Gas Transmission Access Code: Emerging Views on Detailed Design

17 May 2017

Agenda

- Purpose of today's session
- Process
  - Steps to date
  - Proposed steps from here
- Code governance
  - Concept Consulting's paper on governance options
  - Submissions received
- First Gas work on:
  - Access products
  - Pricing
  - Balancing
- Update on GTAC IT system
- Code transition process

Purpose of today's session

- Describe emerging views on "substantive" GTAC work streams
- Invite initial reactions on what is missing or might not work
- Update on GTAC "process" items: IT replacement, code transition

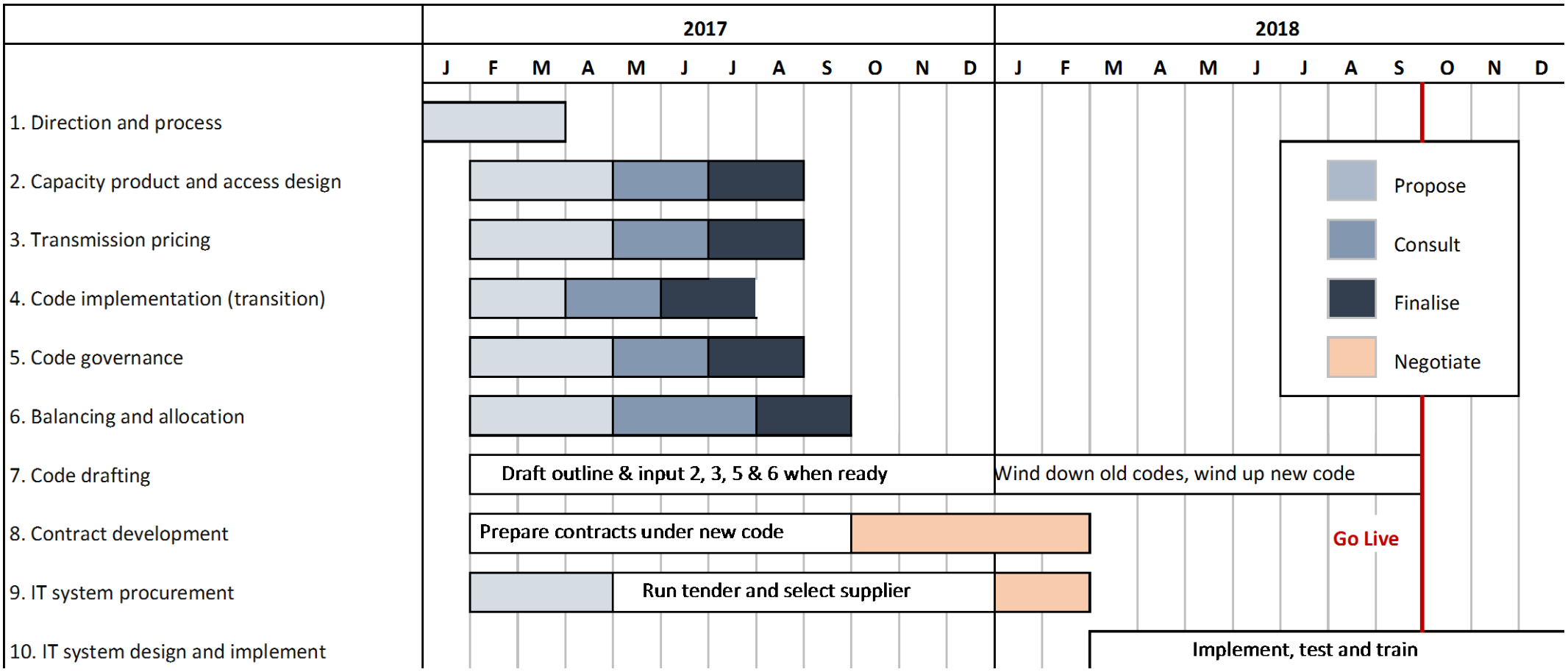
- Complement material released on Friday, 12 May
  - Emerging views on detailed design
  - GTAC code exposure drafts (relevant sections only)

Reminder of what we are trying to achieve

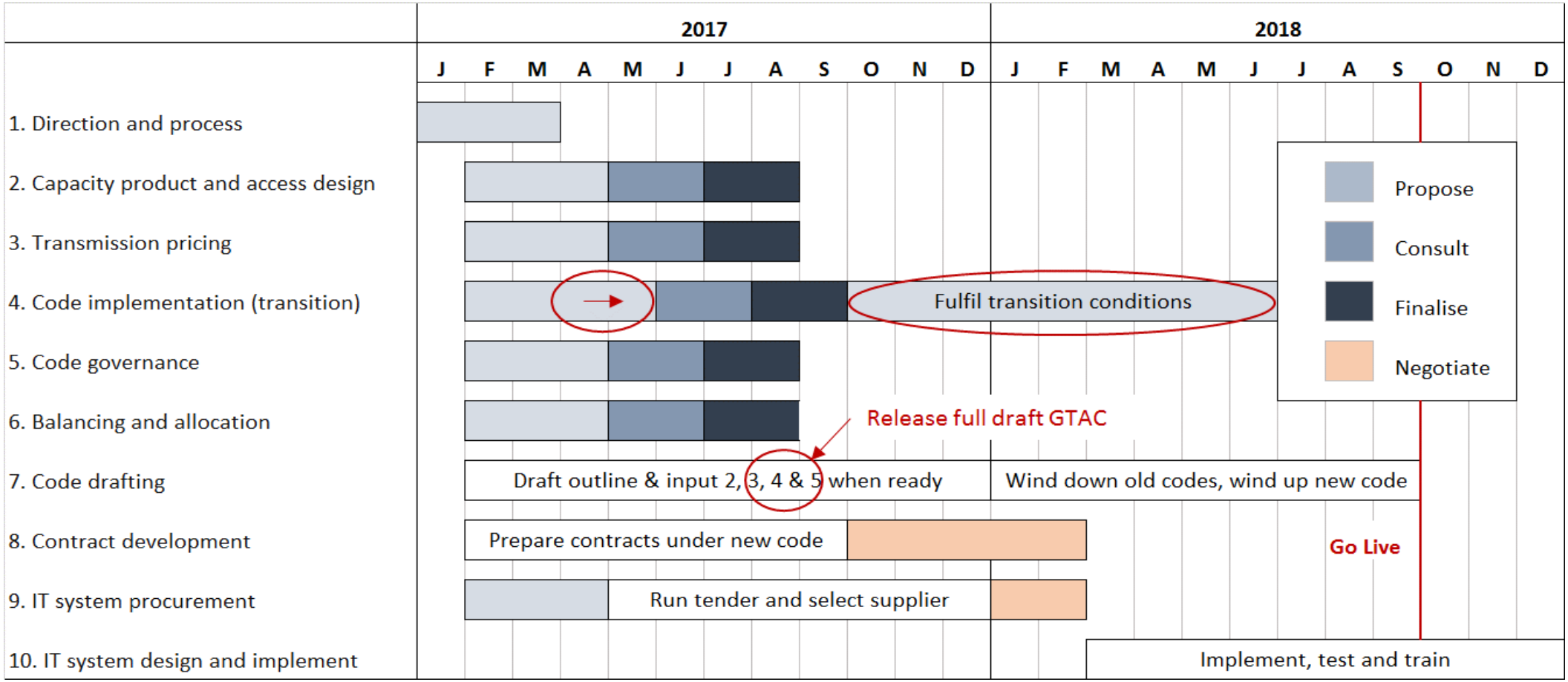
- Design and implement a single transmission access code that provides “end to end” service for our customers
- In SCOP2, we said we would build on the GIC’s regulatory objectives when making decisions on the new code’s design by:
  - Enabling the use of gas
  - Minimising the cost of transporting gas
  - Keeping it simple
  - Promoting flexibility
  - Increase transparency

GTAC Process

Process Proposed in February 2017



Process Update in May 2017



Code Governance
(Concept Consulting)

Access Products

Access Product objectives

Objective	Achieved by	
Enable use of gas	• Min. transactions • Simpler processes	• Flexibility to need • Fewer barriers
Promote competition	• Easier for new entrants • Accessible capacity	• No preferential rights • No capacity hoarding or contractual scarcity
Increase transparency	• Available and accessible info • Public unless a good reason	• Publishing non-standard agreements
Promote efficient investment	• Firm and non-firm capacity • Better price signals – willingness to pay	• Prices that signal future needs • Capacity to highest value during scarcity

Access Products - What did we say in February?

Issue	Provisional decisions	To do
Access products	• Access via DNC • Congestion managed with priority rights to DNC through periodic auctions	• Design priority rights (def., duration, freq. of auctions) • Design auction process (bidding, price setting, secondary trading)

Design of DNC

- DNC provides the *right* to have gas transported from the point where the Shipper buys or otherwise obtains it to the point where the Shipper wishes to take it from the transmission system
- DNC is simple to access and easy to administer
- Experience gained with DNC under MPOC, and support for extending it across the system as a whole

Paper Ref:
AP1 – AP7

Use of Zones and/or Points for DNC

- We explored implementing DNC as a zone-to-zone product
- We are instead proposing a zone-to-point approach:
  - Shippers must provide data to the Allocation Agent by Delivery Point not Delivery Zone
  - Shippers will not need to aggregate nominations by Delivery Zone
  - Delivery Zone nominations would not tell First Gas where capacity is required
  - Nominated capacity for a Delivery Zone would not be available at all points in the Delivery Zone

Paper Ref:
AP5

Priority Rights – What Are They?

- Once acquired, PRs are an option exercisable through a nomination for DNC
- During scarcity, available capacity will be allocated first to DNC backed by PRs
- PRs align with DNC so will be offered at Delivery Points (not zones)
- PRs will be held by Shippers, since they are requesting DNC

Paper Ref:
AP8

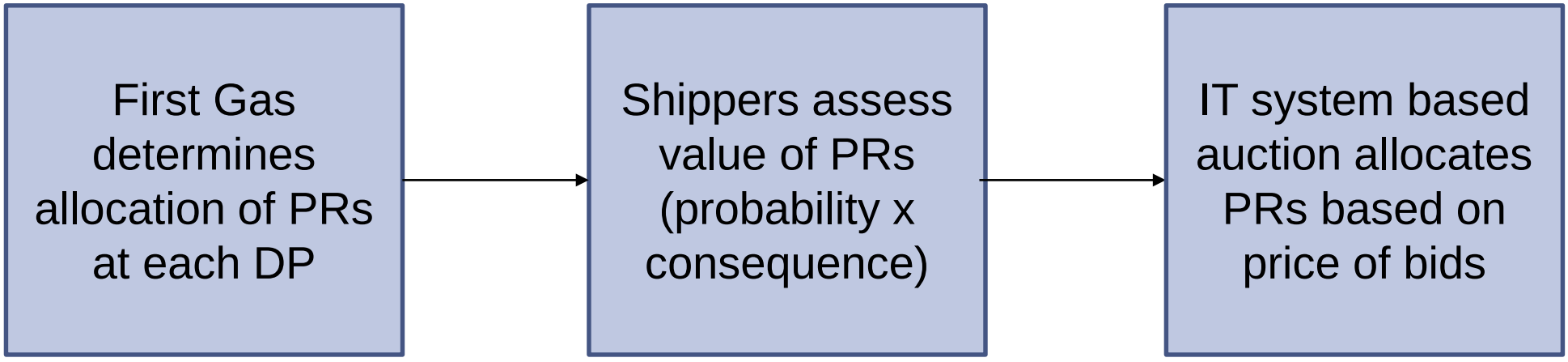
How many PRs can be made available?

- First Gas will determine the number of PRs at a Delivery Point, by considering:
  - Throughput of gas over the last 12 months
  - Knowledge of new or decreasing load at a Delivery Point
  - The amount of supplementary capacity
  - Seasonal variations in demand
  - Load diversity in that part of the system
  - Physical capacity
  - Demand for PRs
- This differs from our earlier proposal that up to 70% of theoretical capacity at a point could be made available for PRs
- We think that this approach is more transparent, reliable and reflects actual rather than simulated use of all Delivery Points

Paper Ref:
AP10

How can PRs be obtained

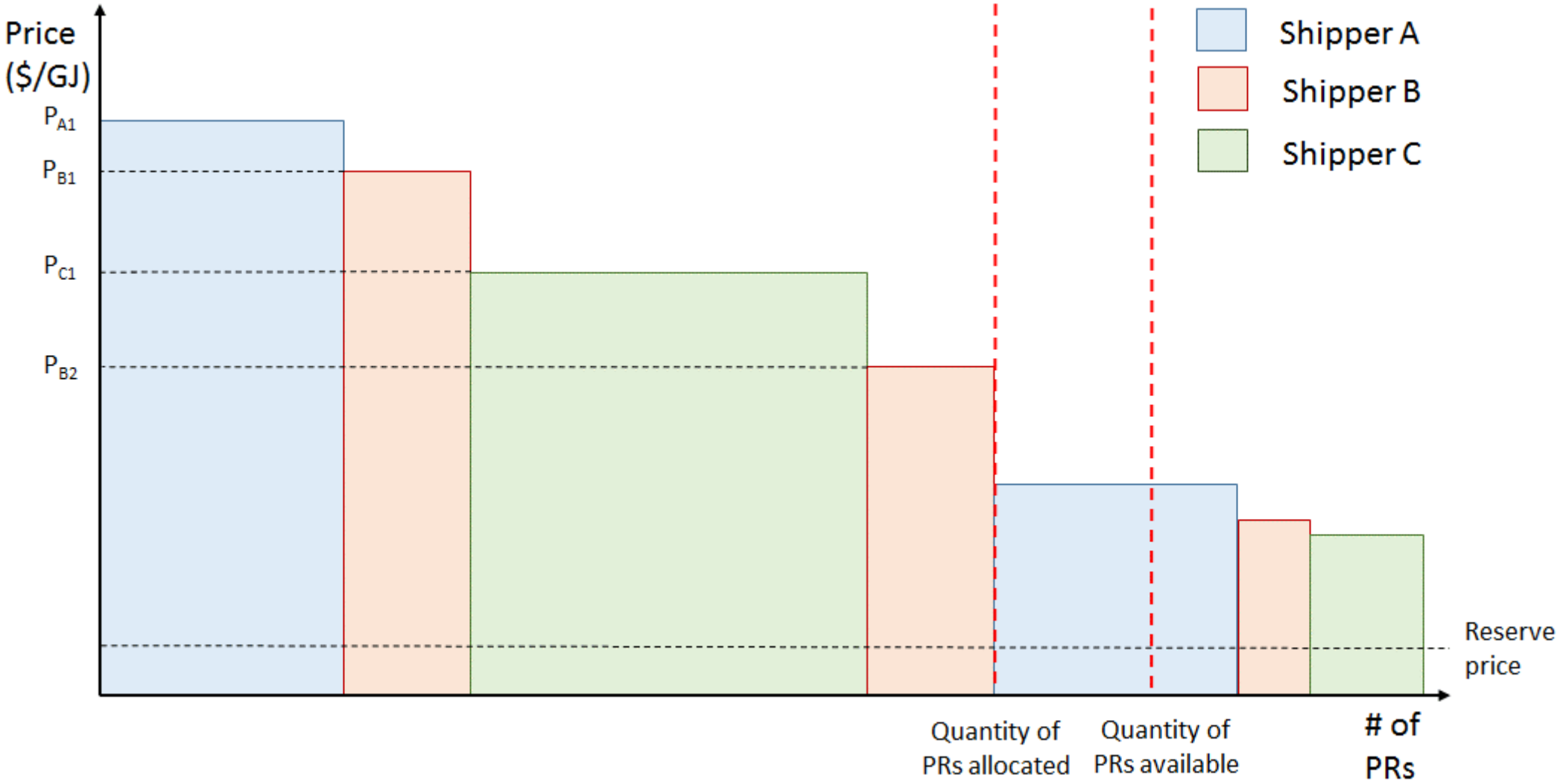
- All PRs will be auctioned
- The specific auction terms and conditions will sit outside of the code (to provide flexibility to adjust process as we learn)
- The number of PRs available at each Delivery Point will be published ahead of the auction



Paper Ref:
AP11

Auction Process for PRs

- PRs allocated on a “Pay as bid” basis
- Reserve price to recover the cost of administering PRs



Auction Process for PRs

Frequency of auctions

- We propose to run 2 auctions per year initially
  - One before the gas year starts in October
  - The other six months later for the period starting in April
- Auctions may be more frequent in future

Duration of PRs

- Until experience with PRs has been gained by First Gas and Shippers, we propose all PRs will have a term of 6 months
- Term of PRs could evolve over time based on Shipper demand
- All PRs will expire at the end of their term

Paper Ref:
AP13 - 14

Secondary Trading of PRs

We propose that:

- Between auctions, the only way to obtain PRs will be through secondary trading (i.e. buying from a Shipper that holds PRs)
- PRs will only be tradeable at the Delivery Point where they were purchased initially (i.e. will not be transferable across the system)
- The price of a PR trade should be transparent

Paper Ref:
AP17

How are PRs used

Under this proposed design:

- To use a PR, a Shipper must nominate for DNC at a Delivery Point where it has PRs
- DNC up to the number of PRs held at the Delivery Point will be approved automatically (i.e. Shippers won't need to notify an intent to "use" PRs)
- Any DNC in excess of the PRs held at a Delivery Point will be subject to curtailment if capacity scarcity occurs (equal rank to other DNC at that point)
- All PRs will attract a PR charge (discussed later, effectively an option fee)
- Unused PRs will not reduce liability for Overrun Charges if the Delivery Quantity exceeds DNC on a day

Paper Ref:
AP20

Other Features of PRs

- First Gas proposes to publish all holdings of PRs following each auction and each trade
- We propose to publish all prices of PRs on the completion of the auction
- We do not believe that PRs should be sold back to First Gas after an auction

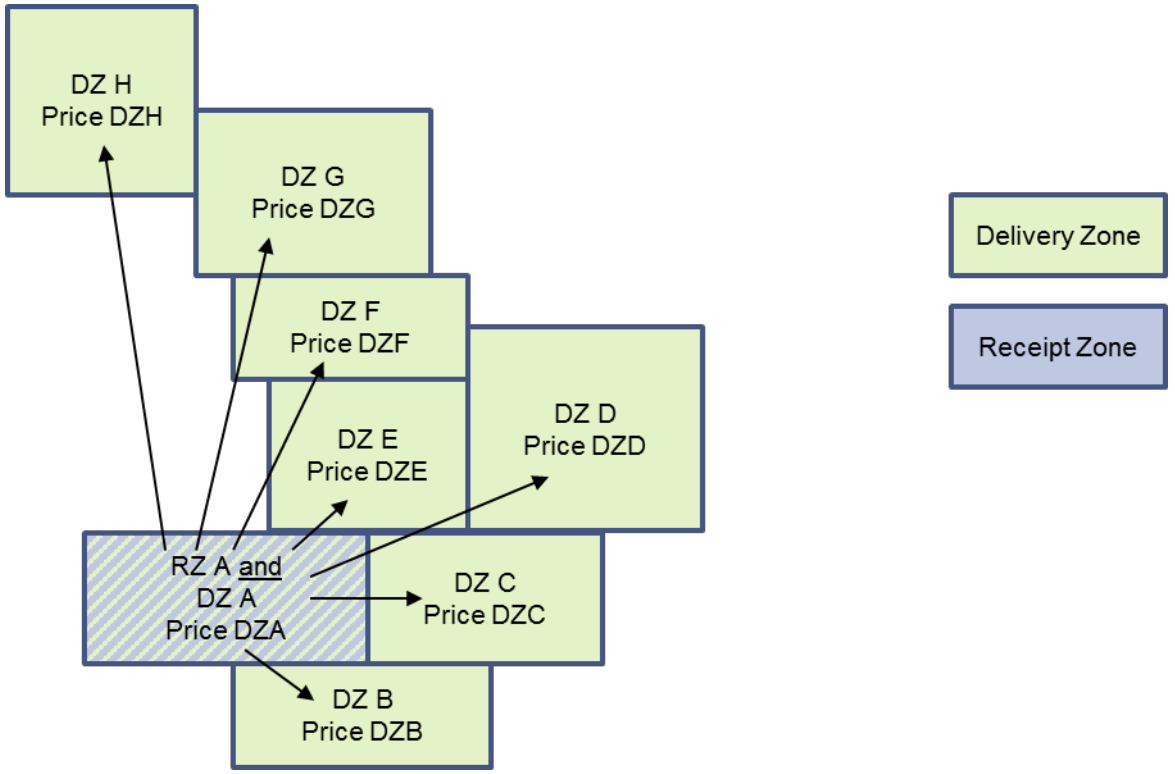
Pricing

Pricing Objectives

Objective	Achieved by	
Recover regulated revenue consistently	• Applying across system	• Complying with ID requirements • Maintaining non-standard prices
Avoid price shock for our customers	• Pragmatic approach • Anchored by existing prices	• Removing any pricing anomalies
Set efficient prices	• Prices reflect value and signal scarcity • Keeping it simple • Applying positive incentives	• Agreeing non-standard prices where these provide value to all users

Pricing – What did we say in February?

Issue	Provisional decisions	To do
Zone Based Access	• Divide transmission system into delivery/pricing zones, probably with a single receipt zone	• Develop criteria for defining zones and adjusting if required



Paper Ref: P4

How to Define Delivery Zones and Set DNC Prices

- Based on trading off objectives of:
  - Keeping it simple and therefore having a limited number of delivery zones
  - Avoiding tariff shock and minimising price changes

Issue	Provisional decisions	To do
Pricing	• Price of DNC set for each zone • Pricing of priority rights through periodic auctions, with reserve price • Overrun charge for exceeding DNC	• Design approach for setting each zonal DNC price • Design auction process for priority rights, including how reserve prices should be set • Explore the need for and feasibility of underrun charges • Determine how any excess revenue will be recycled or under-recovery made up.

Proposed Design of Pricing Methodology

$$\frac{\text{Regulated Revenue}}{\text{Forecast DNC (by zone)}} = \text{(1) Base DNC prices (by zone)}$$

$$-$$

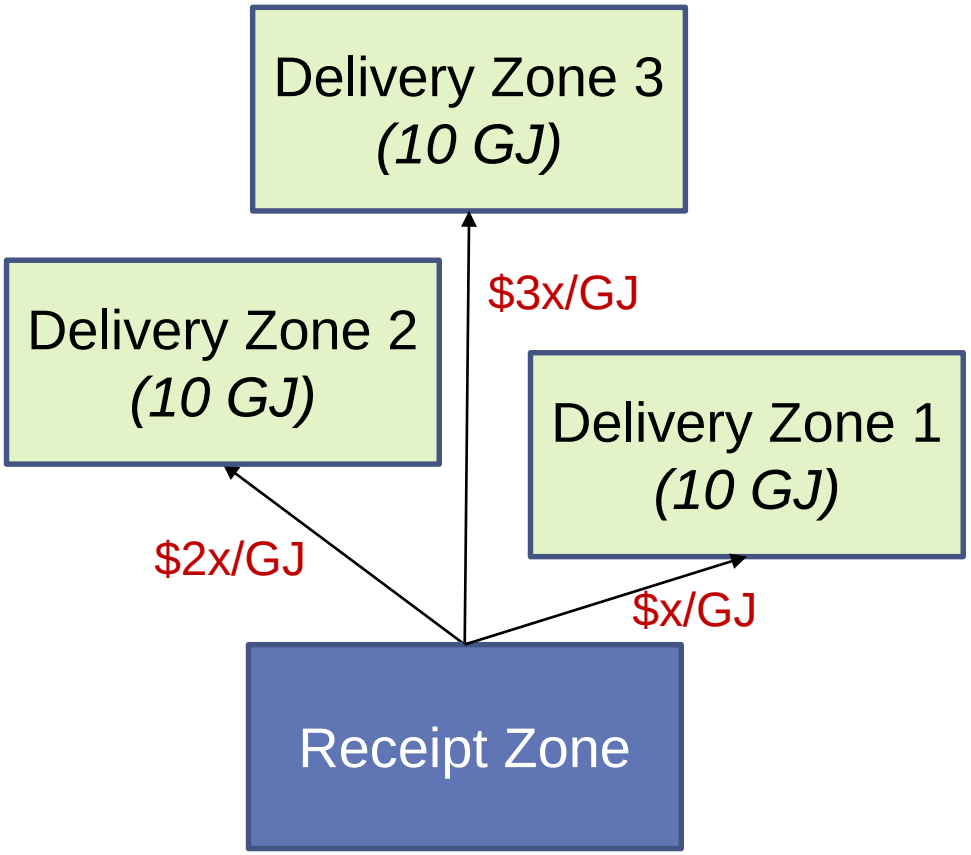
$$\frac{\text{PR revenue}}{\text{Total DNC}} = \text{(2) PRs credit} = \text{(4) Total transmission charges}$$

$$+$$

$$\text{(3) PRs purchased}$$

Proposed Design of Pricing Methodology – Worked example

Regulated Revenue = $60



(1) Base DNC prices (by zone)

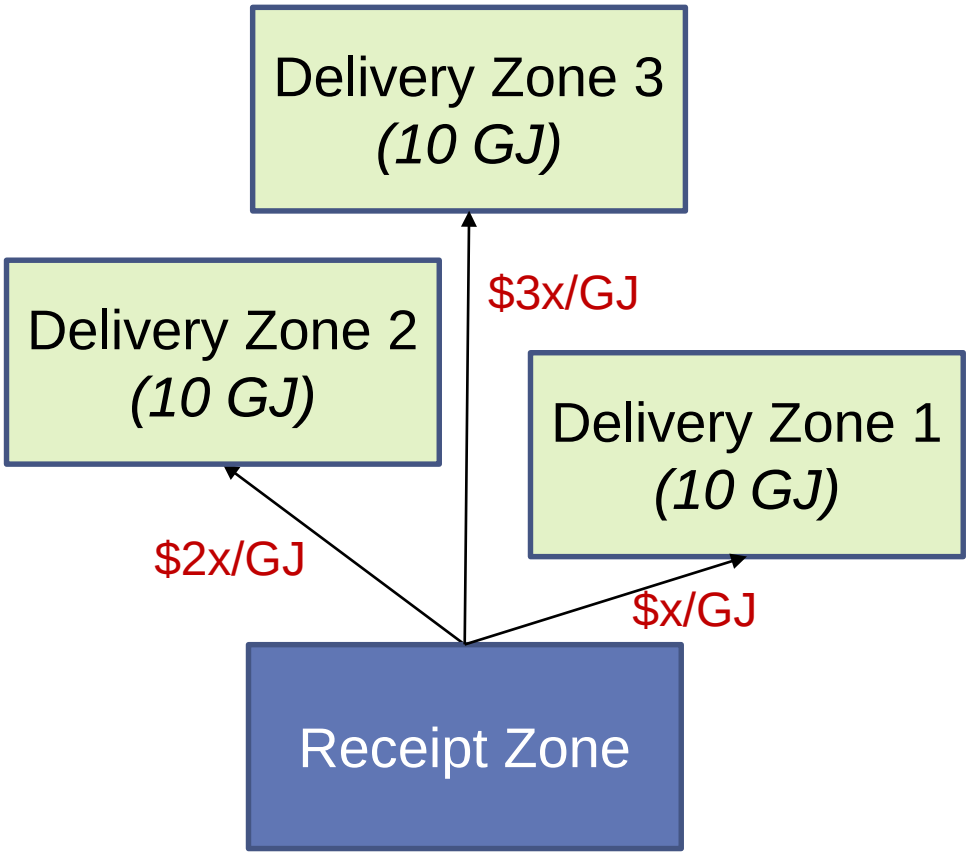
Zone 1 = $1/GJ
Zone 2 = $2/GJ
Zone 3 = $3/GJ

(2) PRs credit

$$\frac{\$3 \text{ PR revenue}}{\text{Total DNC } 30 \text{ GJ}} = \$0.10/GJ$$

Proposed Design of Pricing Methodology – Worked example

Shipper A: Nominates for 5GJ in each pricing zone, buys no PRs



(1) Base DNC prices (by zone)

Zone 1 = $1/GJ x 5GJ = $5
Zone 2 = $2/GJ x 5GJ = $10
Zone 3 = $3/GJ x 5GJ = $15

(2) PRs credit

$$\frac{\text{PR revenue}}{\text{Total DNC}} = \frac{\$3}{30\ \text{GJ}} = \$0.10/\text{GJ}$$

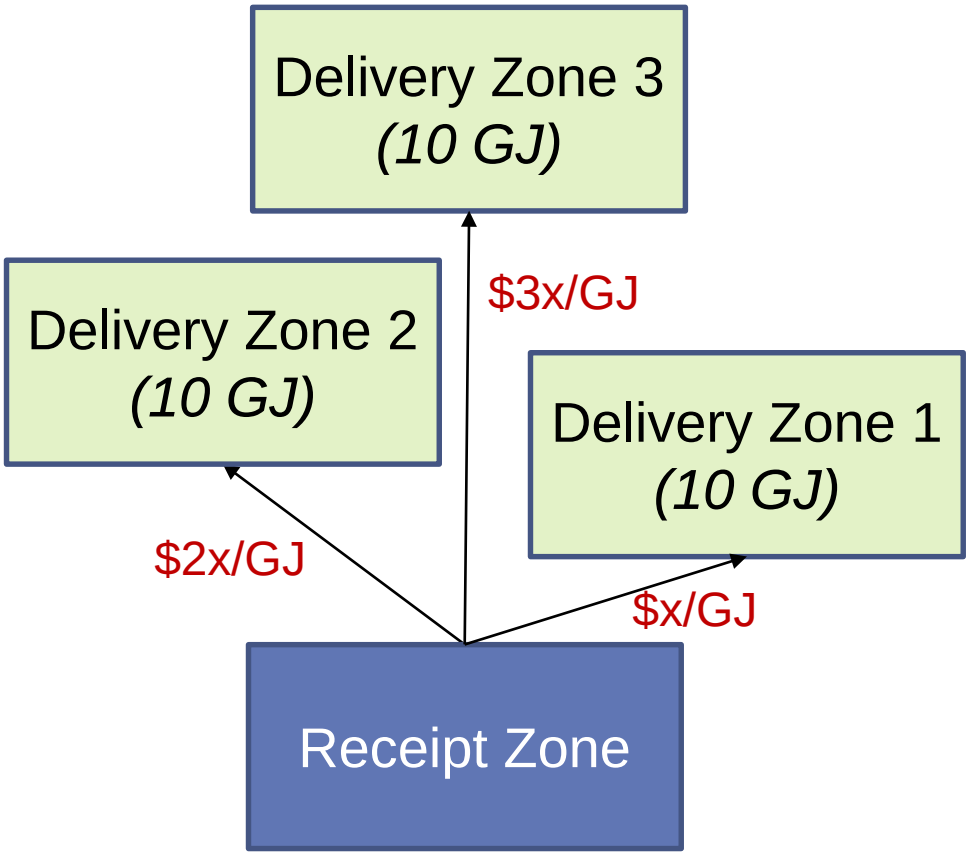
x 15GJ = $1.50

(3) PRs purchased = $0

(4) Total transmission charges = $28.50

Proposed Design of Pricing Methodology – Worked example

Shipper B: Nominates for 1GJ in each pricing zone, buys $3 of PRs



(1) Base DNC prices (by zone)

Zone 1 = $1/GJ x 1GJ = $1
Zone 2 = $2/GJ x 1GJ = $2
Zone 3 = $3/GJ x 1GJ = $3

(2) PRs credit

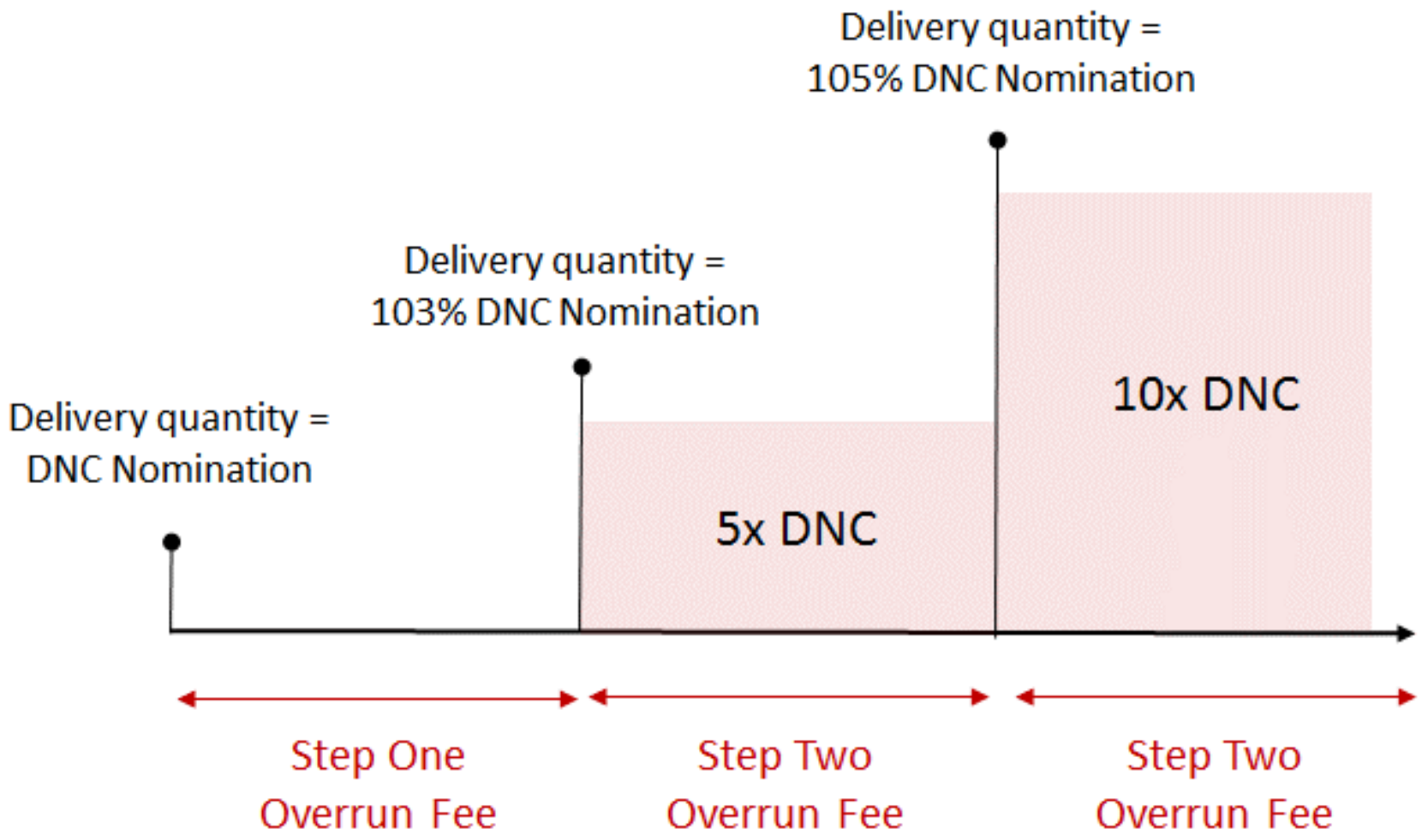
$$\frac{\text{PR revenue}}{\text{Total DNC}} = \frac{\$3}{30\ \text{GJ}} = \$0.10/\text{GJ}$$

x 3GJ = $0.30

(3) PRs purchased = $3

(4) Total transmission charges = $8.70

Overrun Charges



Balancing and Allocation

Balancing (and Park and Loan) Objectives

Objective
Maintain line pack within defined operational limits
Cost effective outcomes for balancing the pipeline
Incentives to encourage primary balancing
Allocate costs of secondary balancing actions to identified causers
Utilise the flexibility of the pipeline to provide a park and loan service

Balancing – What did we say in February?

Issue	Provisional decisions	To do
Balancing	• Shippers retain primary balancing obligation (receipts ~ deliveries) across the system each day • Where OBAs apply, the interconnected party will have a contractual obligation to match injection/offtake to nominations • A daily incentive will be applied to motivate shippers to balance	• Explore options for pricing daily cash outs • Explore feasibility and interest for a park and loan service

Paper Ref:
BA1 – BA4

Options for Balancing

Strong daily incentive for primary balancing

Strong "cost to causer" rationale

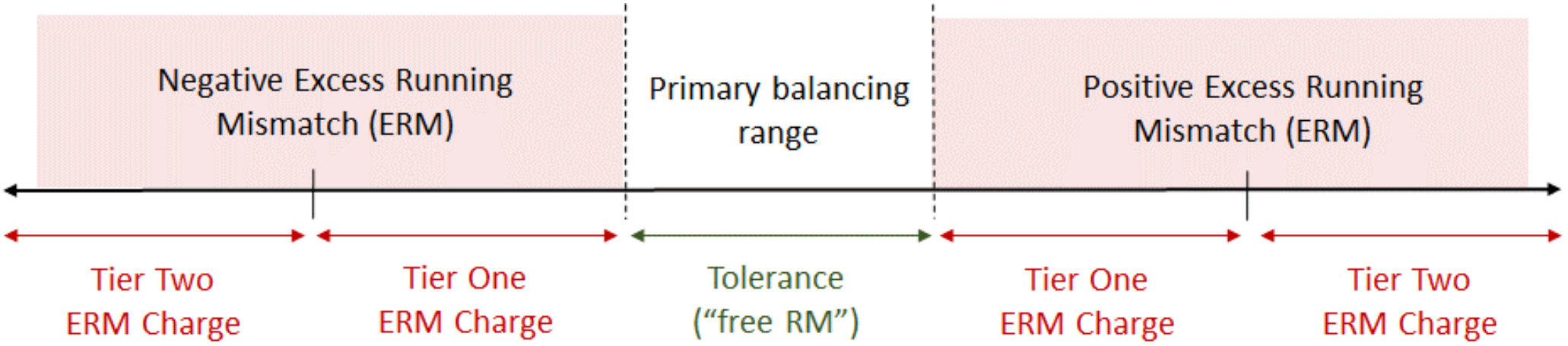
Incentive Charges

MBB — *B2B*

Achieve benefits without the limitations?

Automatic cash-outs detract from linepack management

Less focus on primary balancing



Note: Park and Loan charge (authorised ERM) < Tier One ERM charge (unauthorised ERM)

Park and Loan

- We consider that park and loan may be valuable in a range of situations, including:
  - Injection points that are going through a planned or unplanned shutdown
  - Delivery points that require large quantities of gas at short notice but are unable to find a supplier
  - Shippers that have an imbalance in their gas portfolio that they are unable to resolve in the short term
- Benefit to First Gas in having advanced notice of proposed use of transmission system
- Park and loan service would be priced based on:
  - Availability
  - Market spreads
  - ERM incentive charges

Paper Ref:
BA9 – BA11

Allocation Objectives

Allocate gas flows through injection and delivery points to identified parties in a timely, accurate and consistent fashion

Allocation

Issue	Provisional decisions	To do
Allocation	• Existing MPOC and VTC receipt point arrangements to remain available • An OBA will be an option at each receipt point (possibly incorporated into ICA) • An OBA will be an option at dedicated delivery points (possibly incorporated into an ICA) • Downstream Reconciliation Rules (including a day in arrears allocation) will continue to be needed for delivery to shared networks • Allocation Agreements	• Investigate the impact of different allocation methods at receipt and delivery points *Paper Ref: BA13 – BA16*

Allocation

- We propose using Shippers' DNC nominations to determine their initial allocations, replacing D+1

- This option would:
  - Reduce cost
  - Improve reliability
  - Improve timeliness of information

- Interim and Final Allocations under the DRR would still occur

Conclusions on Emerging Substance of GTAC v PEA

In broad terms, the PEA's work suggests that a new transmission access regime should ideally:

1. Provide for a menu of transmission services, both firm and non-firm rights, where firm rights are;
   (a) tradeable; and ✓
   (b) allocated on a willingness to pay basis when scarce. ✓ Auction sets price
2. Provide full disclosure of information on pipeline capacity and related issues.
3. Include a nominations regime (at least for those zones where congestion is possible) with incentives for parties to give accurate nominations. ✓
4. Transition away from grandfathering arrangements that give preferential renewal rights to incumbent users. ✓
5. Provide price signals to indicate scarcity where possible. ✓ PRs provide price signal
6. Allocate any congestion rents in a way that minimises distortions to long-term bidding for firm capacity and short-term incentives. ✓ PRs revenue recycled broadly
7. Recover the costs of making information transparent, and establishing a single access regime, from a broad base.
8. Be supported by efficient governance arrangements.

✓ DNC + PRs

Update on GTAC IT System

Proposed Process for IT Procurement

Scoping:

August 2016 - May 2017

Specification of Requirements

May 2017 – July 2017

Procurement:

August 2017 – January 2018

"Off the shelf" software vendors

"Bespoke" software developers

VFM Ranking

Update on Code Transition

Code implementation (transition) objectives

- A seamless, coordinated transition:
  - No overlap between the GTAC and MPOC/VTC
  - Instantaneous “handover” with no gap
  - Transition date scheduled well in advance (current target 1 October 2018)
- Sufficient opportunity for all parties to provide input into GTAC and confidence that it is better than the status quo
- GTAC must be ready in advance of the transition date:
  - The code must be in a complete, final form with all contracts (TSAs, ICAs, SAs that require change) ready for signature in advance
  - IT systems must be ready

Code implementation (transition)

- VTC due to expire on 30 September 2017, so First Gas will submit a change request to extend for one year until scheduled date for transition to GTAC
- First Gas proposes to submit MPOC change request to insert termination provision allowing replacement by the GTAC:
  - Substantive requirements: GIC review against the Gas Act objectives (with consultation) and GPS on Gas Governance
  - Process requirements: All contracts ready for signature in advance and IT system ready

- This focuses input on two stages of transition:
  - What conditions should need to be fulfilled for the existing codes to end?
  - Have those conditions been met?

Next steps

- We will engage stakeholders through:
  - One-on-one meetings with stakeholders over the next few weeks
  - Offer to answer queries as submissions are being prepared (due 23 June 2017)
  - Analysis of submissions (early July 2017)
  - Release of full draft GTAC for consultation in August 2017

- The GIC will be engaged throughout of the process
  - Will review 2nd draft of GTAC in November
  - Anticipate review completion in December

Questions?