



Business Process

OFFER DATA LIMITED COMMUNICATION FAILURE

Participant Guide v1.4

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This document is only intended as a guide to assist participants in understanding the Offer Data Limited Communication Failure process as set out in the Trading and Settlement Code (TSC). It is not, and is not meant to be, a comprehensive description of the TSC and/or a substitute for the detailed provisions of the TSC (including the Agreed Procedures). Prior to taking business decisions, participants are advised to seek separate and independent opinion in relation to the matters covered by this guide and should not rely solely upon data and information contained herein.

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1 PROCESS REFERENCES

1.1 RELATED RULES REFERENCES

The following table provides references to the documents that govern the design of this business process.

Document Title	Relevant Section	Description
Trading & Settlement Code	Section C.5	This Code sets out the trading and settlement rules and procedures for participation in the Balancing Market.
Agreed Procedure 7	All	This Agreed Procedure describes the specific procedures and directives for Emergency Communications with which Parties to the Trading and Settlement Code (the "Code") must comply.

1.2 RELATED DOCUMENTS

The following table provides a list of documents that are related to this business process.

Document Title	Description
LCF .xml Creator	The excel tool is required to create a .xml file of the offer data

2 BACKGROUND

The 'Offer Data Limited Communication Failure' Procedure should be followed in instances where a Party, experiences a Limited Communication Failure (LCF) that impacts their ability to submit Offer Data before Gate Closure. Offer Data refers to Physical Notifications (PNs), Commercial Offer Data (COD) and/or Technical Offer Data (TOD) as appropriate. Participants can update their PNs, COD and TOD up to Gate Closure of the Imbalance Settlement Period.

Gate Closure is the time after which particular Data Transactions may no longer be submitted and accepted, as follows:

- Gate Closure 1 (GC1) in respect of a Trading Day is 13:30 on the day prior to the Trading Day; and
- Gate Closure 2 (GC2) in respect of an Imbalance Settlement Period is one hour before the start of that Imbalance Settlement Period.

In instances where, one or more Parties, experience an LCF which impacts the submission of Offer Data for the next scheduled Gate Closure, they must immediately notify the Market Operator via the designated communication channels. Upon receipt of an LCF notification the Market Operator will have a responsibility to assess the validity of the LCF notification and use reasonable efforts to submit Offer Data to the Balancing Market Interface before the next scheduled Gate Closure.

The LCF Form including the Offer Data must be received by the Market Operator at least five minutes before the scheduled Gate Closure of the first imbalance settlement period covered by the LCF submission e.g. for the 17:30 to 18:00 Imbalance Settlement Period the data must be received no later than 16:25. If the Offer Data is received less than five minutes before the scheduled Gate Closure the Market Operator shall not submit the Offer Data. It is the responsibility of the Market Operator to confirm receipt of the Offer Data and to notify the affected Party, of whether the Offer Data was successfully submitted to the Balancing Market Interface or whether the Offer Data was not successfully submitted.

The Offer Data Limited Communication Failure Procedure is governed by the *Section C.5 of the Trading and Settlement Code (TSC)* and the *TSC Agreed Procedure 7: Emergency Communications*. The TSC sets out the trading and settlement rules for participation in the Balancing Market and the Agreed Procedure describes the specific procedures with which parties to the TSC must comply in relation to this process.

This process is facilitated by the Market Operator 24/7, **on a reasonable efforts basis**. To initiate the LCF procedure, the market participant should email LCF@sem-o.com and call the LCF Hotline on **+44 (0)28 90 707415**.

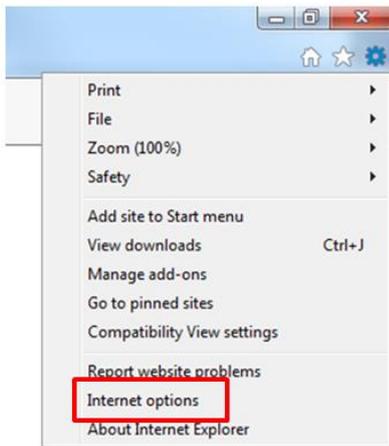
3 MARKET PARTICIPANT INTERFACE LOGIN ISSUES

If a Market Participant is unable to login into the Market Participant Interface (MPI) they should, in the first instance, follow the below steps prior to raising a Limited Communications Failure (LCF).

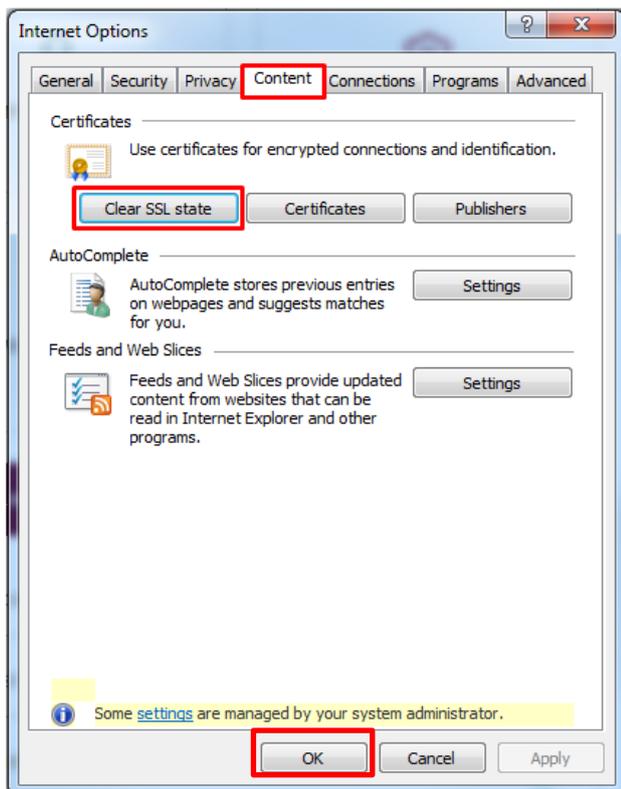
Step 1) Close all Internet Explorer Tabs

Step 2) Open a new Internet Explorer Tab

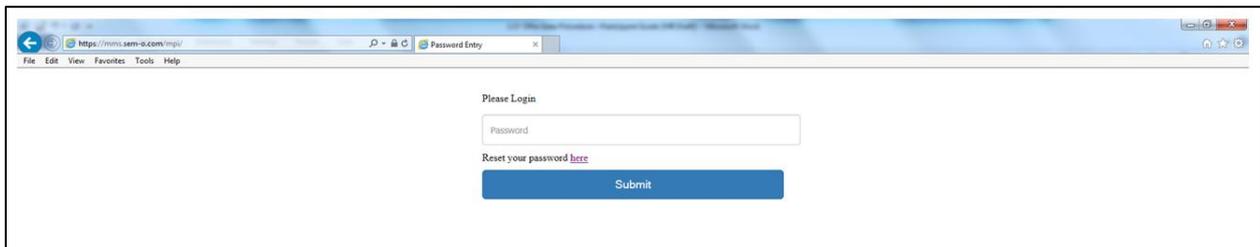
Step 3) Navigate to **Options > Internet Options**



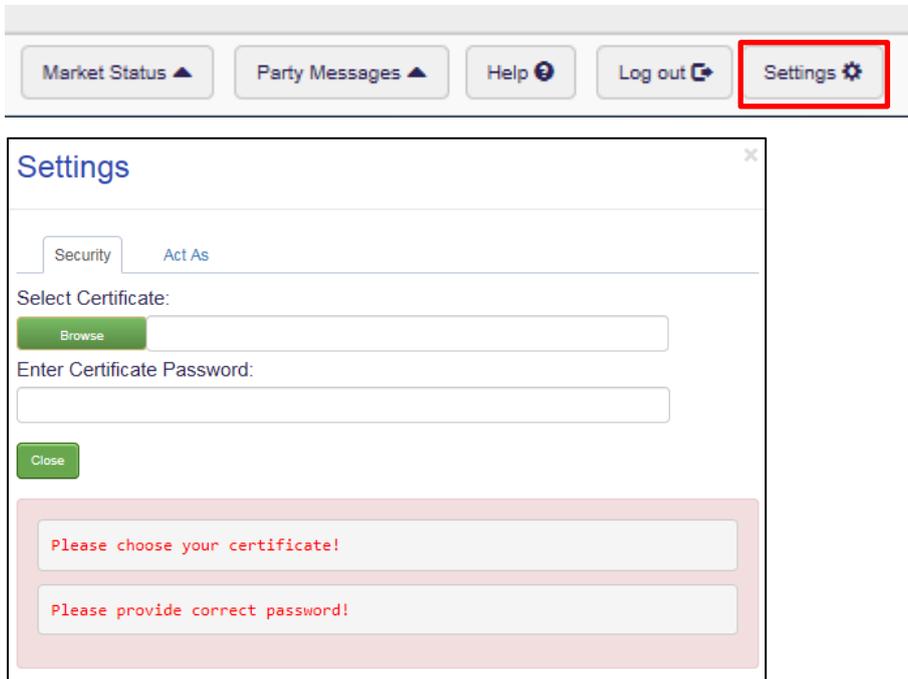
Step 4) Under the **Content** Tab, select **Clear SSL State** and click **OK**



Step 5) Open MPI (<https://mms.sem-o.com/mpi/>) and enter your password

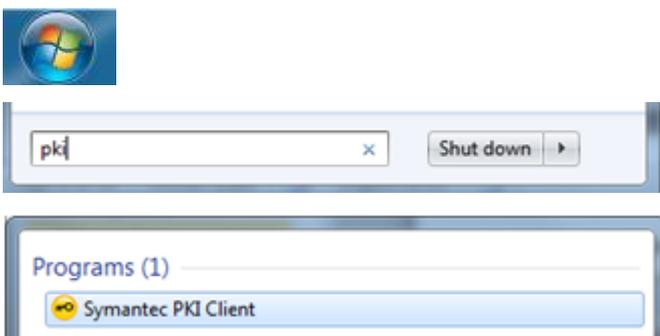


Step 6) Select your Certificate and input your Certificate password when prompted

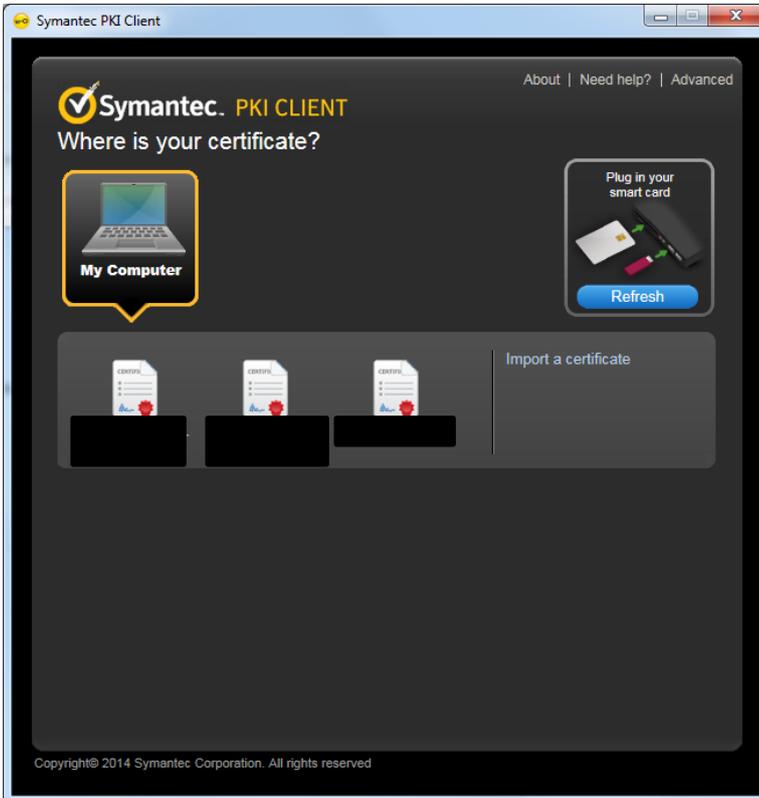


If after completing the above steps, the Market Participant is still unable to login to MPI they should then check that their Market Participant Interface (MPI) Certificate is both valid and has not expired. In order to check this please follow the below steps:

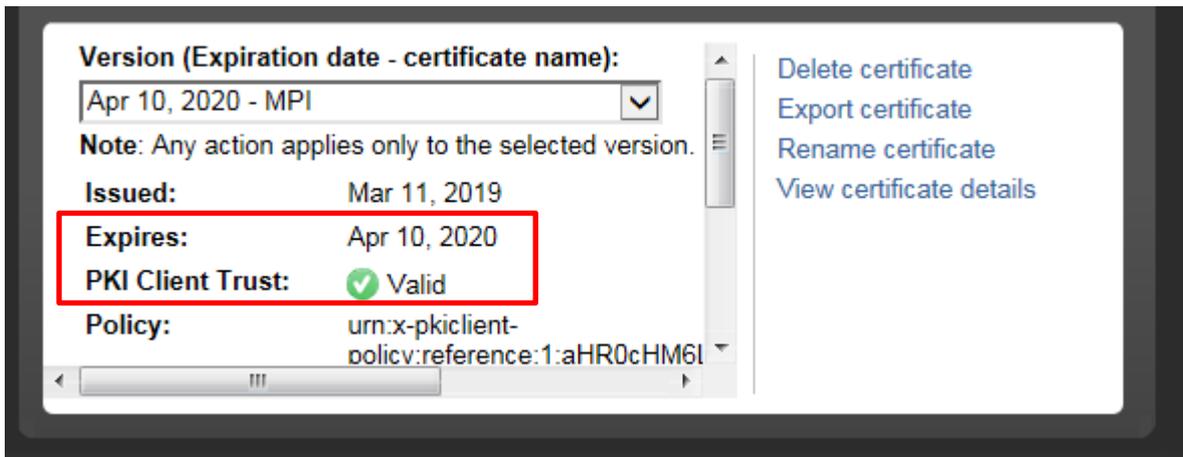
Step 1) Login into PKI Client by selecting **Start** searching for **PKI** and selecting **Symantic PKI Client**



Step 2) Select the Computer Icon



Step 3) Select the appropriate Certificate relating to your MPI access (N.B. Certificate names will vary, however under ordinary circumstances the Certificate should begin with 'I_SEM_Balancing').



If your Certificate is both valid and has not expired, please notify the Market Operator of a Limited Communication Failure using the contact information provided in the Process Steps on Page 8 of this Guide.

If your Certificate has either expired and/or is showing as revoked please contact Front Office on the below details:

Email: info@sem-o.com

Telephone: **ROI 1800 726 772 / NI 0800 072 6772 / International +353 1 237 0584**

#	Step	Step Description	Responsible Role
1	Notify Market Operator of LCF	Market Participant must immediately on becoming aware of the Limited Communication Failure, notify the Market Operator by the following methods: 1) Phone +44 (0)28 90 707415 . 2) Email LCF@sem-o.com .	Participant
2	LCF .xml file to be sent to Market Operator	Market Participant to submit the following to LCF@sem-o.com : 1) Party Name [E.g. PY_00001] 2) Participant Name [E.g. PT_00002] 3) Authentication Code [Login into MPI: Select Menu > Party List > Double Click on your PY_ID > User List > Double Click on your Username > Authentication Information > Select Show Details > Copy Authentication Code] 4) User Name [E.g. BLOGGS_J] 5) The COD .xml file using XML COD Generator tool. The process for this is included in Appendix A . Note: the .xml file (or in a Zip File) should be encrypted with the a password. The participant is responsible for ensuring the data contained in the .xml file satisfies the validation rules outlined in Section 4 of this document. Note: The .xml file must be received no later than 5 mins before the gate closure window for the requested submission.	Participant
3	Provide Password to Market Operator	Market Participant to telephone +44 (0)28 90 707415 to provide the password to the Market Operator to unlock the XML file.	Participant
4	Validate User Credentials	Market Operator will provide the Participant with an LCF Reference Number (ie. LCF_XXXX) as confirmation of receipt of the LCF Form The Market Operator will then validate that the requester is on the list of Authorised Persons for raising an LCF. User Name, Email and Authentication Code will be verified by the Market Operator. If requesting person cannot be validated, the Market Operator will proceed to Step 5. If requesting person can be validated, the Market Operator will proceed to Step 6.	Market Operator
5	Notify Participant that Username / Password is not valid	If the Participant username,password and/or Party Name is incorrect then the Market Operator will notify the participant that the submission cannot be completed.	Market Operator
6	Does the LCF relate to Offer Data for GC within 5 mins	Has the LCF File been received no later than 5 mins before the gate closure window for the requested submission? If no, go to Step 7. If yes, go to Step 8.	Market Operator
7	Notify Participant that insufficient time was given for LCF	If the Participant has not given sufficient time, the Market Operator will notify the Participant that the submission was rejected. The Participant will be informed that they can submit an LCF .xml file for	Market Operator

#	Step	Step Description	Responsible Role
		open imbalance settlement periods.	
8	Upload LCF .xml file	<p>The Market Operator will upload the LCF .xml file on behalf of the Participant to the Market Participant Interface (MPI).</p> <p>If the file contains an error and has been rejected, proceed to Step 9.</p> <p>If the file is accepted successfully, proceed to Step 10.</p>	Market Operator
9	Notify Participant that the LCF .xml file has been rejected	<p>The Market Operator to notify Participant that the data has been rejected and the error message provided in the MPI.</p> <p>The Participant will be advised to correct the data and resend the updated .xml file to the Market Operator.</p> <p>Note: The second .xml file must be received no later than 5 mins before the gate closure window for the requested submission. The Market Operator will only make <u>one</u> additional submission attempt for this gate window.</p> <p>If the file contains an error and has been rejected again, the Market Operator will terminate this LCF submission attempt and advise the participant to make another submission for a future gate window.</p> <p>If the file is accepted successfully, proceed to Step 10.</p>	Market Operator
10	Notify Participant that the LCF .xml file has been processed	The Market Operator to notify Participant that the data has been processed and file has been accepted into the MPI.	Market Operator
11	Provide updates on estimated timescale for resolution	The Market Participant shall provide updates to the Market Operator on estimated timescale for resolution of the issue causing the LCF to the Market Operator.	Participant
12	Notify MO of return to normal channels	Participant to notify Market Operator of return to normal communication channels.	Participant

5 VALIDATION RULES FOR COMMERCIAL OFFER DATA

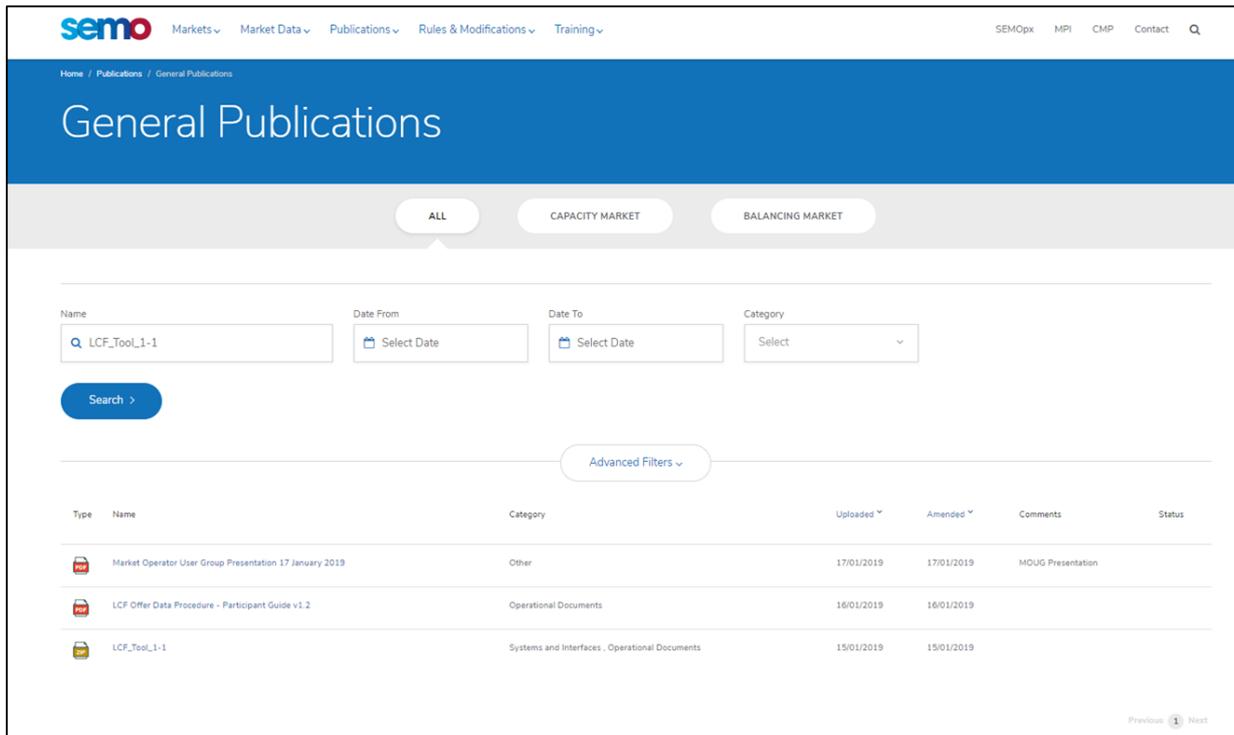
The following table details the validation rules for the submission of COD. All entries must follow the criteria as laid out below or COD submissions will be rejected.

Data Element	Summary of Validation Rules	Data Required?
Incremental (Price and Quantity)	<ul style="list-style-type: none"> Incremental curve quantities are monotonically increasing All Incremental quantities must be greater than or equal to zero for all Units apart from Pumped Storage Units Incremental price and quantities may be greater than or equal to zero or less than zero for Pumped Storage Units Incremental quantity is a number to 3 decimal places Incremental prices are in £/MWh or €/MWh, to 2 decimal places (noting that currency conversion may apply) Incremental prices cannot exceed the Market Price Cap or be lower than the Market Price Floor Incremental prices can be negative or positive (including zero) 'Simple' Data - If incremental prices and quantities are not submitted, the system will use the corresponding Incremental prices and quantities from their 'Complex' offers Price and Quantities must both be included in an Incremental/Decremental submission 	<p><u>Simple</u> Optional</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>
Decremental (Price and Quantity)	<ul style="list-style-type: none"> Decremental prices and quantities curve are monotonically increasing Decremental quantities must be greater than or equal to zero for all Units apart from Pumped Storage Units Decremental quantities may be greater than or equal to zero or less than zero for Pumped Storage Units Decremental quantity is a number to 3 decimal places Decremental price is in £/MWh or €/MWh, to 2 decimal places (noting that currency conversion may apply) Decremental prices cannot exceed the Market Price Cap or be lower than the Market Price Floor Decremental prices cannot exceed Incremental prices for overlapping Quantity bands, they may be equal or less Decremental prices can be negative or positive (including zero) 'Complex' Data – If Decremental prices and quantities are not submitted, use 'Complex' Decremental prices and quantities as the Decremental curve 'Simple' Data - If Decremental prices and quantities are not submitted, the system will use the corresponding Decremental PQ Pairs from their 'Complex' offers. Price and Quantities must both be included in an Incremental/Decremental submission 	<p><u>Simple</u> Optional</p> <p><u>Complex</u> Optional</p> <p><u>Default</u> Optional</p>
No Load Costs	<ul style="list-style-type: none"> Single No Load Cost, <ul style="list-style-type: none"> values must greater than or equal to zero values must be in €/hr or £/hr 	<p><u>Simple</u> Not Required</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>

Data Element	Summary of Validation Rules	Data Required?
Start Up Costs	<ul style="list-style-type: none"> • Up to three Start Up Costs (SUC) <ul style="list-style-type: none"> ○ values must be greater than or equal to zero ○ values must follow the logic such that $SUC(hot) \geq SUC(warm) \geq SUC(cold)$ ○ values should be in € or £ 	<p><u>Simple</u> Not Required</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>
Shut Down Cost	<ul style="list-style-type: none"> • Single Shut Down Cost <ul style="list-style-type: none"> ○ value must be greater than or equal to zero 	<p><u>Simple</u> Not Required</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>
Operational Reserve Capacity Limit (MW)	<ul style="list-style-type: none"> • Only for Pumped Storage Units <ul style="list-style-type: none"> ○ value must be greater than or equal to zero ○ value must be greater than or equal to Minimum Reservoir Capacity ○ value must be less than or equal to Maximum Reservoir Capacity 	<p><u>Simple</u> Not Required</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>
Spin Generation Cost	<ul style="list-style-type: none"> • Only for Pumped Storage Units <ul style="list-style-type: none"> ○ value should be in £/MWh or €/MWh ○ value should be to 2 decimal places (noting that currency conversion may apply) 	<p><u>Simple</u> Not Required</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>
Spin Pump Cost	<ul style="list-style-type: none"> • Only for Pumped Storage Units <ul style="list-style-type: none"> ○ value should be in £/MWh or €/MWh ○ value should be to 2 decimal places (noting that currency conversion may apply) 	<p><u>Simple</u> Not Required</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>
Minimum Generation Cost	<ul style="list-style-type: none"> • Only for Pumped Storage Units <ul style="list-style-type: none"> ○ values should be in £/MWh or €/MWh ○ values should be to 2 decimal places (noting that currency conversion may apply) 	<p><u>Simple</u> Not Required</p> <p><u>Complex</u> Mandatory</p> <p><u>Default</u> Mandatory</p>

A.1 SETUP OF THE LIMITED COMMUNICATIONS FAILURE (LCF) TOOL

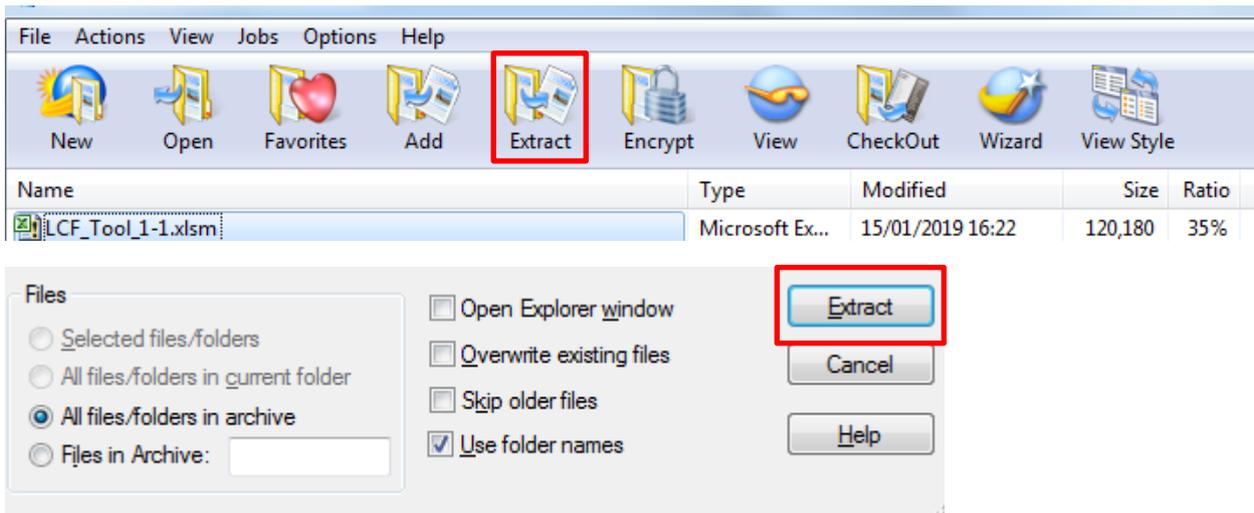
Step 1) Open the attached Tool called [LCF Tool 1.2](#) or alternatively navigate to www.sem-o.com > **Publications** > **General Publications** > Enter 'LCF_Tool_1-2' in the search



Step 2) Save the LCF Tool 1.2 in a folder, which also contains a subfolder titled 'xml'.

Note: The .xml files produced by the tool will be automatically save in this location.

- Open LCF Tool 1.2 Zip File and extract the LCF_Tool_1-2 Macro into a new folder location



- Within the new folder setup an additional folder entitled 'xml'. The Excel Macro will save the xml file within this folder.



Step 3) In the “Overall_Data” worksheet, enter the participant name, user name, the target trade date and the intended submission time.



Participant Name	e.g. PT_456789	PT_456789
User Name	e.g. a valid User Name	user_name
Trade Date	e.g. 2018-10-01	10/08/2018
Intended Submission Time	e.g. 10/8/2018 14:36	10/08/2018 14:36
Start Time for Forecast Avail/PN	calculated using submission tim	10/08/2018 16:00
End Time for Forecast Avail/PN	calculated using submission tim	11/08/2018 23:00

Note: The start and end times for the Forecast Availability and PNs are populated automatically.

A.2 ENTER RESOURCES FOR SUBMISSION

Step 1) Navigate to the “Resources” worksheet.



Step 2) Enter all Resource Units that will be referred to in the submission*.

2		
Resource ID	Resource Type	PN Curve Type
GU_456789	GU	A04
GU_456790	GU	A04

1		
Resource ID	Resource Type	PN Curve Type
DSU_123456	DSU	A01

Note: DSU and GU submission must be made separately.

Permitted Resources include:

- GEN-STD
- DSU
- GEN-PS
- GEN-EL

*Data can only be submitted if it adheres to ITS Volume C, Section 5.5, located [here](#).

A.3 SUBMISSION OF COMPLEX COMMERCIAL OFFER DATA

Step 1) Navigate to the “ComplexCOD” worksheet.



Step 2) Complete the required data, use the dropdown list to insert “Resource Type”.

Resource Name	0	<<<<
Resource Type		<<<<
Start Up Cost - Hot / Shutdown costs for DSU	GEN-STD	<<
Start Up Cost - Warm	DSU	<<
Start Up Cost - Cold	GEN-PS	<<
No Load Cost	GEN-EL	<<
Spin Gen Cost (PS only)		<<<<

Important Notes:

- *If submitting Incremental Curve data, the Decremental Curve data must also be provided, and vice versa.*
- *Complex COD and Simple COD may not be submitted in the same submission, if the spreadsheet contains Simple and Complex data, Simple will be ignored.*

Step 3) To submit additional resources, copy the highlighted cells and paste to the immediate right of the previous resource.

Resource Name	DSU_123456	<<<<
Resource Type	DSU	<<<<
Start Up Cost - Hot / Shutdown costs for DSU	25	<<<<
Start Up Cost - Warm	556	<<<<
Start Up Cost - Cold	45	<<<<
No Load Cost	64	<<<<
Spin Gen Cost (PS only)		<<<<
Spin Pump Cost (PS only)		<<<<
Energy Limit (EL only)		<<<<

Incremental Curve	Price (#/MWh)	Quantity (MW)
1	2	56
2	5	62
3		
4		
5		
6		
7		
8		
9		
10		

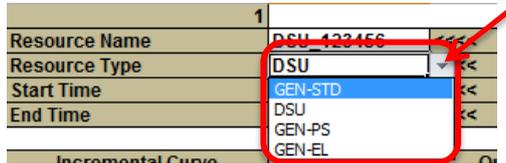
Decremental Curve	Price (#/MWh)	Quantity (MW)
1	1	54
2	2	65
3		
4		
5		
6		
7		
8		
9		
10		

A.4 SUBMISSION OF SIMPLE COMMERCIAL OFFER DATA

Step 1) Navigate to the “SimpleCOD” worksheet.



Step 2) Complete the required data, use the dropdown list to insert “Resource Type”.



Important Notes:

- *If submitting Incremental Curve data, the Decremental Curve data must also be provided, and vice versa.*
- *Complex COD and Simple COD may not be submitted in the same submission, if the spreadsheet contains Simple and Complex data, Simple will be ignored.*

Step 3) To submit additional resources, copy the highlighted cells and paste to the immediate right of the previous resource.

Resource Name	GU_456789	<<<<
Resource Type	GEN-STD	<<<<
Start Time	10/08/2018 23:00	<<<<
End Time	10/08/2018 23:30	<<<<
Incremental Curve		
	Price (#/MWh)	Quantity (MW)
1	45	100
2	46	110
3	47	120
4	48	130
5	49	140
6		
7		
8		
9		
10		
Decremental Curve		
	Price (#/MWh)	Quantity (MW)
1	24	100
2	25	110
3	26	120
4	27	130
5	28	140
6		
7		
8		
9		
10		

A.5 SUBMISSION OF FORECAST AVAILABILITY

Step 1) Navigate to the “ForecastAvail” worksheet.



Step 2) Complete the required data.

Resource Name		GU_456789	<<<<	<<<<	<<<<
Start Time	End Time	Fuel Flag (P or S)	Min Output	Min Stable Generation	Max Availability
10/08/2018 23:00	10/08/2018 23:30				
10/08/2018 23:30	11/08/2018 00:00				
11/08/2018 00:00	11/08/2018 00:30				
11/08/2018 00:30	11/08/2018 01:00				
11/08/2018 01:00	11/08/2018 01:30				

Note: The Start Time and End Time are automatically populated.

Step 3) To submit additional resources, copy the above cells from TD 23:00 through to TD+2 23:00 and paste to the immediate right of the previous resource.

Resource Name		DSU_123456	<<<<	<<<<	<<<<	<<<<	<<<<	<<<<	<<<<
Start Time	End Time	Fuel Flag (P or S)	Min Output	Min Stable Generation	Max Availability	Fuel Flag (P or S)	Min Output	Min Stable Generation	Max Availability
25/08/2018 23:00	25/08/2018 23:30		30	50	60				
25/08/2018 23:30	26/08/2018 00:00								
26/08/2018 00:00	26/08/2018 00:30								
26/08/2018 00:30	26/08/2018 01:00								
26/08/2018 01:00	26/08/2018 01:30								
26/08/2018 01:30	26/08/2018 02:00								
26/08/2018 02:00	26/08/2018 02:30								
26/08/2018 02:30	26/08/2018 03:00								
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26/08/2018 05:00	26/08/2018 05:30								
26/08/2018 05:30	26/08/2018 06:00								
26/08/2018 06:00	26/08/2018 06:30								
26/08/2018 06:30	26/08/2018 07:00								
27/08/2018 13:30	27/08/2018 14:00								
27/08/2018 14:00	27/08/2018 14:30								
27/08/2018 14:30	27/08/2018 15:00								
27/08/2018 15:00	27/08/2018 15:30								
27/08/2018 15:30	27/08/2018 16:00								
27/08/2018 16:00	27/08/2018 16:30								
27/08/2018 16:30	27/08/2018 17:00								
27/08/2018 17:00	27/08/2018 17:30								
27/08/2018 17:30	27/08/2018 18:00								
27/08/2018 18:00	27/08/2018 18:30								
27/08/2018 18:30	27/08/2018 19:00								
27/08/2018 19:00	27/08/2018 19:30								
27/08/2018 19:30	27/08/2018 20:00								
27/08/2018 20:00	27/08/2018 20:30								
27/08/2018 20:30	27/08/2018 21:00								
27/08/2018 21:00	27/08/2018 21:30								
27/08/2018 21:30	27/08/2018 22:00								
27/08/2018 22:00	27/08/2018 22:30								
27/08/2018 22:30	27/08/2018 23:00								

Note: “Fuel Flag” will be ignored for DSU submissions.

A.6 SUBMISSION OF PHYSICAL NOTIFICATIONS

Step 1) Navigate to the “PNs” worksheet.



Step 2) Complete the required data. Note that the first “Start MW” must be the same as the last MW submitted in the MPI.

Resource Name		GU_456789	<<<<	<<<<	<<<<
Start Time	End Time	Start MW	End MW		
10/09/2018 22:00	10/08/2018 19:03	12.5	124		
10/08/2018 19:03	10/08/2018 21:26	124	124		
10/08/2018 21:26	10/08/2018 21:26	124	3		

Note: The first Start Time is automatically populated.

Important Note: If the submission is made prior to 13:30, PNs must cover the end of that Trade Date. If the submission is made after 13:30, PNs must cover to the end of the next Trade Date.

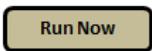
Step 3) To submit additional resources, copy the highlighted cells and paste to the immediate right of the previous resource.

A.7 CREATE .XML FILE

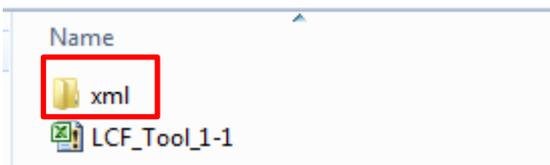
Step 1) Go back to the “Overall_Data” worksheet.



Step 2) Click “Run Now”.



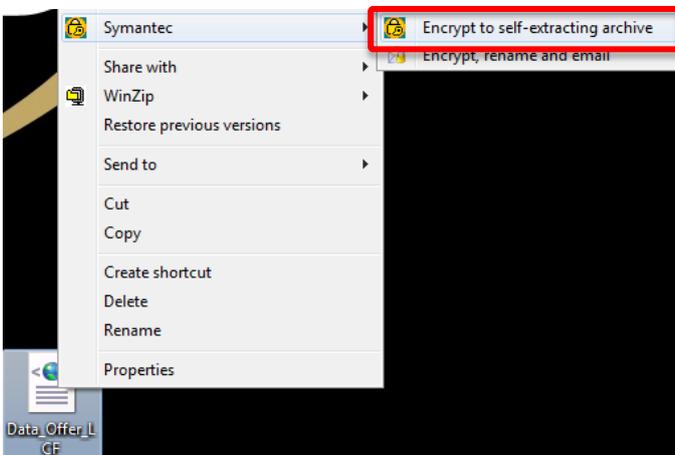
Step 3) The LCF .xml file will be created and saved to the “xml” folder.



Step 4) Open the .xml file and validate that the data has been captured correctly.

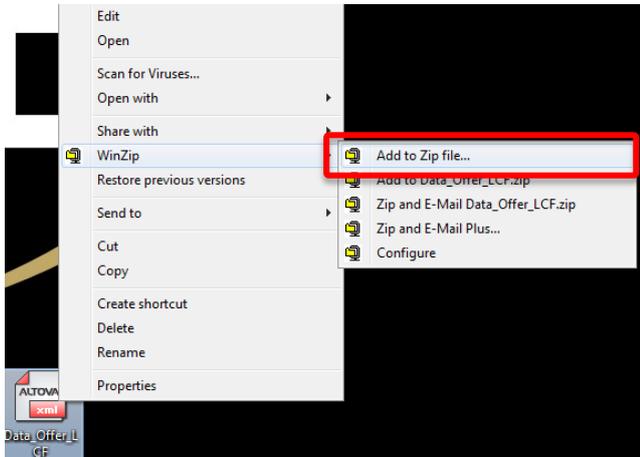
Step 5) Password encrypt the .xml file (or Zip the .xml file and password encrypt) and telephone the Market Operator at **+44 (0)28 90 707415** to provide them with the password to unlock the file. Please note that the encryption method to select must be 256-bit AES.

Method 1) Screenshot below shows the steps to encrypt the .xml file directly. **This will require an encryption software.**

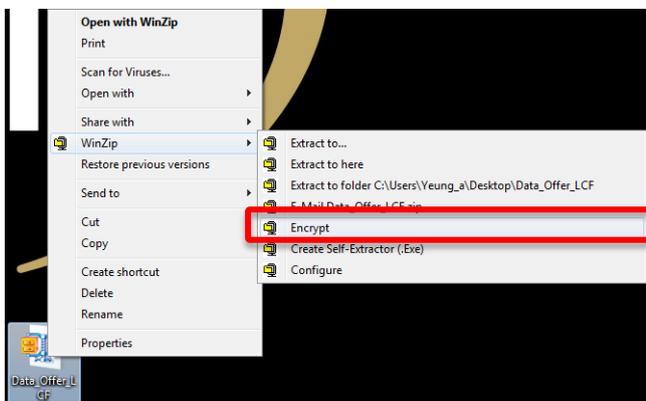


Method 2): Screenshot below shows the steps to take to zip and encrypt the .xml file.

- Right click the xml file, select **WinZip** and **Add to Zip file**. This will save the xml file within a Zip File to your PC.



- Right click on the newly created Zip File, select **WinZip** and then select **Encrypt**



- This will prompt you to setup a password, enter password and select **OK** (N.B. select 256-Bit AES encryption method).



Step 6) Attach and email the .xml file to Market Operator for submission on MPI.