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By email only

20 September 2018

Shell Energy Europe (SEEL) response to Ofgem’s open letter on suspending the Market Making Obligation of the Secure and Promote License Condition

Dear Cathryn,

Shell welcomes the opportunity to respond to Ofgem’s open letter on its minded-to decision to suspend the Market Making Obligation (MMO) of the Secure and Promote (S&P) licence condition. Our views are based on our experience trading power in GB and thirteen other European markets. Shell Energy Europe has also recently launched an industrial and commercial supply business and provides credit and market access solutions to independent suppliers.

Shell supports the objective of establishing a liquid wholesale power market, where a wide range of products are traded actively throughout the day with narrow spreads. As a relatively new entrant to the GB power market, we consider that poor liquidity is one of the primary barriers to entry and growth and are concerned that any suspension of the MMO would result in a significant and sustained deterioration in GB liquidity.

We do not consider Ofgem’s proposal to suspend the MMO is in the best interest of existing and future energy consumers, nor is it aligned with Ofgem’s statutory duties and public policy objectives for the wholesale power market. We have concerns that removing the MMO could lead to a sudden drop in liquidity and increased hedging costs for independent suppliers which could lead to a reduction in competition and higher costs to final consumers.

SEEL therefore requests Ofgem to:

1. undertake and consult on a detailed cost benefit analysis to determine whether the benefit of suspending the MMO outweigh the costs for GB consumers prior to any suspension¹

¹ https://www.ofgem.gov.uk/system/files/docs/2016/10/impact_assessment_guidance_0.pdf

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2. maintain the MMO requirements until an adequate and appropriate liquidity support measure has been implemented against an ambitious delivery timeline, as we believe that suspending the MMO will materially and negatively impact GB consumers and competition
3. adopt the cost of hedging and price availability as additional measures of the level of GB liquidity and as part of the evidence base to support further policy development, as this will enable Ofgem to calculate the benefits associated with the MMO
4. In case Ofgem decides to suspend the MMO, Ofgem should monitor liquidity closely, and if it drops significantly below the current level, that Ofgem is able to reintroduce the MMO at short notice

We note that in its open letter Ofgem has not provided any assessment of the potential impact on GB consumers or competition as justification for its proposed decision, nor has it provided any information to the market on when it is considering suspending the MMO or when and how such suspension might be revoked.

Outstanding GB wholesale market liquidity concerns

With the implementation of the MMO in 2014 we observed an improvement in GB liquidity and consider that overall the benefits of S&P and the MMO have outweighed the costs². However, the level of GB liquidity is entirely determined by, and does not exceed, that required by the MMO. In the market making windows, mandated products trade within the required spreads. However, liquidity has significantly deteriorated outside the market making windows, and for non-mandated products – to the extent that there is no longer an effective market outside of the requirements.

Shell therefore agrees with the view expressed by Ofgem in its decision to modify Centrica's licence³, that the objectives of the S&P licence condition are yet to be fully realized, and that the policy cannot be considered a sustained success. We consider that in its current form, S&P and the MMO will not achieve the objective of a liquid wholesale market, and that Ofgem is right to consider how to modify or replace the existing policy.

To support our response, we undertook our own analysis of GB liquidity. This is because Ofgem has found it challenging to quantify the benefits associated with S&P; and, the existing metrics used by Ofgem to measure changes in liquidity (such as churn) are not sufficiently granular to meaningfully capture changes in liquidity and how these impact market dynamics. The analysis compares the cost of hedging in GB to other large European power markets; and, the cost of hedging for mandated products with non-mandated (but standard) wholesale products⁴.

²Wholesale power market liquidity: statutory consultation on the 'Secure and Promote' licence condition – Impact Assessment.

³https://www.ofgem.gov.uk/system/files/docs/2018/08/centrica_special_condition_aa_decision_letter.pdf

⁴ A detailed explanation of the analysis and results are provided in Annex 1



The use of the cost of hedging is a common measure of the costs (benefits) associated with poor (good) wholesale market functioning (liquidity). For example, Ofgem used the cost of hedging as a measure of wholesale market performance in its impact assessment on the publication of close to real time flow data at entry and exit points of the gas national transmission system⁵. More recently, the European Federation of Energy Traders used the same methodology to calculate the potential costs of the German-Austrian bidding zone split for the German wholesale market⁶.

Our analysis shows that, even with the MMO, the cost of hedging in the GB market (£138 million) is significantly higher than both the cost of hedging in the German (€43 million) and French (€98 million) wholesale power markets⁷. The analysis also shows that, for a standard set of baseload products, price spreads were available for only 57% of observations in GB, compared to 83% of observations in France, and 93% of observations in Germany. The analysis shows liquidity in GB is already significantly worse than both Germany and France. In addition, the cost of hedging provides a reasonable estimate of the costs of poor liquidity for GB market participants, and ultimately consumers.

It may not be immediately clear from this analysis how much worse GB liquidity is than the German and French markets. We also included samples of the screenshots that were used as the basis of our analysis in Annex 2 (from outside and inside the GB market making window). The screen shots clearly show that while a wide range of products are traded actively throughout the day with narrow spreads in the German and French markets, this is not the case for GB. The GB market can only be characterized as liquid for market making products inside the market making window.

The second part of the analysis, which compares the cost of hedging inside the market making window to the cost of hedging outside the market making window provides an estimate of the potential costs associated with suspending the MMO. The cost of hedging for market making products (£39 million) is significantly lower than the cost of hedging for non-market making products (£237 million). If the suspension of the MMO results in liquidity of mandated products dropping to the level of liquidity observed for non-mandated products, then the cost of hedging in the GB market will increase significantly.

Additional costs of suspending the MMO

We expect that the suspension of the market making obligation, will result in a significant reduction in GB liquidity, place significant and unanticipated costs on market participants, and result in higher

⁵<https://www.ofgem.gov.uk/sites/default/files/docs/2005/05/10872-14305.pdf>

⁶https://docstore.entsoe.eu/Documents/Network%20codes%20documents/Implementation/stakeholder_commitees/MESC/2018-03-06/EFET_MESC12_BZ%20review%20v2.pdf?Web=0

⁷ The GB figure for the cost of hedging is likely to be an underestimate because it is not possible to calculate a cost of hedging when there are no price spreads available (which was 43% of the time in our sample) and we only looked at standard baseload products, and we would expect the cost of hedging to be relatively higher for peak load products in a market characterised by poor liquidity.



costs for GB consumers. The costs associated with poor wholesale power market liquidity are well understood:

1. creates a barrier to entry in both generation and supply
2. acts as a source of competitive disadvantage to small suppliers
3. reduces the efficiency of the wholesale market
4. reduces competition between industry participants

The analysis presented above measured the impact of poor liquidity on the cost of hedging in the wholesale market (point 3) but did not capture the wider costs associated with poor liquidity.

If Ofgem suspends the MMO, we expect that GB liquidity will revert to a lower level than before S&P was implemented. This is because the number of parties actively participating in the wholesale market has been decreasing. For example, while financial institutions actively trade in the German market, they withdrew from the GB market permanently following the financial crisis.

Our primary concern with a sudden suspension of the MMO is that it will significantly and suddenly increase the costs for independent suppliers to meet their hedging needs, just ahead of winter and at the same time as the cost of being out of balance will increase significantly with the full implementation of the Electricity Balancing Significant Code Review⁸ (EBSCR).

Implementation of EBSCR means that from the 1 November, imbalance prices will be set by the most expensive 1 MWh of balancing energy actions, as opposed to an average of the most expensive 50MWh, and the indicative value of lost load for imbalance price calculation will double from £3000/MWh to £6000/MWh. Increasing the costs associated with being out of balance, while at the same time reducing independent suppliers access to products needed to hedge their exposure, will significantly increase costs for independent suppliers that are dependent upon the wholesale market. We expect that these costs will be passed through to customers in the form of higher tariffs.

Aside from the impact on liquidity and prices, suspension of the MMO will likely require hedging strategies, credit, and risk controls to be revisited. This will be costly and will take time. Suspending the MMO without providing market participants sufficient time to arrange alternative routes to efficient hedging will result in significant and unanticipated costs.

A sudden and unanticipated suspension of the MMO may result in further voluntary or involuntary exits from the retail market. Supplier exits create a direct cost for industry and consumers associated with the Supplier of Last Resort regime, and indirect costs associated with a reduction in competition and customer choice.

⁸ <https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/electricity-balancing-significant-code-review>



Benefit of maintaining the MMO until an alternative measure is in place

Maintaining the MMO and a moderately liquid wholesale market in the near term is also important, particularly given its critical links to other policy areas.

Link to the proposed default tariff cap – we understand from its recent statutory consultation for the design and implementation of the default tariff cap⁹ ('default tariff cap consultation') that Ofgem intends to update the wholesale element of the default tariff cap based on prices reported by ICIS Energy¹⁰. The proposed suspension of the MMO creates two significant concerns with the proposed approach. Firstly, the suspension of the MMO will mean that the wholesale market (and prices reported by ICIS Energy) will become a less accurate indicator for the wholesale costs of suppliers, as suppliers will have to find an alternative route to source wholesale electricity. This means that the price cap calculation for wholesale electricity costs may become materially different to the true costs faced by suppliers in hedging variable tariffs.

Secondly, we understand that ICIS Energy prices are based on wholesale prices reported by a relatively small number of market participants, and the loss of the market making window in the afternoon will remove the ability of market participants to check the validity of the reported price. Currently the prices reported by ICIS Energy are that at the close of the market making window (16:30) – which are possible to validate. We are concerned that there will be no reasonable price for ICIS Energy to report in the absence of the market making window.

Further, in its default tariff cap consultation, Ofgem note that (i) it did not include more granular block products due to their low forward liquidity (ii) implementation of the default tariff cap will require (particularly smaller) suppliers to change their hedging strategy; and (iii) that the implementation of the cap may have a negative impact on wholesale market liquidity. Removing the MMO before an appropriate alternative liquidity support measure has been implemented, creates a real risk that the negative impact of both policy changes will reduce liquidity in the products that Ofgem are proposing to use as a benchmark.

Removal of the MMO creates a similar challenge in calculating the market reference price for the **Baseload Contract for Difference** (Baseload CfD), which is based on prices of forward contracts reported by the London Energy Brokers Association (LEBA). The challenge that poor liquidity creates for the efficient operation of the CfD was recognised by BEIS when it included back-stop powers to adopt measure to support liquidity in the Energy Act 2013. It is important that the market reference prices for the Baseload CfD are based on liquid, transparent and robust wholesale markets.

⁹ <https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-overview-document>

¹⁰ ICIS Energy reports prices based on its European Daily Electricity Markets Methodology

<https://www.icis.com/compliance/documents/edem-methodology-24-may-2017>

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In both instances (the SVT price cap and the Baseload CfD) these effectively set a mandatory wholesale hedging strategy for retailers and generators party to the policies. Ensuring the wholesale market liquidity is sufficiently robust, to minimise gaming risk, is very important to ensure costs to consumers are kept as low as possible.

A liquid and competitive wholesale market is also important to ensure that the benefits associated with progressive policy changes at generation level reach consumers. For example, Ofgem is considering removing residual transmission charges from generators and recovering them from demand only as part of its Targeted Charging Review¹¹. Here a competitive wholesale market is important to ensure that additional rents for generators from this decision, will be passed through to consumers via lower wholesale prices. The absence of a liquid and competitive wholesale market makes it less likely that the benefits of these policy changes will be passed through to consumers.

Alternatives to the current MMO

For all the reasons outlined, we believe that overall market and consumers priority is that Ofgem does not suspend the MMO until a suitable alternative liquidity support measure can be implemented in 2019 – which is now between 3 to 15 months away. However, we agree that Ofgem is right to consider how to modify or replace the existing policy to ensure that the GB market can achieve sustained liquidity.

In developing an alternative, Ofgem should reflect on its experience implementing the MMO. Ofgem's 2008 Energy Supply Probe first identified poor liquidity as a problem. At that time Ofgem stated a preference for an industry led solution and, as none was forthcoming, it took until 2014 for a solution in the form of the MMO to be implemented. The challenge faced by Ofgem in developing and implementing a credible solution is one reason why we feel strongly that the MMO should not be suspended until an alternative has been implemented.

1. **Amend the existing MMO** – Ofgem could amend the existing MMO to reflect the changes in industry structure and ensure that it remains effective.

We note that as part of the S&P review process initiated in July 2017, the majority of respondents stated that the policy should be maintained, as it had delivered benefits, and some argued that the scope should be increased to support more mandated products. In its December 2017 follow up, Ofgem itself stated that “any significant changes, including removal of the policy, could jeopardise the support on which some participants rely”.

One reform option is for Ofgem to amend the MMO requirements to apply to a wider population and support trading in a wider set of mandated products so that GB moves closer to the objective of achieving a liquid wholesale market.

¹¹ <https://www.ofgem.gov.uk/electricity/transmission-networks/charging/targeted-charging-review-significant-code-review>



2. **Re-introduce a self-supply restriction** – our initial view is that re-introducing a form of self-supply restriction would be the fairest and most effective alternative to the MMO as this could apply equally to all market participants. A self-supply restriction would prevent a company from effecting internal (off-market) trades between affiliates responsible for generation or supply and ensure that these volumes are traded via wholesale market.

We understand that this might remove a competitive advantage enjoyed by some parties but consider that non-discriminatory application would mean that no party faces disproportionate or undue costs.

To support our view that this would improve GB liquidity, we note that liquidity (measured by churn) was at its highest in 2002 when the original self-supply restriction was still in force¹². Since the removal of the self-supply restriction in 2002 churn has decreased from close to 7, to its current level of between 3 and 4.

With the implementation of REMIT, we believe that Ofgem now has the necessary information to effectively enforce a form of self-supply restriction between affiliated companies.

3. **Tendered market maker** – our initial view is that this solution would not be particularly effective, as it would not address the underlying causes of low liquidity. In addition, we believe that this option would take longer to implement than other alternatives, as it would require a detailed design of the requirements to be worked up, implementation of the necessary supporting licence changes, followed by open and competitive tendering of the service, before it can be launched.

Conclusion

SEEL has significant concerns with Ofgem's proposed minded-to decision to suspend the MMO. We consider that the costs to the industry and consumers of suspending the MMO will outweigh any benefits, and that moving forward with this decision would undermine the positive competitive developments that the MMO has helped deliver.

SEEL believes that our analysis strongly supports the case for maintaining the MMO and looks forward to engaging with Ofgem to support any work to amend or replace the MMO.

If you have any questions regarding our response, please do not hesitate to contact me.

Yours sincerely

Olaf Islei
Power Commercial Regulatory Affairs Manager
Shell Energy Europe Limited

¹² Ofgem's initial consultation to remove the Self-supply restriction - <https://www.ofgem.gov.uk/sites/default/files/docs/2002/05/3602---restriction-on-self-supply---initial-proposals.pdf>



Annex 1: Comparative analysis of GB liquidity

Purpose: assess GB wholesale market liquidity within and outside the Market Making Windows (MMWs) and with German and French wholesale markets.

Approach: The analysis is based on a representative sample using 14 market snapshots taken simultaneously over 5 days for GB, German and French forward power markets between 7 March 2018 and 13 March 2018. Six snapshots were taken within the MMW. Eight snapshots were taken outside the MMW. The focus is on prices and spreads for standard baseload products.

Notes on Method:

- To enable comparison, as GB trades seasons and EU trades years, the cost of hedging seasons were added to compare to years i.e. (S+1) + (S+2) = Y+1 [Figure 3]
- To assess the costs of hedging for individual baseload products, the cost was calculated based on seeking to hedge 500MW over the relevant period [Figure 3]
- The calculation of the cost of hedging in different markets and inside/outside the market making windows was based on GB trading volumes for 2017 reported by Ofgem in its state of the market report¹³ [Figure 1 & 2]

Results: The costs of hedging as a measure of liquidity are significantly higher in GB across all products. Also, price availability for on-screen trading significantly lower in GB.

Hedging costs for GB tend to be an underestimate, as the assessment doesn't account for periods where no spread is present (which as seen in the table below was higher in GB than France and Germany).

Figure 1 – Comparative assessment of hedging cost and availability of prices

Country	Cost of hedging 2017 traded volume	% of time prices available
Great Britain	£ 137,895,256	57%
France	€ 98,349,313	83%
Germany	€ 42,804,245	93%

Figure 2 – Hedging cost in and out of MMW, and the proportion of time price was available

United Kingdom	Cost of hedging 2017 traded volume	% of time prices available
Non-Market Making Products (MMPs)	£ 237,385,800	
Outside Market Making Window (MMW)	£ 161,716,494	51%
Inside MMW	£ 100,292,316	65%
Market Making Products (MMPs)	£ 38,644,200	
MMPs inside MMW	£ 16,561,800	

¹³ <https://www.ofgem.gov.uk/publications-and-updates/state-energy-market-2017>



Figure 3 – Estimated cost of hedging for ~500MW for each product – the red colour denotes those with the MMO

PRODUCT	GB COST (£)	GB COST		GERMANY COST (€)	FRANCE COST (€)
		WITHIN MMW (£)	GB COST OUTSIDE MMW (£)		
D+2	25,560	10,440	33,120	7,569	12,986
D+3	21,000		21,000	9,323	21,508
W/E + 1	59,127	75,360	45,600	9,260	19,200
W/E + 2				27,080	69,067
WK + 1	212,908	159,600	246,225	20,289	55,500
WK + 2	398,580	309,750	457,800	27,600	63,900
M+1	143,640	55,800	209,520	30,857	90,000
M+2	66,825	56,400	98,100	42,943	127,385
M+3	326,829	311,820	416,880	73,543	263,908
M+4				330,840	817,200
M+5				374,000	522,000
Q+1	691,231	181,667	1,128,000	82,857	161,429
Q+2	509,700	298,667	826,250	92,857	129,286
Q+3				109,286	346,429
Y+1	874,269	487,200	1,185,375	198,000	687,000
Y+2	1,578,850	673,750	2,483,950	462,000	1,398,000



Annex 2: Sample screen shots for GB, German and French forward markets

Wednesday 7 March 2018 - 14:30 GMT [GREAT BRITAIN]

UK Baseload*										UK Peaks (WB 3rd-2nd)									
Code	Qty	Bid	Ask	Qty	Code	Last	Volume	Code	Qty	Bid	Ask	Qty	Code	Last	Volume				
+ - 3 Day Weekend																			
+ - Thu 08/03/18																			
+ - Fri 09/03/18																			
+ - WkEnd 10-11																			
+ - WkEnd 17-18																			
+ - Wk11-18																			
+ - Wk12-18																			
+ - Wk13-18																			
+ - Wk14-18																			
+ - Wk15-18																			
+ - Wk16-18																			
+ - Apr-18																			
+ - May-18																			
+ - Jun-18																			
+ - Jul-18																			
+ - Aug-18																			
+ - Sep-18																			
+ - Oct-18																			
+ - Nov-18																			
+ - Dec-18																			
+ - Jan-19																			
+ - Feb-19																			
+ - Q218																			
+ - Q318																			
+ - Q418																			
+ - Q119																			
+ - Q219																			
+ - Q319																			
+ - Q419																			
+ - Q218 x Q318																			
+ - Q318 x Q418																			
+ - Q418 x Q119																			
+ - Q119 x Q219																			
+ - Sun-18																			
+ - Wk-18																			
+ - Sun-18																			
+ - Wk-19																			
+ - Sun-20																			

Wednesday 7 March 2018 - 14:30 GMT [GERMANY]

Germany Baseload*										Germany Peaks*									
Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume	Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume
+ - Thu 08/03/18																			
+ - Fri 09/03/18																			
+ - Sat 10/03/18																			
+ - Sun 11/03/18																			
+ - Mon 12/03/18																			
+ - Tue 13/03/18																			
+ - WkEnd 10-11																			
+ - WkEnd 17-18																			
+ - WkEnd 24-25																			
+ - Wk11-18																			
+ - Wk12-18																			
+ - Wk13-18																			
+ - Apr-18																			
+ - May-18																			
+ - Jun-18																			
+ - Jul-18																			
+ - Aug-18																			
+ - Sep-18																			
+ - Q218																			
+ - Q318																			
+ - Q418																			
+ - Q119																			
+ - Q219																			
+ - 2019																			
+ - 2020																			
+ - 2021																			

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Wednesday 7 March 2018 - 14:30 GMT [FRANCE]

France Baseload*										France Peaks*										
Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume	Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume	
+ - Thu 08/03/18								44.00	3575									46.00	3000	
+ - Fri 09/03/18	OTC	SPEC	25	42.75	43.00	20	EEX	EEX A		1680	OTC	GRFN	25	45.75	46.75	25	GRFN	OTC	45.50	125
+ - Sat 10/03/18	OTC	GFI	25	34.25	35.75	25	SPEC	OTC	35.00											
+ - Sun 11/03/18	OTC	SPEC*	25	17.45	19.65	25		OTC												
+ - Mon 12/03/18					38.00	25	SPEC	OTC												
+ - Tue 13/03/18																				
+ - WkEnd 10-11	EEX A	GFI	25	26.75	26.95	25	SPEC	OTC	26.75	2410										
	OTC	SPEC	25	26.60	27.00	25	SPEC	OTC	26.50											
+ - WkEnd 17-18	OTC	PREB	25	30.00	31.00	25	SPEC	EEX A	30.50											
+ - WkEnd 24-25																				
+ - Wk11-18	OTC	SPEC	25	35.50	35.70	25	SPEC	OTC	35.75	777	OTC	IFS	25	41.75	42.38	25		OTC	42.00	50
+ - Wk12-18	EEX A	EEX	10	39.25	39.60	25	EEX	EEX A	39.50	615	EEX A	EEX	25	47.50	49.50	25	EEX	EEX A	49.50	
+ - Wk13-18	EEX A	EEX	10	37.00	37.85	25	EEX	EEX A	37.40	220	EEX A	EEX	25	46.00	47.00	25	EEX	EEX A	44.25	
+ - Apr-18	EEX A	EEX	5	35.90	36.05	5		OTC	36.00	259	EEX A	EEX	10	42.50	42.90	5	ICAP	OTC	43.00	
	OTC	ICAP	5	35.85	36.10	5	EEX	EEX A	36.00		OTC	ICAP	5	42.25	43.00	5	SPEC	OTC	42.90	
+ - May-18	EEX A	EEX	10	29.70	29.90	5	GFI	OTC	29.80	10	OTC		5	32.75	37.30	5		OTC		
+ - Jun-18	EEX A	EEX	5	32.50	32.65	5	GFI	OTC	32.90		OTC	GFI	5	39.00	41.00	5		OTC	40.00	
+ - Jul-18																				
+ - Aug-18																				
+ - Sep-18																				
+ - Q218	EEX A	EEX	5	32.80	32.90	5	EEX	EEX A	32.85	75	EEX A	ICAP	5	39.35	39.75	5	ICAP	EEX A	39.50	
+ - Q318	EEX A	EEX	5	33.50	33.60	5			33.60	130	OTC	ICAP	5	39.25	40.60	5		OTC	39.25	
+ - Q418	OTC	GFI	5	48.20	48.50	5	GFI	OTC	48.25	30	OTC	GFI	5	59.75					60.50	
+ - Q119	EEX A	EEX	10	49.75	50.25	5	IFS	OTC	50.00	10										
+ - Q219								31.00												
+ - 2019	OTC	GFI	5	39.35	39.50	5	PREB	OTC	39.45	20	EEX A	EEX	5	50.25	50.90	5	EEX	EEX A	50.90	
	OTC	PREB	5	39.30	39.55	5	EEX	EEX A	39.45		OTC	IFS	5	50.25	51.91	5	EEX	EEX A	50.90	
+ - 2020	OTC	GFI	1	39.15	39.45	5		OTC	39.35	5	OTC	GRFN	5	50.55					51.50	
	EEX A	EEX	5	39.07	39.50	5	GRFN	OTC	39.35		OTC	GRFN	5	50.50						
+ - 2021	OTC	GFI	1	39.25	40.00	1	GRFN	OTC	39.50		EEX A	EEX	5	50.25						

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Wednesday 7 March 2018 – 16:00 GMT [GREAT BRITAIN]

UK BaseLoad*										UK Peaks (WD 3+4+5)									
Code	Qty	Bid	Ask	Qty	Code	Last	Volume	Code	Qty	Bid	Ask	Qty	Code	Last	Volume				
PREB	25	50.75	51.75	50	FREB	51.65	50							55.00	50				
PREB	25	50.70	52.00	25	FREB	51.65													
PREB	50	49.00	49.00	50	FREB	49.00	600												
ICAP	50	48.00	48.75	50	ICAP	49.50	1375			53.25	50	FREB							
ICAP	50	48.00	50.00	50	FREB	49.50				53.50	50	FREB							
PREB	50	50.25				50.50	300												
PREB	50	50.00				50.50													

Mandated products

Mandated products

Mandated products

Wednesday 7 March 2018 – 16:00 GMT [GERMANY]

Germany BaseLoad*										Germany Peaks*									
Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume	Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume
OTC	GFI	25	37.50	38.00	25	GFI	OTC	36.50	11955	OTC	SPEC	25	49.50					38.00	4500
OTC	PREB	25	35.00	35.50	25	PREB	OTC	37.25	3954									41.75	1100
OTC	GFI	25*	19.00	19.25	25	GFI	OTC	19.00	75				21.75	25	SPEC	OTC			
				39.00	25	SPEC	OTC												
OTC	SPEC	25	27.00	27.25	25	SPEC	OTC	27.25	3244										
OTC	PREB	25	27.00	27.38	25*		OTC	27.30											
				27.00	25	GRFN	OTC	25.75	150										
OTC	GFI	25	20.00																
OTC	GFI	25	32.75	32.90	25	GFI	OTC	32.85	2049	OTC	GFI	25	40.00	40.65	15	EEX	EEX	40.25	650
OTC	GFI	25	33.50	34.15	25	GR	OTC	33.90	1362	OTC	SPEC	25	41.25	42.00	10	EEX	EEX	41.75	150
OTC	GFI	25	29.00	29.50	25	SPEC	OTC	29.10	900	OTC	SPEC	25	36.75	37.00	10	EEX	EEX	36.75	75
OTC	GFI	10	45.95	47.25	10	ICAP		47.10	35	PREB	10	56.12	56.43	10	ICAP		56.34	60	
OTC	ICAP	5	32.35	32.45	5	EEX	EEX	32.45	1442	OTC	SPEC	10	37.75	37.93	5*			37.75	246
EEX	ICAP	5	32.32	32.45	5	SPEC	OTC	32.40					5	37.72	39.00	10	GFI	OTC	37.75
			29.53	29.65	5	EEX	EEX	29.60	141	OTC	SPEC*	5	33.70	33.85	5	EEX	EEX	33.75	20
EEX	EEX	5	31.90	32.20	5	EEX	EEX	32.05	74	OTC	GFI	5	37.30	38.32	5*		OTC	37.70	40
OTC	SPEC	5	32.40					32.50	15	OTC	TFS	15	38.40					38.50	45
OTC	TFS	5	31.00	32.05	5*		OTC												
OTC	GFI	10	34.75					35.00	40										
OTC	TFS	5	31.30	31.40	7	EEX	EEX	31.30	343	OTC	TFS	10*	38.35	36.50	5	TFS	OTC	36.40	34
EEX	EEX	3	33.15	33.25	5	GRFN	OTC	33.10	346	OTC	TFS	10*	39.20	39.30	5*	GFI	OTC	39.15	50
EEX	GFI	20*	38.30	38.35	5	GRFN	OTC	38.25	156	OTC	GRFN	1	49.20	49.50	3*	TFS	OTC	49.00	22
EEX	EEX	4	38.05	38.30	5	EEX	EEX	38.20	45	EEX	EEX	5	48.75					48.70	8
								30.25	5	EEX	EEX	5	36.00					35.05	
OTC	PREB	5	34.20	34.25	1	ICAP	OTC	34.20	1040	OTC	TFS	2	42.50	42.60	5	EEX	EEX	42.45	23
OTC	GFI	5	34.20	34.25	5	SPEC	OTC	34.25					2	42.47	42.63	5*		42.45	
OTC	TFS	5*	33.60	33.75	1	ICAP	OTC	33.65	98	OTC	TFS	5*	41.75	43.20	5	EEX	EEX	42.50	19
			33.60	33.75	1*			33.59					5*	41.72	43.23	5*		42.50	
OTC	ICAP	5	33.95					33.95	30									43.40	1

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 VAT reg number GB 235 7632 55

Shell Energy Europe Limited acting through its agent
 Shell International Trading and Shipping Company Limited
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Wednesday 7 March 2018 – 16:00 GMT [FRANCE]

France BaseLoad*												France Peaks*											
Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume	Venue	Code	Qty	Bid	Ask	Qty	Code	Venue	Last	Volume				
Thu 08/03/18								44.00	3575									46.00	3000				
Fri 09/03/18	OTC	SPEC	25	42.25	43.25	25	SPEC	OTC	42.95	1980			47.25	25	SPEC	OTC		45.50	125				
Sat 10/03/18	OTC	GFI	25	34.50	34.75	25	GFI	OTC	35.00														
Sun 11/03/18	OTC		25	19.75	19.99	25		OTC															
Mon 12/03/18					39.00	25	SPEC	OTC															
Tue 13/03/18																							
WkEnd 10 11	OTC	GRFN	25	26.75	27.20	25	GRFN	OTC	27.00	2805													
	OTC	TFS	25	26.75	27.20	25	GFI	OTC	27.00														
	OTC	PREB	25	30.00	32.00	25	GFI	OTC	39.50														
WkEnd 17 18																							
WkEnd 24 25																							
Wk11 18	OTC	SPEC	25	35.60	35.85	25	SPEC	OTC	35.75	962	OTC	TFS	25	41.75	42.50	25	TFS	OTC	42.00	50			
Wk12 18	OTC	SPEC	25	39.15	39.75	25	SPEC	OTC	39.50	615	OTC	GFI	25	47.25	50.50	25	GFI	OTC	49.50				
Wk13 18	OTC	TFS	25	37.40	38.00	25	PREB	OTC	37.40	220	OTC	GFI	25	45.50	51.00	25	GFI	OTC	44.25				
Apr 18	OTC	ICAP	5	36.10	36.25	10	SPEC	OTC	36.15	311	OTC	ICAP	5	42.25	43.00	5	SPEC	OTC	43.00				
			5	36.07	36.25	10	EEX	EEXA	36.05		OTC	PREB	10	42.00	43.00	10	EEX	EEXA	42.90				
May 18	EEXA	EEX	10	29.70	30.42	5			30.00	19					38.85	5		OTC					
Jun 18	EEXA	GFI	5	32.00	33.34	5			32.65	15	OTC	GFI	5	39.00					40.00				
Jul 18																							
Aug 18																							
Sep 18																							
Q218	EEXA	EEX	5	32.85	33.00	5	TFS	OTC	32.95	85	OTC	ICAP	5	39.25	40.00	5	ICAP	EEXA	39.50				
Q318	EEXA	EEX	10	33.60	33.75	5			33.70	148									39.25				
Q418			5	46.20	48.60	5	GFI	OTC	48.25	30	OTC	PREB	5	59.60					60.50				
Q119	EEXA	EEX	5	49.90	50.30	10	GFI	OTC	50.00	10													
Q219									31.00														
2019	OTC		5	39.55	39.70	5	GFI	OTC	39.50	55	EEXA	EEX	5	50.90	52.11	5	EEX	EEXA	50.90				
	OTC	GFI	5	39.50	39.72	5	EEX	EEXA	39.45				5	50.88					50.90				
2020	EEXA	EEX	5	39.18	39.55	5	GRFN	OTC	39.45	15	OTC	GRFN	5	50.55					51.50				
	EEXA	EEX	5	39.17	39.60	5			39.30														
2021	EEXA	EEX	2	39.25					39.50		EEXA	EEX	5	50.60									

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