Discussion Request 1211			Bluetooth Keypad Freedom Unit - Technical		
Status	Approved	**Priority**	Medium	**Status Date**	04/11/2020

Date	Version	Reason for Change	Version Status
21/09/2020	1.0	Issued to Market	Final

Part 1 DETAIL OF DISCUSSION REQUEST / MARKET CHANGE REQUEST			
Requesting Organisation(s)	NIE Networks	**Originating Jurisdiction**	NI
Request Originator Name	Denis Kelly		
Date Raised	21/09/2020		

Classification of Request			
Jurisdictional Applicability	NI	**Jurisdictional Implementation**	NI Specific
If jurisdictional implementation is for one jurisdiction only – is the other jurisdiction required to effect any changes?	N/A	**Co-Ordinated Baseline Version No.**	No Impact
Change Type		Non-Schema Impacting	

Detail of Request
Reason for Request

Background

This Discussion Request has been raised as an interim technical solution to enable Suppliers in the NI Retail Electricity Market to develop an APP in accordance with the NIE Networks Bluetooth Protocols in order to facilitate the use of the new Bluetooth Freedom Unit which can be installed in accordance with the Discussion / Change Request: DR1204 Bluetooth Keypad Freedom Unit.

The use of the new Bluetooth Freedom Unit will be through an APP supplied by the Supplier in accordance with the NIE Networks' Bluetooth Protocols - Supplier's App will be restricted by the Protocols which Suppliers must adhere to. The APP will communicate commands by Bluetooth to the new Bluetooth Freedom Unit and the new Bluetooth Freedom Unit will communicate commands to the Keypad meter using the Protocols.

NIE Networks owns the Freedom Unit as the common services provider. The Supplier will develop and own the APP in accordance with the NIE Networks' Protocols.

Scope:

The scope of this Discussion Request is:

• the technical aspects in relation to the above mentioned APP; and
• the NIE Networks meter reading functionality associated with the APP.

The scope of this discussion request does not include the NI Market Systems changes that are already detailed in DR1204.

Proposed Solution

Suppliers to use the NIE Networks Protocol document as titled below (or as any subsequent approved versions) to develop their APP for the Bluetooth Keypad Freedom Unit:

Liberty 1E-Bluetooth Freedom protocol document
Published: 2nd January 2020
Version: 10

The purpose of the protocol document is to provide information to assist mobile app development so that the app can perform operations without the user having to interact directly with the meter.

The main function of the freedom unit with prepayment metering is to enable the consumer to enter top up vend codes. With the advancement in utilising Bluetooth technology coupled with the Supplier's App and current vend purchasing methods the complete top up process can be carried out from one smart device. The vend will be purchased within the Supplier's app which would then be instantly sent to the prepayment meter via the Bluetooth freedom unit. Assuming that the smart device is paired and within range of the Bluetooth technology capabilities. The Bluetooth Freedom Unit can send information to the device. As well as the smart device being able to send vend codes to the Bluetooth Freedom Unit.

From a metering view point the Standard Freedom unit is simply replaced by an RJ11 Plug.

A smart device can be paired to Bluetooth freedom units as follows:

• Ensure your smart device is on and visible
• Enter Supplier's App on smart device
• Bluetooth Scan for available devices
• Select the Freedom unit number associated with your supply
• A pairing message will appear - Enter the pairing code

When the Bluetooth Freedom unit and smart device are paired the customer can vend and top up credit through the smart device.

Meter Readings

As part of the Bluetooth Metering agreement - All Suppliers will be required to include code within their apps to pass meter readings directly to NIE Networks Meter Reading End-point through a secure Application Programming Interface (API).

NIE Networks Secure Meter Reading API

NIE Networks will provide the following to facilitate Suppliers in connecting to the Secure NIE Networks Meter Reading API:

• Documentation for the Meter Reading API;

• Test Meter Reading API which will be made available to Suppliers;

• Basic sample Android and iOS apps that will connect to the Bluetooth unit and read the data from the meter;

• The sample apps will include the code to parse the meter read data and communicate with the NIE Networks Meter Reading API including the required security protocols; and
• The sample app will have a display showing the data that was collected and if the submission to the API was successful. If there are any error messages these will be displayed.

Benefits for Suppliers
• Less queries and issues from consumers on vending
• Accessibility to reads and data from consumer's meter
• Inexpensive and easy upgrade not requiring physical meter change.

Benefits for Consumers
• Less fuss & inconvenience in topping up credit
• Easier availability of profile data for energy consumption review
• Check on credit balance from their smart device
• Quick & hassle free installation.

Scope of Change

Jurisdiction	Design Documentation	Business Process	DSO Backend System Change	MP Backend System Change	Tibco	Supplier EMMA	Schema	Webforms	Extranet/NI Market Website
ROI	☐	☐	☐	☐	☐	☐	☐	☐	☐
NI	☐	☐	☐	☐	☐	☐		☐	☐

Co-Ordinated Baseline Market Design Documents Impacted by Request

Market Messages

Message No.	Message Name	CoBL	ROI	NI	
No Impact	No Impact	No Impact	No Impact	No Impact	

Data Definitions

No Impact

Data Codes

No Impact at present

Market Message Implementation Guides

ROI	Yes/No	NI	Yes/No
	N/A	No Impact	Y

Comments

ROI - Market Process Diagrams – MPDs			
Market Procedure	Affected		
No Impact	Y		

NI - Market Procedures			
Market Procedure	Affected		
No Impact	No Impact		

ROI Guidance Documentation		Version	Affected
Document		Version	Affected
No impact			No Impact

RoI Briefing Document			
Briefing Document	Affected		
No Impact	Y		

User and Technical Documents			
Reference	Name	Version	Affected
No impact			No Impact
Part 2 - Performance and Data Changes			
Market Messages volume, processing etc.			
Data			
Details of Data changes e.g. cleansing			

Part 3 - ReMCoSG / CER Approval		
Approved by	**ReMCoSG**	**CER**
Comments		