# Gas Charging Review



NTSCMF – 4 May 2016

*Update provided on 29 April 2016. All slides added or updated are marked with a blue star*

# Agenda

| Area | Detail |
|---|---|
| Terms of Reference and work plan | • Reminder of ToR and Work Plan for any proposed changes |
| Summary of April NTSCMF Analysis | • Key messages from analysis presented at NTSCMF on 06 April 2016 |
| Relevant Objectives (GB and EU) | • GB relevant objectives / charging obligations<br>• Tariff Code obligations |
| Alternative Reference Price Methodologies | • Other methodologies proposed in previous EU TAR NC drafting<br>• Ofgem GTCR Conclusions and discussion |
| Modelling CWD and LRMC with flow data | • Additional analysis to build on CWD analysis presented in April<br>• Discussion on areas for development |
| EU Tariffs Code – Current Outlook | • Key updates relevant to Gas Charging Review<br>• Areas under discussion |
| Dual Regime discussion | • Consider EU TAR NC and GB Framework to discuss areas where dual regime may be permitted and how it could look as an overall charging structure |
| Next Steps | • Future NTSCMF workshop planning |

# Gas Charging Review

Summary of April NTSCMF Analysis

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# Recap – last NTSCMF

- Modelled Capacity Weighted Distance (CWD)
  - With revenue for applicable year
  - With flat revenue
  - With Baseline/obligated capacity values
  - With Sold capacity values
- Modelled Long Run Marginal Cost (LRMC)
  - Updated revenue (Exit Model)
  - Updated Supply and Demand (Exit Model)
- April NTSCMF data and slides available here: http://www.gasgovernance.co.uk/ntscmf/060416

# LRMC vs CWD
# Entry Capacity 2014/15

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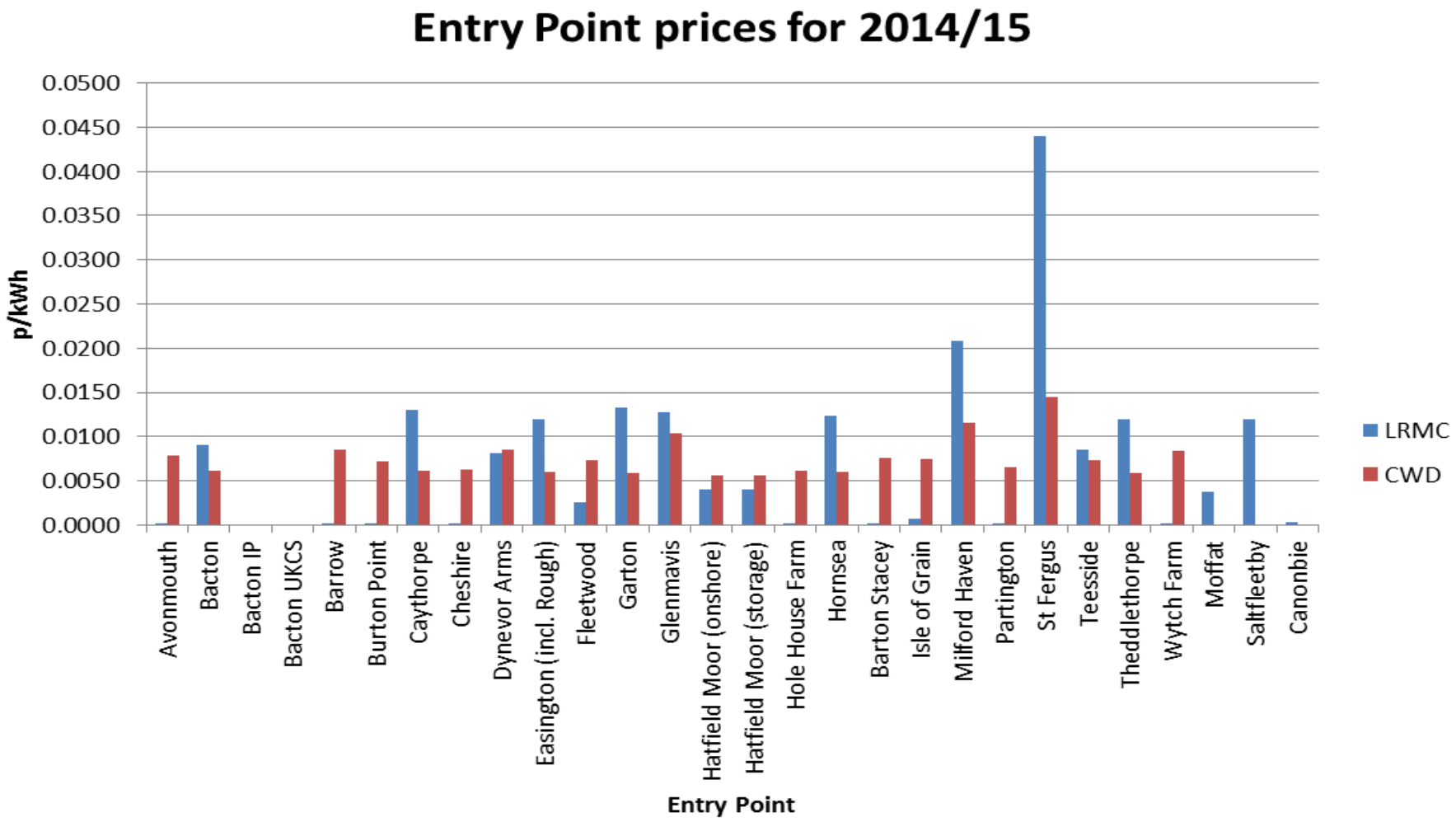

# LRMC vs CWD
# Entry Capacity 2015/16

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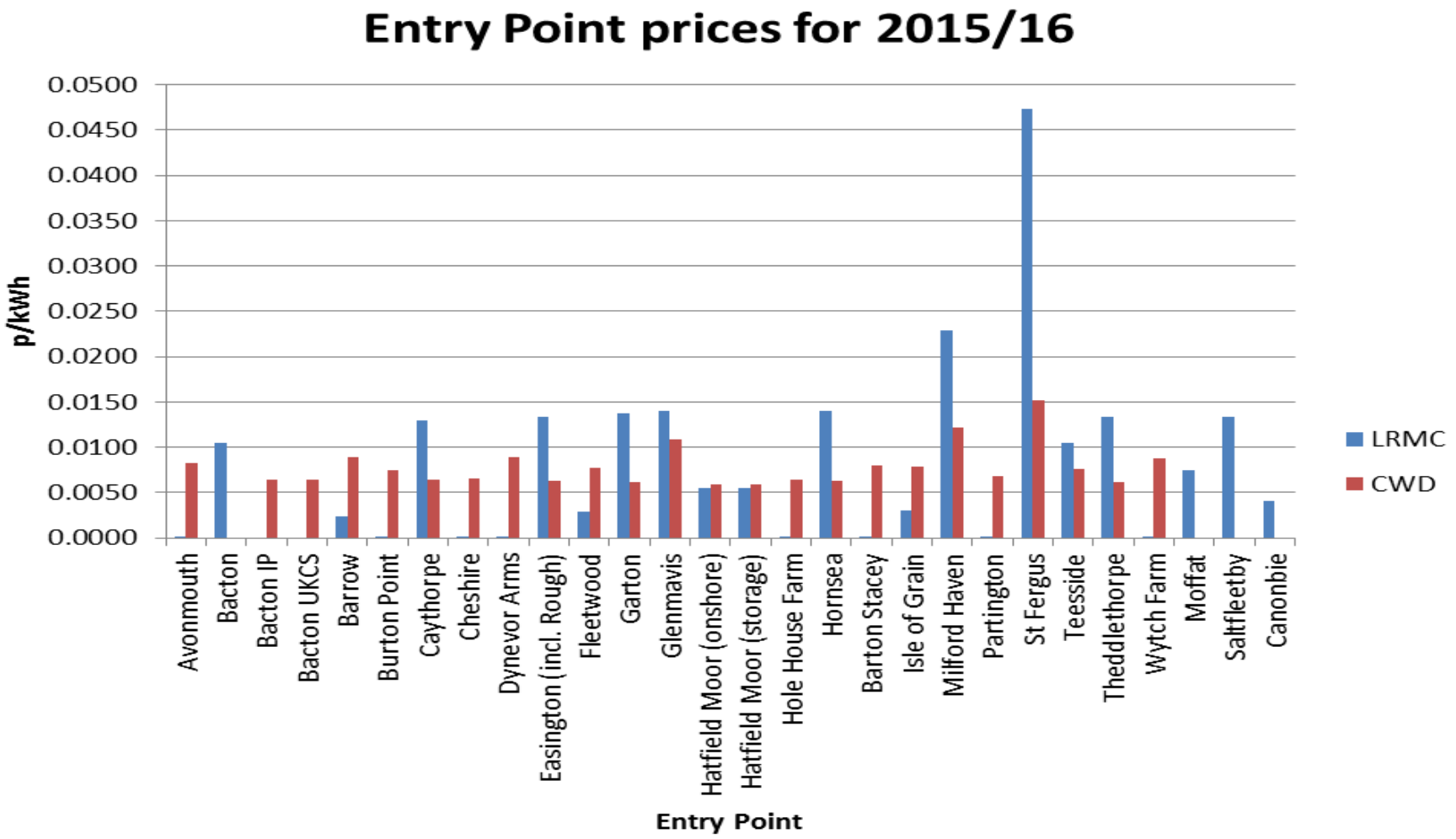

# LRMC vs CWD
# Exit Capacity 2014/15

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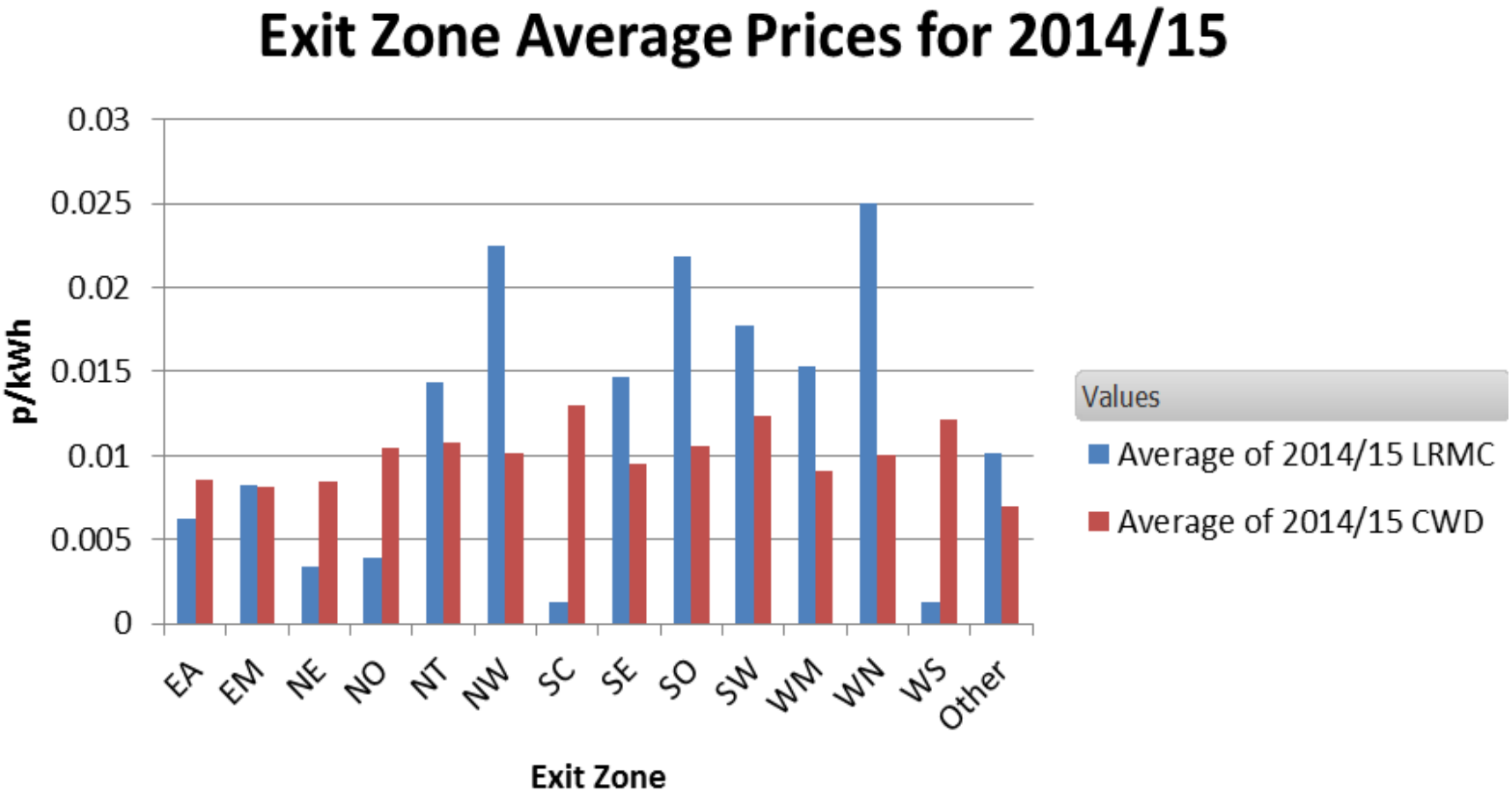

# LRMC vs CWD
# Exit Capacity 2015/16

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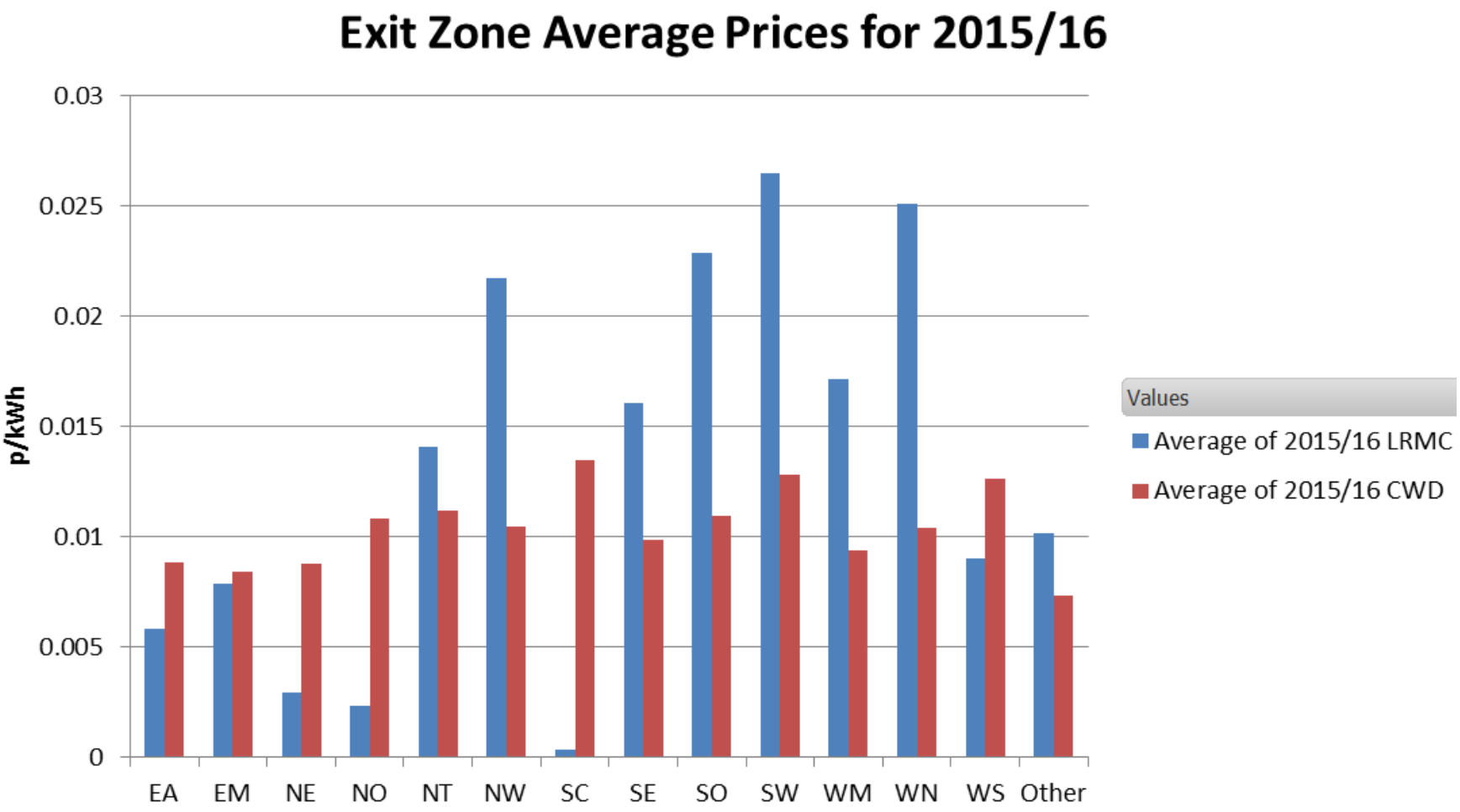

# Percentage Difference 2014/15 to 2015/16

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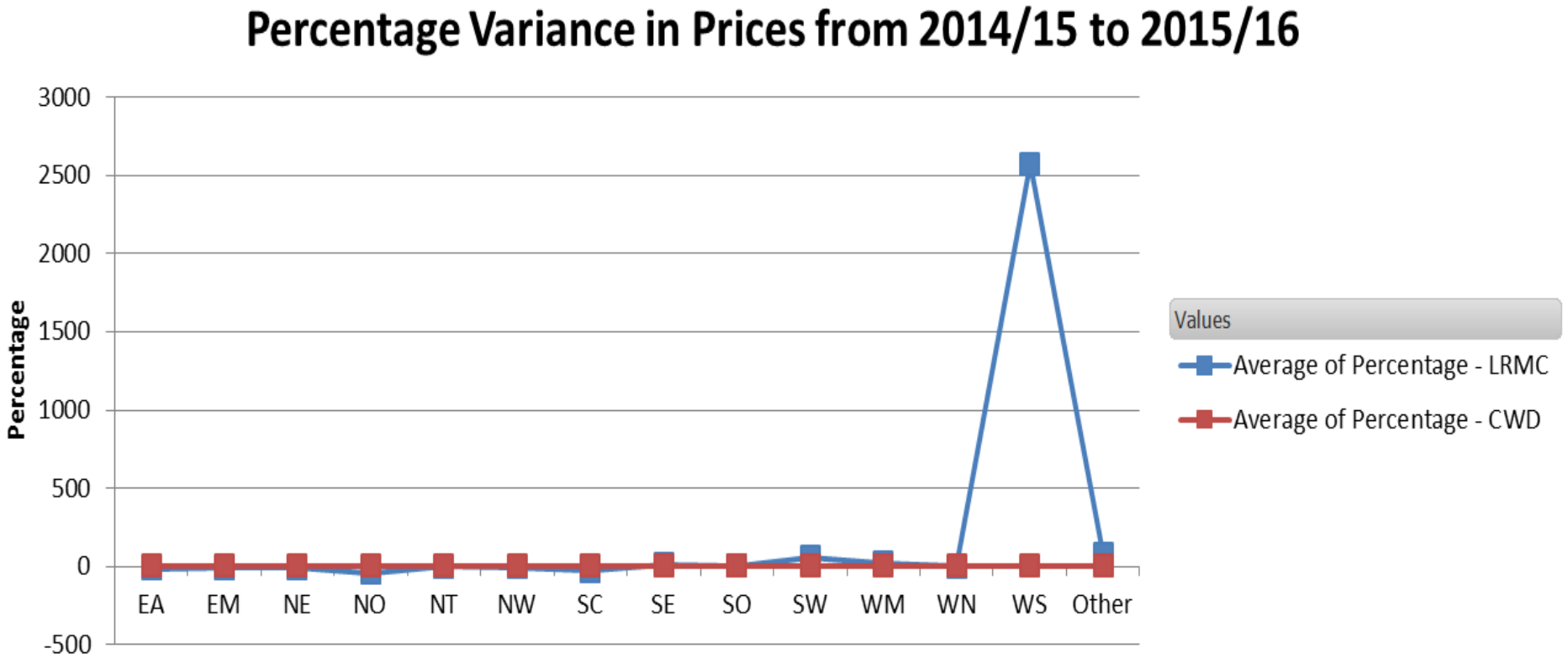


*Including those points in WS produces what looks like an anomalous large change for LRMC. This was driven largely by updating supply/ demand values moving several points from minimum price upwards. In order to see other % variances more easily WS can be excluded as shown in the following slide*

# Percentage Difference 2014/15 to 2015/16 (excl zone WS)

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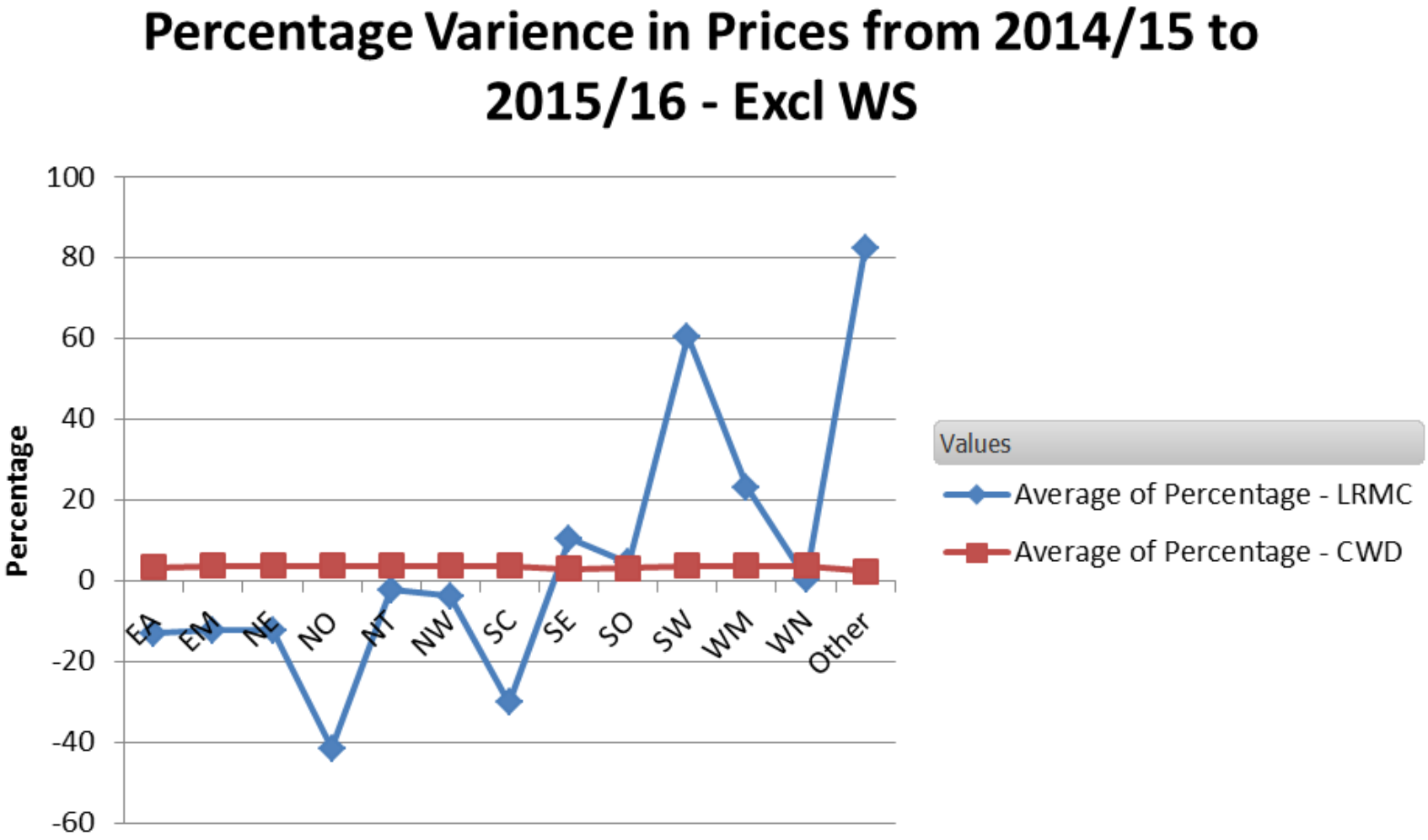

# Summary of Analysis
# CWD compared to LRMC presented 6 April 16

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- LRMC approach has potentially volatile Capacity prices with certain components driving large swings, including the method of how they are incorporated
  - Supply / Demand (Entry and Exit)
  - Revenue input (Exit only)
- LRMC approach looks to minimise the overall flow distance on the NTS for a flow scenario
- Does mean some prices are very low (including minimum or floor price) and some are high

# Summary of Analysis
# CWD compared to LRMC presented 6 April 16

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- CWD, as it is averaging across the whole NTS, generally showing changes (using 14/15 to 15/16) would be less volatile
- Takes the edge off the extremities of pricing (those points with very high or very low prices)
- Small data set
- Does not take into consideration
  - Short term pricing
  - Alternative products / arrangements
  - What to do with prospect of zero prices
  - Potential options to refine or develop on

# Gas Charging Review

Relevant Objectives (GB and EU)

# Reminder of Charging Obligations / Relevant Objectives – GB Current

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| Licence Obligations | Detail |
|---|---|
| Licence Standard Special Conditions<br>• A4 - Charging General<br>• A5 - Charging Methodology | • Keep charging methodology under review<br>• Use reasonable endeavours regarding methodology and charge changes:<br>  • Not to make changes more frequently than twice a year (on 1 April and 1 October)<br>  • In relation to exit capacity once a year on 1 October |

| Relevant Objectives | |
|---|---|
| • Cost reflectivity<br>• Promote efficiency<br>• Avoid undue preference in the supply of transportation services<br>• Best promotes competition between gas suppliers and gas shippers | • Take account of developments in the transportation business<br>• Compliance with Regulation and decisions from the EC and ACER<br>• Follow any alternative arrangement determined by the Secretary of State |

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# EU Tariffs Code "Relevant Objectives"

- The core obligations to which the TAR NC must align are:
  - **EC 715/2009** (art.13)
    - http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0036:0054:en:PDF
  - **Dir 2009/73/EC** (art.41(6) & art.32(1)), art.36(1)(d));
    - http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0094:0136:en:PDF
  - **EC 713/2009** (art.8(2))(d))
    - http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0001:0014:EN:PDF

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# EU Tariffs Code “Relevant Objectives”

- Charges must be levied for access for existing and incremental infrastructure
- Access based on published tariffs available to all eligible customers
- Applied objectively without discrimination and approved by NRA
- Accounts for need of system integrity and improvement
- Reflect efficient costs incurred with appropriate return on investment

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# EU Tariffs Code "Relevant Objectives"

- Can take account of benchmarking by NRA
- Facilitate efficient gas trade and competition
- Avoid cross-subsidies between users
- Provides incentives for investment and interoperability
- Set separately for every entry and exit point
- Cannot restrict market liquidity nor distort cross-border trade
  - If cross-border trade hampered, TSOs and NRAs must cooperate to pursue convergence of tariff structures and charging principles

# Gas Charging Review



Alternative Reference Price Methodologies

# Alternative Reference Price Methodologies

| Item | Detail |
|---|---|
| EU Tariffs Code | Some of the alternatives referenced in earlier versions of the EU Tariffs Code:<br>• Postage Stamp<br>• Asset Allocation<br>• Capacity Weighted Distance<br>• Virtual Point Variant A<br>• Virtual Point Variant B |
| Ofgem's GTCR | • Summary of what was considered for GTCR<br>• Commentary and comparisons to current methodology and EU Compliance given updates to EU Tariffs Code |
| Summary | • Summary of the methods and how they compare to analysis being produced |

# Discussion: Alternative Reference Price Methodologies

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| Reference Price Methodology | Methodology and Application* | Comments |
|---|---|---|
| Postage Stamp | • The postage stamp methodology foresees the same reference price at all Entry and Exit Points.<br>• The reference price is given by the target revenue for entry (respectively exit) divided by the total booked capacity (or a relevant proxy) | • Designed for a simple network<br>• May suit a relatively simple unmeshed network<br>• Does not provide investment signals |
| Asset Allocation | • Considers users of the assets on the network and attributes proportion of costs accordingly (domestic, customers abroad – transitory, sub groups of transit)<br>• Where recovery of allowed revenue requires reconciliation to or from customers in other markets. | • May be more suitable to more transitory networks |
| Capacity Weighted Distance (CWD) | • This methodology assumes that the share of the allowed revenue to be collected from each point should be proportionate to its contribution to the cost of the capacity of the system.<br>• This share of the allowed revenue, corresponding to the tariff, is based on a (uniform) unit price per capacity per distance. | • May suit a more usage based model rather than investment<br>• Does not use cost components in the calculation of prices, linked to revenue, capacity and distance. |
| Virtual Point (VP) (includes variant A and B) | • The principle of the virtual point based approach is to determine entry and exit tariffs for each point to which the tariff applies by weighting capacity at these points according to their distance to a virtual point. The “virtual point” (theoretical location) can be either adjusted for mathematically (Variant A) or determined geographically (Variant B). | • VP(A) relates to the LRMC model Works for a highly meshed, complex network<br>• May suit a more investment focused model due to marginal pricing |



*Taken from EU Tariffs Code earlier drafting

# Summary of GTCR policy considerations

**Key elements of GTCR development and policy considerations relating to charging changes (TO Entry only)**

- Introduction of "fully floating" capacity charges for long term products and changing arrangements for short term to be a combination of discounted reserve prices plus "full floating" component.
- Storage receive exemption from the floating component
- Maintain the LRMC model for the underlying charging methodology for capacity
- Application would be for all contracts from implementation date
- Keeps same principle for administered as for Exit (LRMC for underlying model then additive element)

| Charges | Current | GTCR | EU Tariffs Code compliance* |
|---|---|---|---|
| TO Entry | • Capacity reserve prices, payable prices from auctions<br>• Short term pricing (Day ahead to within day) receive discounts up to 100%<br>• Commodity as balancing charge for revenue recovery<br>• Storage exempt from Commodity<br>• LRMC for undelying methodology | • Floating Capacity charges on Long term (Quarterly, Monthly)<br>• Short term pricing (Day ahead to within day) receive discounts of less than 100%. Short term still pay "floating" component.<br>• Storage exempt from "floating component"<br>• Shouldn't require Commodity on TO Entry.<br>• Application would be for all contracts from implementation date<br>• LRMC as underlying methodology | • Floating permitted for all points. Additional provisions for IPs with use of Multipliers/seasonal factors (could be applied at Non IP if NRA decides)<br>• Short term pricing would not match up. Discounts permitted on Capacity at Non-IP, not permitted at IPs.<br>• Storage discounts minimum 50% from reserve price<br>• Protection for Entry Capacity reserved before 29 November 2013<br>• LRMC equated to VP(A), now not included as primary method, can use compared to CWD. |



*This is based on an updated version of the Tariffs Code so is a different version from when GTCR was being prepared.

# Comparisons of GTCR options to current Entry Capacity (using LRMC)

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| Entry Capacity – Current LRMC approach with reserve prices set through the Transportation Model and payable prices by auction | |
|---|---|
| Marginal Distance | •"Solved" Network using supply and demand provides marginal distances |
| 50/50 | •Balance Entry and Exit Average Distances |
| Include Cost components | •Distances converted to prices using annuitisation of costs |
| Reference price (including price collar*) | •Minimum price if calculated reserve is less than 0.0001 p/kWh |
| Payable Price | •Set by auction. |

| GTCR Approach for Entry Capacity – Current LRMC approach with as a p/kwh additive element for final charge ahead of year of use | |
|---|---|
| Marginal Distance | •"Solved" Network using supply and demand provides marginal distances |
| 50/50 | •Balance Entry and Exit Average Distances |
| Include Cost components | •Distances converted to prices using annuitisation of costs |
| Reference price (including price collar*) | •Minimum price if calculated adjusted price is less than 0.0001 p/kWh |
| Clearing Price | •Initial price set by auction |
| "Floating" Payable Price | •Clearing price plus a "top up" on the initial price |

| GTCR Approach for Entry Capacity – Current LRMC approach with administered charges as a p/kwh additive element for final charge | |
|---|---|
| Marginal Distance | •"Solved" Network using supply and demand provides marginal distances |
| Overall Target Revenue | •Target Allowed Revenue input to aim to recover – distance adjustment |
| Include Cost components | •Distances converted to prices using annuitisation of costs |
| Reference price (including price collar*) | •Minimum price if calculated adjusted price is less than 0.0001 p/kWh |
| Clearing Price | •Initial price set by auction |
| Payable Price | •Clearing price plus a "top up" on the initial price |

*Collar = floor price

# Summary: Alternative Reference Price Methodologies

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- Of the alternatives Postage Stamp, asset allocation and VP(B) seem less suited to GB and use of the NTS
  - Welcome your views on this
- Should focus be on LRMC and CWD to develop further?
  - i.e as a foundation then consider modifying, etc.
- Which is most suited to GB and links the commercial regime and physical most appropriately into the future?
  - Need to consider signals given from each – should be part of our discussions.

# Gas Charging Review

Modelling CWD and LRMC with flow data

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# Modelling CWD and LRMC with flow data

- This analysis builds on that presented at April NTSCMF http://www.gasgovernance.co.uk/ntscmf/060416
- We started to show how CWD compares to LRMC
- This was based on using a range of assumptions
- Here we look at LRMC and CWD using the same assumptions except for the Capacity values used as inputs into each
  - Using actual flows as a proxy for forecast capacity
  - Highlighting the proportion of Obligated capacity levels is reflective of actual flows

# High level key assumptions for Modelling CWD compared to LRMC

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- As per April analysis:
- We have assumed that GB has a single methodology for all points (Interconnection Points (IPs) and Non Interconnection Points (Non-IPs)).
- We have assumed no change in behaviour relating to the purchase of capacity
- We have not included any discount structure, therefore all capacity at each point attracts the same price
- The purpose of this is to show the high level workings of CWD, comparisons to current methodology, to gain an understanding of how it may be developed or refined
- In the following slides we list the main requirements and remaining assumptions for this modelling

# Key assumptions for capacity: Modelling CWD compared to LRMC

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| | LRMC (Current Methodology) | | CWD | |
|---|---|---|---|---|
| **Years Modelled** | **Gas Years 14/15 and 15/16** | | **Gas Years 14/15 and 15/16** | |
| | **Entry** | **Exit** | **Entry** | **Exit** |
| Capacity Input (obligated) | Obligated Entry Capacity as per Licence and included into the current Transportation Model. | Non-incremental Obligated Exit Capacity as per Licence and included into the current Transportation Model. | Obligated Entry Capacity as per Licence and included into the current Transportation Model. | Non-incremental Obligated Exit Capacity as per Licence and included into the current Transportation Model. |
| Capacity Input (considering Actuals) | Actual flows on system where available or taken previous years actuals as a forecast | | | |
| Method of applying Entry / Exit Split (kept 50/50) | Average LRMCs | Administered prices | Administered prices | Administered prices |

# Key assumptions for network: Modelling CWD compared to LRMC

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| Item | | LRMC | CWD |
|---|---|---|---|
| Network | | • As per Transportation Model issued for each year in question used to set Entry and Exit Prices | • Based on network as at December 2015<br>• Any new points added in, linked to closest node on the existing network |
| Cost Components | Expansion Constant | • Entry and Exit. As per Models. No change. | • Not used |
| Cost Components | Annuity Rate | • As given in UNC. No change to values used. | • Not used |
| Supply / Demand | | • Entry as per MSEC models<br>• Exit as per year updated with that years Supply / Demand values | • Not used |

# Key assumptions for Revenue: Modelling CWD compared to LRMC

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| Item | LRMC | CWD |
|---|---|---|
| If applicable for Revenue purposes, Entry and Exit Split | • Using 50/50 where used (exit only) | • Using 50/50 for both Entry and Exit |
| "TO MAR"<br><br>(LRMC & CWD) | Allowed Transmission Owner Revenue as provided in the Long Term Revenue Forecast (http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Tools-and-Models/ ) for the given year less DN Pensions with a zero value for "K"* then applying Entry / Exit split. | |
| Revenue for Entry Capacity | • n/a | Based on TO Revenue less DN Pensions (assumes "K" is zero).<br>• Using Allowed Revenues from 14/15 and 15/16 |
| Revenue for Exit Capacity | Based on TO Revenue less DN Pensions (assumes "K" is zero).<br>• Using Allowed Revenues from 14/15 and 15/16 | Based on TO Revenue less DN Pensions (assumes "K" is zero).<br>• Using Allowed Revenues from 14/15 and 15/16 |

**"K" represents any under or over recovery from a previous year that would be carried forward*

# Which prices are being shown in each chart

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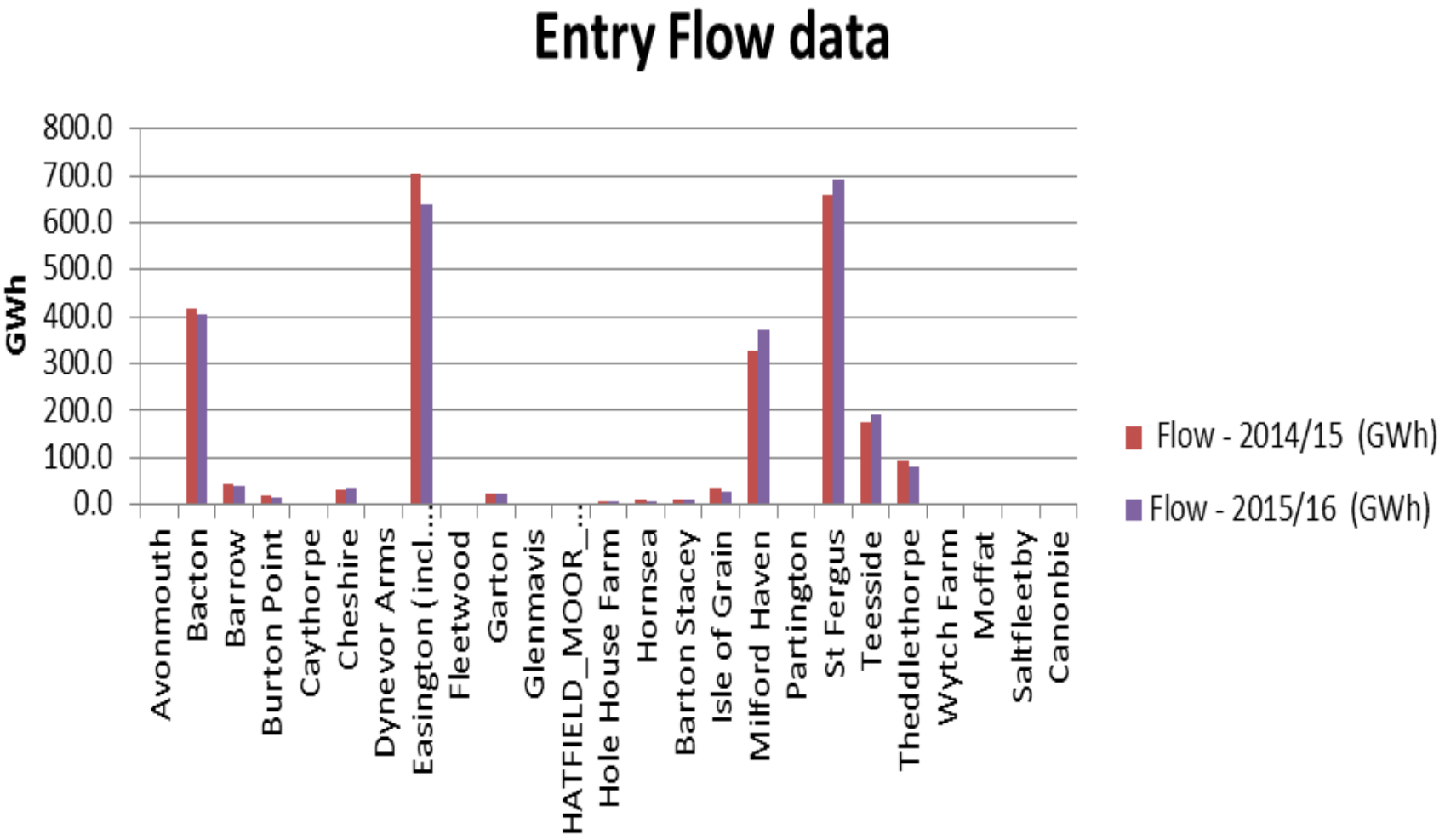
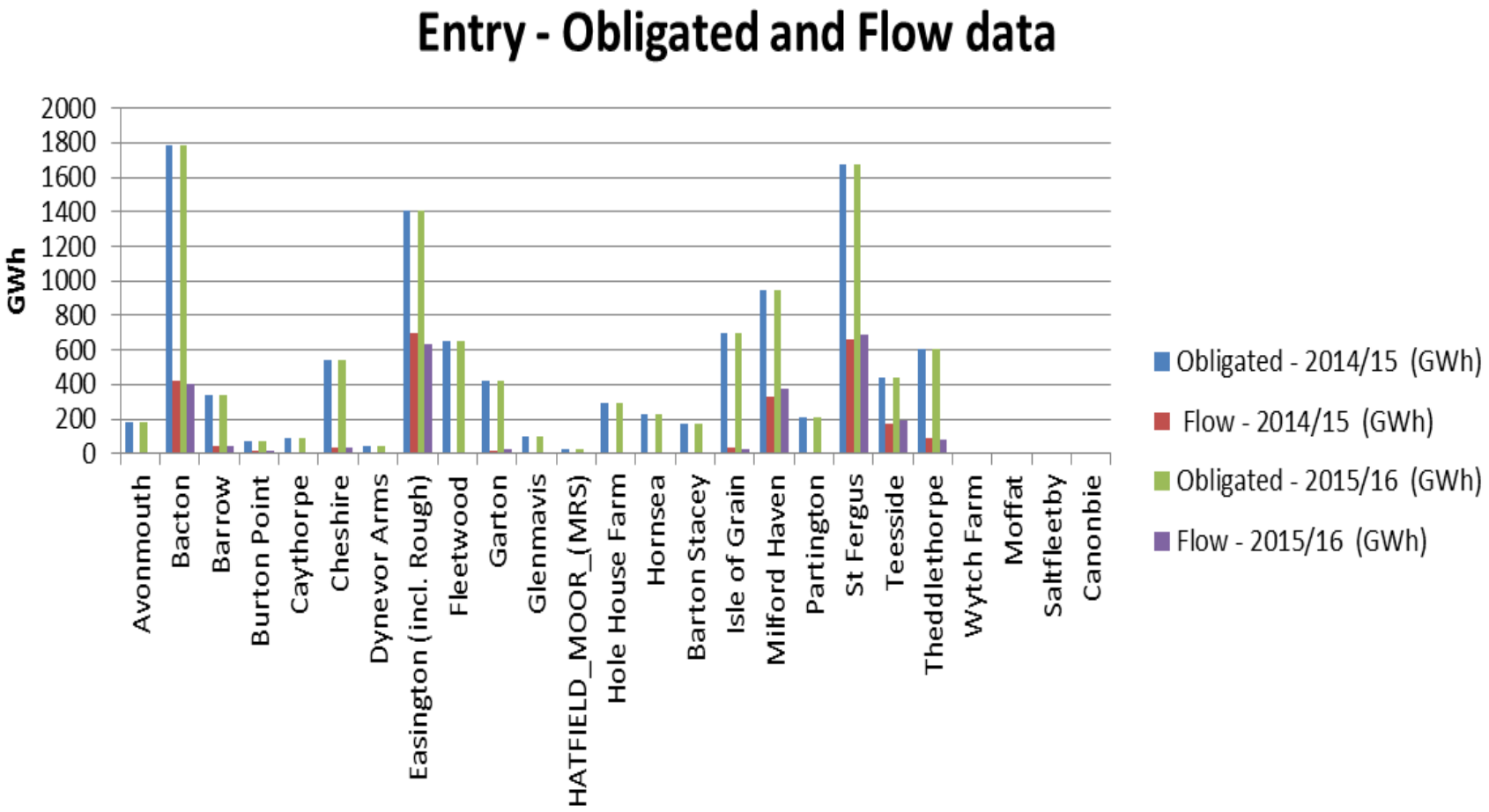
- For Entry Capacity we show the prices for individual points on the charts
- For Exit Capacity, due to the number of points, we show averages by zone
  - Zones aggregated (e.g. SO1 and SO2 are shown as SO)
  - Any Interconnector, Storage, Power Generation and Industrial are in the “Other” average value
  - As these are averages this will not show exact change for individual points however will give a good overview
- All individual prices for each model shown are available in the accompanying spreadsheet available on the Joint Office website (http://www.gasgovernance.co.uk/ntscmf/040516)

# Entry – Flow

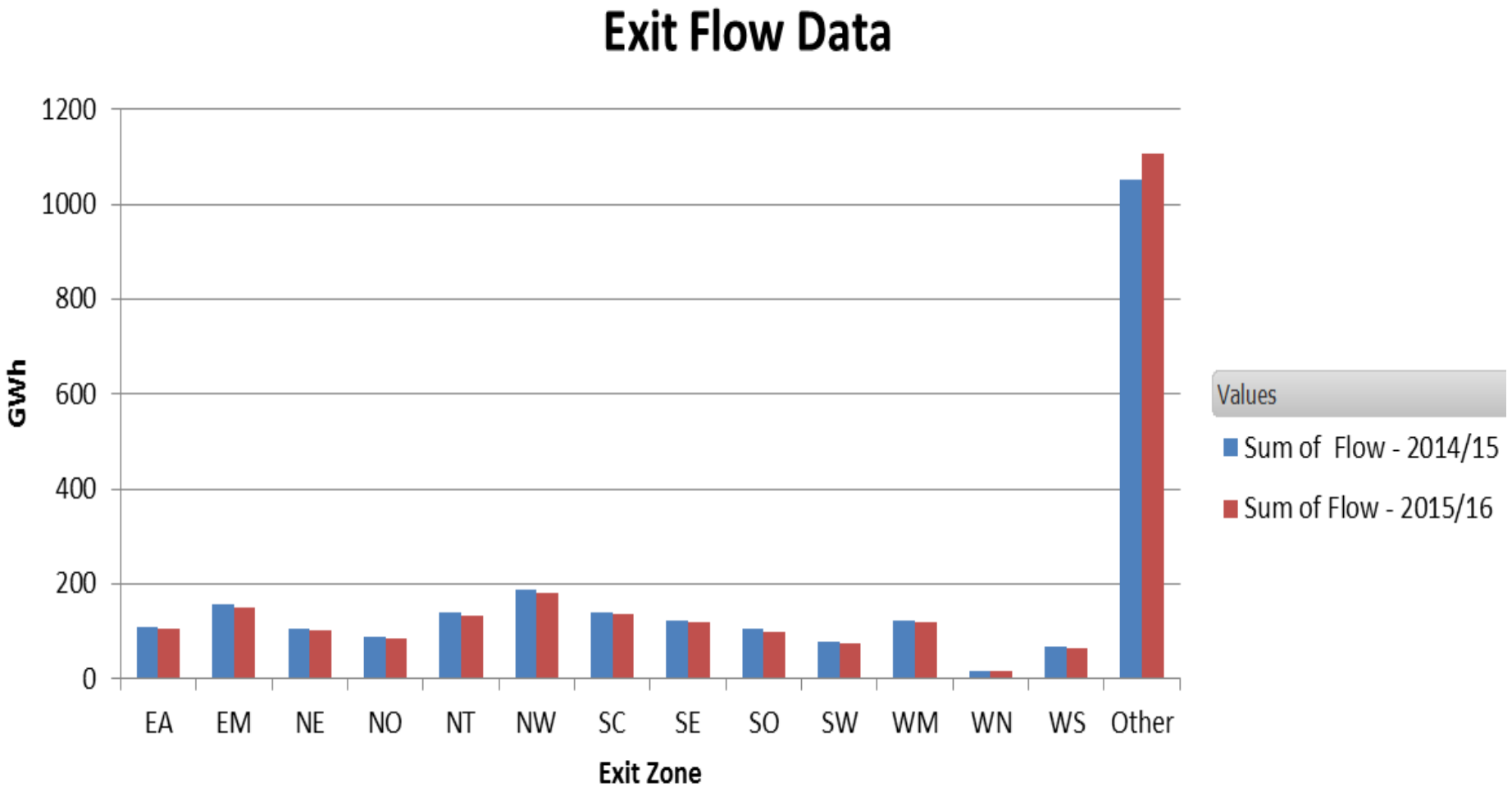

Entry Flow data
GWh
800.0
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
Avonmouth
Bacton
Barrow
Burton Point
Caythorpe
Cheshire
Dynevor Arms
Easington (incl...
Fleetwood
Garton
Glenmavis
HATFIELD_MOOR_...
Hole House Farm
Hornsea
Barton Stacey
Isle of Grain
Milford Haven
Partington
St Fergus
Teesside
Theddlethorpe
Wytch Farm
Moffat
Saltfleetby
Canonbie
Flow - 2014/15 (GWh)
Flow - 2015/16 (GWh)

# Entry – Obligated and Flow

- Flows represent approximately 23% of Obligated

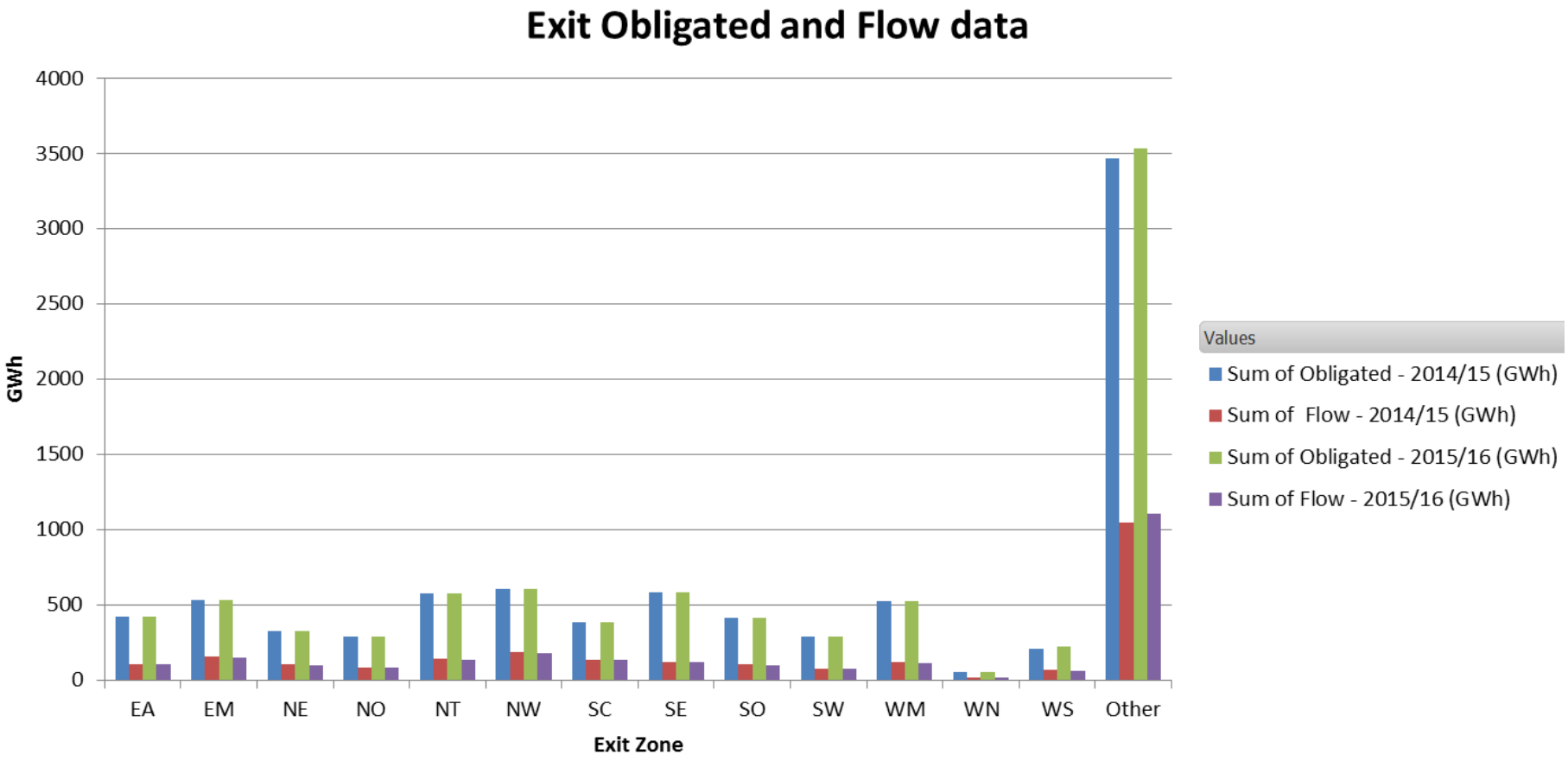


# Exit – Flow

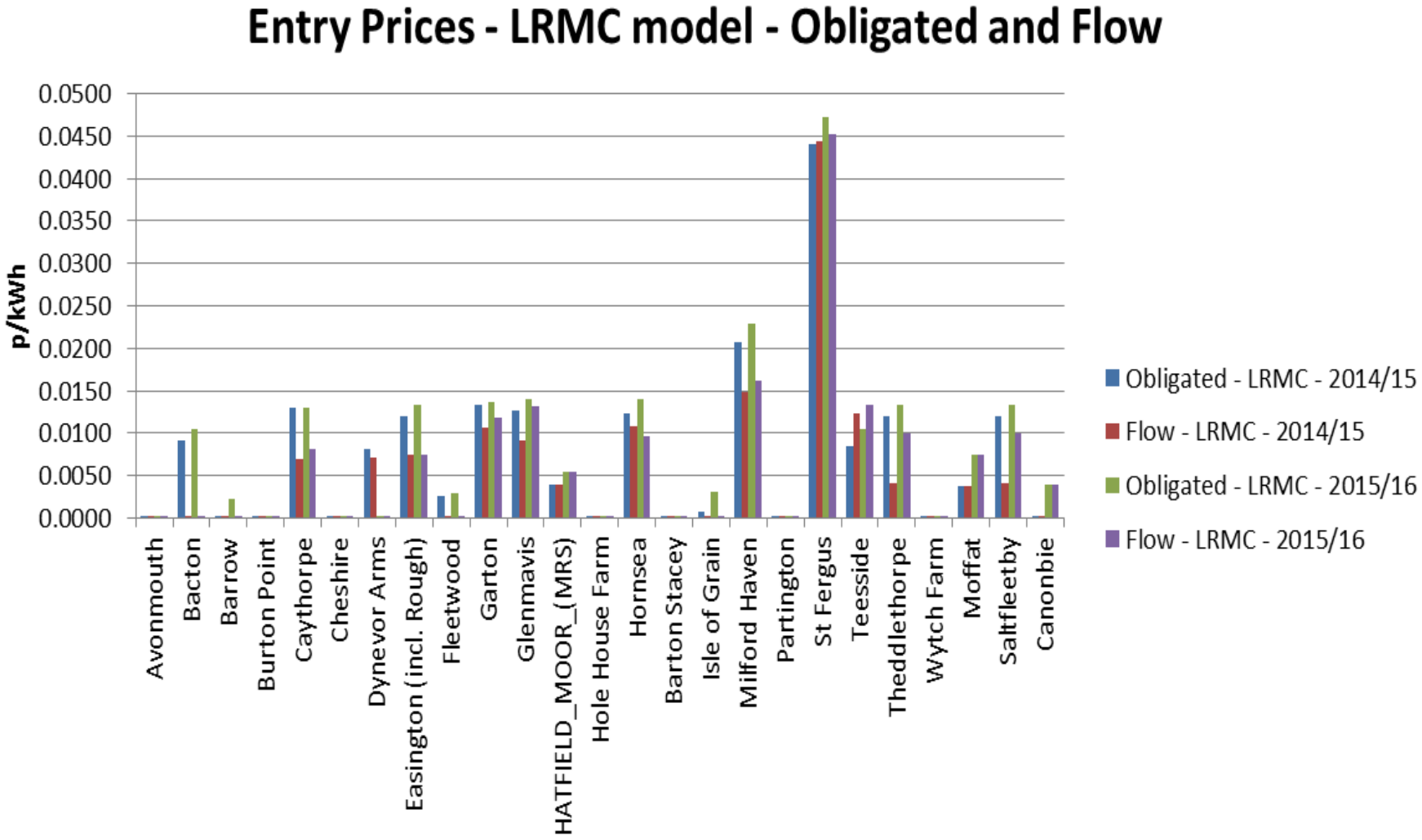

Exit Flow Data
1200
1000
800
600
400
200
0
GWh
EA
EM
NE
NO
NT
NW
SC
SE
SO
SW
WM
WN
WS
Other
Exit Zone
Values
Sum of Flow - 2014/15
Sum of Flow - 2015/16

# Exit – Obligated and Flow

- Flows represent approximately 28% of Obligated



# Entry Prices – LRMC model – Obligated and Flow



# Entry Prices – CWD model – Obligated and Flow

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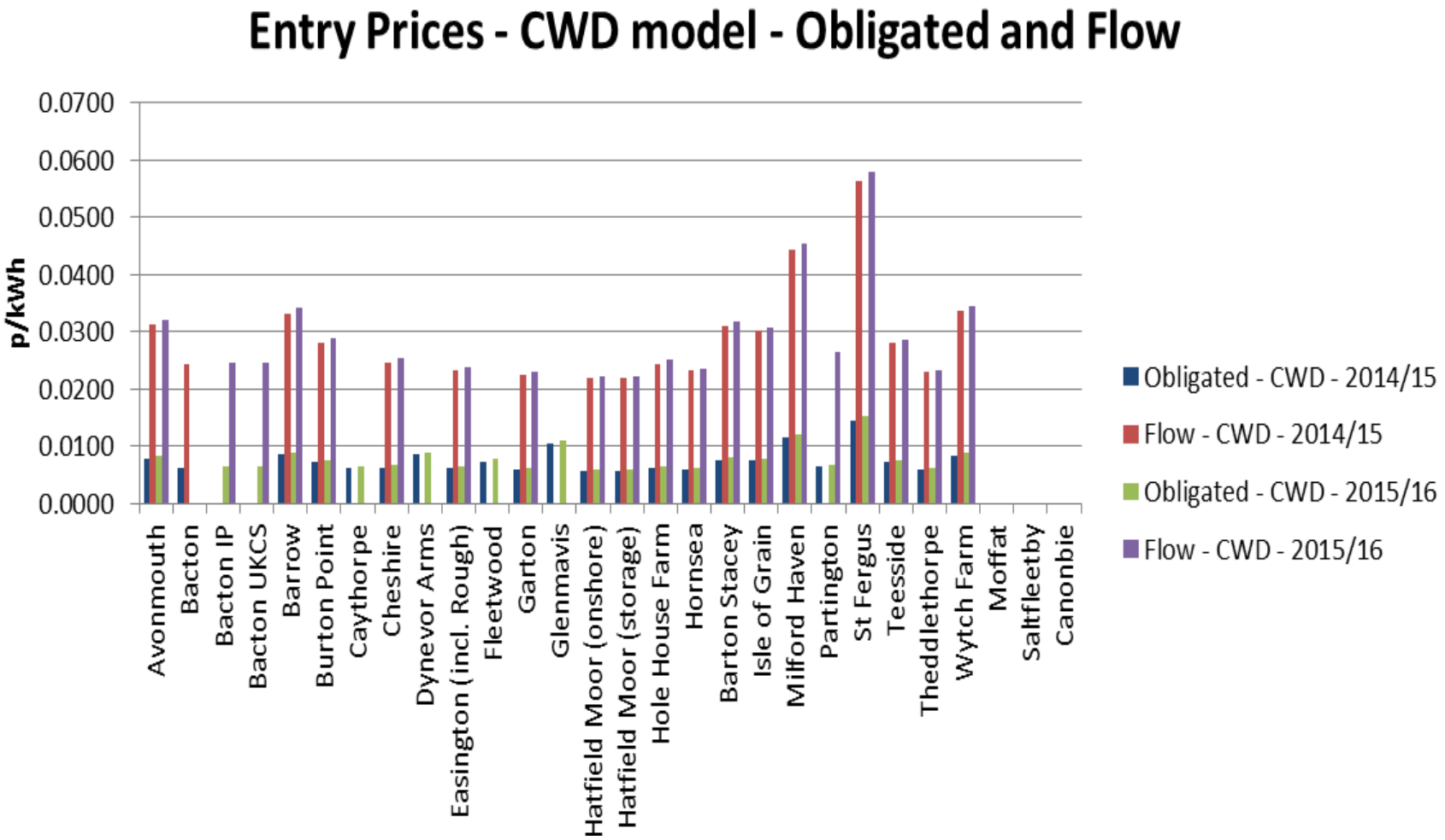

# Entry Prices – LRMC compared to CWD model

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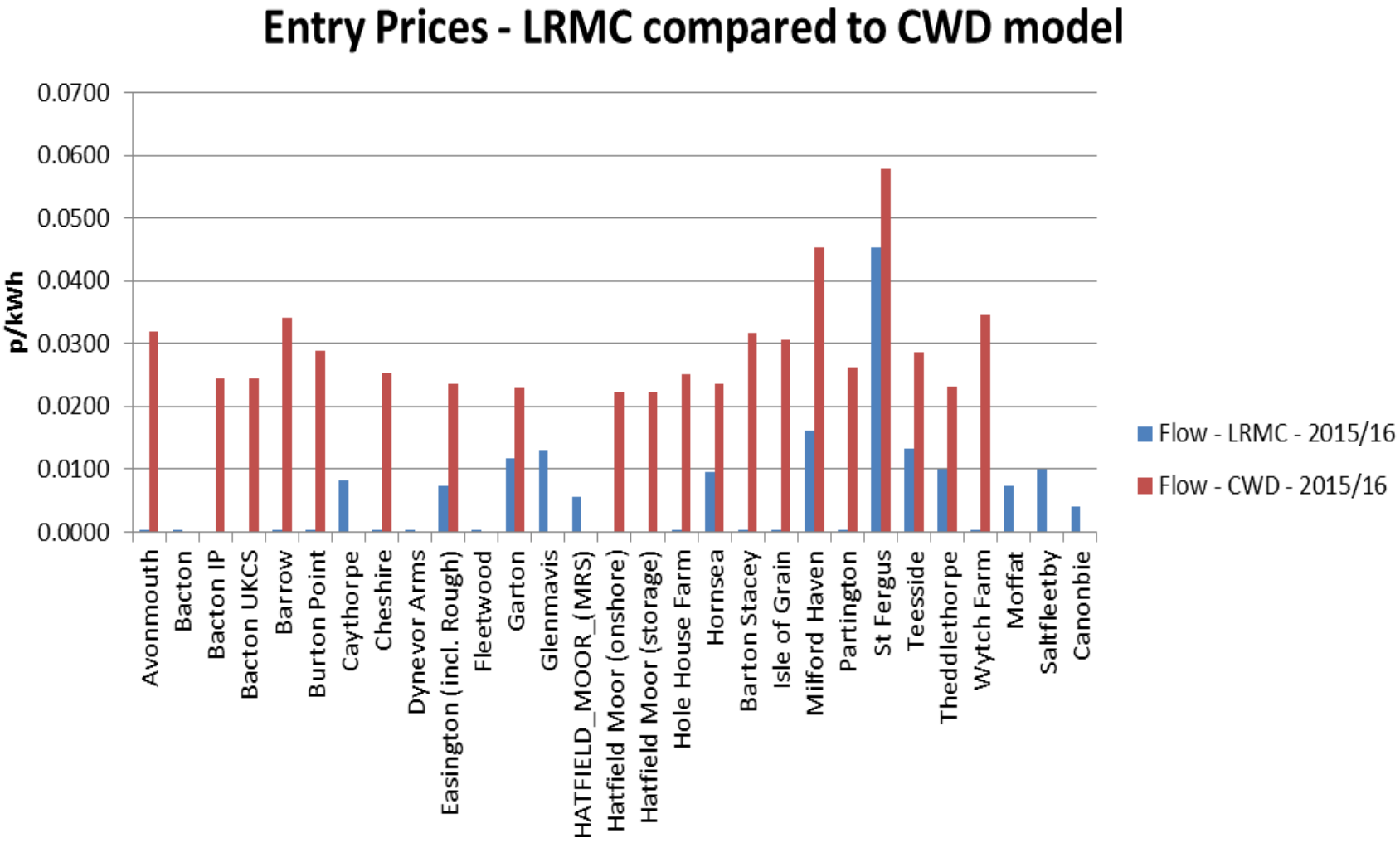
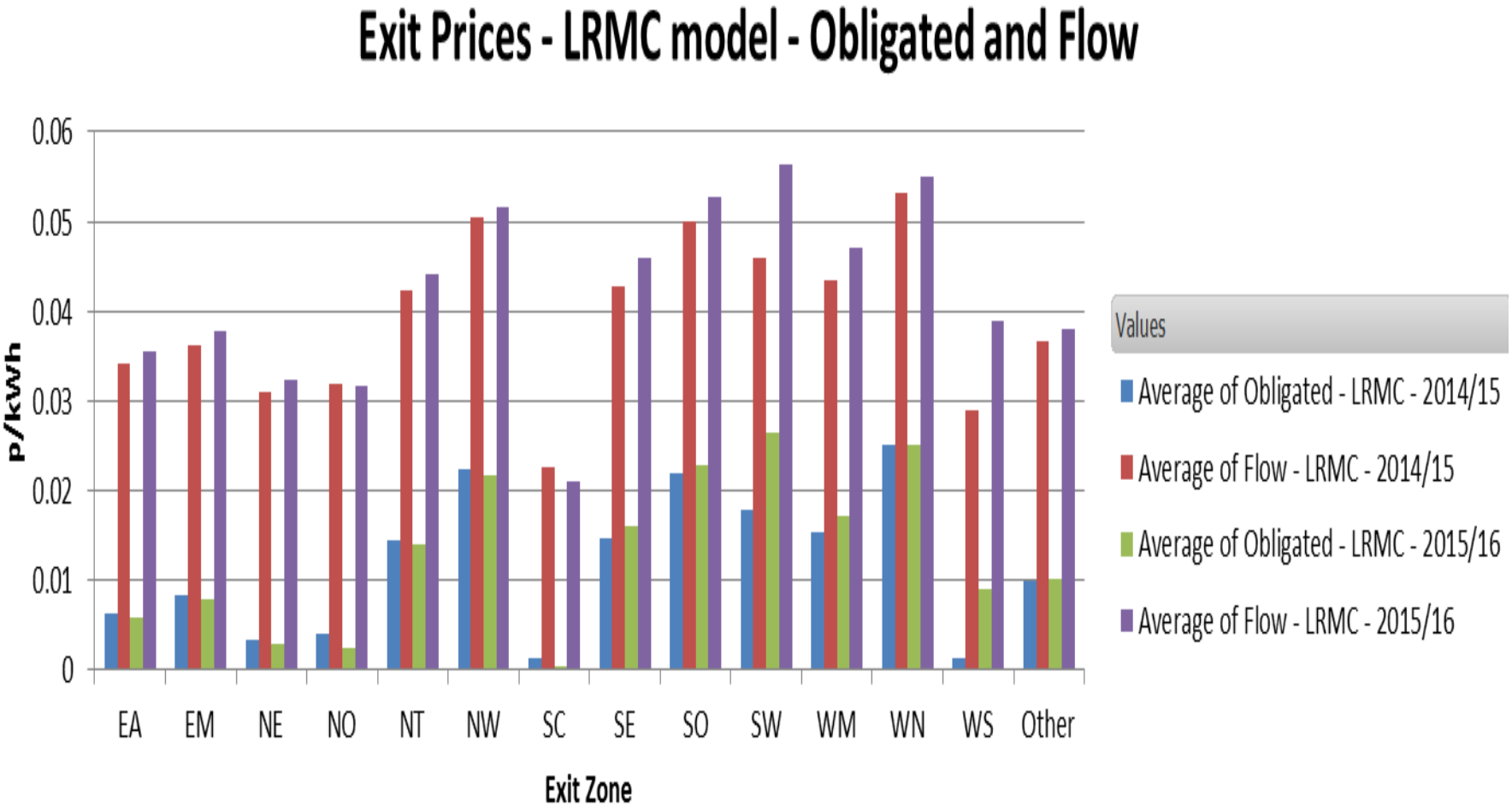
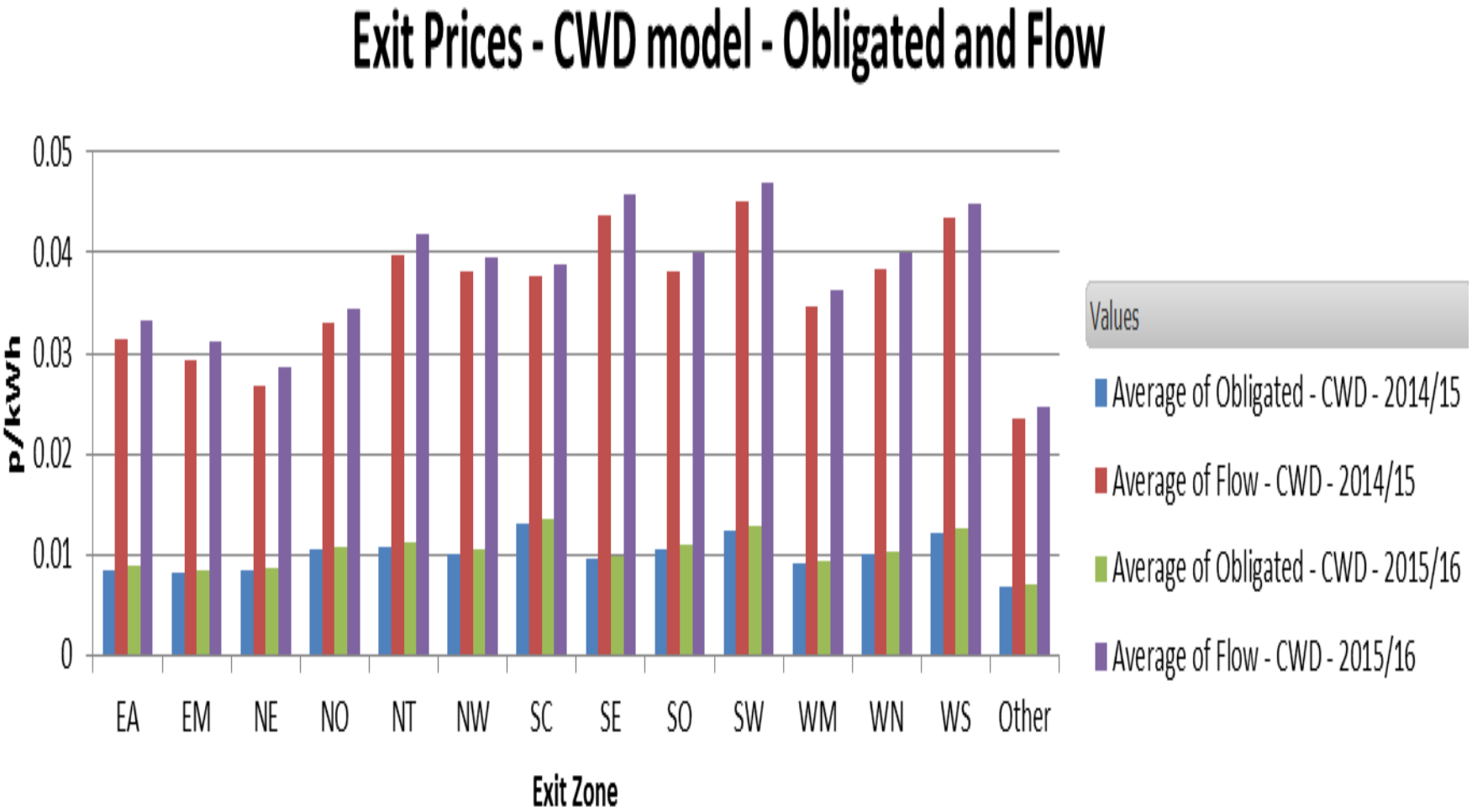


# Exit Prices – LRMC model – Obligated and Flow



# Exit Prices – CWD model – Obligated and Flow



# Exit Prices – LRMC compared to CWD model

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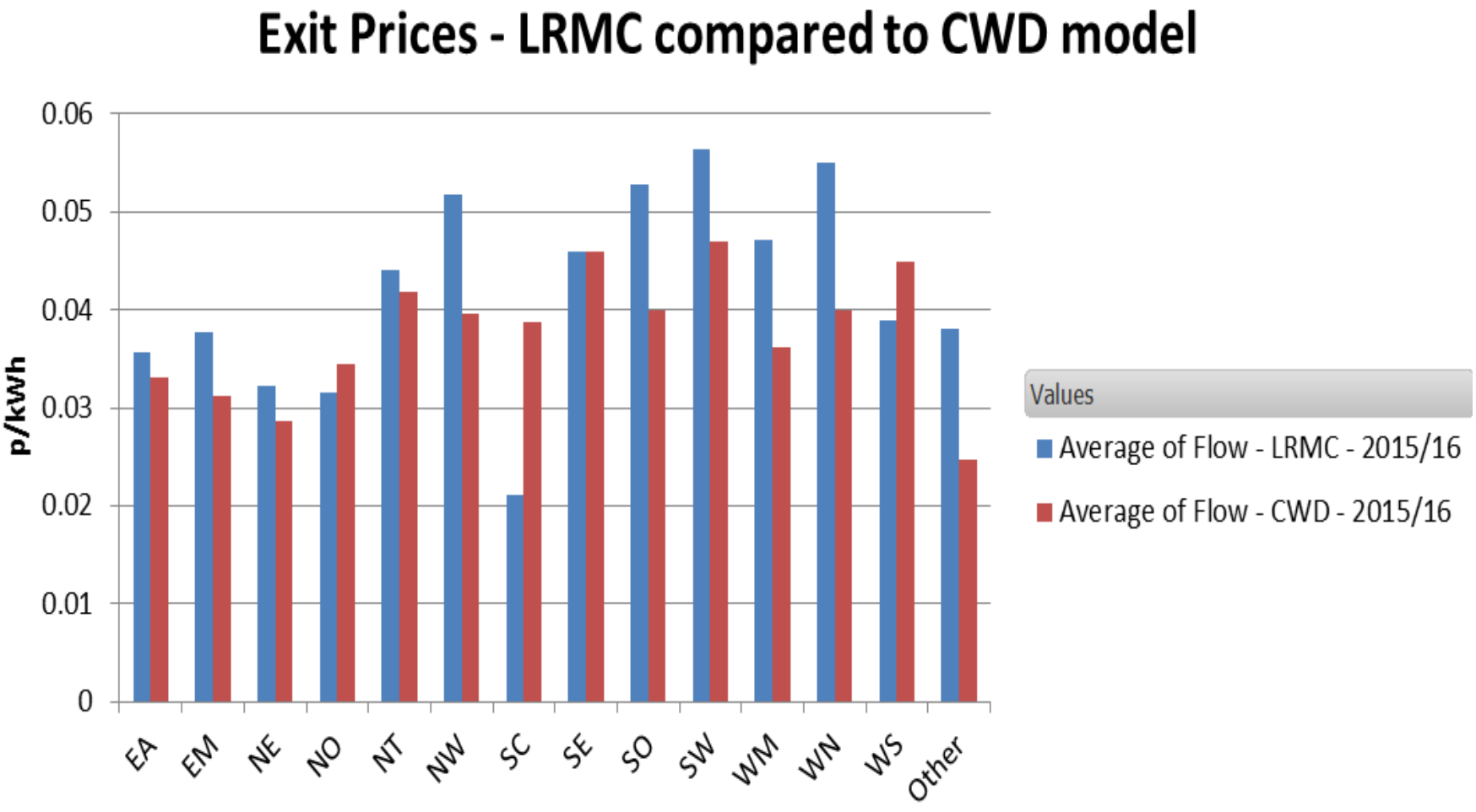

# Booked Capacity – Long Term and Short Term Products

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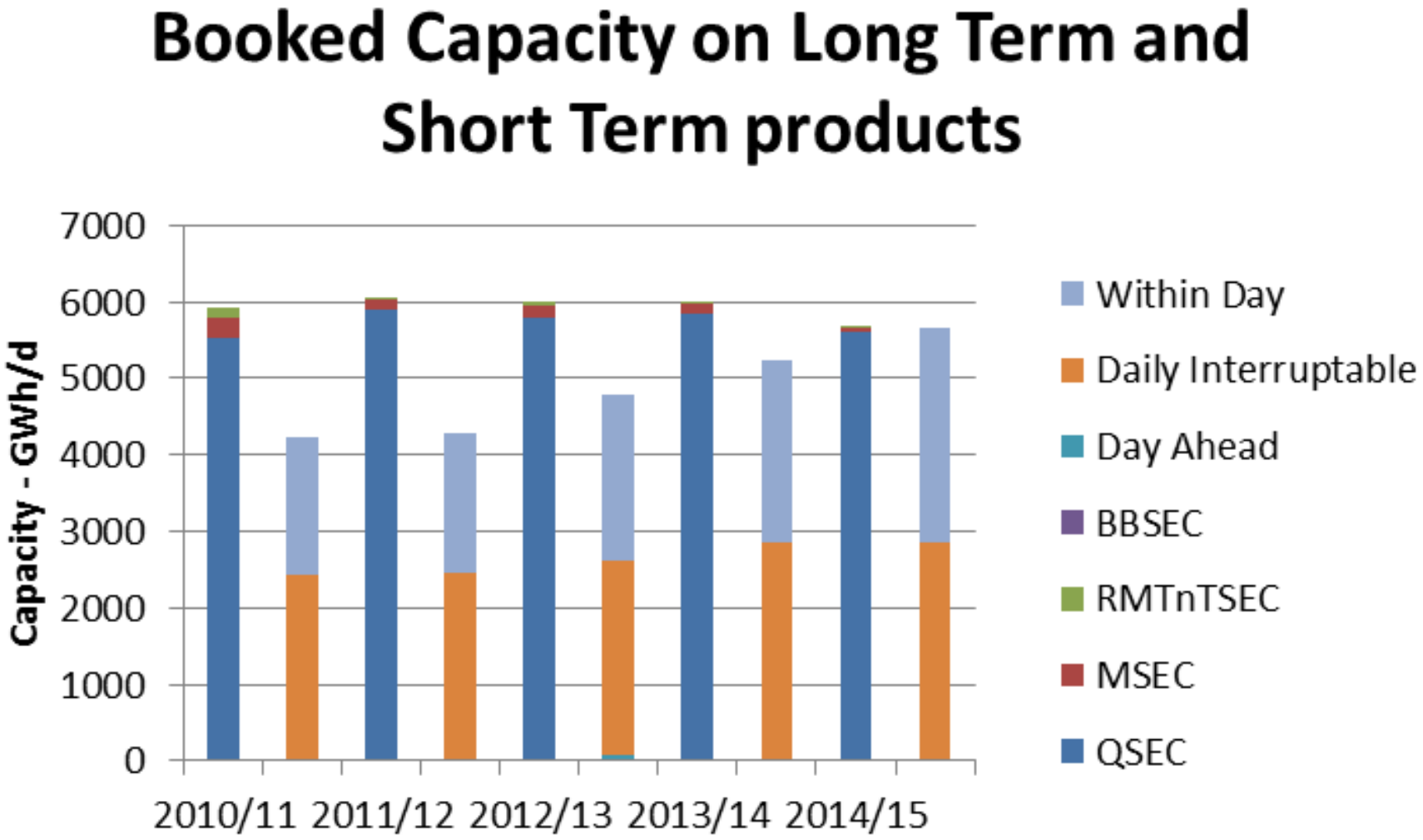
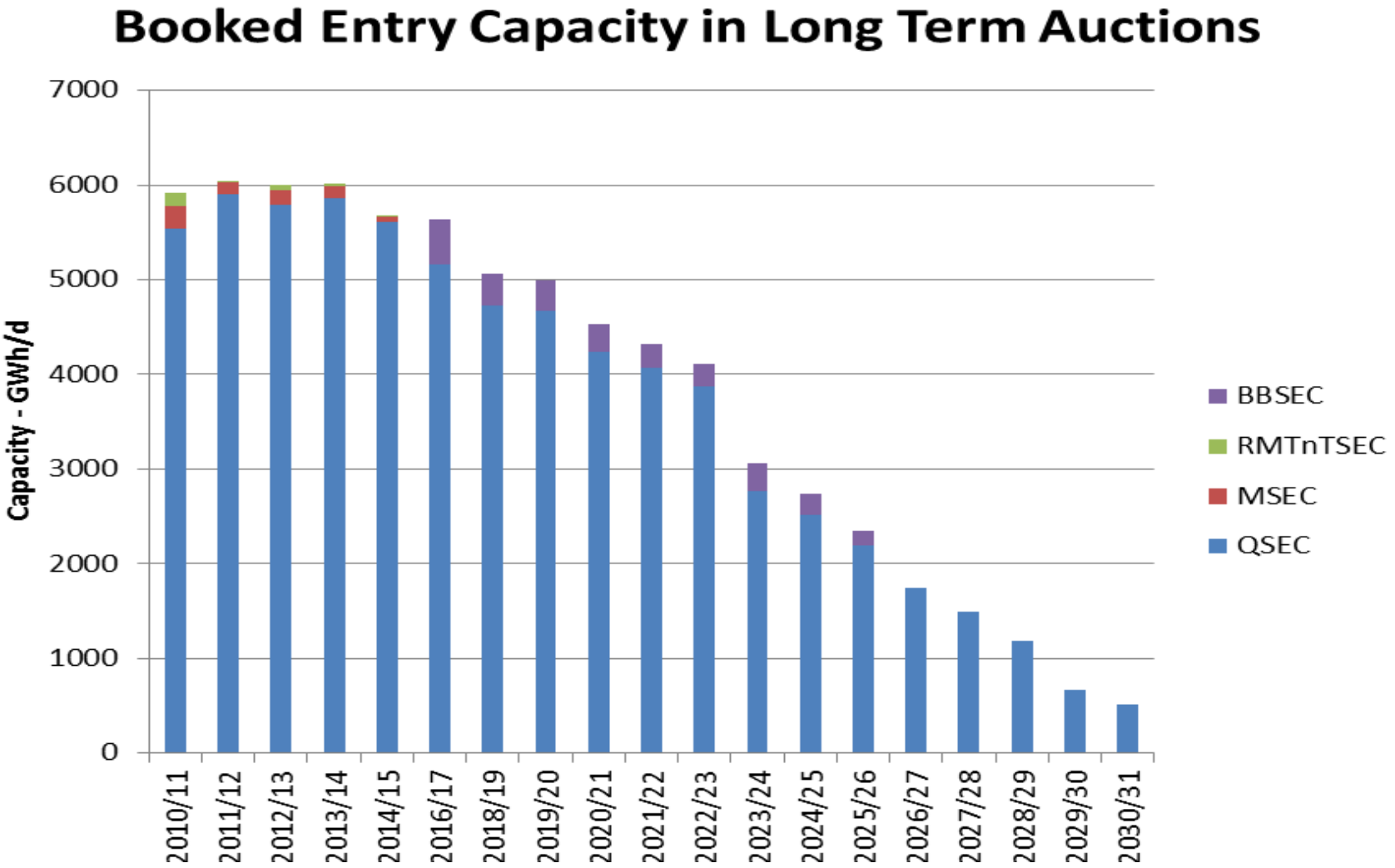
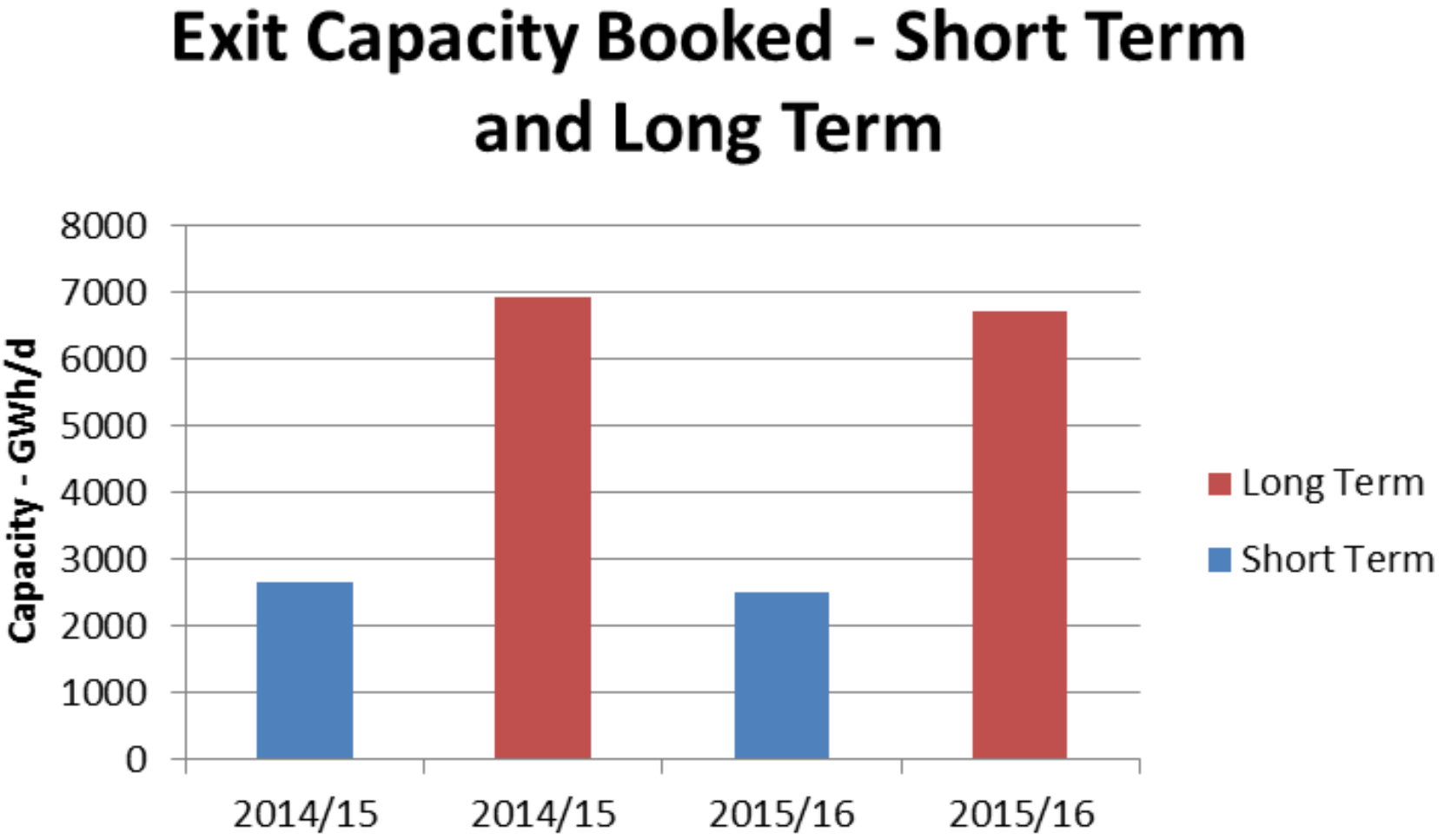


# Booked Entry Capacity in Long Term Auctions



# Exit Capacity Booked - Short Term and Long Term



# Revenue collected under flow & obligated capacity prices against flow capacity

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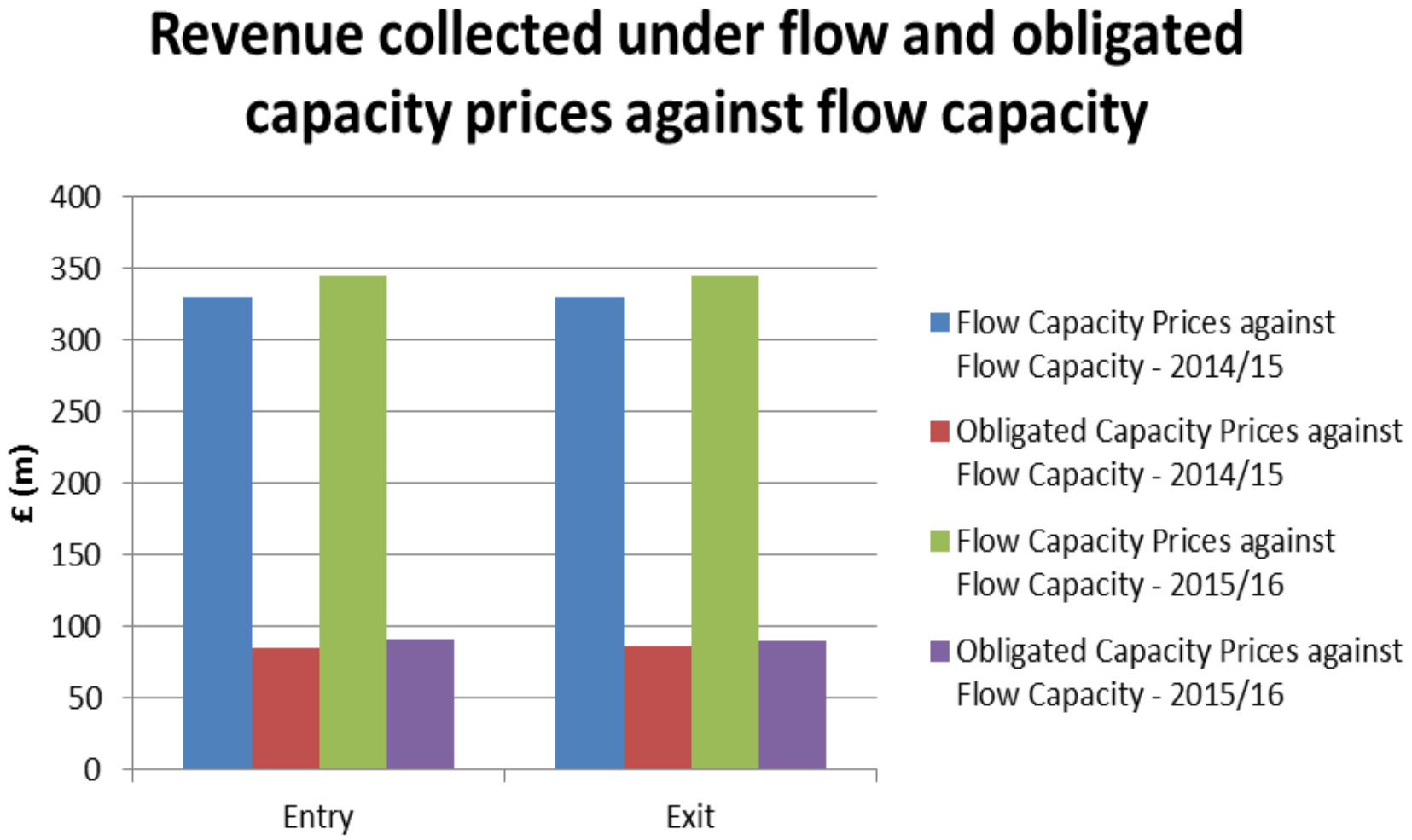

# Summary
# Modelling CWD and LRMC with flow data

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- Flow levels are currently less than 30% of the obligated levels for both Entry and Exit
- When recovery of revenue is linked to a low % against forecast charges could result in:
  - Significant under recovery that will need to be accommodate into potentially volatile charges
  - Undermining the methodology used for setting capacity
- Under any methodology the link between actual and forecast (when used in setting prices) is important
  - Forecasted contracted capacity needs to be as close to what is going to be flowed on system to ensure revenue is collected in applicable year

# Gas Charging Review

EU Tariff Code – Current Outlook

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# EU Tariffs Code: current outlook

- **Implementation timescales (*Art 41*):**
  - Regulation to apply from **1 January 2018**
  - RPM consultation and approval cycle to be concluded no later than **31 May 2018**
  - First annual auction impacted is **July 2018**
- This timeline is major point of contention
- ENTSOG pushing for 24 months implementation
- Applicable date will be decided in comitology

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# EU Tariffs Code: current outlook

- **Regulatory accounting Principles (*Art 38*):**
- Article still highly contentious and likely to receive "push-back" from member states
- Text clarified by EC to highlight that ACER guidance on determination of allowed or target revenues is "non-binding"
- ENTSOG considers the setting of allowed or target revenues as out of scope of the TAR NC
  - **ENTSOG proposes the deletion of article 38 in full**.

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# EU Tariffs Code: current outlook

- **ACER review (*Art 27*):**
- Article has been amended slightly with respect to timescales of each step
- ACER can still make proposed amendments to proposed methodology
- Review cycle is now every five years
- ENTSOG proposes that ACER is removed from NRA decision making process or removed at least from the first cycle and for NRA to take account of ACER's repost at subsequent cycle.

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# EU Tariffs Code: current outlook

- **Calculation of interruptible priced (*Art 16*):**
- Adjustment factor **A** has been reinstated
  - **Ex-ante discount = Pro X A X 100%**
  - **"A"** shall be no less than 1 and can vary per standard capacity product
  - This reintroduction is unlikely to change
- Backhaul priced at marginal cost of product reintroduced
  - This will be strongly contested by some TSOs

# EU Tariffs Code: current outlook

- **Storage (*Art 10*):**
- Latest text confirms that storage discount is at least 50%.
- All criteria for determining discount removed from article
- Level of discount simply subject to consultation

- ENTSOG pushing for discount to be in range of 0-100%

# EU Tariffs Code: current outlook

- **Existing contracts (*Art 39*):**
- Fixed price element for contracts concluded before 29 November 2013 still included
- Price protection for contracts for incremental capacity concluded between 29 November 2013 and date of application for TAR NC has now been removed
- Text unlikely to change w.r.t. GB regime (there will be a push to reinstate protection of contracts in price-cap regimes)

# Gas Charging Review



Dual Regime discussion

# Discussion: Dual Regime Scenarios

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| Item | Detail |
|---|---|
| Revenue Structure | • Reminder of which charges recover which revenues<br>• Under EU Tariffs Code revenue / charge structure |
| Assumptions for Revenue alignment | • Definition of Transmission and Non Transmission Services<br>• Working assumptions regarding Transmission Services and Non Transmission Services |
| Dual regime Discussion | • Scenarios where a dual regime may be possible considering the EU Tariffs Code, GB arrangements looking at certain charges and arrangements<br>• Shorthaul considerations<br>• Storage considerations<br>• Non Transmission Services and a dual regime<br>• How this might look as part of revenue recovery |
| Summary | • Summary for potential areas where dual regime may be permitted |

# Current GB Framework for Revenues and recovery

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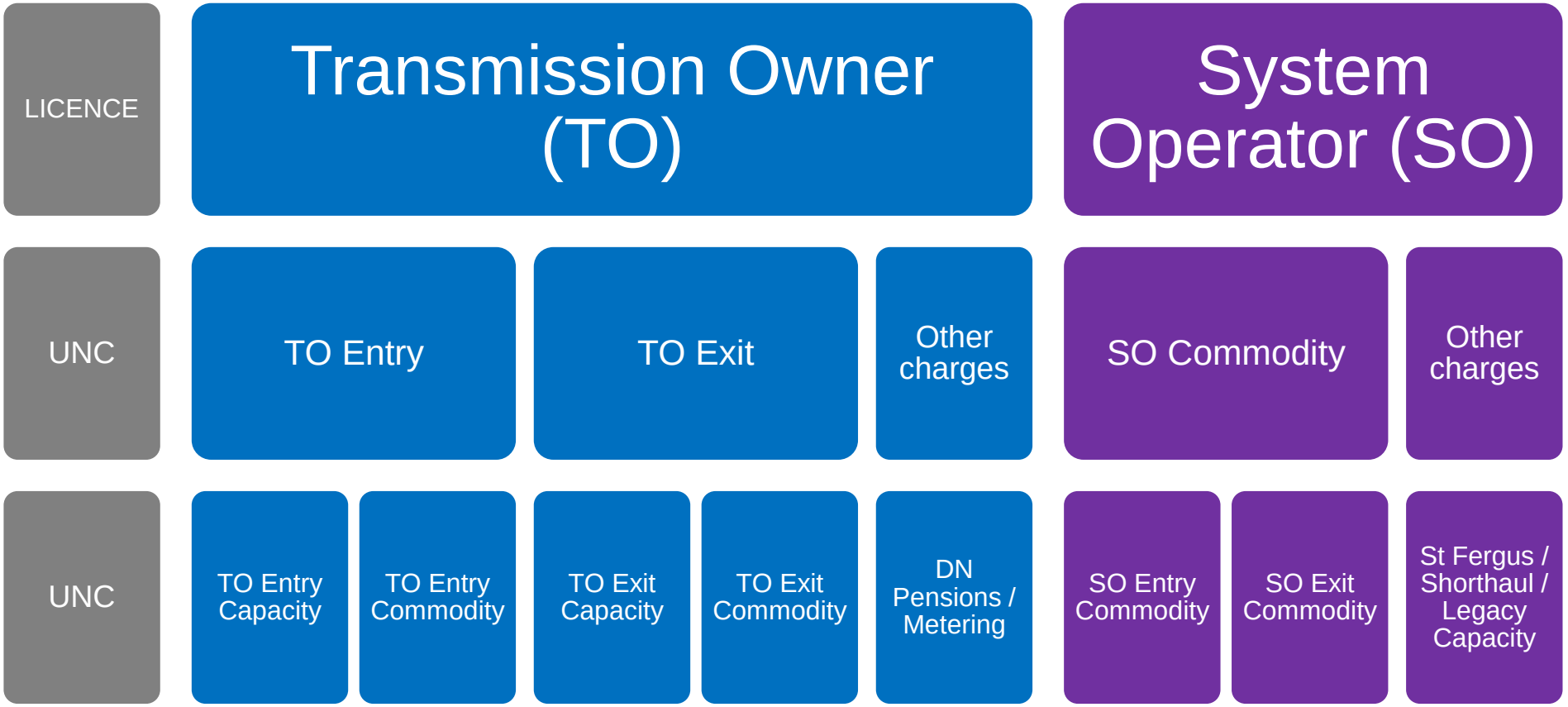

# EU Tariff Code General Revenue Reconciliation / recovery structure (simplified)

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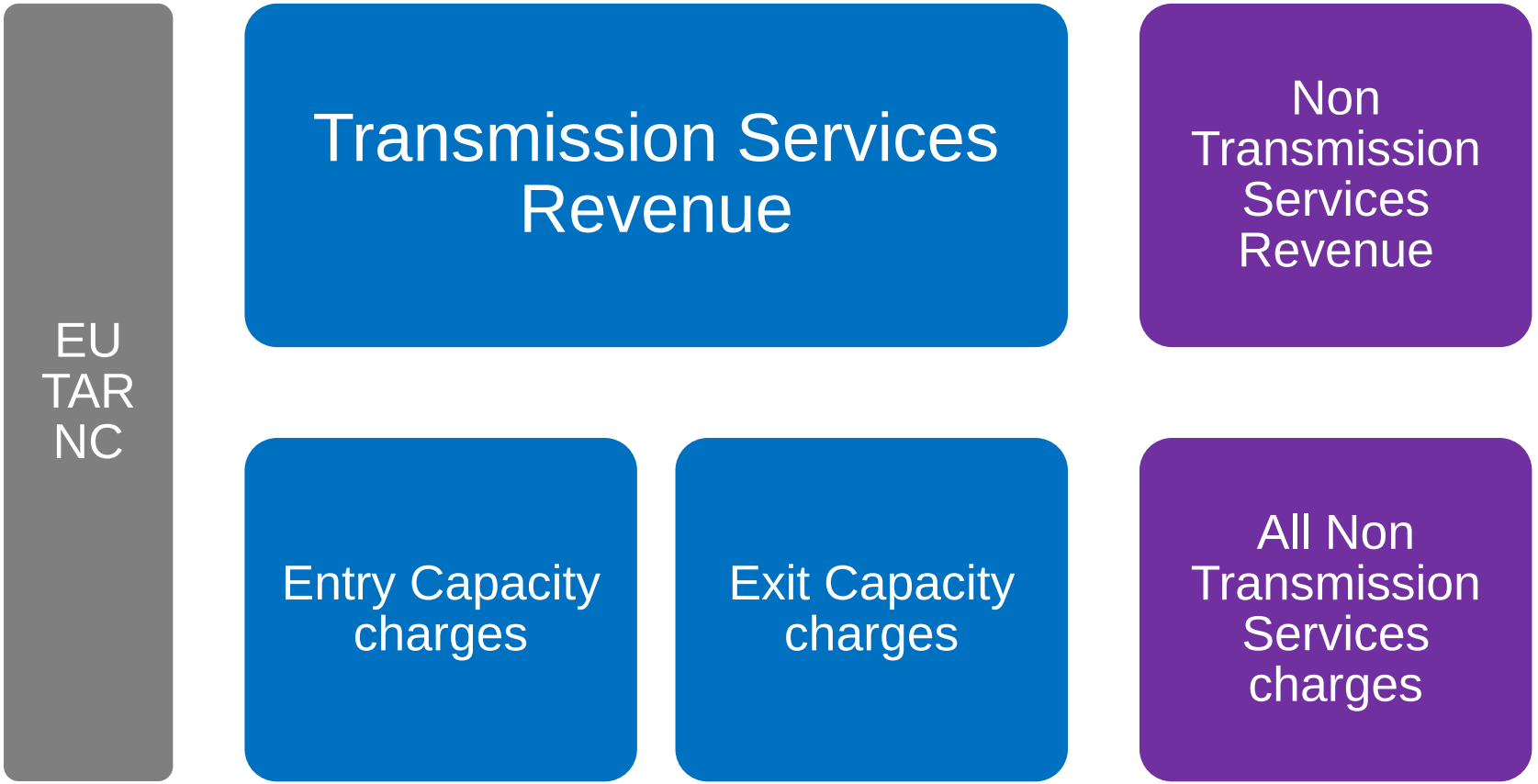


**Certain elements are excluded here. E.g. The DN Pensions Deficit Charge that is levied direct to DNs. Expect this to continue and contribute to overall revenue.**

# EU Tariff Code General Revenue Reconciliation / recovery structure (simplified)

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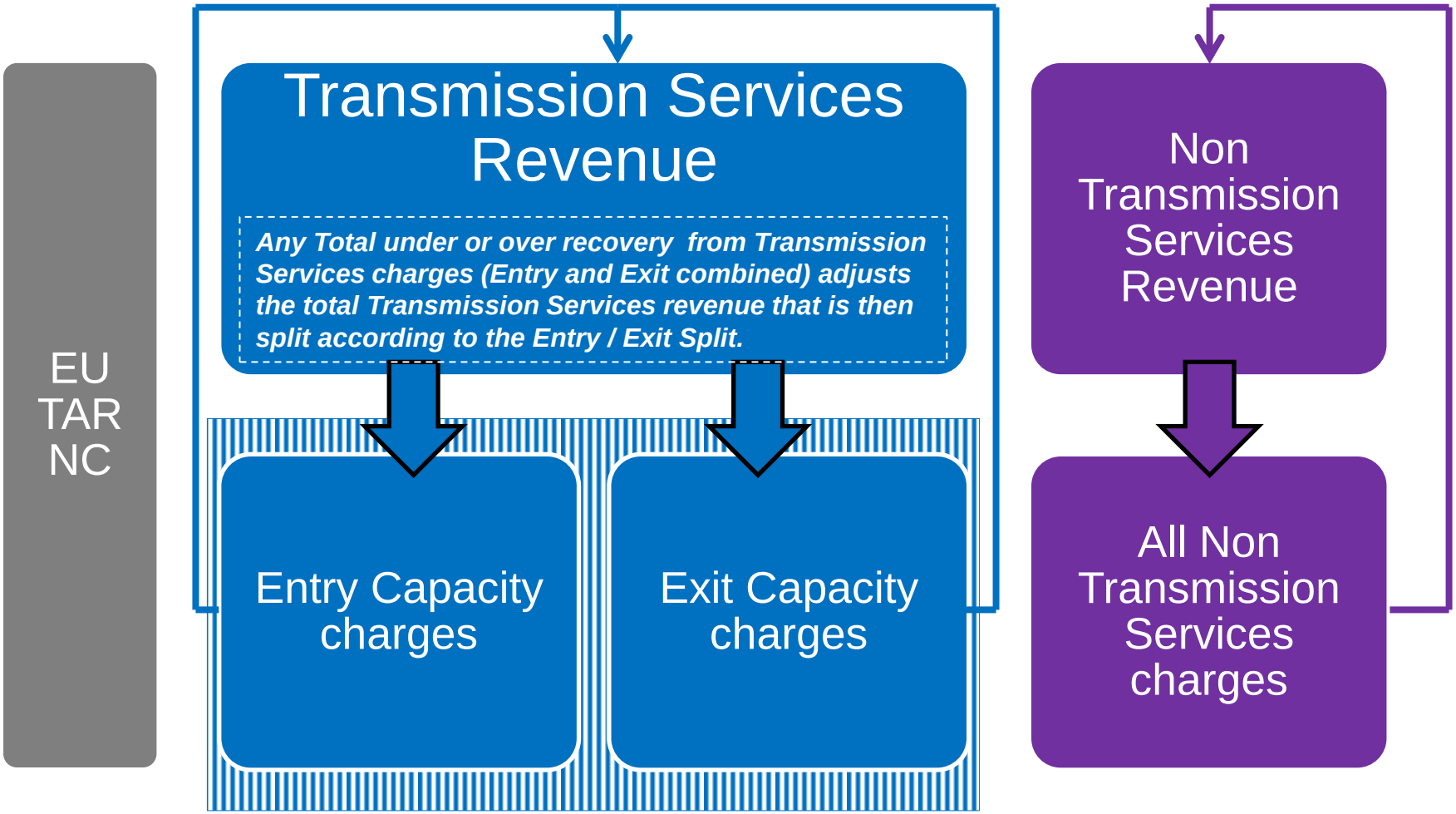


For example, if only have capacity, then any over or under recovery will adjust the revenues these charges will be required to collect.

# Definitions

From the EU Tariffs Code 14 April 2016 Chapter 1 (General Provisions) Article 3 (definitions)

- ‘transmission services’ means the regulated services that are provided by the transmission system operator within the entry-exit system for the purpose of transmission;
- ‘non-transmission services’ means the regulated services other than transmission services and other than services regulated by Commission Regulation (EU) No 312/2014 that are provided by the transmission system operator

# Discussion: Assumptions to facilitate dual regime

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- Working assumption that:
  - TO as we have it today equates to Transmission Services
  - SO we have today equates to the Non Transmission Services
- The “new Commodity” under the Tariffs Code to cover the cost to flow gas can be considered a Non Transmission Service
- There are a range of areas under the EU Tariffs Code that may permit a dual regime. Any implementation becomes a GB debate
- In the following slides we present for discussion some key areas and how or if dual regimes might be permitted
  - We present these for discussion based on our understanding of the EU Tariffs Code as of 14 April 2016
  - Where we refer to IP this is Bacton and Moffat Interconnectors
  - For Non-IP this is all other points (Domestic)

# Discussion: Dual Regime Scenarios (1/2)

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| Item | Description | IP | Non IP | Comments |
|---|---|---|---|---|
| Reference Price Methodology (RPM) | The Main methodology to recover Transmission Services Revenue | One methodology at all points | | Requirement that IP must float each year, with new payable price |
| Complimentary Revenue Recovery Charge (CRRC) | Permitted commodity "top up" to reach allowed revenue | Not allowed at IPs | Can be applied at Non IPs | If used can only be for Non-IPs |
| Storage pricing | Treatment for Capacity pricing for storage | One methodology at all points. Minimum discount of 50% from the Capacity based transmission tariffs. | | No criteria specified to determine the discount |
| Short Term Pricing | Options for short term pricing linked to reserve prices | No discounts permitted. Only multipliers or seasonal adjustments | Discounts could be applied at Non IPs | Could align non-IPs with IPs, but if discounts adopted at non-IPs, can't apply same at IPs |

# Discussion: Dual Regime Scenarios (2/2)

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| Item | Description | IP | Non IP | Comments |
|---|---|---|---|---|
| Alternative Transmission Tariffs | Charges that contribute to the Transmission Services Revenue that must be linked to a discount from reserve prices | If applied, they apply at all points as they are part of the RPM | | If what we call "shorthaul" is considered a Transmission Service this could be where it could sit. Other options may be permitted. |
| Fixed prices (excluding any "protected" capacity) | Providing a fixed price for Capacity ahead of the date of use | A choice as to whether these are offered. Method fixed under the Tariffs Code | Can be as today or as per IP | Any different approach IP vs Non-IP would need to consider relevant objectives |
| Interruptible | Methodology for pricing interruptible capacity | Ex ante discount reflecting the probability of interruption | Can be as today or as per IP | Any different approach IP vs Non-IP would need to consider relevant objectives |
| Existing Contracts | Price can't be adjusted for contracts concluded before 29 November 2013 | Applies to all points, Entry only. | | Does not apply to Exit as Exit already has administered prices |

# Discussion:
# NTS Optional Commodity ("Shorthaul")

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**NTS Optional Commodity Charge ("Shorthaul") arrangements and how they may need to change**

**Key Points on current arrangements:**

- NTS Optional Commodity charge ("Shorthaul") as we have it in GB is a product designed to encourage use of the NTS rather than bypass the NTS with potentially inefficient market investment
- Current GB method provides an Optional Commodity rate intending to link to estimated investment costs
- Provides exemption from all other commodity rates (except St Fergus compression)

| Potential changes | Interconnection Point application | Non Interconnection Point application | Comments |
|---|---|---|---|
| If Linked to Commodity | Could only be linked to SO Residual Commodity (i.e. no discount from cost to flow commodity) | Could only be linked to SO Residual Commodity (i.e. no discount from cost to flow commodity) from Non Transmission Services and CRRC for Transmission Services | If applied differently between IP and Non IP would need to consider relevant objectives of any charges (e.g. cost reflective, non-discriminatory) |
| If linked to Capacity | Considered an Alternative Transmission Tariff – provide discount from Capacity Reserve prices | Considered an Alternative Transmission Tariff – provide discount from Capacity Reserve prices | Alternative transmission tariffs link to capacity definitions under CAM Article 7a(2) that may restrict the capacity and mechanisms it could be applied to. |

**Summary of potential change:**

- Relevant objectives would need to be an input as would fit with Transmission or Non Transmission Services
- Dual regime (separate IP/Non-IP approach) could be complex and potentially against objectives
- A change to the methodology of calculating / application would need to take into account the whole charging methodology including interactions, any alternative product cannot be designed in isolation
- Would need to account for any changes required to capacity definitions / auctions / processes

# Discussion: Provisions for Storage

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**Storage charges and the methodology for applying any relevant discounts / alternative approaches**

**Key Points on current arrangements:**

- On the NTS, eligible flows for commodity charges relate only to “new gas” on the NTS. Any flows in and out of storage once entered onto the NTS exempt to avoid double counting of gas.
- Storage have same arrangements for capacity as for all Entry and Exit points
- Provides exemption from all commodity rates (except St Fergus compression)

| Potential changes | Interconnection Point application | Non Interconnection Point application | Comments |
|---|---|---|---|
| Linked to Capacity | EU Tariffs Code mandates a minimum discount of 50% from Capacity reserve price. Applies to all points. Reserve prices can float, recalculated each year. Scope for discount to be reviewed and updated within permitted timescales. | | Becomes a GB discussion how to structure beyond the minimum requirement of EU Tariffs Code. |

**Summary of potential change:**

- Relevant objectives would need to be an input
- A change to the methodology of calculating / application would need to take into account EU Tariff’s Code requirements for Storage, overall charging methodology including interactions. Discounts to and from storage facilities cannot be designed in isolation.
- Would need to account for any changes required to capacity definitions / auctions / processes
- Any combined ASEPs (with Storage) may need to be split.

# Discussion:
# Non Transmission Services and Dual Regime

| Charge | Detail | Comments |
|---|---|---|
| Flow Based charge covering costs mainly driven by quantity of gas flow | Potentially could be equivalent to Shrinkage values | Can be applied to all points |
| Residual | Remainder of revenue from target SO can be subject to separate method, could be via a Commodity Charge | Can be applied to all points |
| Special arrangements | Becomes a GB discussion about whether or not to have any alternative charging arrangements for Non Transmission Services | Can be applied to all points |

Summary for Non Transmission Services under Dual Regime scenarios

- Under the EU Tariffs Code there are more prescribed elements for Transmission Services, leaving potentially more flexibility for Non Transmission Services
- Becomes a GB Discussion as to what the optimal approach is, subject to NRA approval
- Subject to GB discussion and Ofgem approval

# Current GB Framework for Revenues and recovery

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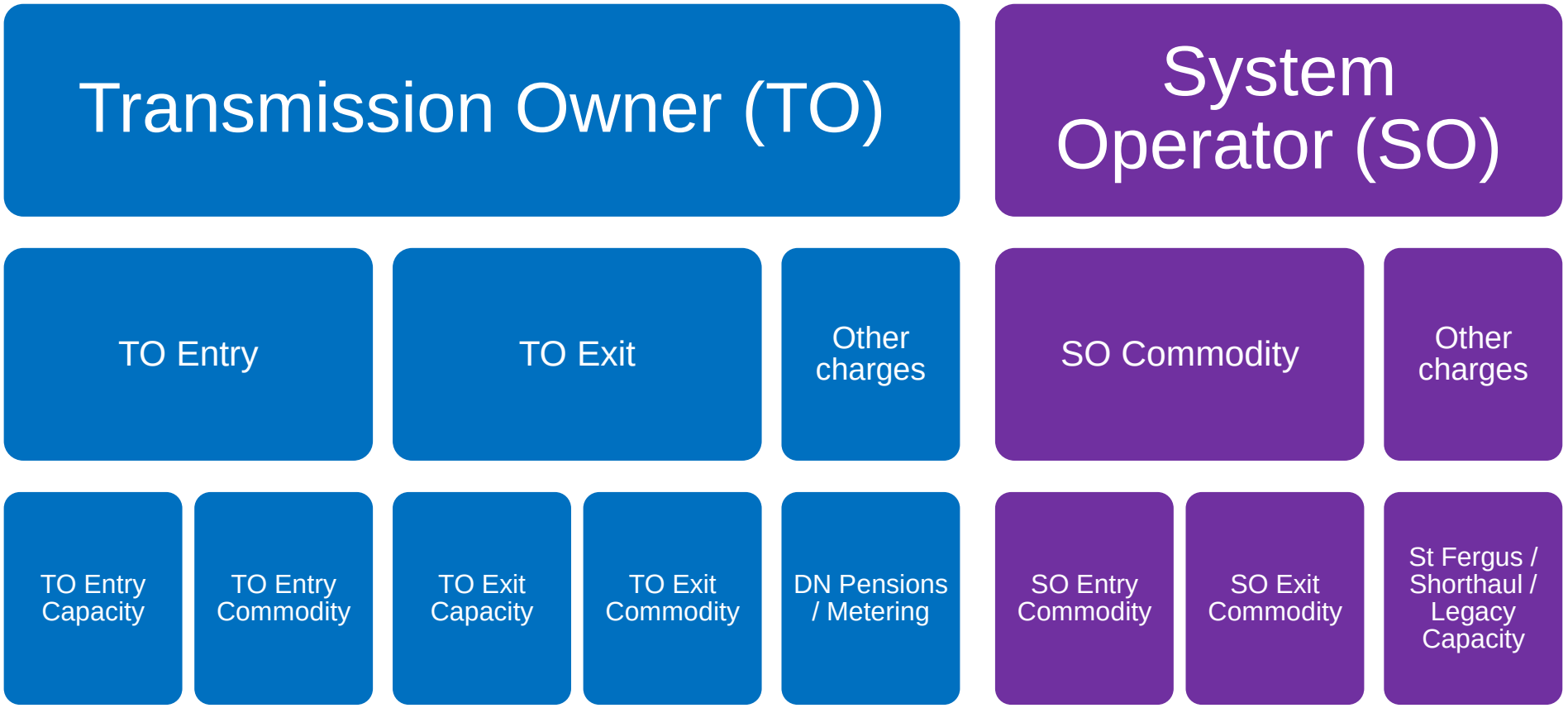

# Revenues and recovery – What may be permitted based on our EU understanding#

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Total TO and SO Allowed Revenue

| Transmission Services | | | Non Transmission Services | | | | Other Charges |
|---|---|---|---|---|---|---|---|
| Entry | Exit | Alternative Transmission Tariffs | Commodity reflecting costs related to quantity of gas flow | Remaining Non Transmission Services Revenue | Alternative / Other Charges | | DN Pensions |
| Entry Capacity* | CRRC (if used) | Exit Capacity | CRRC (if used) | Alternative Transmission Tariffs | Entry Proportion | Exit Proportion | Entry Proportion | Exit Proportion | St. Fergus Compression | Charged directly to specific Users |
| Multipliers / Seasonal Factors | Multipliers /Seasonal Factors/ Discounts | | Multipliers / Seasonal Factors | Multipliers /Seasonal Factors/ Discounts | | | | | | |

**Key**

- **All these are where the arrangements are for IP and Non IP are the same**
- **All these are where the arrangements are for IP and Non IP can be the same. For Non Transmission Services, could treat IP and Non IP differently however relevant objectives must be followed.**
- **All these are where separate treatment for NON-IPs is possible**
- **IP Specific requirements**

**Items to note:**

- **Consideration for how Legacy Capacity is treated will be part of the GB discussion (Transmission or Non Transmission Services) – likely to be determined through Licence**
- ***Will need to consider "protected capacity"**
- **Where IP could be different to IP it would not preclude applying the IP method to all points.**
- **#Based on an understanding of EU Tariffs Code as of 14 April 2016 – subject to change**

# Summary

- Irrespective of treatment some areas will need to be reviewed as any inclusion in the overall methodology will likely be different to today
  - NTS Optional Commodity charge, Storage Short term pricing, Revenue reconciliation
- Dual Regime arrangements, whilst permitted, could be complex.
  - Relevant objectives will be integral.
- Alignment with Ofgem's GTCR policy needs to be considered
- Reviewing the aspects discussed will contribute towards a methodology that, as a whole, is suitable for GB.

# Next Steps

# Next Steps

- We are proposing to refine further comparisons of CWD and LRMC building in:
  - Continued discussions on principles behind using either approach
  - Long Term, Short Term pricing, behavioural considerations
  - Discussions on alternate products e.g. storage
  - Developments in EU Tariffs Code
- Feedback and input is important to develop these
  - Please contact us if there are any areas we should be considering

# Contact us

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