sydney, 30 September 2015



**Daniel Hamel, Senior Economist**  
AUSTRALIAN ENERGY MARKET COMMISSION

# COAG Energy Council Vision

The Council's vision is for the establishment of a liquid wholesale gas market that provides market signals for investment and supply, where responses to those signals are facilitated by a supportive investment and regulatory environment, where trade is focussed at a point that best serves the needs of participants, where an efficient reference price is established, and producers, consumers and trading markets are connected to infrastructure that enables participants the opportunity to readily trade between locations and arbitrage trading opportunities.



# Concept 1: Multiple physical hub locations

- Gas Supply Hubs at Wallumbilla, Moomba, Longford, Iona and Gladstone
  - All locations close to production and/or storage
- Wallumbilla most likely to develop into a meaningful reference prices for wholesale gas on the east coast?
- Balancing arrangements would need to be in place at major demand centres



# Concept 2: Northern and southern virtual hub, with balancing at Sydney and Adelaide

- Concept 2 involves the establishment of two virtual hubs:
  - a “northern” hub covering the RBP and current Wallumbilla hub; and
  - a “southern” hub covering the entire Victorian DTS
- A northern and southern reference price at each virtual hub could emerge under this model, given the different geographical drivers of supply/demand and constraints in the system
- Balancing arrangements would be in place at major demand centres



# Concept 3: Two large virtual hubs covering the east coast

- Concept 3 is an extension of Concept 2 and involves the establishment of a northern and southern virtual hub that together cover the entire east coast
- Under this high level concept there would not be a requirement for separate balancing arrangements at demand centres, as balancing would be catered for within each virtual hub
- We recognise that this concept represents a significant departure from the status quo and note the practicalities of implementing this design are likely to be complex and potentially costly





# Issues identified in the DWGM

Theme	Findings
<b>Trading flexibility</b>	Setting price through a mandatory pool approach reduces the trading flexibility of market participants. Exchange-based trading might provide participants with more flexibility in the types of physical products that can be traded, e.g. within-day, day-ahead, week-ahead, month-ahead etc.
<b>Managing price risk</b>	The current design of the DWGM does not facilitate the effective use of financial risk management products. This is because the mix of ex-ante price and ancillary payments means that a financial derivative does not encapsulate all risks faced by participants
<b>Market-led investment</b>	Market-led investments are unlikely to occur due to a lack of firm capacity rights. While it is not clear that the current arrangements have resulted in materially inefficient outcomes, where possible investment risk should be borne by investors, not consumers

# AEMC proposals for the future evolution of the DWGM

Market improvements	Market development		Market reform	
Package A Targeted measures	Package B Transmission rights	Package C Capacity rights	Package D Entry/Exit model	Package E Hub & Spoke model
Targeted transmission rights	Simplified pricing mechanism	Zone-based pricing and capacity rights	Entry/Exit model	GSHs at Longford and Iona and balancing in Melbourne
Trading of AMDQ rights	Transmission rights			
Clearer AMDQ allocation process				
Review planning standard				

# Gas trading hubs can be broadly characterised as physical or virtual designs

## Physical hubs (US model)

### Pros

Trading locations determined by market demand

Services offered at hubs driven by participants

Pipeline investment by private entities

Transparent pricing for pipeline capacity

Low ex ante regulation

### Cons

Dependent on a large number of buyers/sellers willing to trade at each hub for a reference price to emerge

Competition in secondary market for pipeline capacity and hub services is essential to allow traders to readily ship gas into, across and out of the hub areas

## Virtual hubs (EU model)

### Pros

Flexibility to trade anywhere on a pipeline system without having to book point-to-point capacity

Liquidity is enhanced through pooling a larger number of buyers and sellers

Promote efficient use of pipeline system as capacity more easily resold

### Cons

Potential cost of a hub operator managing gas flows/constraints within the hub

Entry-exit capacity auctioned with tariffs set by regulator based on complex modelling

Ex ante incentive regime/economic regulation required

# AEMC - GAS PUBLIC FORUM

## WALLUMBILLA GAS SUPPLY HUB - DEVELOPMENT

30 September 2015

# PROJECT BACKGROUND



- AEMO tasked by the COAG energy council with a review of hub services with a view to supporting a transition from the three initial trading locations to a single Wallumbilla gas market
- AEMO and GSHRG considered options for establishment of single Wallumbilla product – high level design report presented to Council in July 2015. (*Phase 2*)
- Detailed concepts developed in Phase 3 of the project:
  - Optional Hub Services model, and
  - Single Trading Zone model
- AEMC and AEMO have worked together to align work programs
- Hub services report will be considered at the December meeting of the Energy Council

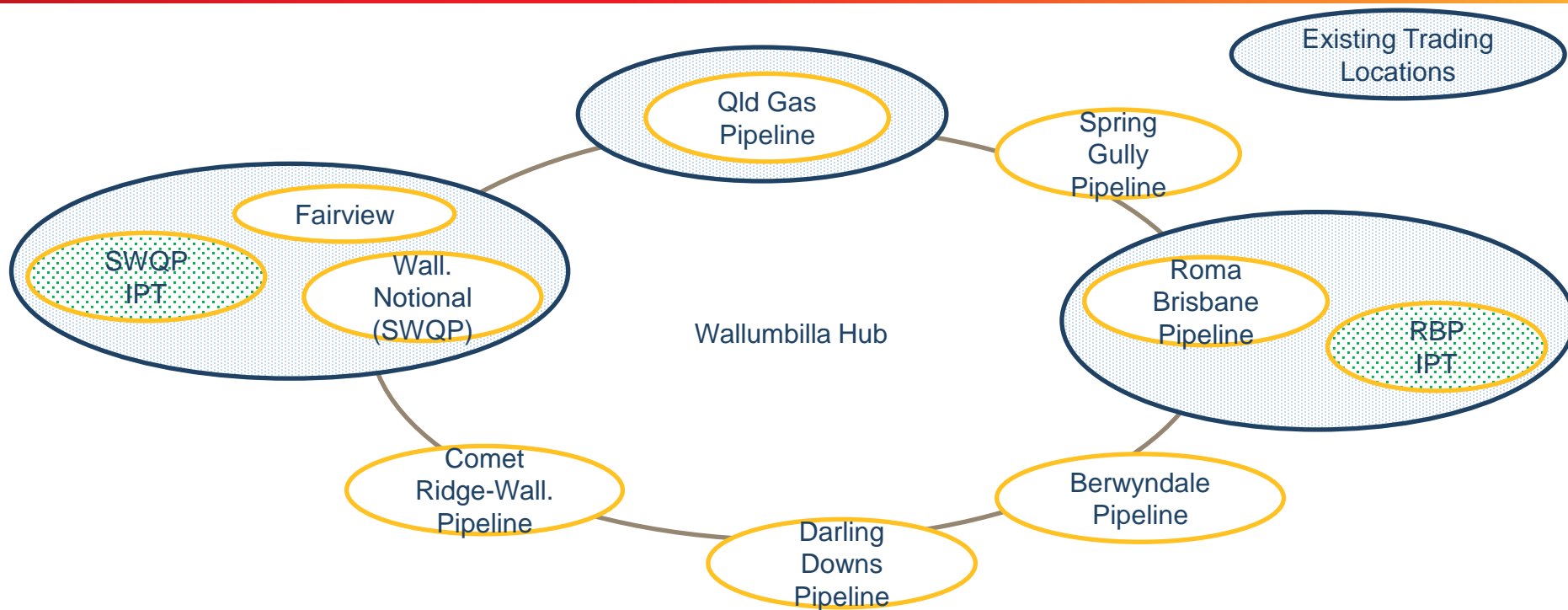


# OPTIONAL HUB SERVICES MODEL



- Pools together trading participants operating on pipelines connecting at Wallumbilla to form a single market
- Hub services (*compression, redirection*) facilitate the delivery of transactions between buyers and sellers on different pipelines
- Trading participants responsible for the procurement and scheduling of hub services. Model supports bilateral procurement of hub services:
  - Locational delivery netting and matching,
  - Default delivery location,
  - Secondary trading of hub services
- Hub services may also be purchased from facility operators
- Current voluntary market framework would apply to commodity and hub service trading

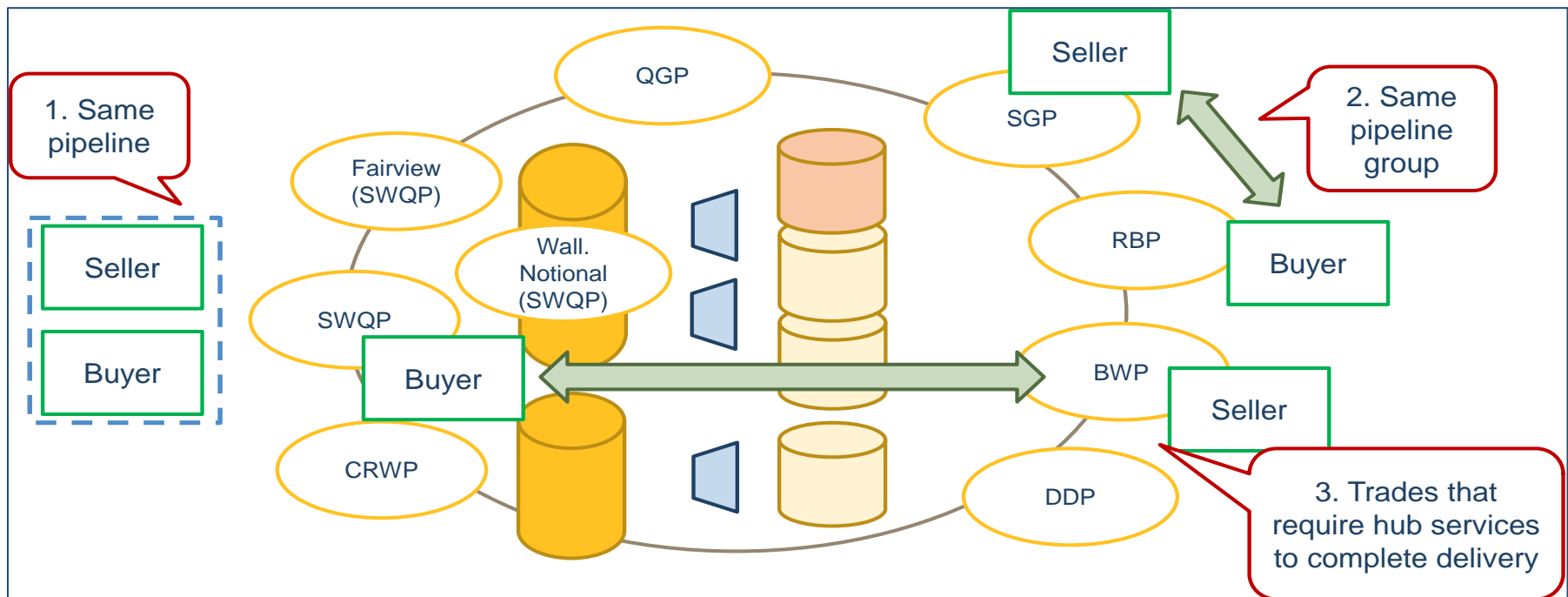
# HUB DEFINITION



- Default location for transfer of title for transactions between participants on connecting pipelines
- Proposed hub definition combines existing trading locations with LNG pipelines into a single market

# LOCATIONAL DELIVERY NETTING AND MATCHING

- Aim to minimise hub service requirements of the market.
- Extend existing delivery netting to prioritise the matching (for gas delivery) of positions on the same and similar facility.



# SINGLE TRADING ZONE



- The Single Trading Zone model also groups together delivery points on key facilities connecting at Wallumbilla to form a single gas market. Unlike the OHS model:
  - a hub operator would be appointed and would be responsible for managing operations at the gas hub on behalf of participants
  - all gas traded at or transiting the Wallumbilla hub would be made at a virtual trading point and delivered by a hub operator and arrangements for the provision of hub services would be applicable to all Wallumbilla gas flows
- The Single Trading Zone model presented is only one variant of such a model and is presented at a high level



- The market would have the following features:
  - Voluntary trading but a common participation framework would apply to all flows (traded flows, bilateral flows and transiting flows)
  - Mandatory market balancing regime
  - Centralised service provision and delivery process
  - Centralised investment model (hub operator manages investment)
  - Hub service agreement that establishes the legal framework for the operation of the hub and participation at the virtual trading point
  - Common pre-determined tariff framework that applies to all flows

# TOOLS FOR CREATING A VIRTUAL TRADING POINT SERVICE

## Tools Available to the Hub Operator

Aggregating and netting flows

Physical Services

Linepack

Storage

Swap Services

## Virtual Trading Point Service

Hub Operator: Virtual  
Trading Point Service

# MODELLING WALLUMBILLA GAS FLOWS & HUB SERVICE REQUIREMENTS



- The Wallumbilla gas flows and associated hub service requirements were analysed as part of the review of hub services:
  - The key inputs and scenarios used on the modelling were as per the 2015 GSOO.
  - Medium demand, high GPG demand and an unplanned LNG plant outage scenarios.

## *Results*

- While hub flows are expected to change considerably, both in direction and magnitude, Wallumbilla will continue to be a major transit location.
- Analysis suggests that existing compression capacity installed at Wallumbilla is sufficient to meet modelled gas flows => support a single Wallumbilla market.

# RECOMMENDATIONS AND DEVELOPMENT PATH



## *Optional Hub Services*

- Recommend the implementation of a single Wallumbilla product through the Optional Hub Services model:
  - Development of the Wallumbilla gas trading hub within the existing market framework and would continue to be voluntary
  - Model can be implemented relatively quickly (12 – 18 months)
  - Does not preclude further market development if required

## *Single Trading Zone*

- As the STZ model is presented at a high level (and is only one potential variant), the model requires further detail and assessment of the regulatory and contract options
  - In addition given the mandatory impact on gas flows and on commercial rights, further development would require substantial work and consultation
- AEMO considers that further analysis of Single Trading Zone model is more suited to the AEMC as part of its East Coast gas market review and future gas market development



- Implement Optional Hub Services model through a coordinated and staged approach
- A step on path towards liquid, efficient market – would like to see emergence of firm hub services that provide efficient access to the market, third party provision of services and innovation in service provision

## *Wallumbilla Development*

- Wallumbilla development to be considered in context of any recommendations by the AEMC
- AEMC & AEMO to consider future development as part of Stage 2 of EC gas market review

# Wholesale Gas Market Design Options

*Pamela Taylor and Jason Mann*

# COAG Energy Council has set out vision for liquid wholesale gas markets

*“ the establishment of a liquid wholesale gas market that provides market signals for investment and supply, where response to those signals are facilitated by a supportive and regulatory environment, **where trade is focused at a point** that best services the needs to participants, where an efficient reference price is established , and producers consumers and trading markets are connected to infrastructure that enables participants the **opportunity to readily trade between locations** and arbitrage trading opportunities.”*

Council of Australian Governments, December 2014

FTI  
appointed  
by AEMC  
to advise  
in two  
areas

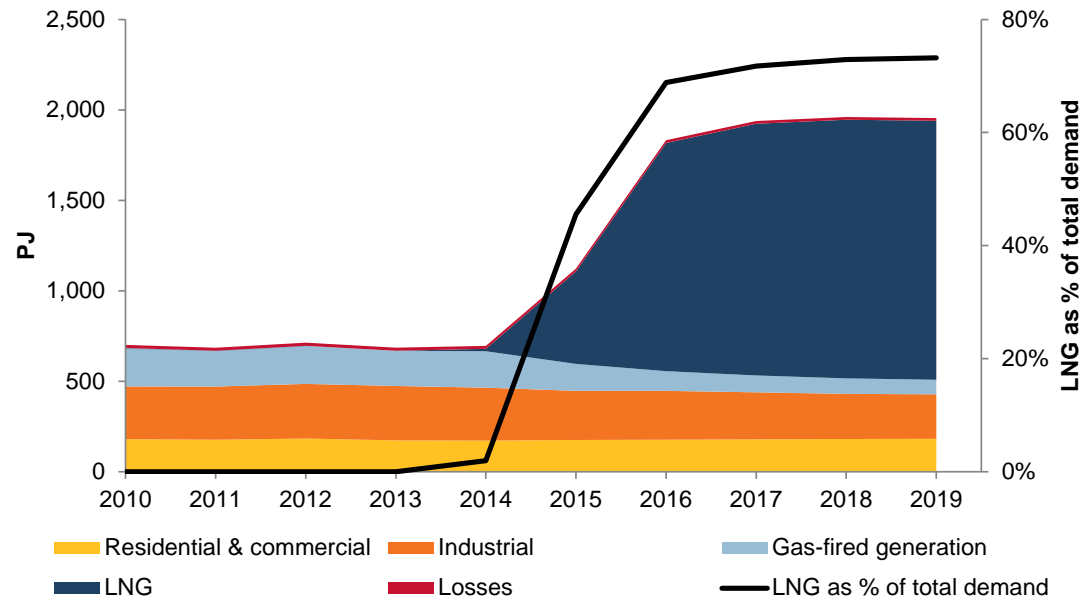
1. Conceptual design of one or more trading points on the East Coast and the arrangements to access these points

2. Arrangements to trade and balance gas supply and demand at these trading points.

Our report to AEMC will be informed through consultation with stakeholders this week

- Rationale for liquid wholesale gas markets
- Physical vs Virtual hubs
- Trading and balancing arrangements

# Gas market in East Coast of Australia undergoing rapid change as it becomes major exporter of LNG...

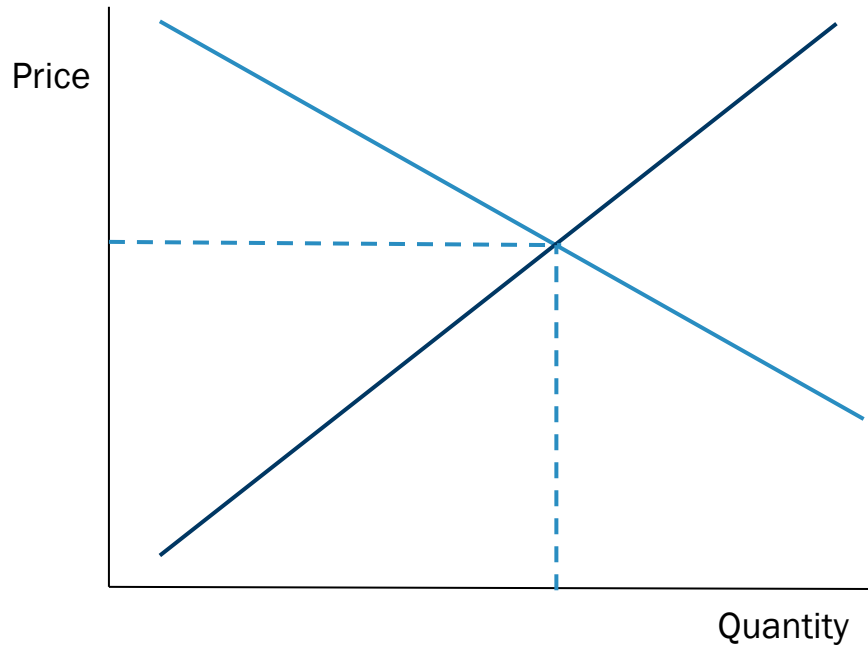


- Demand for gas from the three LNG operations being developed at Curtis Island is expected to increase substantially.
- By 2016 it will account for over 70% of total eastern Australian demand...
- ...implies threefold increase in gas demand within 3 years
- Long-distance pipelines with little regulation
- Network is changing in response to new exports
- Investment in new compressor stations will allow two way flow on some pipes

...and appear to serve as a catalyst for changes to market design



## Liquid wholesale gas markets create reliable price signals...



**Supply**



**Demand**

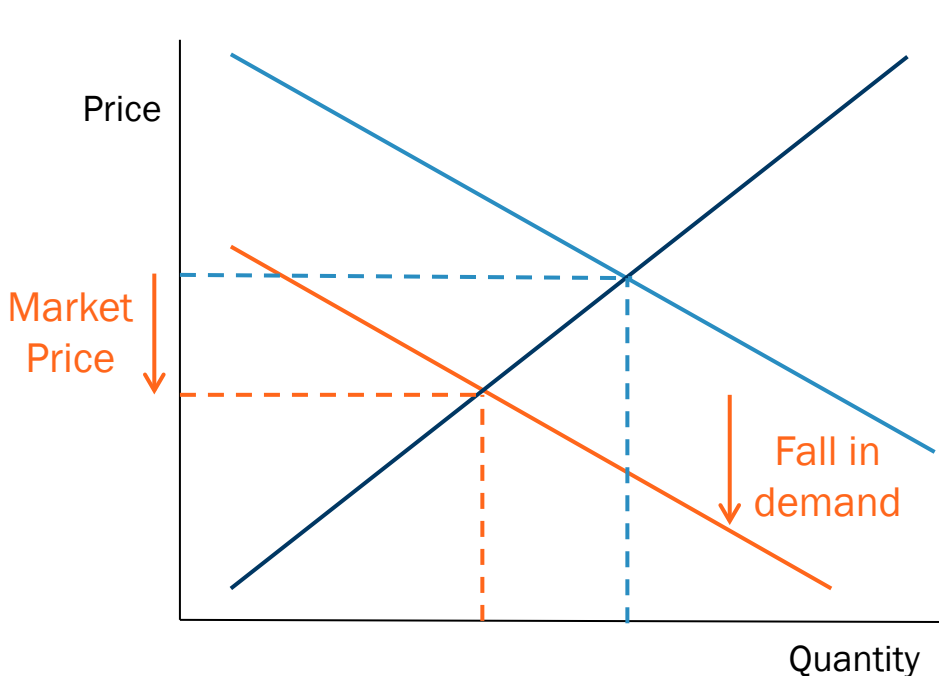


### Characteristics of a liquid gas market

1. Large numbers of buyers & sellers
2. Sufficient volumes of gas being traded
3. Low transaction costs to trading

..., which promotes short-term operational efficiency in the use of gas and long-term efficiency in capital investment

## Liquid wholesale gas markets creates reliable price signals...



Lower market price signals need to drop production or increase in other source of demand

Supply



Demand



### Characteristics of a liquid gas market

1. Large numbers of buyers & sellers
2. Sufficient volumes of gas being traded
3. Low transaction costs to trading

..., which promotes short-term operational efficiency in the use of gas and long-term efficiency in capital investment

## Liquid wholesale gas markets have three key features...

1

### Defined Trading Point

- Point where buyers and sellers can trade gas.
- Two types:
  - Physical hubs are located at physical points where pipelines interconnect (e.g. Henry Hub in the US)
  - Virtual hubs cover one or more networks (e.g. NBP and TTF)

2

### Access to trading point on non-discriminatory basis

- Regardless of whether physical or virtual market participants must be able to transport gas to and from trading point;
- For virtual hubs pipeline capacity is booked to enter and exit the hub...
- ...but within hub, shippers have “unlimited” access to network

3

### Access to flexible gas on a non discriminatory basis

- Short term flexibility: To meet peaks and troughs in demand and production need to be able to buy and sell gas through day ahead, on the day markets or through TSO balancing; and
- Longer term products: Have a diverse range of forward products to allow participants to hedge price risks.

# Despite currently having 5 trading hubs in the East Coast of Australia, liquidity is low - gas mainly traded via long term contracts

1

Defined Trading Point

- **Physical hubs** : Gas Supply Hub (GSH) in Wallumbilla Queensland & Short Term Trading Markets (STTMs) in Adelaide, Brisbane and Sydney
- **Virtual hub**: Declared Wholesale Gas Market (DWGM) in Victoria

2

Access to trading point on non-discriminatory basis

- Most pipelines tariffs are **bilaterally negotiated** & **no requirement to publish tariffs** (except for Carpentaria, MSP)
- No regulatory oversight of tariffs except for (DTS, Central Ranges pipeline and RBP)

3

Access to flexible gas on a non discriminatory basis

- Mandatory trading day-ahead on STTMs and five times during the gas day at DWGM...
- ..but most trading is the same party shipping gas to and withdrawing gas from the hub.

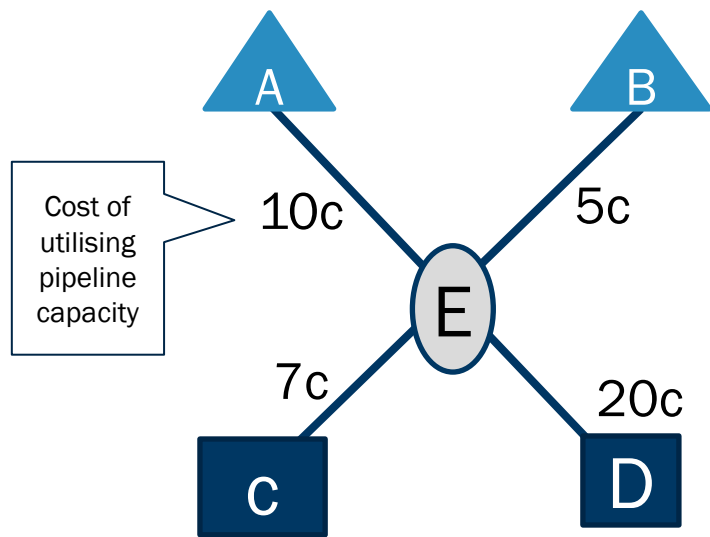
- Rationale for liquid wholesale gas markets

- Physical vs Virtual hubs

- Trading and balancing arrangements

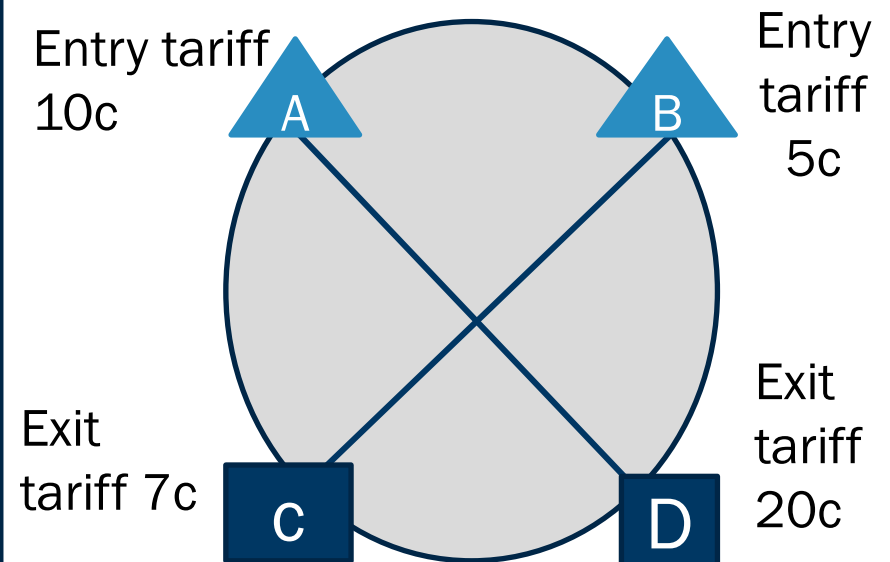
So long as there is non discriminatory access to pipeline capacity trading at physical and virtual hubs is similar

## Physical



- Participants pay to use specific pipelines
- Hence, to go from A to C would cost 17c
- Gas is traded at point E on a voluntary bilateral basis

## Virtual



- Participants pay to enter or exit virtual hub but no need to book capacity along the route
- To enter at A and exit at C would cost 17c
- Gas can be traded anywhere in the hub on a voluntary and bilateral basis too.

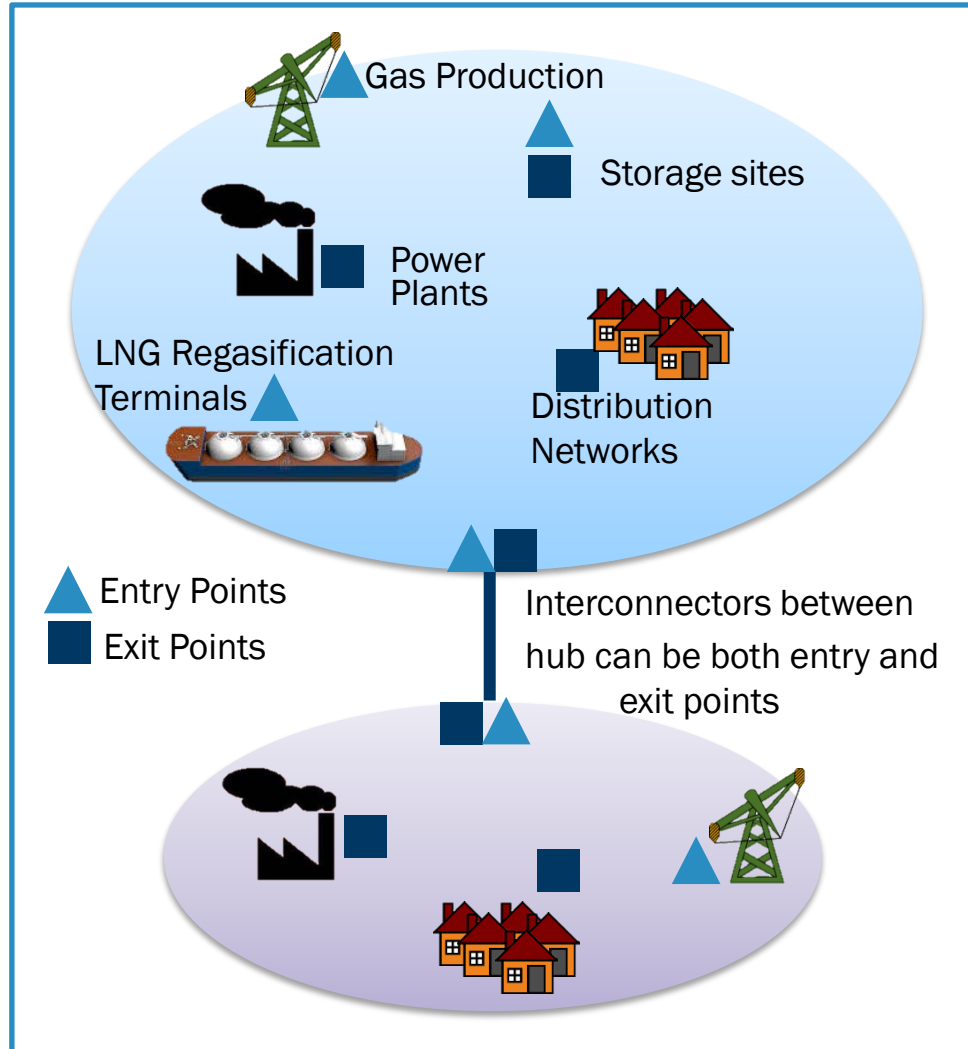


## Current arrangements in East Coast of Australia contrast to experience of physical hubs in US in two key areas.

	Physical hubs in the US	East Coast of Australia
1 Number of players	<ul style="list-style-type: none"><li>■ Large number of players</li></ul>	<ul style="list-style-type: none"><li>■ Fewer players</li></ul>
2 Arrangements for access to pipelines	<ul style="list-style-type: none"><li>■ Transparent and non-discriminatory access – all participants pay the same price</li><li>■ Secondary trading of zonal products</li><li>■ Competition between pipeline routes</li></ul>	<ul style="list-style-type: none"><li>■ Access arrangements opaque</li><li>■ Limited secondary trading of capacity</li><li>■ Few pipeline owners</li><li>■ Limited competing routes</li></ul>

...hence, if physical hubs are preferred then, to get liquidity, would need to regulate access and consider whether number of players is sufficient

# Could virtual hubs offer an alternative for the East Coast of Australia?



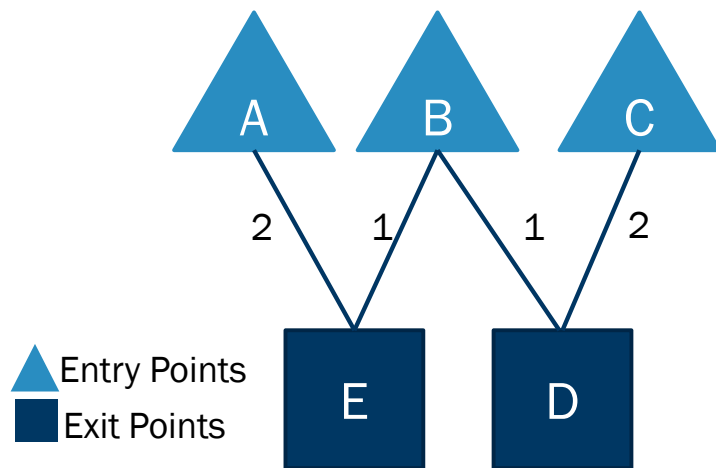
## Accessing Virtual hubs

- Market participants book entry and exit capacity but not capacity along the route of gas flows;
- In fully functionary entry-exit system users are not required to match volumes of entry capacity booked with capacity at particular exit points;
- Gas delivered at any entry point can be sold to any participant wishing to offtake gas at any point within virtual hub
- Any network congestion within the hub is managed by the system operator...
- ... and cost smeared across market

... virtual hubs provide market participants with the flexibility to trade anywhere within the hub

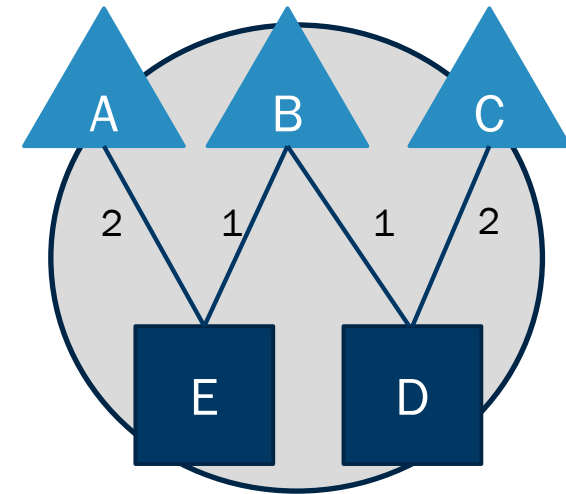
However, virtual hubs are associated with higher costs of system management...

## Physical



- 6 units of capacity are made available: A - E 2; B - D 1; B - E 1; C - D 2
- No congestion will arise
- Capacity maximised – but no flexibility in trading routes.

## Virtual



- Sell 2 units of entry capacity at A, B and C
- Sell 3 units of exit capacity at E and D
- Risk is participant with capacity at B will wish to flow 2 to E ...
- ... but insufficient physical pipeline capacity
- System operator either offers less entry capacity at B or must buy back capacity at B

...therefore footprint of virtual hub is a judgement between benefits of greater access against cost of congestion management

# Virtual hubs can be designed to signal the need for investment in pipeline capacity at entry/ exit points

## Auction



- Capacity at interconnection points between EU hubs is sold via an auction, which ensures when capacity is scarce prices increase to reflect the need for additional capacity:
  - Reserve prices are set for long-term capacity sold in an ascending clock auction; and
  - Short term capacity (day-ahead / within-day) can be sold at a discount in a uniform price auction

## Standardised products



- Capacity at interconnection points is sold as a 'bundled' of entry and exit capacity

## Standardised periods



- Annual, quarterly, monthly daily and within day

... but not at points within the entry-exit zone, where capacity is not booked but is managed by system operator

The tariffs to enter and exit virtual hubs can vary by location to provide signals to network users and investors.

1

Determine revenues

- Need to determine revenue that pipeline operator is allowed to recover
- For multiple pipelines owners within single hub need to agree approach to sharing

2

Decide on approach to cost recovery

- Average cost – total cost incurred by pipeline operators divided by capacity
- Long run marginal cost – signals where costs of utilising network is higher

3

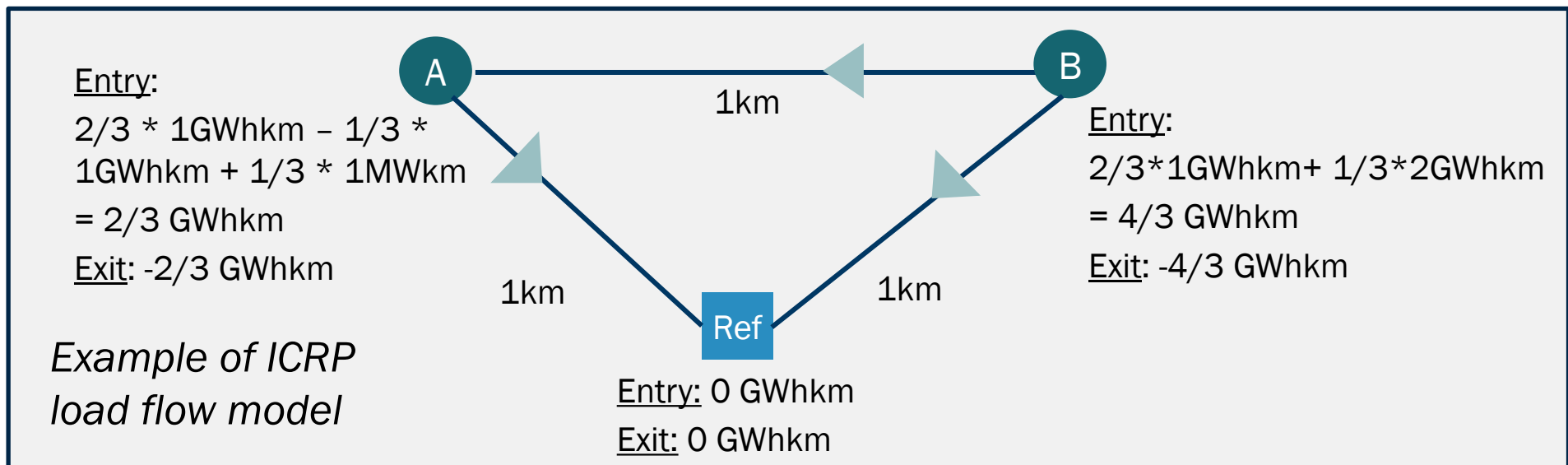
Derive entry exit tariffs

- Postage stamp – derived from average costs. Levies a flat fee on all users.
- LRMC – derives locational tariffs on basis of modelled costs of meeting increments of demand at all points on network

... but tariff setting process involves more complex modelling of gas flows within the hub than distance-based tariffs

## Approach to deriving locational signals

- Step 1: Calculate marginal cost of investment to meet incremental injections at each node (using a modelling technique called DC ICRP loadflow)
- Step 2: Model estimates changes in capacity in GWhkm to meet incremental demand

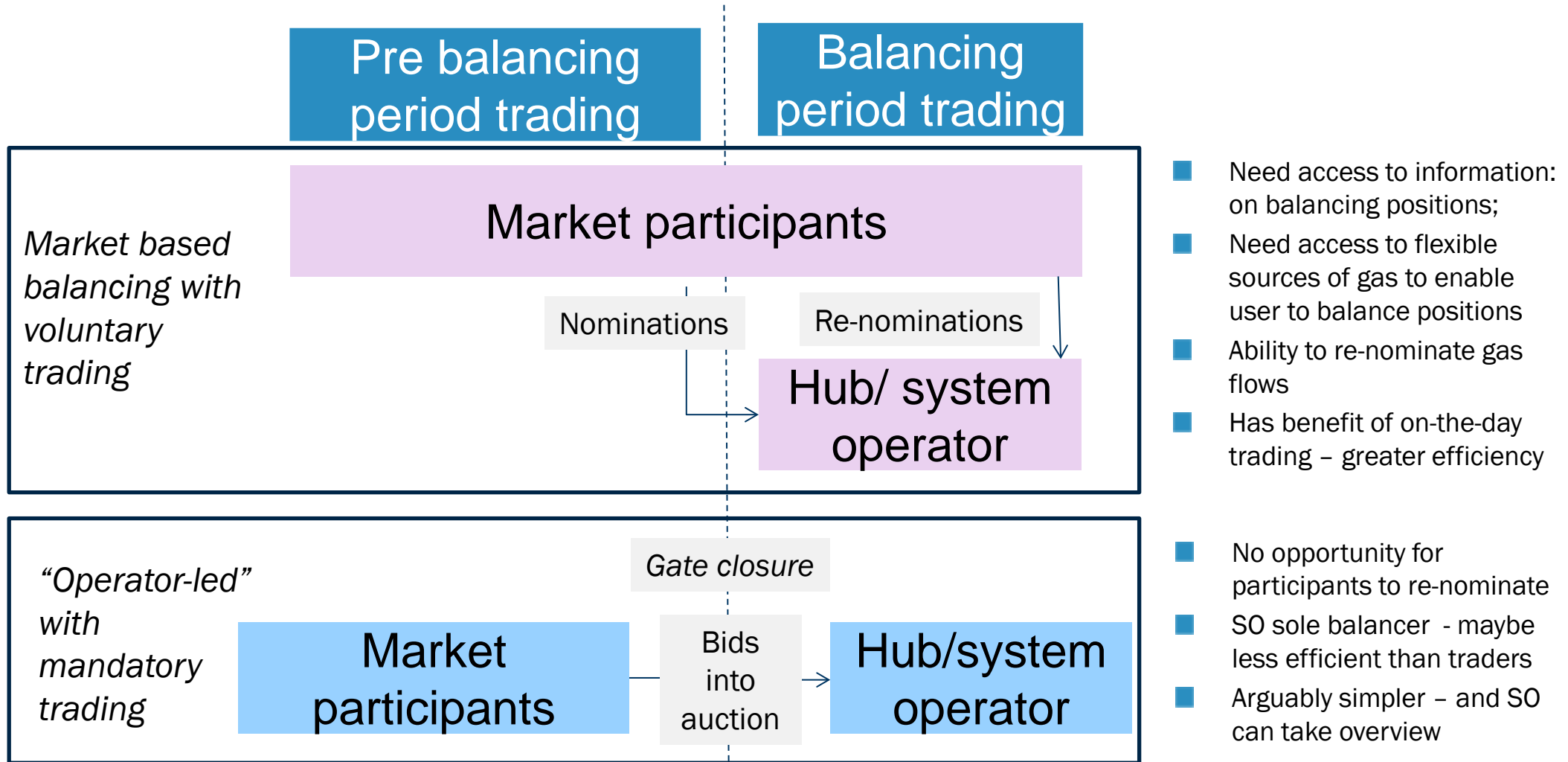


- Step 3: Once derived incremental GWhkm, multiply by “expansion constant” to derive entry exit tariffs
- Step 4: Scale derived entry exit tariffs to ensure overall allowed revenue is collected



- Rationale for liquid wholesale gas markets
- Physical vs Virtual hubs
- Trading and balancing arrangements

## Two approaches to trading and balancing, each has merits



...there is a balance between promoting trading and simplicity

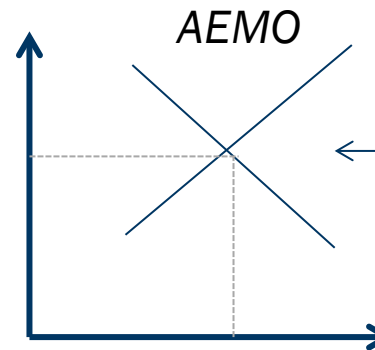
## Price discovery at virtual hubs will depend on type of trading

*Mandatory, centrally cleared, trading at existing virtual hubs in East Coast Australia*

Sellers

Buyers

Mandatory bidding



Market price determined by market operator

*Voluntary bilateral and exchange-based trading as per virtual hubs in Europe*

Sellers

Buyers

Voluntary bilateral trading

Price reporting agency

Reference price reported

# Balancing period duration and imbalance charges

## Balancing period duration

- Shorter balancing periods may enhance cost reflectivity...
- .... but only if complemented by a regime that allows access linepack and other flexibility on non-discriminatory basis
- Otherwise, shorter balancing periods might deter market entry
- Longer periods facilitate trading...
- ....although will come with additional cost of system operator managing within days flows which is smeared across all users

## Imbalance charges

- Cash out prices pay for differences between nominated contractual position and actual metered volumes
- Typically derived from cost of system operator actions
- Two key sets of variables
  - Marginal versus average cost
  - Single versus Dual imbalance charges
- May also levy nomination deviation charges

# Liquidity can emerge at either physical or virtual hubs but certain pre-requisites have to be met

	Physical	Virtual
Pros	<ul style="list-style-type: none"><li>■ Locational price signals</li><li>■ Regulatory oversight of tariffs is less complex</li><li>■ Strong signals for pipeline investment</li></ul>	<ul style="list-style-type: none"><li>■ Pools more buyers and sellers</li><li>■ Provides flexibility to trade anywhere</li><li>■ Can signal pipeline investment to enter and/ or exit the hub</li></ul>
Cons	<ul style="list-style-type: none"><li>■ Requires large number of market participants and pipeline owners at specific points</li><li>■ In absence of competing routes, need regulation of access to pipes and flexibility</li></ul>	<ul style="list-style-type: none"><li>■ Operator needs to manage flows within hub which leads to either increase in (smeared) costs and/or reductions in capacity</li><li>■ More complex process for setting transportation tariffs</li></ul>
Two aspects common to either approach...	<ul style="list-style-type: none"><li>■ <b>Regulation of access to pipelines:</b> under either physical or virtual hubs need to ensure non-discriminatory and transparent access to pipelines</li><li>■ <b>Wholesale trading::</b> approaches to trading and balancing arrangements on dependent on choice of physical or virtual hubs</li></ul>	

# Agenda

<b>Welcome</b>	<b>2:00</b>
<b>Session 1 – Wholesale Gas Markets</b> 1.1 Introduction – Daniel Hamel (AEMC Senior Economist) 1.2. Wallumbilla Gas Supply Hub project – Peter Geers (AEMO) 1.3. Hub design – Jason Mann and Pamela Taylor (FTI Consulting) 1.4. Q&A Panel Discussion	<b>2:10</b>
<b>Break – afternoon tea</b>	<b>3:45</b>
<b>Session 2 – Pipeline regulation and capacity trading</b> 2.1. Introduction – Andrew Truswell (AEMC Director) 2.2. Gas third party access regime – Jeff Balchin (Incenta) 2.3. Q&A Panel Discussion	<b>4:00</b>
<b>Close</b>	<b>5:00</b>

# Pipeline regulation and capacity trading

Public Forum, Sydney, 30 September 2015



**Andrew Truswell, Director**  
AUSTRALIAN ENERGY MARKET COMMISSION



# Importance of pipeline arrangements to the Energy Council's Vision

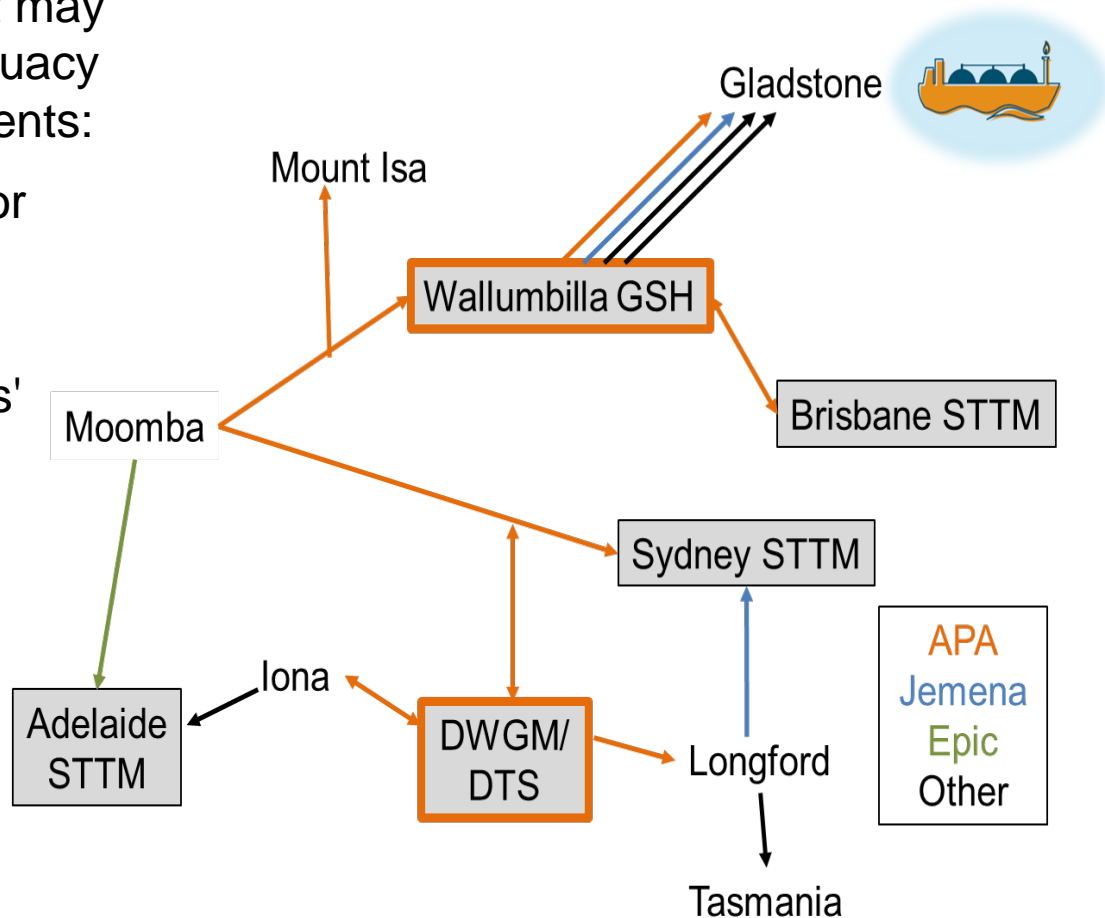
The Council's vision is for the establishment of a liquid wholesale gas market that provides market signals for investment and supply, where responses to those signals are facilitated by a supportive investment and regulatory environment, where trade is focussed at a point that best serves the needs of participants, where an efficient reference price is established, and producers, consumers and trading markets are connected to infrastructure that enables participants the opportunity to readily trade between locations and arbitrage trading opportunities.

# Challenges to the current arrangements

Structural changes in the market may be calling into question the adequacy of the current pipeline arrangements:

- Increasingly networked sector
- Increased market concentration
- Greater variability in shippers' transportation requirements (eg, caused by LNG)

To develop a more liquid wholesale gas is likely to require arrangements which allow pipeline capacity to be seamlessly reallocated



# Capacity trading illiquidity: are there impediments to efficiency?

Efficiency entails allocating existing capacity to parties that value it most highly

## Possible impediment to efficiency

High search and transaction costs

Lack of incentives to provide access by shippers that hold capacity

Lack of incentives to facilitate access by pipeline owners

## Examples

Transaction costs

Information deficit

Customised GTAs

Cap trading not shippers' core business

Capacity "hoarding"

Restrictive provisions in GTAs

Restrictive provisions in GTAs

High prices offered by pipeline owners

Low levels of pipeline service

# How successful is the current regulatory regime in addressing these issues?

## Current design of regime

---

- Coverage determined under Gas Third Party Access Regime, based on National Access Regime
- National Access Regime designed to address competition issues in vertically aggregated industries:
  - misuses of market power that may adversely affect competition in markets upstream or downstream of infrastructure

## Issues in transmission sector

---

- As a vertically disaggregated industry, the regime may not be well suited for the gas transmission industry
  - issues of market power in the pipeline sector itself may not be being considered as part of the coverage test
- Absent of other constraints (such as competition) pipeline owners may have the opportunity to price capacity above, and provide service levels below, that which would be expected in a workably competitive market

# How do overseas regimes address potential impediments to efficiency?



## United States

Pipelines price-regulated by default

Capacity rights well-defined and standardised by pipeline

Regulated capacity provision mechanisms (open seasons)



## European Union

Revenue regulation

Regulated capacity allocation mechanism (CAM) at interconnection points

Congestion management procedures (CMP) – compulsory capacity reallocation

**Appropriateness of applying US or EU provisions in Australian context must be carefully considered**

# Approach A – Facilitate trading between parties to reduce transaction costs

---

Standardised terms and conditions for capacity contracts

Standardised process by which pipeline owners would offer existing spare firm capacity (for example through an auction)

Requirement for information about available capacity and trades to be published through a bulletin board, including the price at which trades occur

Voluntary surrender of capacity mechanism

## Approach B – Improve capacity holder incentives

Compulsory reallocation of shippers' capacity, for example:

- oversell and buy back
- day-ahead use-it-or-lose-it
- long term use-it-or-lose-it

Reserving firm capacity to be traded in the short term

Removing any identified contractual provisions in GTAs which confer monopoly power onto the shipper



## Approach C – Improve pipeline owner incentives

---

Changes to coverage test to more directly consider whether a pipeline owner is exercising market power in transmission market

Changes to regulatory regime, such as which services price regulation is applied to

Prohibitions on contractual provisions in GTAs which limit capacity trading by shippers

# Feedback

---

- Written submissions on Discussion Paper due **16 October 2015**
- Feedback sought on:
  - the nature and extent of the issues identified, and any other potential issues
  - the market's likely ability to respond to these issues in a timely manner absent of regulation, and so the appropriateness of any of the approaches identified

# Coverage test for the gas access regime

**East Coast Gas Review and Victorian  
DWGM Review**

Jeff Balchin – Managing  
Director

AEMC Forum  
30 September 2015

# Our task and approach

- Appropriateness of the “coverage test” as the threshold for regulation in the national gas regime in light of:
  - Experience to date
  - Emerging trends
- Approach was to:
  - Define the source of market failure that may warrant price regulation
  - Assess how closely the “coverage test” relates to this market failure
  - Consider the observe trends in the gas market and whether the potential coverage tests remain robust to those trends

# Economic rationale for price regulation

- Natural monopoly characteristics of pipelines creates the potential for market power and pricing above cost
  - Inefficiency and adverse to the long term interests of customers
- Regulation itself has the potential to create substantial cost
  - Direct cost, investment and innovation dissuaded, perverse incentives
- Whether to regulate requires a careful balancing of the realistic benefits from regulation against a realistic assessment of cost
  - Presence of substantial market power and potential for substantial harm
  - Quantitative vs. qualitative assessment and relevance of the objective
  - Form of regulation factors

# Existing coverage test

- Focus in on whether access to a pipeline will create competition in a related market
  - Targeted market failure – denial of access
  - Such a denial of access is not expected in a vertically separate industry (like in the gas sector) – the incentive of a pipeline owner should be to maximise competition in related markets
- Practical application – not an obvious problem, but risks
  - Substantial market power is required – over-regulation unlikely
  - Under *Virgin vs. SACL* interpretation of criterion (a) no need for an actual or potential denial of access
    - But this interpretation is disputed and recommended to be changed (in the National Access Regime)

# Existing test: view of the NCC

*Declaration under the National Access Regime is not a mechanism for imposition of price regulation and was never intended to be such. “Excessive”, “monopolistic” or “gouging” pricing per se is not the focus of Part IIIA. Where such pricing in one market merely transfers income or value from one party in a supply chain to another without materially impacting competition in any other market, Part IIIA does not provide a remedy. The focus of the Regime is on promotion of competition in markets where the lack or restriction of access to infrastructure services provided by facilities that cannot be economically duplicated would otherwise limit competition.*

NCC, Port of Newcastle Draft Recommendation, 2015.

# Issues from emerging network for gas pipelines

- Should the coverage test apply to each pipeline or to the network?
  - As choice of pipeline is technically feasible, assessment of individual pipelines is appropriate – effect of consolidation will flow through into a market power assessment
- Should the coverage test assess ‘pipelines’ or ‘services’?
  - Reorientating the test to individual services reduces risk of under- or over-regulation
- What if regulatory measures are contemplated to promote coordination of use?
  - If no price regulation is needed – apply if the measures promote the NGO
  - If price regulated is a necessary component – the form of the coverage test would need to allow broader benefits to be considered



# Feedback requested



# Agenda

<b>Welcome and introduction</b>	<b>2:00</b>
<b>Session 1 – Wholesale Gas Markets</b> 1.1 Introduction – Daniel Hamel (AEMC Senior Economist) 1.2. Wallumbilla Gas Supply Hub project – Peter Geers (AEMO) 1.3. Hub design – Jason Mann and Pamela Taylor (FTI Consulting) 1.4. Q&A Panel Discussion – Daniel Hamel, Peter Geers, Jason Mann, Pamela Taylor	<b>2:10</b>
<b>Break – afternoon tea</b>	<b>3:45</b>
<b>Session 2 – Pipeline regulation and capacity trading</b> 2.1. Introduction – Andrew Truswell (AEMC Director) 2.2. Gas third party access regime – Jeff Balchin (Incenta) 2.3. Q&A Panel Discussion – Andrew Truswell, Jeff Balchin, Jason Mann, Peter Geers	<b>4:00</b>
<b>Concluding remarks</b>	<b>4:55</b>
<b>Close</b>	<b>5:00</b>