



# Build Pack Change Request 20

## Notice of Changes

4 March 2022



**It's ON**

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## 2. Notice

04 March 2022

### **To Electricity Industry Code Participants,**

In accordance with section 5.3(a) of the SWIS Communication Rules, the following advises of Western Power's intention to make changes to its Build Pack documentation and upgrade its market facing systems. This Notice will be referenced here within as Change Request #20.

### **NOTICE**

Under Change Request #20, Western Power intends to implement changes to the Build Pack to contemplate advanced metering infrastructure (AMI) and associated B2B transactions for Re-energisation and De-energisation. The bulk of the changes covered under CR#20 were advised under Change Request #18 which was implemented on 29 June 2020.

Western Power plans to publish a new version of the Build Pack on 01 March 2022 and implement the changes on 18 March 2022.

Code Participants will have until 15 February 2022 to provide comment on the Build pack amendments. If no response is received by 15 February 2022 under Clause 5.3 (c) of the SWIS Communication Rules, Western Power will consider the change to be agreed, and will proceed to schedule the release according to the CR#20 notice.

In accordance with section 5.4(a) of the SWIS Communication Rules, all Code Participants will have the ability to test the proposed change in Western Power's test environment from 28 February 2022 through to 11 March 2022.

Code Participants were advised of the change and required to indicate their intention to test by 17:00 WST 17 December 2021 and need to work with Western Power to ensure that the necessary communications and system connectivity for testing is in place by 16:00 WST 21 February 2022.

All Code Participants are encouraged to review the detail of this notice and investigate how the changes will / may impact their systems.

The following schedule is proposed for Change Request #20:

Activity	Date
Confirm Intention to Test	17 December 2021
Change Request First Notice to Market Participants	31 January 2022
Reminder Notice to Market Participants	08 February 2022
Review & Comments by Market Participants	15 February 2022
Market Participant Testing	28 February 2022 – 11 March 2022
Notice to Market Participants Test Closure	11 March 2022
Market Participant Testing Acceptance	11 March 2022
Implementation Notice	15 March 2022
Implementation	18 March 2022
Post Implementation Acceptance	31 March 2022

Western Power will be available to meet if requested to discuss questions that individual Code Participants may have.

Code Participants are invited to submit written comments on the proposed changes to [metering.systems.support@westernpower.com.au](mailto:metering.systems.support@westernpower.com.au) by no later than 16:00 WST 15 February 2022.

### 3. Change Request #20

Change Request #20 proposes amendments to Build Pack documentation to contemplate advanced metering infrastructure (AMI) and associated B2B transactions for Remote Re-energisation and Remote De-energisation.

Western Power has proposed amendments to support:

- Processes for remote de-energisation and re-energisation

Proposed amendments are detailed in section 4 of this Notice. This bulk of this change was primarily covered in CR#18 and CR#20 provides an update on the change that was originally planned in CR#18.

# 4. Proposed Amendments

## 4.1 Service Order Process

<b>4.1</b>	<b>Section</b>	4.1 Process Overview		<b>Amendment Type</b>	Change
	<b>Description</b>	Update the Service Order Table to insert new Descriptions for remote services.			
	<b>Proposed Amendment</b>				
	<b>Service Order Type</b>	<b>Description</b>	<b>Typical Triggers</b>	<b>Obsolete Terminology</b>	
Re-energisation	Retailer requests a Service Provider to arrange for a Connection Point to be re-energised. Methods include: <ul style="list-style-type: none"> <li>• Insert Fuse</li> <li>• Remote re-energise (AMI)</li> <li>• Main switch</li> <li>• Meter connection</li> <li>• Connection at pole or pillar or pit</li> <li>• Remove sticker</li> </ul>	Energisation of a new supply where a previous new connection ServiceOrderRequest required the Site to be left de-energised.  Re-energisation of a Site following a request to de-energise.  A need to re-energise a Connection Point arises where a Customer: <ul style="list-style-type: none"> <li>• is moving into a premise; or</li> <li>• has previously requested that a supply be temporarily de-energised and now</li> </ul>	Turn-on Move in Reconnection Energisation Insert Fuse Remove Sticker		

			<p>wishes the supply restored; or</p> <ul style="list-style-type: none"> <li>• has been disconnected for non-payment.</li> </ul>		
	<p>De-energisation</p>	<p>Retailer requests Service Provider to arrange for a Connection Point to be de-energised.</p> <p>Methods include:</p> <ul style="list-style-type: none"> <li>• Remove Fuse</li> <li>• Remote de-energise(AMI)</li> <li>• Turn off main switch and sticker</li> <li>• Turn off main switch</li> <li>• Meter Disconnection (meter wire disconnection or turn meter)</li> <li>• Disconnection at pole top, pillar box or pit</li> </ul>	<p>A need to de-energise a Connection Point can arise in these situations:</p> <ul style="list-style-type: none"> <li>• where the Retailer has grounds to proceed with a De-energisation for non-payment (where the Customer has failed to meet their obligations under jurisdictional rules).</li> <li>• the Customer requires a temporary disconnection of supply because the Site is to be left vacant for a time; or</li> <li>• the Customer is moving out of a premise and no new tenant has requested supply at the same address.</li> </ul>	<p>Turn-off Disconnection Remove Fuse Apply sticker Move out</p>	

<b>4.2</b>	<b>Section</b>	4.2 Service Orders Requiring Customer Consultation	<b>Amendment Type</b>	Addition
	<b>Description</b>	New clause relating to customer consultation following remote re-energisation and arming of an AMI meter.		
	<b>Proposed Amendment</b>			
	c.	For AMI meters, where the Service Provider has successfully completed a Re-energisation request, the meter will be placed into an armed state. Once a meter is armed, electricity flows are enabled by pressing a button on the meter at the site. This action may be performed by the customer or by the Service Provider under a service level agreement. The retailer is responsible for notifying customers of the need to press the button to re-energise their meter or for requesting a push button service from Western Power.		

<b>4.3</b>	<b>Section</b>	4.3 Explanation Use of Exception Codes Table	<b>Amendment Type</b>	Addition
	<b>Description</b>	Additions to table under existing exception code values, to contemplate remote metering services.		
	<b>Proposed Amendment</b>			
	<b>Value</b>	<b>Definition</b>	<b>Used with Service Order Status</b>	<b>Special Notes</b>
	Metering Problem	Metering problem preventing completion of remote service	Not Completed	Communications Problem
	Metering Problem	Metering problem preventing completion of remote service	Not Completed	Communication Ok Metering Problem
	No Supply	Supply Not Available	Not Completed	Remote site already De-energised
	Other		Not Completed	Remote site already Energised

	Retailer Cancellation	Retailer cancellation (any charges for work partially completed should be indicated by appropriate <i>Product Codes</i> ).	Not Completed	Failed to Cancel. Remote De-energise already performed
	Retailer Cancellation	Retailer cancellation (any charges for work partially completed should be indicated by appropriate <i>Product Codes</i> ).	Not Completed	Failed to Cancel. Remote Re-energise already performed
	Unsafe	Deemed unsafe to complete Request.	Not Completed	Load side voltage detected on remote Re-energise

<b>4.4</b>	<b>Section</b>	4.4 Re Energisation	<b>Amendment Type</b>	Addition
	<b>Description</b>	Additional clauses relating to the remote re-energisation process.		
	<b>Proposed Amendment</b>			
		<p>j. For AMI meters, where the Service Provider has successfully completed a Re-energisation request, the meter will be placed into an armed state. Once a meter is armed, electricity flows are enabled by pressing a button on the meter. This action may be performed by the Customer, or the Service Provider under a service level agreement. Retailers should provide suitable advice to the Customer regarding the re-energisation process and Western Power has provided instructions on how to press the button on the Western Power website. The link to the instructions is <a href="https://www.westernpower.com.au/faqs/metering/advanced-meters-energisation/">https://www.westernpower.com.au/faqs/metering/advanced-meters-energisation/</a></p> <p>k. For AMI meters, the Re-energisation <u>ServiceOrderResponse</u> advises of the successful completion of the Re-energisation. That is, that the meter is in an armed state.</p> <p>l. A subsequent Standing Data Update notification advises that the button on the meter has been pushed enabling electricity flow and that the status of the NMI has moved from de-energised to energised.</p> <p>m. For failed remote Re-energisations, see 4.3 where a Metering Problem exception code value is returned, the Service Provider will attend the site to return electricity supply to the Customer.</p> <p>n. If the Retailer receives an Unsafe exception code value, this means a load side voltage has been detected. The Service Provider will not re-energise the Site until the appropriate actions have been taken to rectify the unsafe condition. Retailers should provide suitable advice to the Customer regarding the re-energisation process.</p> <p>o. When a field crew is required to attend site to re-energise the meter the retailer will raise a miscellaneous service order and call Western Power to advise of urgent re-energisation request.</p>		

<b>4.5</b>	<b>Section</b>	4.5 De-energisation Re-energisation standing data flow	<b>Amendment Type</b>	Addition	
	<b>Description</b>	Add table detailing the flow of the standing data for remote de-energisation and remote re-energisation.			
	<b>Proposed Amendment</b>				

  

The diagram illustrates the sequence of events for remote de-energisation and remote re-energisation. It involves five main participants: Retailer Participant, Gateway, Network Operator MBS, Network Operator HES, and Network Operator AMI Meter.

**Service Order Remote De-energise Request:**

- Service Order Request Remote De-energise:** Retailer Participant sends Standing data status "Energised" to Gateway. Gateway sends Validate to Network Operator MBS. MBS sends Success De-energise to Network Operator HES. HES sends Success De-energise to Network Operator AMI Meter. Meter status becomes "Not Energised".
- Service Order Received Successful Remote De-energise:** Network Operator MBS sends Standing data status "Not Energised" to Retailer Participant. Network Operator HES sends Success De-energise to Network Operator AMI Meter. Meter status becomes "Not Energised".
- Service Order Received Failed Remote De-energise:** Network Operator MBS sends Standing data status "Energised" to Retailer Participant. Network Operator HES sends Failed De-energise to Network Operator AMI Meter. Meter status becomes "Energised".

**Service Order Remote Re-energise Request:**

- Service Order Request Remote Re-energise:** Retailer Participant sends Standing data status "Not Energised" to Gateway. Gateway sends Validate to Network Operator MBS. MBS sends Success Re-energise to Network Operator HES. HES sends Success Re-energise to Network Operator AMI Meter. Meter status becomes "Not Energised".
- Service Order Received Successful Remote Re-energise:** Network Operator MBS sends Standing data status "Not Energised" to Retailer Participant. Network Operator HES sends Success Re-energise to Network Operator AMI Meter. Meter status becomes "Not Energised".
- Customer Contact for Re-energise:** Retailer contacts customer. Customer pushes button. Meter status becomes "Not Energised".
- Standing Data Energised Status Received:** Network Operator MBS sends Standing data status "Energised" to Retailer Participant. Network Operator HES sends Success Re-energise to Network Operator AMI Meter. Meter status becomes "Energised".
- Service Order Received Failed Remote Re-energise:** Network Operator MBS sends Standing data status "Not Energised" to Retailer Participant. Network Operator HES sends Failed Re-energise to Network Operator AMI Meter. Meter status becomes "Not Energised".

## 4.2 Customer Transfer and Standing Data Procedure

4.6	<b>Section</b>	4.6 De-energisation 4.6.2 Business Rules	<b>Amendment Type</b>	Addition
	<b>Description</b>	Contemplate a combination of manual and remote metering at a single premise.		
	<b>Proposed Amendment</b>			
	<p><b>Advanced Meters and Multi Metered Sites</b></p> <p>Where a de-energisation service order is raised on a NMI with a combination of AMI and non-AMI meters the de-energisation service order will be allocated for both remote &amp; manual de-energisation by a field resource, as applicable. These requests will be completed manually by a field resource and not using automation.</p>			

4.7	<b>Section</b>	4.7 De-energisation 4.7.2 AMI Process Diagram	<b>Amendment Type</b>	Addition
	<b>Description</b>	Contemplate NMI standing data updates associated with de-energisation and re-energisation services.		
	<b>Proposed Amendment</b>			
4.7.2 AMI Process Diagram				
<pre> graph TD     A[Service Order Completion] --&gt; B{is meter armed for customer re-energise}     B -- YES --&gt; C[NMIStandingDataUpdate (NMI De-energised)]     B -- No --&gt; D[NMIStandingDataUpdate (NMI De-energised)]     C --&gt; E{Customer Energises meter}     D --&gt; E     E -- YES --&gt; F[NMIStandingDataUpdate (NMI Re-energised)]     E -- No --&gt; G[NMIStandingDataUpdate (NMI De-energised)]   </pre>				

4.8	<b>Section</b>	4.8 De-energisation 4.8.2 AMI Process Diagram	<b>Amendment Type</b>	Addition
	<b>Description</b>	Detail process for de-energisation on a multi metered site.		
	<b>Proposed Amendment</b>			
<p>Figure 4.8.2 AMI Meter De-energisation on a multi metered site - Process Diagram</p> <pre> graph TD     Start[/De-energise Service Order/] --&gt; D1{Multi meter Site request}     D1 -- Yes --&gt; R1[Remote meter reading system]     R1 --&gt; D2{Meter communicating}     D2 -- Yes --&gt; R2[Disconnect customer]     D2 -- No --&gt; R3[Dispatch Field work]     R3 --&gt; R2     R2 --&gt; End[/Service order closed. Send SDU notifications to reflect changes/]   </pre>				

4.9	<b>Section</b>	4.9 De-energisation 4.9.2 AMI Process Diagram	<b>Amendment Type</b>	Addition
	<b>Description</b>	Detail process for a failed de-energisation, for example if communication has failed to connect to a meter.		
	<b>Proposed Amendment</b>	<p>Figure 4.9.2 AMI Meter De-energisation on a multi metered site - Process Diagram</p> <p>Where the meter is an interval meter the MDN will not include the partial day of the De-energisation. Only a complete day of readings will be published within the MDN to the current retailer.</p> <pre> graph TD     Start{{De energise service order}} --&gt; Remote[Remote meter reading system]     Remote --&gt; Comm{Meter communicating}     Comm -- No --&gt; Repair[WP dispatch field work to repair]     Repair --&gt; RemoteDe{De energise Meter remote}     RemoteDe -- No --&gt; NotComplete[Service order closed not complete]     Comm -- Yes --&gt; Disconnect[Disconnect customer]     RemoteDe -- Yes --&gt; Disconnect     Disconnect --&gt; End[Service order closed Send SDU notifications to reflect changes]   </pre>		

4.10	<b>Section</b>	4.10 Re-energisation	<b>Amendment Type</b>	Addition
	<b>Description</b>	NMI standing data updates associated with de-energisation and re-energisation services.		
	<b>Proposed Amendment</b>			
	<p>4.10 Overview</p> <p>Re-energisation refers to the business process where a retailer initiates action that leads to the meter for a particular NMI being re-energised.</p> <p>When this business process is complete, the network operator communicates the standing data changes to the market by publishing a number of Partial SDUs plus one (1) Full SDU 10 triggered by the earlier Partial SDUs. When the Service Order closes, no additional Full SDU is published.</p> <p>As a result of the Re-energisation, a number of Partial SDUs plus one (1) Full SDU will be published to the current retailer, who should expect to receive:</p> <ol style="list-style-type: none"> <li>1) one Partial SDU to notify of the change in Register status from “R” Removed to “C” Current for each Register at the Meter;</li> <li>2) one Partial SDU to notify of the change in Meter status to “C” Current;</li> <li>3) one Partial SDU to notify of the NMI status of “A” Active; and</li> <li>4) one Full SDU to notify of the full current standing data for the NMI.</li> </ol> <p>It should be noted that in reference to step 3) above, the Partial SDU is published irrespective of whether or not the status of the NMI has changed as a result of the Reenergisation.</p> <p>For AMI meters, where the network operator has successfully completed a Re-energisation request, the meter will be placed into an armed state. Once a meter is armed, electricity flows are enabled by pressing a button on the meter. This action may be performed by the retailer, customer or by the network operator under a service level agreement. Retailers should provide suitable advice to the Customer regarding the re-energisation process.</p> <p>For AMI meters, the <u>Re-energisation Service Order Response</u> advises of the successful completion of the Re-energisation. That is, that the meter has been placed in an armed state.</p>			

As result of the de-energisation, the NMI will have a meter status of “D” De-energised. Current and associated Registers will have a status of “R” Removed. The NMI status will remain as De-energised until the button on the meter is pressed. Once the button on the meter is pressed, a number of Partial SDUs plus one (1) Full SDU will be published to the current retailer, who should expect to receive:

- 1) one Partial SDU to notify of the change in Register status from “R” Removed to “C” Current for each Register at the Meter;
- 2) one Partial SDU to notify of the change in Meter status to “C” Current;
- 3) one Partial SDU to notify of the NMI status of “A” Active: and
- 4) one Full SDU to notify of the full current standing data for the NMI.

4.11	<b>Section</b>	4.11 Re-energisation 4.11.2 AMI Process diagram	<b>Amendment Type</b>	Addition
	<b>Description</b>	Remote re-energisation service process diagram.		
	<b>Proposed Amendment</b>			
<p>Figure 4.11.2: NMI Standing Update notification process – AMI Meter De-energisation Status from a Re-energisation Request</p> <pre> graph TD     Start[Service Order Completion] --&gt; D1{Is meter armed for customer re-energise}     D1 -- YES --&gt; B1[NMIStandingDataUpdate (NMI De-energised)]     D1 -- No --&gt; B2[NMIStandingDataUpdate (NMI De-energised)]     B1 --&gt; D2{Customer Energises meter}     B2 --&gt; D2     D2 -- YES --&gt; B3[NMIStandingDataUpdate (NMI Re-energised)]     D2 -- No --&gt; B4[NMIStandingDataUpdate (NMI De-energised)]   </pre>				

<b>4.12</b>	<b>Section</b>	4.12 Re-energisation 4.12.2 AMI Process diagram	<b>Amendment Type</b>	Addition
	<b>Description</b>	Remote re-energisation NMI standing data update notification process diagram.		
	<b>Proposed Amendment</b>			
<p>Figure 4.12.2: AMI Meter Re-energisation request - NMI Standing Data Update notification process</p> <pre> graph TD     Start{{Re-energise Service Order}} --&gt; Read[Remote meter reading system]     Read --&gt; Comm{Meter Communicating}     Comm -- No --&gt; Dispatch[Network Operator dispatch's field resource]     Dispatch --&gt; Energized[Meter energised]     Energized --&gt; Standing[Standing data received energised]     Standing --&gt; Button[Customer pushes meter button for re-energise]     Button --&gt; Retailer[Retailer contacts customer]     Retailer --&gt; Closed1[Service order request closed]          Comm -- Yes --&gt; Safe{Safe to reconnect}     Safe -- No --&gt; NotCompleted[Service order request closed not completed]     NotCompleted --&gt; Action[Network Operator &amp; or retailer action]     Action --&gt; Safe          Safe -- Yes --&gt; Armed[Meter Armed]     Armed --&gt; Closed2[Service order request closed]     Closed2 --&gt; Retailer          Closed1 --&gt; Retailer     </pre>				

<b>4.13</b>	<b>Section</b>	4.13 Re-energisation 4.13.2 AMI Process diagram	<b>Amendment Type</b>	Addition
	<b>Description</b>	Remote re-energisation on a multi meter site NMI standing data update notification process diagram.		
	<b>Proposed Amendment</b>			
<p>Figure 4.13.2: AMI Meter Re-energisation request Multi Meter Site - NMI Standing Data Update notification process</p> <pre> graph TD     Start{{Re-energise Service Order}} --&gt; Remote[Remote meter reading system]     Remote --&gt; Comm{Meter Communicating}     Comm -- No --&gt; Dispatch[Network Operator dispatch's field resource]     Dispatch --&gt; Energised[Meter energised]     Energised --&gt; Standing[Standing data received energised]     Standing --&gt; Button[Customer pushes meter button for re-energise]     Button --&gt; Retailer[Retailer contacts customer]     Retailer --&gt; Closed[Service order request closed]     Closed --&gt; Dispatch          Comm -- Yes --&gt; Safe{Safe to reconnect}     Safe -- No --&gt; NotCompleted[Service order request closed not completed]     NotCompleted --&gt; Action[Network Operator &amp; or retailer action]     Action --&gt; Safe     Safe -- Yes --&gt; Armed[Meter Armed]     Armed --&gt; Closed          Closed --&gt; Retailer     </pre>				

4.14	<b>Section</b>	4.14 Re-energisation 4.14.2 NMI Standing Update Notification	<b>Amendment Type</b>	Addition
	<b>Description</b>	Addition clause for AMI meters to define the triggers and preconditions for a remote re-energisation.		
	<b>Proposed Amendment</b>			
	Step 1a – One (1) Partial SDU per register to notify of change in register status to Current for AMI meter Re-energisation process			
	Transaction Definition	NMISstandingDataUpdateNotification		
	Trigger	Change in register status.		
	Pre-conditions	A NMI is assigned to a current retailer. Customer pushes button on armed meter.		
	Post-conditions	The retailer is able to update their system on the basis of the information provided by the network operator.		
	Step 2a – One (1) Partial SDU to notify of change in meter status to Current for AMI meter Re-energisation process.			
	Transaction Definition	NMISstandingDataUpdateNotification		
	Trigger	Change in meter status.		
	Pre-conditions	A NMI is assigned to a current retailer. Customer pushes button on armed meter.		
	Post-conditions	The retailer is able to update their system on the basis of the information provided by the network operator.		
	Step 3a – One (1) Partial SDU to notify of the status of the NMI is Active for AMI meter Re-energisation process.			
	Transaction Definition	NMISstandingDataUpdateNotification		
	Trigger	Customer pushes button on armed meter.		

	Pre-conditions	NMI must have an active meter in order to send this SDU.
	Post-conditions	The retailer is able to update their system on the basis of the information provided by the network operator.
	Step 4a –Full SDU to notify of change in standing data created by steps 1-3 for AMI meter Re-energisation process.	
	Transaction Definition	NMIStandingDataUpdateNotification
	Trigger	Customer pushes button on armed meter.
	Pre-conditions	A NMI is assigned to a current retailer.
	Post-conditions	The retailer is able to update their system on the basis of the information provided by the network operator.

4.15	<b>Section</b>	4.15 Re-energisation 4.15.2 Subsequent Transactions	<b>Amendment Type</b>	Addition
	<b>Description</b>	Addition to improve clarity of existing process.		
	<b>Proposed Amendment</b>			
		When the meter is an AMI interval meter, the Meter Data Notification (MDN) will include the full days intervals and will be published in the next BAU NEM12 processing, following mid-night of the energisation date. N.B. These readings will be actuals as the meter will still be recording the profile during the AMI disconnected period		