

0555R – Review of the Market Operator (OCM) Provision – Workgroup 2



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Agenda

1. Actions & Additional Information

- Liquidity Definition
- Historic OCM volume Vs alternative exchange volume by month
- NG Residual balancing actions as a % of market volume
- NG Residual balancing actions - 28 day rolling average

2. Risks

- statements
- assumptions
- revised scoring and analysis

3. Introduction to Risk Mitigation Actions

- Pros and Cons of mitigations

4. Scheduling of Workgroups

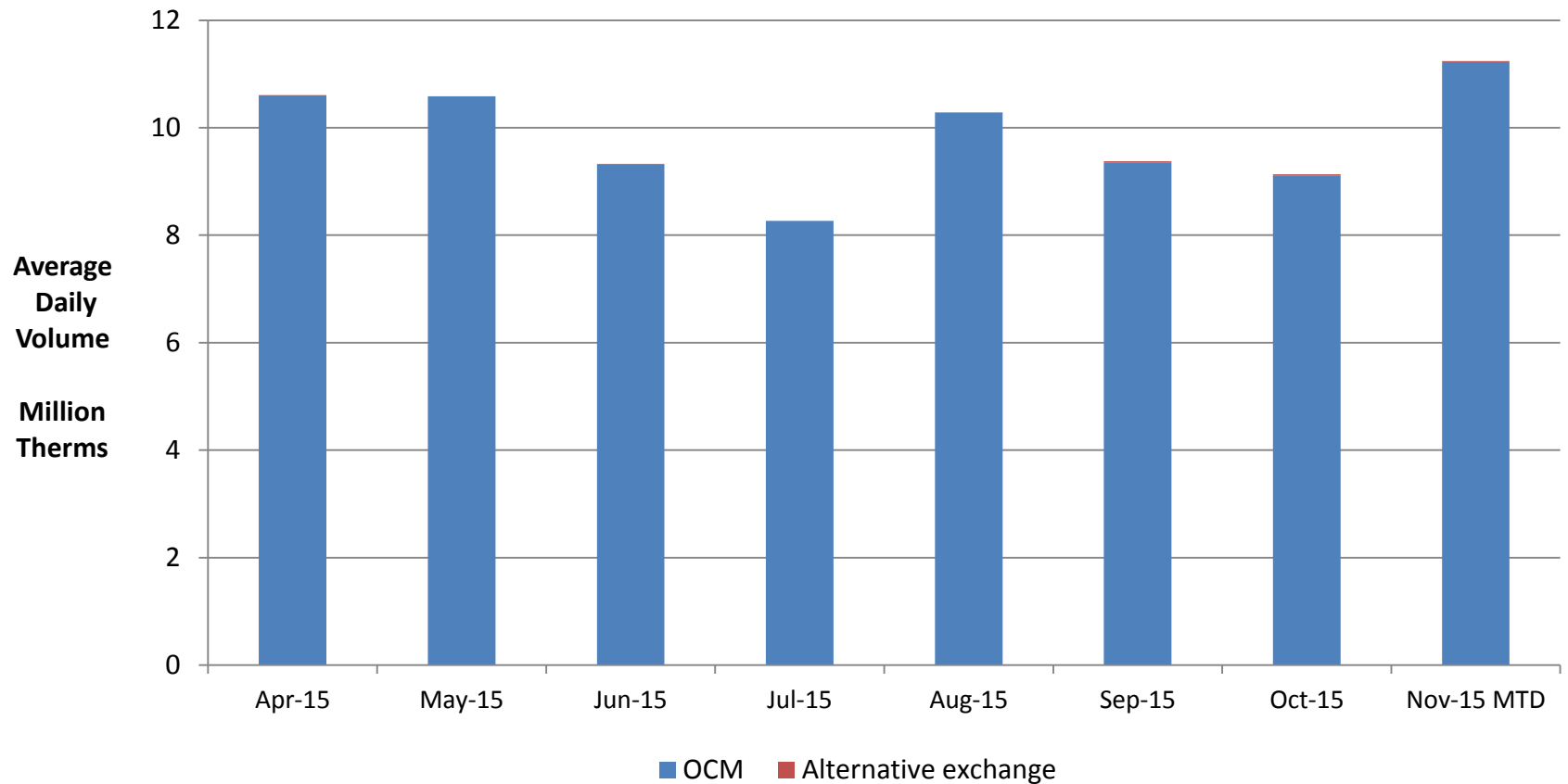
5. Next Steps

Liquidity Definition

In the context of this review, when we talk about liquidity we mean;

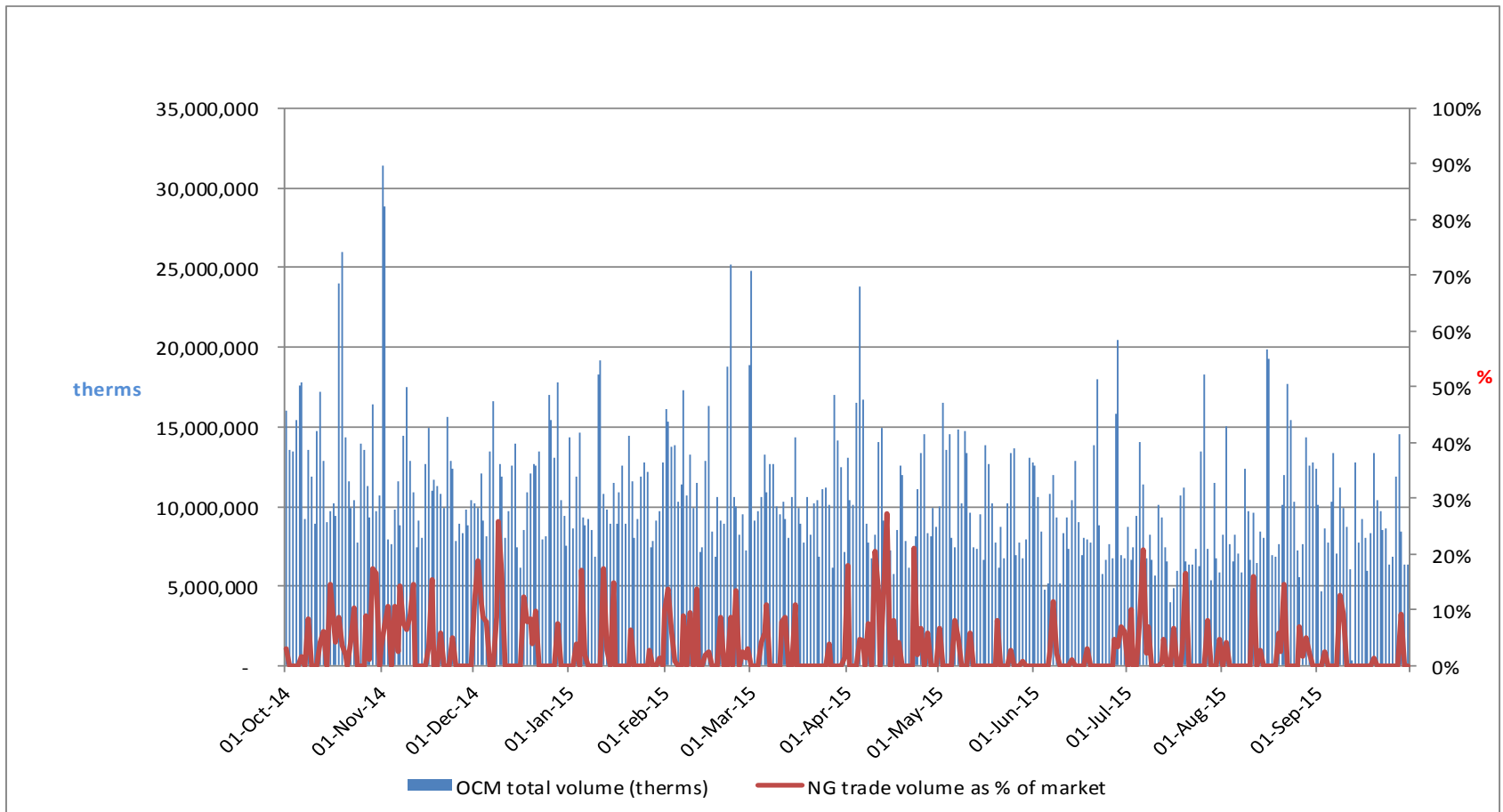
‘A measure of the ability of the Residual Balancer or other market participant to be able to buy or sell a product (gas) in a timely way without causing a disproportionate change in it's price’

Historic OCM Vs alternative exchange volume by month



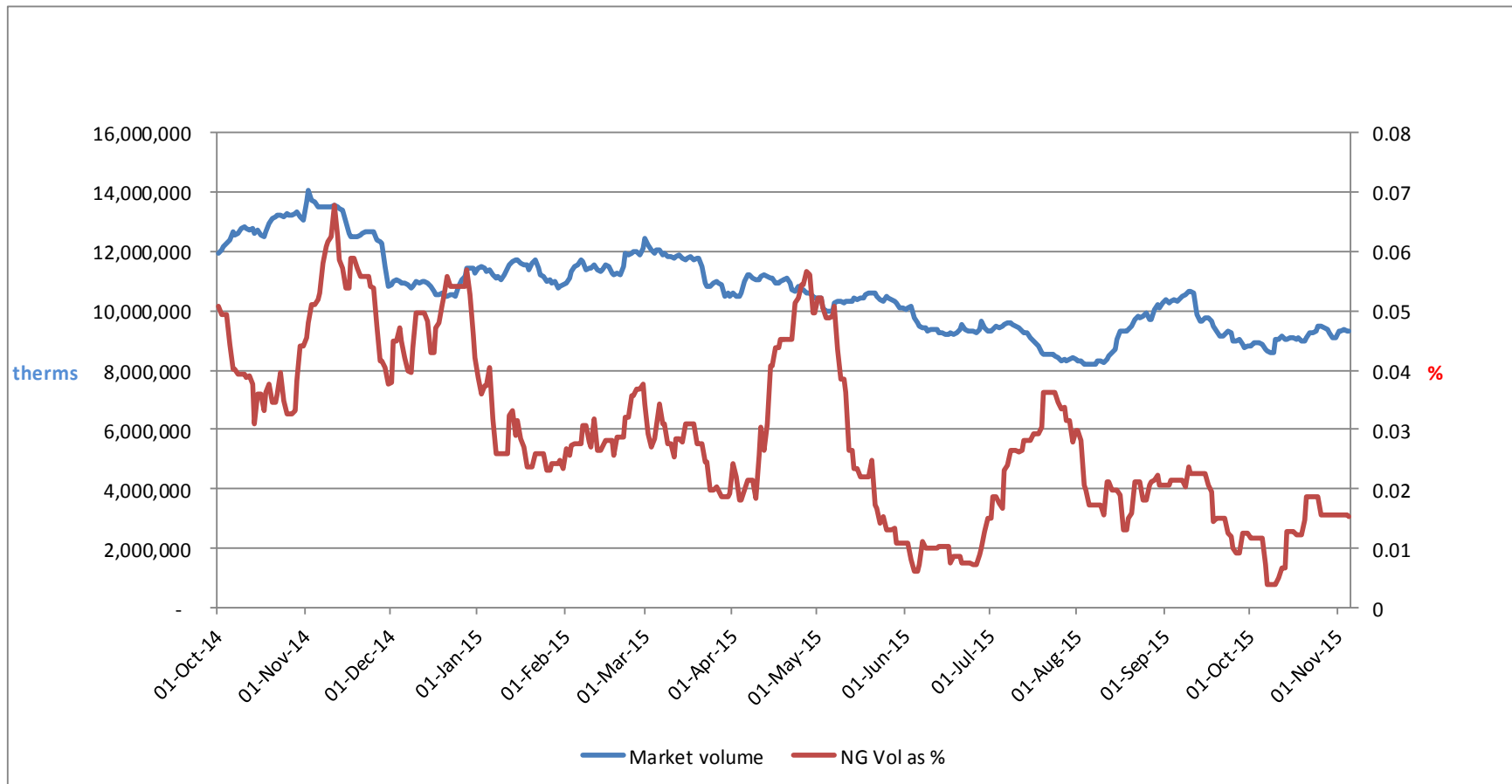
NG Residual Balancing trades as a % of OCM market volume

- This graph shows the total volume traded by day on the OCM and the market share of the Residual Balancer



Residual Balancer trades as a % of OCM market volume – 28 day rolling average

- Based on the time period shown below the Residual Balancer trades in the range of 1 - 7% of the total volume on the OCM. On average the Residual Balancer accounts for 2.8% of the market over the period



Risk Definitions

Likelihood		Definition
5	Almost Certain	90% or greater chance of occurrence
4	Likely	65% up to 90% chance of occurrence
3	Moderate	35% up to 65% chance of occurrence
2	Unlikely	10% up to 35% chance of occurrence
1	Rare	<10% chance of occurrence

Impact		Financial Definitions (Time Period: Year)
5	Severe	Over £5 Million
4	Major	£1 Million - £5 Million
3	Significant	£500,000 - £1 Million
2	Minor	£100,000 - £500,000
1	Insignificant	Less than £100,000

Risk statement assessments

Issue	Impacted Area	Risk statement There is a risk that.....	Impact	Likelihood	Total Risk score
Real time cash out prices	Price / Money	(R3a) A change to the market structure adversely impacts the frequency within which clearing prices are published: Difficult Day - increased risk margins being built into market offers, in turn leading to higher market clearing volatility	3	4	12
		(R3b) A change to the market structure adversely impacts the frequency within which clearing prices are published: Average Day - increased risk margins being built into market offers, in turn leading to higher market clearing volatility	2	4	8
Level playing field	Money	(R4) A change to the market structure risks market providers cherry picking between products, potentially leading to the non economic provision of required balancing products	?	?	?

Assumptions and Mitigations

Risk statement (R.S – 12)	(R3a) A change to the market structure adversely impacts the frequency within which clearing prices are published: Difficult Day - increased risk margins being built into market offers, in turn leading to higher market clearing volatility		
Assumptions	(A) Operating in a multiple market set up (A) A difficult day refers to a high demand day / volatility between supply and demand or supply constraints where the price of gas can move substantially within short time periods (approximately 5-10% of the time) (A) There are multiple trading exchanges which are contributing to the cash-out calculation (A) The frequency in which the Residual Balancer balances the system remains as now e.g. 35-40% of days (A) Cash-out prices are published less frequently than now due to system capability		
Mitigations	Pros	Cons	
Maintain a single market set up (one exchange which calculates cash-out prices)	<ul style="list-style-type: none">• Market Familiarity• Processes in place• No additional costs	<ul style="list-style-type: none">• Potentially restricts competition	
Invest in IS systems which are capable of publishing cash-out prices in a timely manor (same timeliness as current setup)	<ul style="list-style-type: none">• Potentially more robust cash out price• Potentially increased exchange competition	<ul style="list-style-type: none">• Additional costs and complexity• Potential for confusion	
Create an additional system notification to notify the industry when the Residual Balancer sets the marginal price	<ul style="list-style-type: none">• Potentially less market volatility	<ul style="list-style-type: none">• Additional costs of system set up• Doesn't resolve time lag issue fully	

Assumptions and Mitigations

Risk statement (R.S – 8)	(R3b) A change to the market structure adversely impacts the frequency within which clearing prices are published: Average Day - increased risk margins being built into market offers, in turn leading to higher market clearing volatility		
Assumptions	(A) Operating in a multiple market set up (A) An average day is when there are no particular stresses on the system and we expect to take minimal if any balancing actions (A) There are multiple trading exchanges which are contributing to the cash-out calculation (A) The frequency in which the Residual Balancer balances the system remains as now e.g. 35-40% of days (A) Cash-out prices are published less frequently than now due to system capability		
Mitigations	Pros	Cons	
Maintain a single market set up (one exchange which calculates cash-out prices)	<ul style="list-style-type: none">• Market Familiarity• Processes in place• No additional costs	<ul style="list-style-type: none">• Potentially restricts competition	
Invest in IS systems which are capable of publishing cash-out prices in a timely manor (same timeliness as current setup)	<ul style="list-style-type: none">• Potentially more robust cash out price• Potentially increased exchange competition	<ul style="list-style-type: none">• Additional costs and complexity	
Create an additional system notification to notify the industry when the Residual Balancer sets the marginal price	<ul style="list-style-type: none">• Potentially less market volatility	<ul style="list-style-type: none">• Additional costs of system set up• Doesn't resolve time lag issue fully	

Assumptions and Mitigations

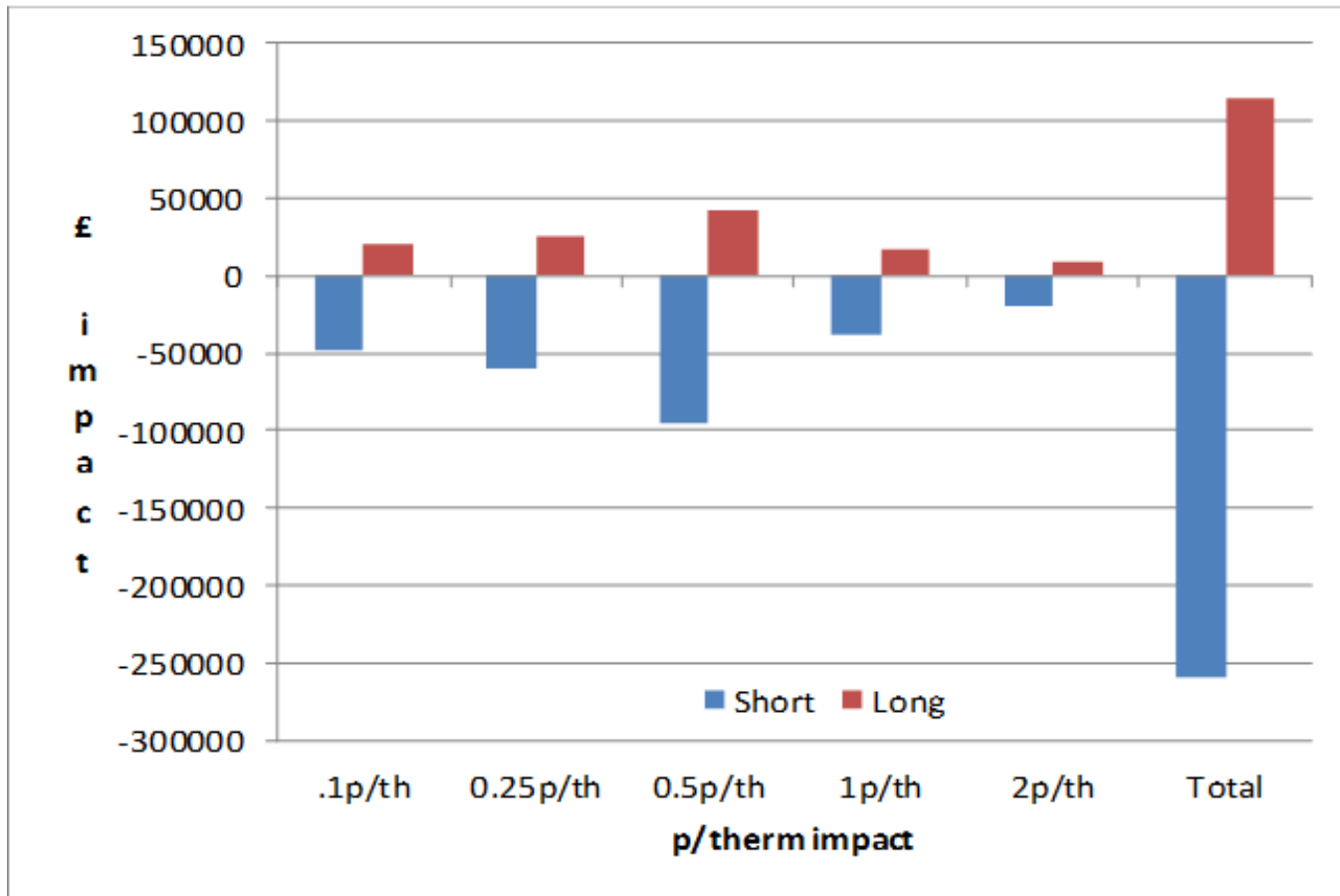
Risk statement (R.S - ??)	(R4) A change to the market structure risks market providers cherry picking between products, potentially leading to the non economic provision of required balancing products e.g. locational and physical markets
Assumptions	<p>(A) Operating in a multiple market set up</p> <p>(A) Market providers are not obliged to provide all three balancing products</p> <p>(A) Any exchange providing the market operator service to the Residual Balancer must support relevant UNC changes as required</p>

Mitigations	Pros	Cons
All Market providers must provide all three balancing products (Title, Locational, Physical)	<ul style="list-style-type: none"> • Level playing field • Maintains Residual Balancer access to critical markets 	<ul style="list-style-type: none"> • Multi provision of infrequently used products less economic / efficient than single provision • Increased costs to the industry
Maintain a single market set up (one exchange which calculates cash-out prices)	<ul style="list-style-type: none"> • Market Familiarity • Processes in place • No duplicated costs • Liquidity concentration 	<ul style="list-style-type: none"> • Reduced competition between exchanges
Amend OCM funding model (one core provider of Locational/ Physical markets, potential multiple providers of the Title market)	<ul style="list-style-type: none"> • Potential increased competition in provision of Title product 	<ul style="list-style-type: none"> • New industry cost - provision of the Locational & Physical markets • Users must monitor multiple markets

Risk statement assessments

Issue	Impacted area	Risk statement There is a risk that.....	Impact	Likelihood	Total Risk score
Market Liquidity	Volume	(R1a) Volume splits between the balancing exchange and another alternative exchange leading to insufficient market depth (Bids/Offers) for NG to take economic residual balancing actions	2	1	2
	Price / Money	(R1b) Volume splits between the balancing exchange and another alternative exchange, which results in NG taking less economical balancing actions to attract volume back to the balancing exchange. As a result cash-out prices do not reflect wider market conditions on the day,	2	1	2

(1b) Neutrality cashflow impact of price movements by year



Price impact (p/th)	Probability (%)
0.1	50
0.25	25
0.5	20
1	4
2	1

Assumptions and Mitigations

Risk statement (R.S – 2)	(R1a) Volume splits between the balancing exchange and another alternative exchange leading to insufficient market depth (Bids/Offers) for NG to take economic residual balancing actions	
Assumptions	(A) Operating in a single market set up (A) The presence of multiple venues doesn't result in an increase in volume available in the market (liquidity)	
Mitigations	Pros	Cons
The Residual Balancer has access to more than one exchange to balance their position	<ul style="list-style-type: none"> Increases / maintains Residual Balancing pool of liquidity 	<ul style="list-style-type: none"> Additional costs to the industry and the Residual Balancer Added market complexity
Change UNC to allow the Residual Balancer to have access to other exchanges when / if liquidity splits	<ul style="list-style-type: none"> Contingency arrangements in place to ensure Residual Balancer can continue to perform its role 	<ul style="list-style-type: none"> Added complexity in UNC arrangements

Assumptions and Mitigations

Risk statement (R.S – 2)	(R1b) Volume splits between the balancing exchange and another alternative exchange, which results in NG taking uneconomical balancing actions to attract volume back to the balancing exchange. As a result cash-out prices do not reflect the price of trading on the day.		
Assumptions	(A) Operating in a single market set up (A) The Residual Balancer only has access to and sight of the balancing exchange (A) The Residual Balancer becomes a price maker, which may be at the extremes of the other trading venues (A) Cash out prices become less robust as a result of volume splitting but this doesn't change the incentive on shippers to balance.		
Mitigations	Pros	Cons	
The Residual Balancer has access to more than one exchange to balance their position	<ul style="list-style-type: none"> Increases / maintains Residual Balancing pool of liquidity 	<ul style="list-style-type: none"> Additional costs to the industry and the Residual Balancer Added market complexity 	
The Residual Balancer has access (read only) to all alternative exchanges	<ul style="list-style-type: none"> Residual Balancer can continue to make economic and efficient trades – visibility of competing price Minimise costs to the industry 	<ul style="list-style-type: none"> Additional cost to the Residual Balancer 	

Risk statement assessments

Issue	Impacted area	Risk statement There is a risk that.....	Impact	Likelihood	Total Risk score
Market Liquidity	Volume	(R2a) Volume splits between the balancing exchange and another alternative exchange leading to insufficient market depth (Bids/Offers) for market participants who only have access to the one exchange to balance their position	1	1	1
Trading costs	Money	(R2b) Volume splits between alternative out of hours trading venues incentivising market participants to have access to more than one venue to maintain access to the same level of liquidity	1	1	1

Assumptions and Mitigations

Risk statement (R.S – 1)	(R2a) Volume splits between the balancing exchange and another alternative exchange leading to insufficient market depth (Bids/Offers) for users who only have access to one exchange to balance their position
Assumptions	<p>(A) Operating in a single market set up</p> <p>(A) The presence of multiple venues doesn't result in an increase in volume available in the market (liquidity)</p> <p>(A) Some market participants have access to only one venue to trade out of hours</p> <p>(A) This is a short term issue - market participants solve access issues by signing up to alternative exchanges to enable them to balance</p>

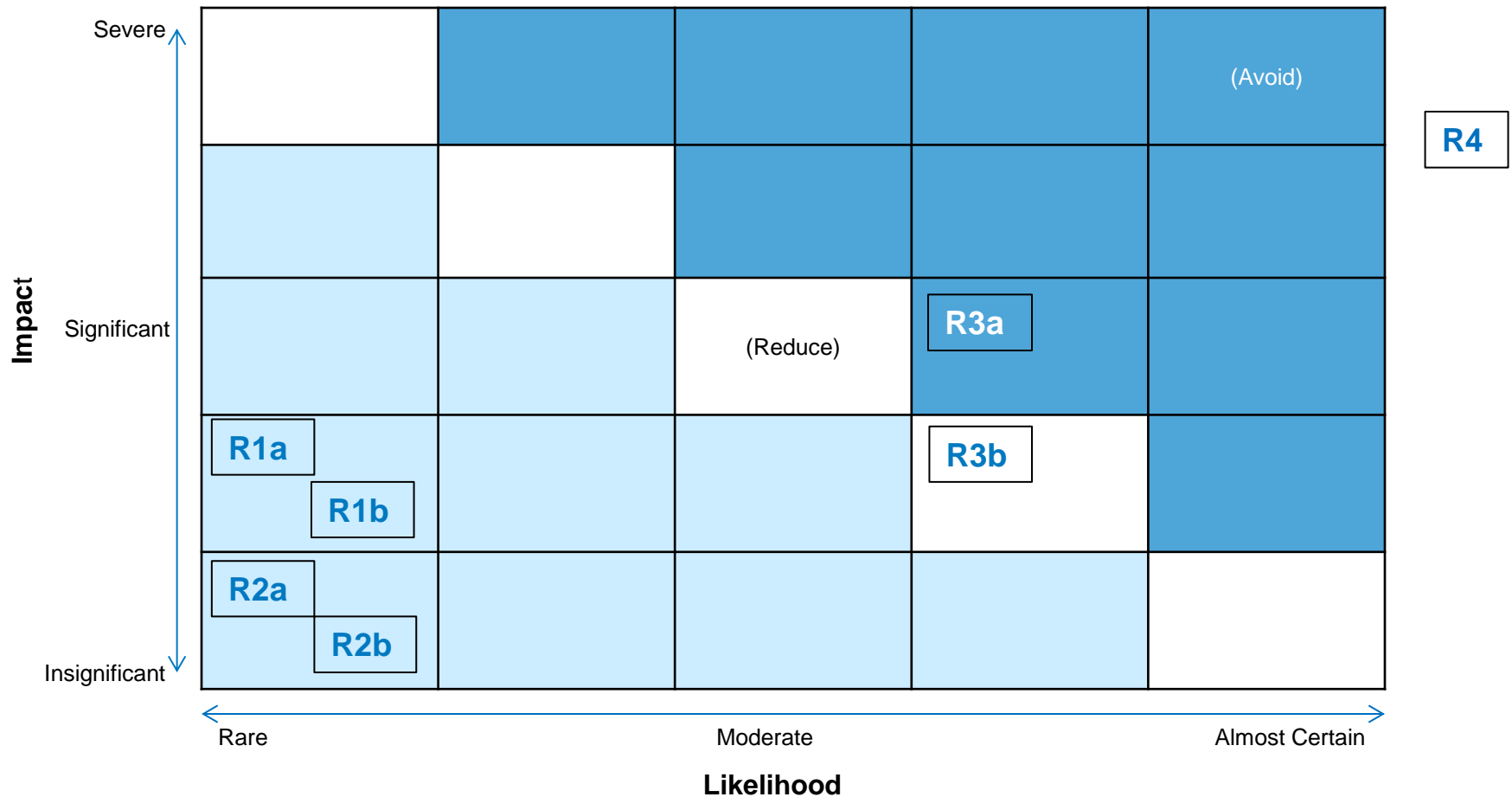
Mitigations	Pros	Cons
All users have access to more than one exchange to balance their position	<ul style="list-style-type: none"> • Access to all the liquidity in the market 	<ul style="list-style-type: none"> • Additional costs to market participants • Added complexity in the market
Users come to a contractual relationship with alternative participants (middle man)	<ul style="list-style-type: none"> • Access to all the liquidity in the market 	<ul style="list-style-type: none"> • Additional costs to market participants • Added complexity in the market • Smaller players reliant on other players

Assumptions and Mitigations

Risk statement (R.S – 1)	(R2b) Volume splits between alternative out of hours trading venues incentivising market participants to have access to more than one venue to maintain access to the same level of liquidity
Assumptions	<p>(A) Operating in a single market set up</p> <p>(A) Volume isn't rigidly on one venue it moves between the balancing exchange and alternative exchange venues</p> <p>(A) The cost of trading increases due to having to sign up to more than one exchange to balance</p>

Mitigations	Pros	Cons
Restrict market to only one exchange provider	<ul style="list-style-type: none"> • Reduced risk of liquidity splitting 	<ul style="list-style-type: none"> • Anti competitive
Users come to a contractual relationship with alternative participants (middle man)	<ul style="list-style-type: none"> • Access to all the liquidity in the market 	<ul style="list-style-type: none"> • Additional costs to market participants • Added complexity in the market

Risk scores mapping



Scheduling of Issues and development areas

Proposed Workgroup agenda schedule

WG1 30 th Oct 10am	Information Gathering <ul style="list-style-type: none"> - Background of the OCM, - Ofgem Letter, - Stakeholder feedback, - Industry requirements of a balancing exchange market, - Identifying the Criteria for assessment of potential options (Risk assessments) - Agree meeting schedule
WG2 27 th Nov	Basic requirements and options analysis <ul style="list-style-type: none"> - Agreement on risk statements – are they material? - Identification of risk mitigation options / solutions - Assess risk appetite (how much do we need to reduce Likelihood and impact?) - Prioritise risk mitigation options (what's important to you?) - Agree if any which mitigation options need further work
WG3 21st Dec??	Finalising options/ solutions <ul style="list-style-type: none"> - Finalise what mitigation options or solutions are required - Cost Vs Benefit analysis
WG4 26th Jan??	Draft and agreement of Workgroup report
WG5 24 th Feb	Draft and agreement of Workgroup report
WG6 30 th Mar	Draft and agreement of Workgroup report

Next Steps

- Finalise mitigation options / solutions
- Cost Vs Benefit analysis

Your feedback is important to us

- Your feedback is always welcome
- We would like to capture your contact details today so that we can keep you informed of developments
 - We may also try and contact you for your feedback and comments about today and our approach
 - If you would prefer not to be included then please do let us know
- You can also contact us to tell us how we are doing, particularly on topics discussed today:

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