

Pricing Volatility



NTSCMF - 20th July 2012

Agenda

- Background
 - Focus on Exit
- Interaction of revenues and charges
- The causes of pricing volatility
- Potential Way forward

Why we are talking about price volatility

- We recognise price volatility is a concern for stakeholders
- Feedback has highlighted:
 - dissatisfaction with volatility in Exit charges
 - an understanding that changes in allowed revenue drive charge changes
- Changes in allowed revenues:
 - TPCR4 – Rollover for 2012/13
 - New RIIO-T1 for Gas Transmission for 2013/14 to 2020/21

Background - Stakeholder charging concerns

Predictability

Reliability of National Grid charging forecasts

Transparency

Information availability for customers including reasons for change to make informed charging forecasts

Stability

Knowing level of change to charges over time

Background - Who pays each charge?

Non-Storage Entry

TO Entry Capacity (Auctions)*

SO Commodity

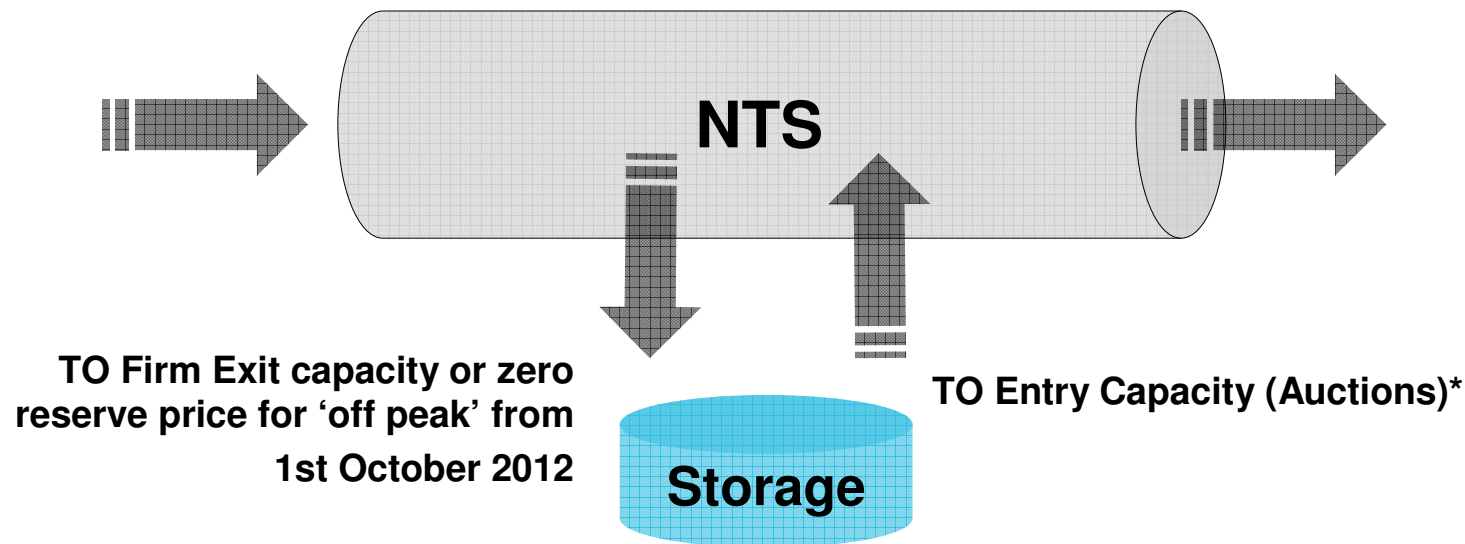
TO Entry Commodity

Non-Storage Exit

TO Exit Capacity (Firm)* or zero reserve price for 'off peak' from 1st October 2012

SO Commodity

(TO Exit Commodity from 1st October 2012)



****Currently SO if Incremental capacity – above obligated level. In RIIO-T1 period this is proposed to be TO.***

Entry and Exit Commodity charges are NOT applied at storage sites except for 'own use gas'. Commoditised costs are only recovered from 'new' gas entering the system and from gas that permanently leaves the system to avoid double counting.

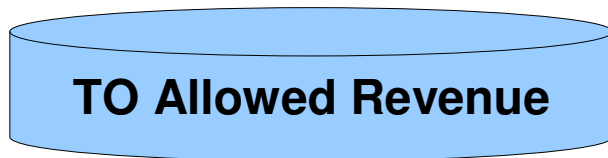
Background - Which charges are we talking about?

- NTS TO Capacity and Commodity Charges (~ £656m forecast target for 2012/13 - £320m Exit and £336m Entry)
 - Recover transmission owner (TO) investment costs, ownership and maintenance
 - p/kWh/day entry reserve prices set annually ex ante for capacity for years y+1 to y +16
 - p/kWh/day exit prices set annually ex-ante

- Transmission Charges
 - Maximum Allowed Revenue (MAR) has been set via a price control and has RPI applied on a yearly basis.
 - Charging Methodology (requirement of licence, part of UNC) states that we must aim to recover TO MAR via a 50/50 split between Entry and Exit Charges (after MAR deductions of DN Pensions and NTS Metering charges)

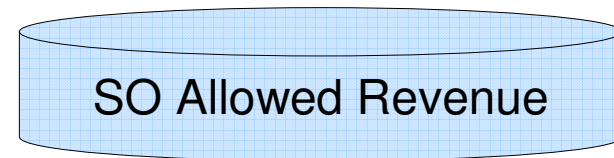
NTS Transportation Charges & Allowed Revenue (from October 2012)

- Firm Exit (Flat Capacity) charges adjusted to recover target allowed revenue from baseline capacity
- Revenue associated with unsold baseline recovered from TO Exit Commodity



TO Charges

| DN Pensions Deficit & NTS Metering | |
|--|------------------------------|
| Entry Capacity | Exit Flat Capacity |
| Entry Commodity (when a revenue shortfall from capacity auctions is forecast) | |
| | Exit Commodity from Oct 2012 |

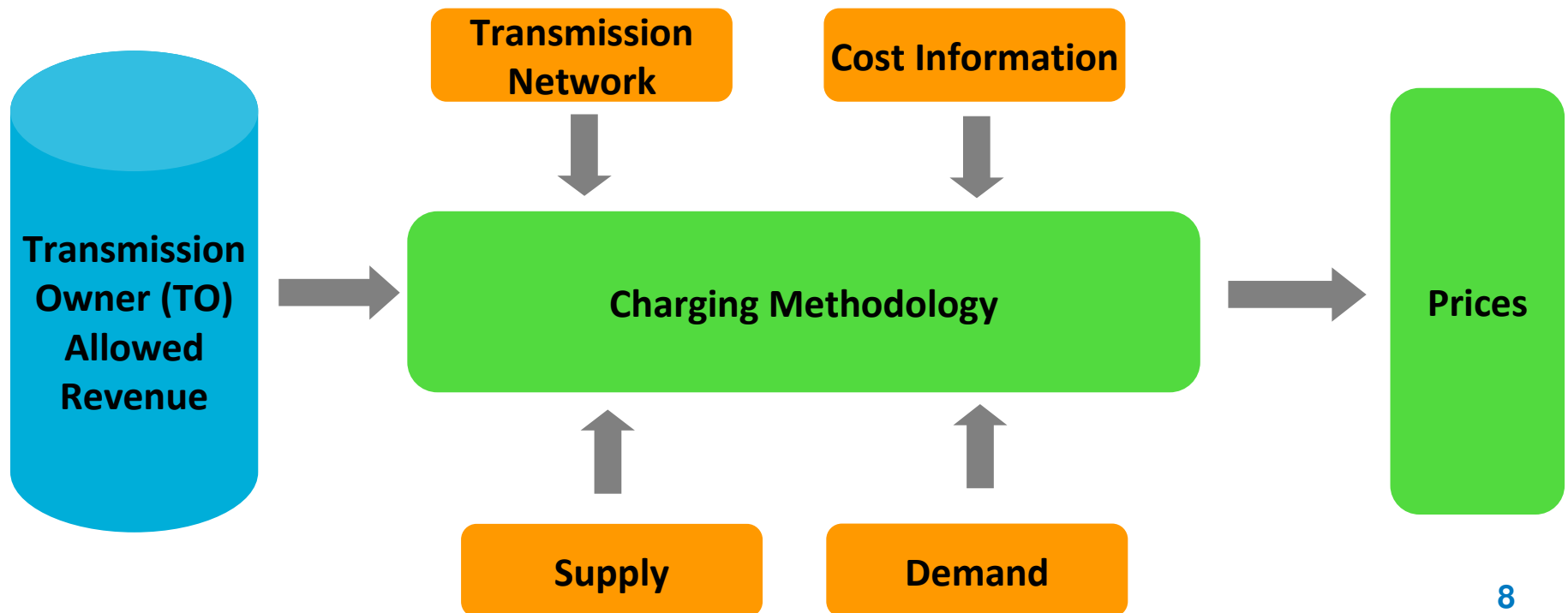


SO Charges

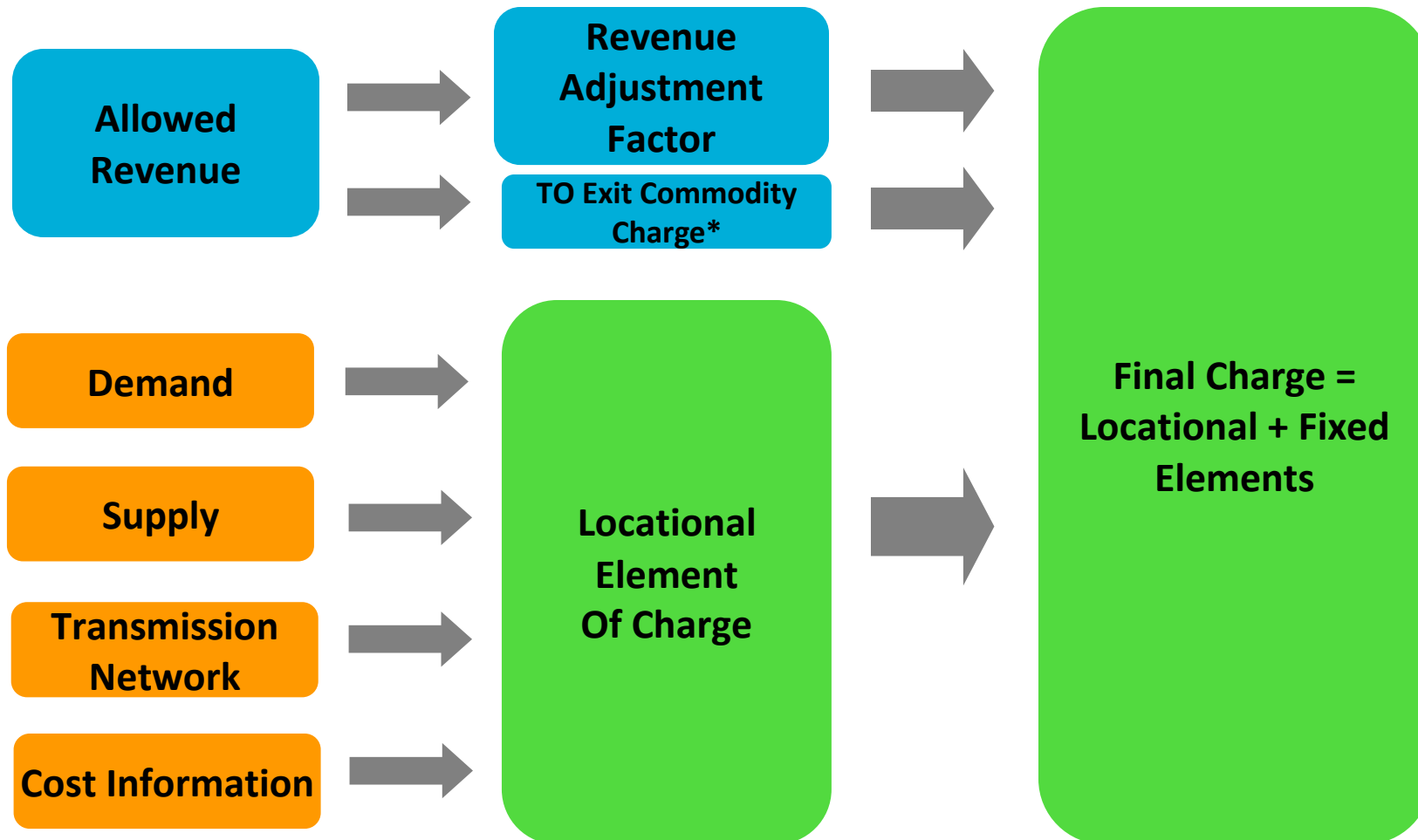
| | |
|---|----------------|
| St Fergus Compression + Short-haul + Incremental Entry/Exit + On-the-day Entry + Neutrality | |
| Entry Commodity | Exit Commodity |

TO Charges and influences

- Changes to tariffs can be caused through:
 - Changes in the inputs to the methodology
 - Changes to the actual methodology
 - New Products



Impact of changes to charging inputs on TO Exit Capacity Charges

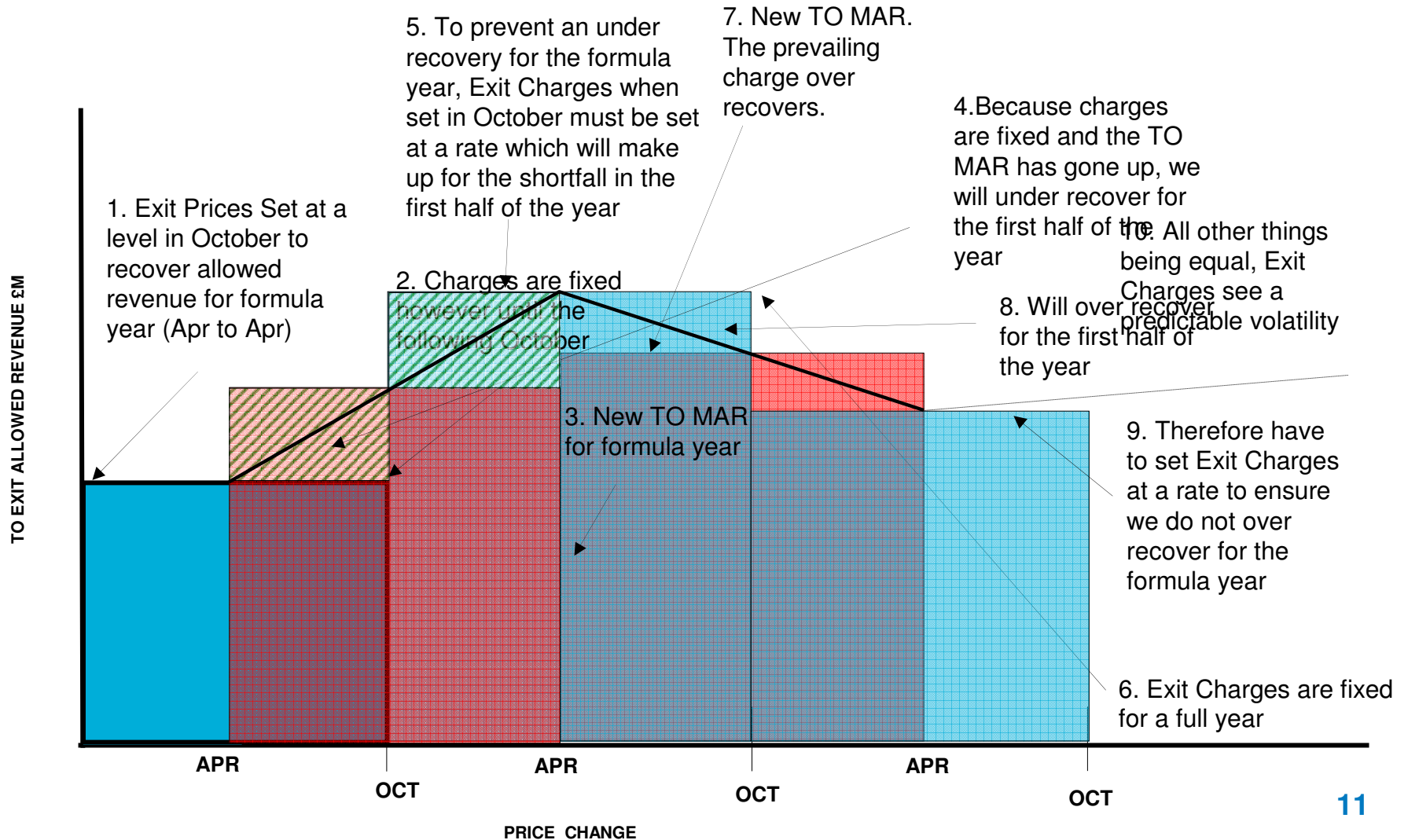


**TO Exit Commodity effective from 1st October 2012*

Background to TO Exit Charge Setting

- Principal formula in Licence requires NGG not to over recover and charges are set to align Allowed and Actual Revenues
- Exit charges are set for Oct_t to Sep_{t+1} (Gas Year)
- TO MAR applies for Apr_t to Mar_t (formula year t)
- Charges set in October at a level to recover remaining TO MAR for current formula year
- Taking into account revenue already recovered Apr_t to Oct_t, and to be recovered for the final 6 months of the formula year
- **Not looking forward to following years Allowed Revenue**
- Exit charges have been set at a rate to recover remaining TO MAR for the previous Oct_t to Mar_{t+1} but TO MAR changes in Apr_{t+1}
- This will cause changes in Exit Charges as illustrated on the next slide

Setting Exit Capacity charges



Using October 2012 Exit Charge Notice - Example

| NGG TO | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|--|--------------|--------------|--------------|--------------|--------------|
| | £m | £m | £m | £m | £m |
| Initial Revenue to be collected via Exit charges | 288.2 | 319.7 | 432.5 | 428.3 | 465.7 |
| minus charges foregone | 80.6 | 38.5 | - | - | - |
| Revenue to be collected via Exit charges | 207.6 | 281.2 | 432.5 | 428.3 | 465.7 |
| Collection in first half of the year | 97.4 | 110.2 | 171.0 | 261.5 | 166.9 |
| Collection required in second half of the year | 110.2 | 171.0 | 261.5 | 166.9 | 298.9 |
| Annual figure for charge setting | 220.5 | 342.0 | 523.0 | 333.7 | 597.7 |

- Oct 11, TO Exit charges set on £220.5m.
- April 12, new TO MAR Exit target of £281.2m. Under application of the methodology, no charge change until Oct 12. Licence states change once per year for TO Exit Charges in Oct.
- Oct 12, based on recovery to date of £110.2m, shortfall of £171.0m must be recovered from Oct12 to Mar13. Charges set to recover this based on £342m.
- Apr13 to Sep13, also recover £171.0m as charges set from Oct12 to Sep13

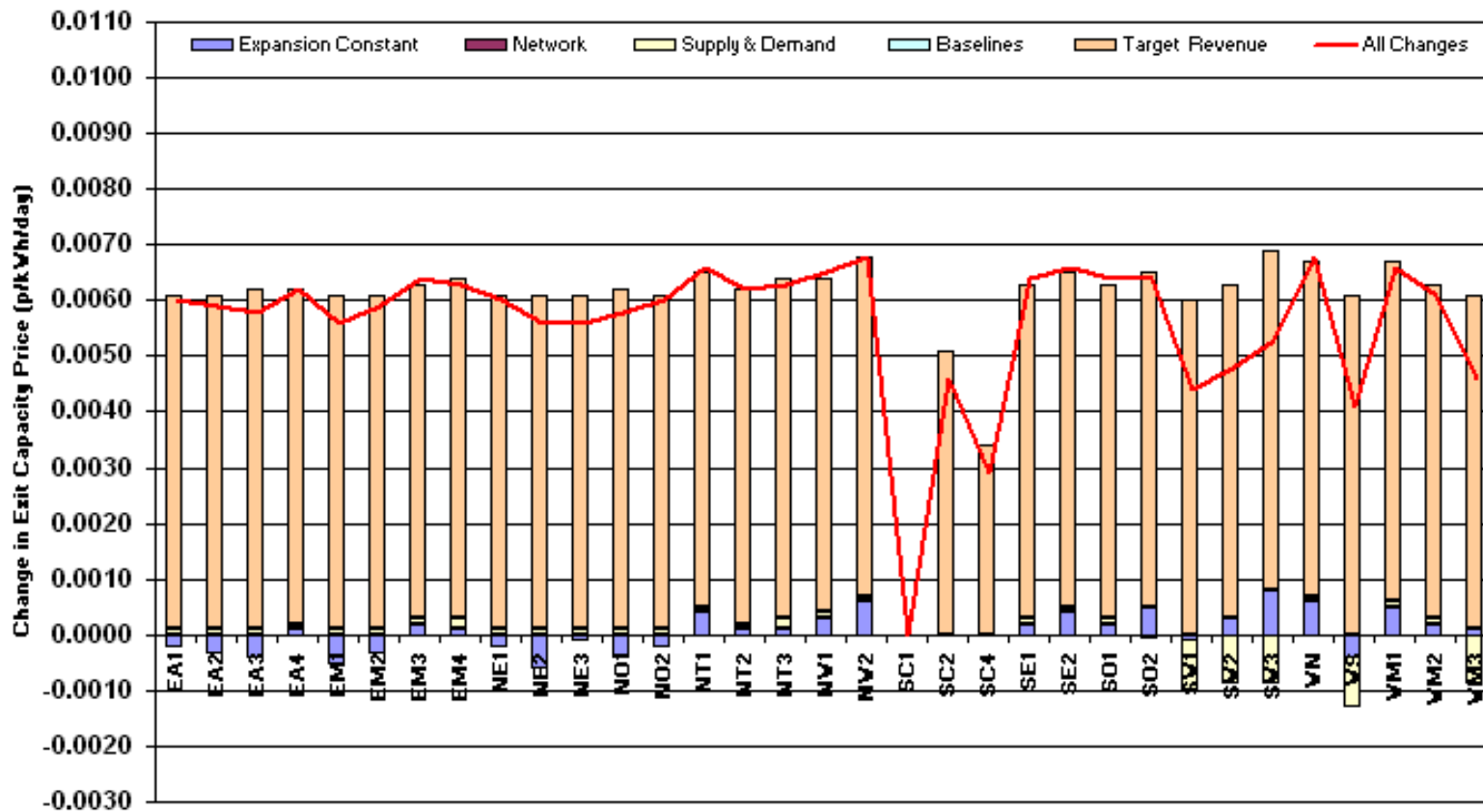
TO Exit Capacity Prices – Causes of changes

- On 1st May 2012 Final Charges were sent for TO Exit Charges for 12/13 along with indicatives for 13/14, 14/15 and 15/16
- There were some notable changes in the prices between years
 - The contributory elements that have changed are:
 - TO Allowed Revenue
 - Expansion Constant
 - Supply / Demand flows
 - Network
- The impacts of these changes by Exit Zone for 2012/13 to 2015/16 is shown in the following slides

TO Exit Capacity Prices

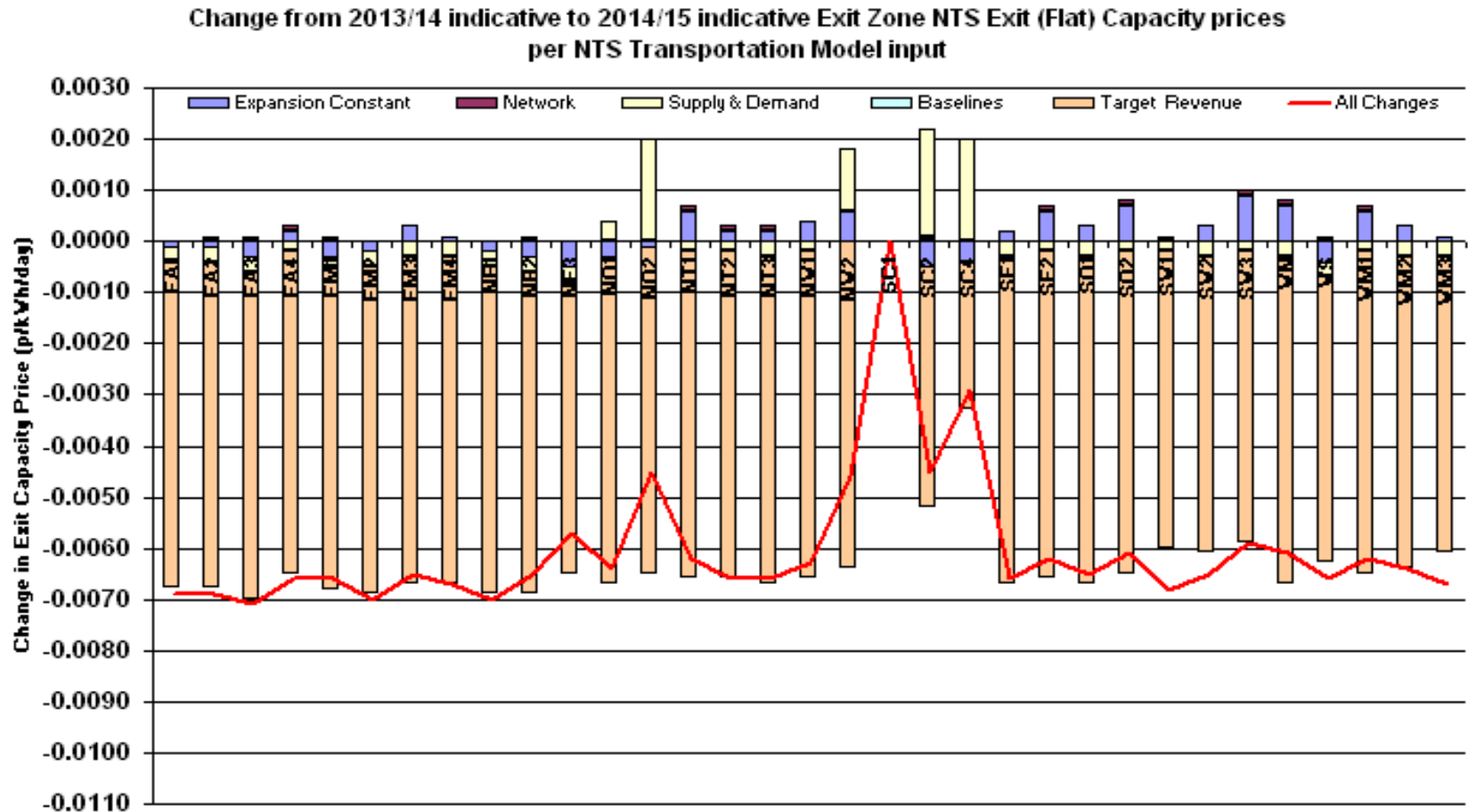
Final 2012/13 to Indicative 2013/14

Change from 2012/13 final to 2013/14 indicative Exit Zone NTS Exit (Flat) Capacity prices per NTS Transportation Model input



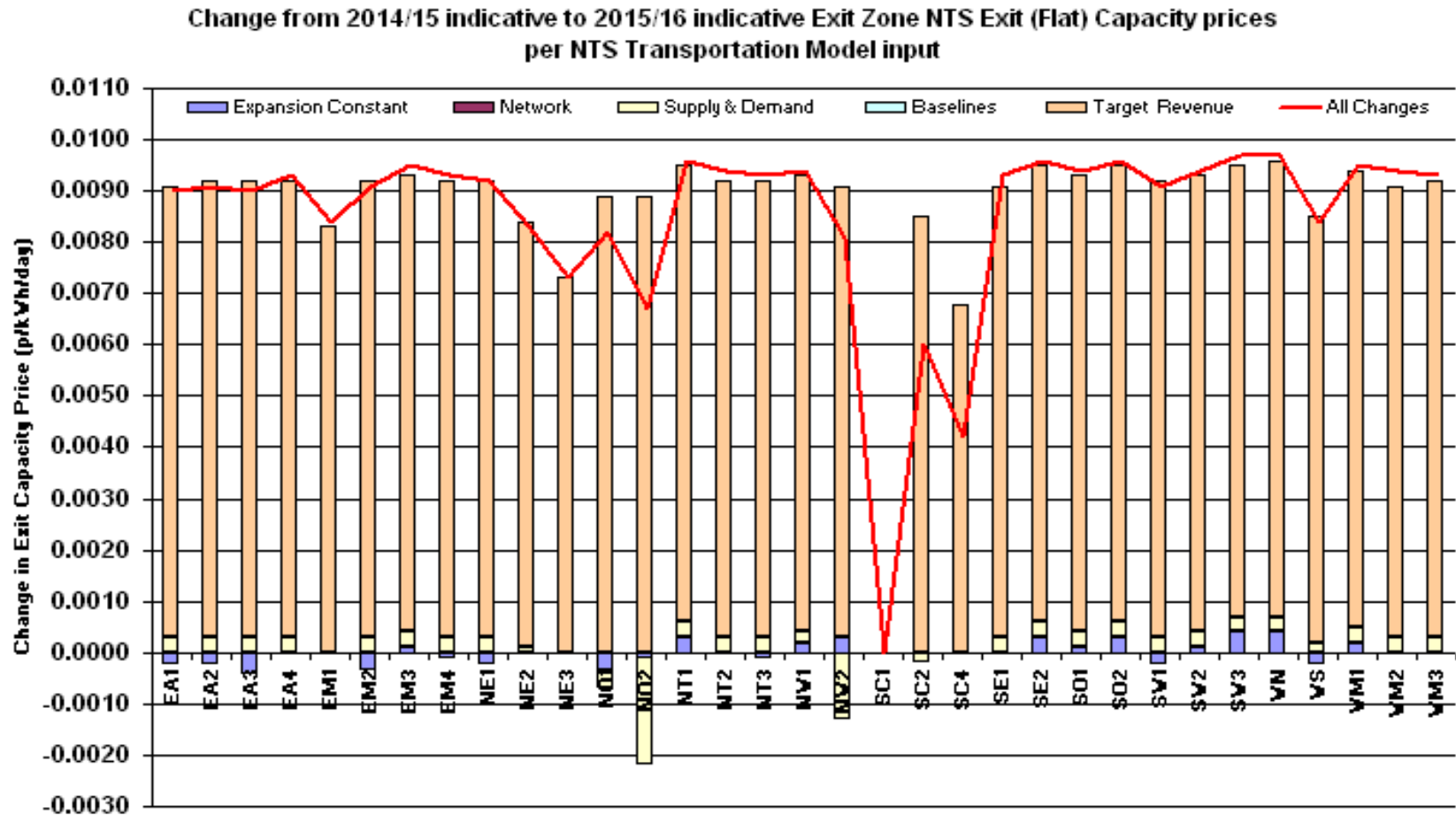
TO Exit Capacity Prices

Indicative 2013/14 to Indicative 2014/15



TO Exit Capacity Prices

Indicative 2014/15 to Indicative 2015/16



Summary for Exit Capacity Charge volatility

Key Reasons

- In respect of TO Exit (Flat) capacity
 - Allowed Revenue Changes drive revenue adjustment factor to ensure correct recovery of all baseline capacity sold
 - As a result NGG set charges to collect target revenues within the year

Other Reasons

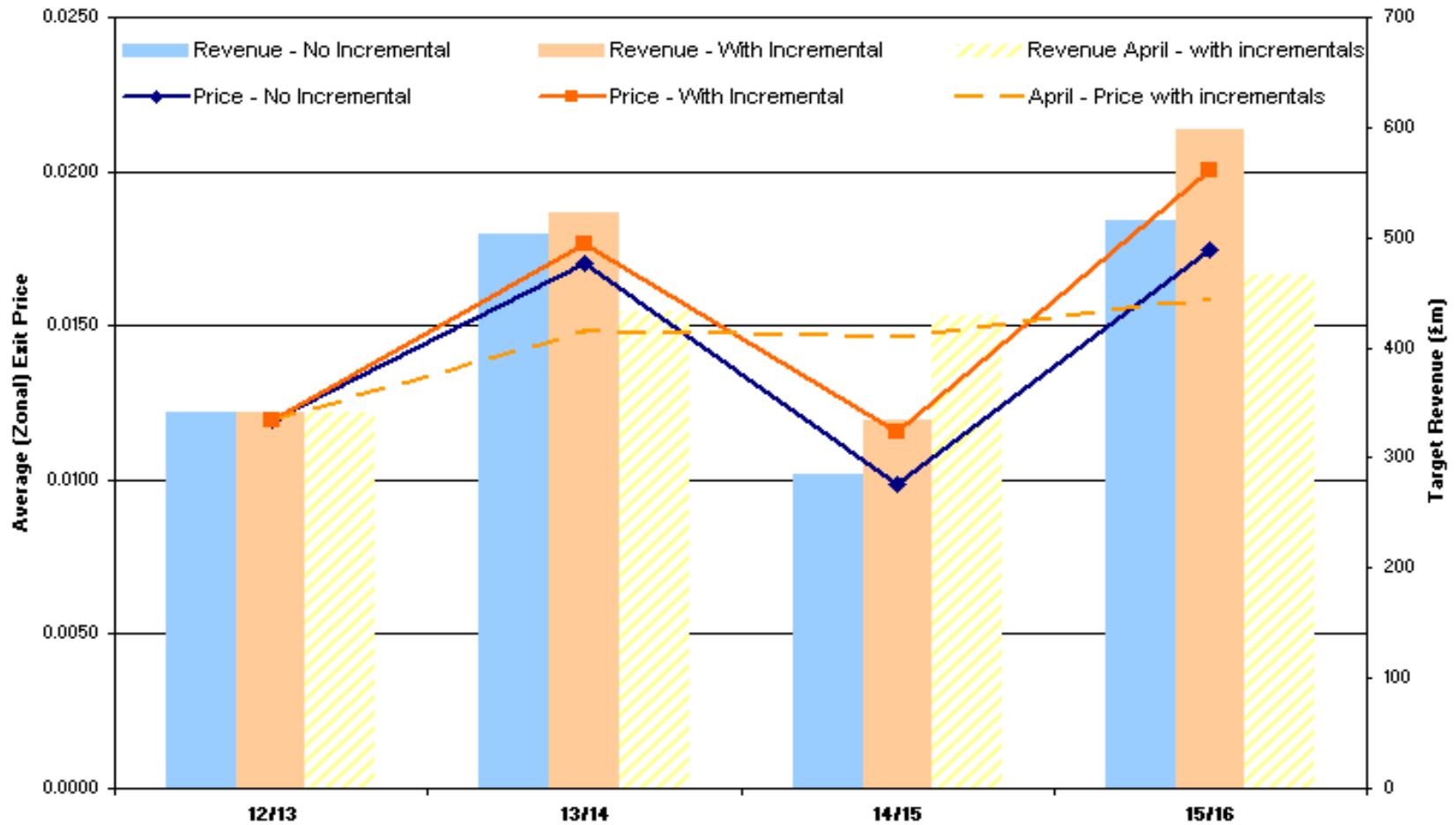
- Supply / Demand levels – changes in flow patterns

TPCR4 / RIIO-T1 – Impacts on Charge Changes

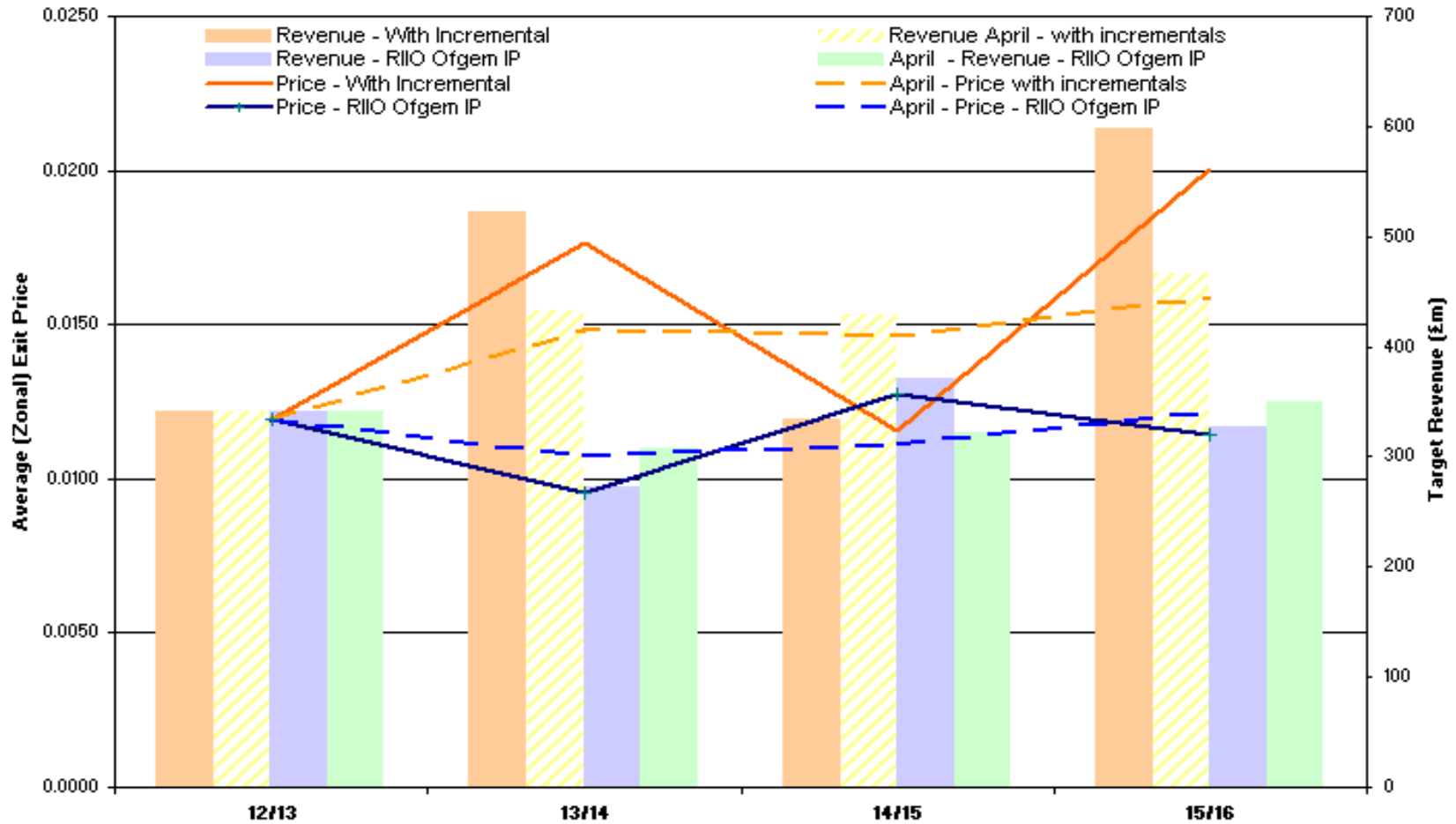
Allowed Revenues published in business plan, and used to set indicative charges, for RIIO-T1 period include incremental funding assumptions

1. The impact of including incremental is shown on the next slide (*based on setting charges in October for one year, with revised MARs from April to March*)
2. The impact of setting charges in April to align with formula / gas year to show impact on volatility is also included

RIO-T1 Impacts on Charge Changes



RIIO-T1 Initial Proposals Impacts on Charge Changes



Ofgem's Charging Volatility Consultation

- 23 Responses to the consultation
- Consultation considered five possible options in addressing volatility in charges – could be any combination not just one outcome
 - Option 1 - Improved information for suppliers and customers
 - Option 2 - Restricting the frequency of intra-year charge changes
 - Option 3 - Increasing the lag on incentive rewards/penalties that networks recover through allowed revenues
 - Option 4 - Increasing the lag on adjustments to allowed revenues from uncertainty mechanisms
 - Option 5 - Imposing a cap and collar on changes to allowed revenues

High level overview of responses

| | Option Detail | High level responses |
|----------|--|--|
| Option 1 | Improved information for suppliers and customers | <ul style="list-style-type: none"> • Supportive, providing information is informative, understandable and clearly explained. |
| Option 2 | Restricting the frequency of intra-year charge changes | <ul style="list-style-type: none"> • Supportive of less frequent changes and having sufficient notice periods • No major issues identified in accommodating a single change in April • This may delay step changes without intra year changes for necessary adjustments |
| Option 3 | Increasing the lag on incentive rewards/penalties that networks recover through allowed revenues | <ul style="list-style-type: none"> • Broadly Supportive. Fits with RIIO-T1 proposals • Concerns by some on cash flow risks on certain costs. |
| Option 4 | Increasing the lag on adjustments to allowed revenues from uncertainty mechanisms | <ul style="list-style-type: none"> • Mixed responses with some in favour of increasing the lag and some not in favour of a change to increase lags on adjustments. |
| Option 5 | Imposing a cap and collar on changes to allowed revenues | <ul style="list-style-type: none"> • Mixed responses with some in favour of imposing a cap and collar and some not in favour of a cap and collar limit. |

- Options 1, 2 and 3 attract most favourable responses on the whole
- Options 4 and 5 have mix of those for and against

Potential Way Forward

- Bring any potential options back to NTSCMF for discussion subject to Ofgem's network charging volatility consultation
- Timing of changes
 - Compliant with our licence conditions for revenue recovery
 - Alignment of MAR change and charge change? (i.e. April)
- Transparency
 - Work with industry to develop
- Next NTSCMF – Early September
 - Updates from volatility consultation
 - Entry Charges review

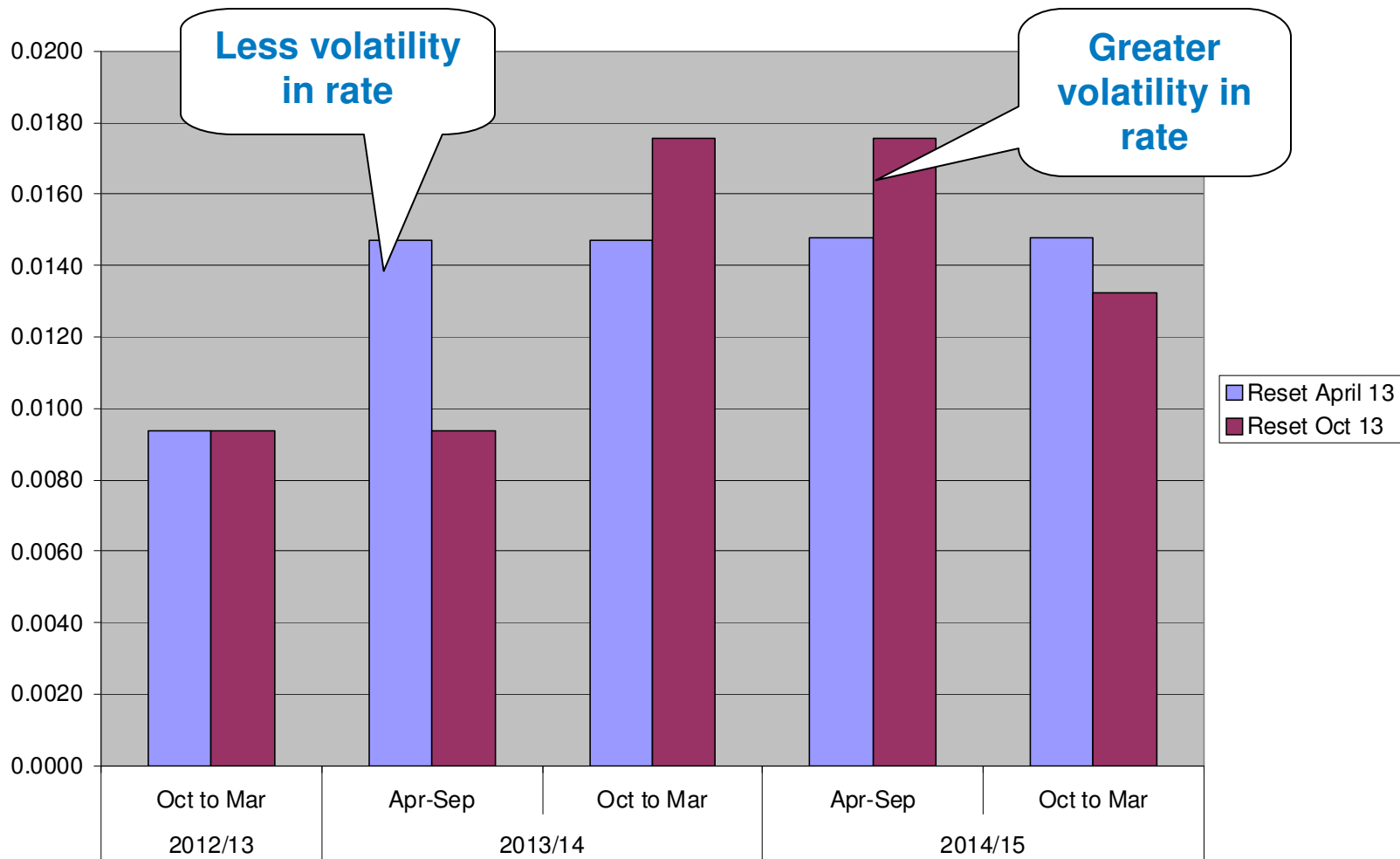
TO Exit Commodity Charge



TO Exit Commodity charge

- Introduction 1 October 2012
- Ensures that where booked < baseline, correct TO Exit revenue is collected
- Initially set to recover allowed revenue 12/13
- Going forward 2 options to give 12 months view:
 1. Publish a 12 month profile with a change in April
 - Allows NG to recover correct revenue
 - Creates more stable charge for shippers
 2. One rate kept the same until Oct 13
 - Also allows NG to recover correct revenue
 - But creates unstable charges

Variations in TO Exit commodity charge



Illustrative rates only

National Grid's proposal

1. Publish: rate from 1 Oct 12 to 31 Mar 13
rate from 1 Apr 13 to 30 Sep 13

based on forecast revenue for 13/14 and current booking levels

2. In Jan 13, review rate for April

based on - new information on RIIO
- new bookings