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Register content codes

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REGISTER CONTENT CODES (RCC)

- A code that identifies the type of information being recorded by a channel in a meter e.g. uncontrolled, controlled, winter, triple saver peak etc
- Identifies if electricity measured by the channel is subject to
 - load control at any time by the distributor
 - time control by the distributor or MEP or LCD
- RCC describes what a metering component channel records, which depends on how the metering installation is configured
- RCCs are provided in SD-020 of the registry functional specification

SD-020

REGISTRY FUNCTIONAL SPECIFICATION

Code	Description
AD	kVA demand - KVA MDI
AH	kVAh - cumulative KVA register
CN	Controlled - all load on the register is subject to control via LineCo
D	Day - daytime only
DC	Day register for a fully controlled meter
DOP	Triple Saver Off Peak (1100-1700 2100-2300)
DPK	Triple Saver Peak (0700-1100 1700-2100)
DWD	Day of Week Days (7:00am - 9:00pm)
EG	Embedded Generation
IN	Inclusive - load on the register is a combination of controlled and uncontrolled loads
KD	kW demand - KW MDI
N	Night - night-time only
NC	Night register for a fully controlled meter
NWD	Night of week Days (9:00pm - 7:00am)

PERIOD OF AVAILABILITY (POA)

- Identifies the minimum time period a channel is active for in a day
- Determined by distributors in their pricing information
- Will be a value between 1 and 24 – (will always be less than 24 if electricity measured by the channel is fully or partially controlled)
- Currently is no default POA when a distributor does not define it

WHAT AN MEP MUST RECORD

- An MEP must record the configuration of meter channels on a metering installation in its registry metering records
 - this may lead to installations that contain meter channels recorded with RCC of UN and IN in the same metering installation
 - how a retailer applies prices to a RCC is not defined in the Code currently
- Where a retailer chooses to time block HHR data (sum periods of the 7304 channel), the RCCs that a retailer uses for invoicing and EIEPs will not appear in the registry

EXAMPLES OF RCC + POA

- UN24 indicates a channel with uncontrolled load, and supply available 24 hours/day
 - If the same meter is reconfigured to a day/night plan (day 0700-2300, night 2300-0700), RCC + POA would be **D16/N8**
- CN19 indicates a channel with controlled load only, supply available for a minimum 19 hours/day
 - If the same meter is reconfigured to a day/night plan (day 0700-2300, night 2300-0700), RCC + POA would be **DCN19/NCN19** (proposed new RCCs for day/night meter with controlled load only)
- IN19 indicates load on the channel is a combination of controlled and uncontrolled loads, with supply to the controlled load available for a minimum 19 hours/day
 - If same meter is reconfigured to a day/night plan (day 0700-2300, night 2300-0700), RCC + POA would be **DIN19/NIN19** (new RCCs for day/night meter with combination of controlled and uncontrolled load)

RCC AND POA IN USE

- The registry contains around 8,000 ICPs with unusual RCCs currently, shown as

Flow direction-RCC-POA

1.	I-EG-24 I-EG-24 X-EG-24 X-EG-24	5	Generator
2.	X-UN-24 X-WD-8 X-WD-16 X-WE-8 X-WE-16	1	Hotel
3.	X-CN-15 X-NC-24	1	House
4.	X-CN-24 X-UN-24 X-UN-24	1	
5.	X-N-24	2	
6.	I-7304-24 I-EG-24 X-7304-24 X-7304-24 X-EG-24 X-UN-24	1	
7.	X-7304-19 X-7304-24 X-CN-24 X-IN-19	1	RESIDENCE
8.	X-EG-24 X-IN-19	1	
9.	X-D-22 X-N-22	1	Shed
10.	X-7304-24 X-WD-14 X-WE-10	1	

RCC AND POA IN USE

- The registry contains around 8,000 ICPs with unusual RCCs currently, shown as

Flow direction-RCC-POA

1.	I-EG-24 I-EG-24 X-EG-24 X-EG-24 (should also have 2x7304 + 2x7306)	5	Generator
2.	X-UN-24 X-WD-8 X-WD-16 X-WE-8 X-WE-16	1	Hotel
3.	X-CN-15 X-NC-24	1	House
4.	X-CN-24 X-UN-24 X-UN-24	1	
5.	X-N-24	2	
6.	I-7304-24 I-EG-24 X-7304-24 X-7304-24 X-EG-24 X-UN-24	1	
7.	X-7304-19 X-7304-24 X-CN-24 X-IN-19	1	RESIDENCE
8.	X-EG-24 X-IN-19	1	
9.	X-D-22 X-N-22	1	Shed
10.	X-7304-24 X-WD-14 X-WE-10	1	

REASON FOR THE REVIEW

- With the market changing rapidly, the Authority considers an operational review is appropriate to ensure the framework for RCCs and POA is fit for purpose for the foreseeable future
- Context
 - Evolving technologies, mass deployment of advanced meters, distributors increasingly offering more cost reflective delivery price options, competition driving more innovative retail pricing plans
 - Implementation of Part 10 and subsequent registry population of metering data (including RCC and POA) has highlighted errors and inconsistencies
 - Errors may impact network billing, customer billing, energy settlements
 - Although configuring network specific time blocks in advanced meters will decrease over time as traders change their systems and processes to frame/sum the HHR data, it will not remove the need for RCCs and POA

ISSUES

- Descriptions, format and definitions appear to be leaving room for different interpretation and incorrect application
- Current definition of POA lacks clarity for multi-channel TOU meter configurations which include controlled load (e.g. DIN/NIN)
- POA field size does not allow for odd number of trading periods
- Process for consulting on and approving new RCCs slow and cumbersome
- Customised RCCs do not support innovation and more timely introduction of complex and differentiated TOU prices

KEY OBJECTIVES

- Improve descriptions, format and definitions to support accurate application
- Provide guidance on application of RCC and POA, particularly for TOU prices with fully or partially controlled load
- Support increased competition by enabling more timely introduction of complex and differentiated TOU prices
- Provide operational efficiencies and reduce costs by allowing participants to innovate without waiting for new RCCs to be consulted on and approved
- Replace growing list of customised RCCs which have active periods (on/off times) identified in the descriptions, with generic RCCs and descriptions
- Distributor pricing information to support accurate application where meter configuration is aligned with delivery price time blocks, notwithstanding its does not have to align

ALTERNATIVES CONSIDERED

- Option A – status quo, existing codes and format
- Option B – existing codes, but reformatted by number of channels
- Option C – as for Option B, but potential future generic codes (capital letters up to 6 characters) added for new mass market TOU delivery prices
- **Option D (preferred)** – as for Option C, but with existing customised codes deleted
- Option E – existing codes, but library of potential future codes added (numeric 4 characters)
- Option F – as for Option E, but with existing codes replaced by numeric codes
- Option G – as for Option D, but excluding POA as an attribute, suffix to be added to RCCs where necessary to differentiate RCCs within a network where the same type of channel information applies but with different POA

OPTION A – STATUS QUO

Current register content code	Proposed amendment	Description
AD	No change	kVA demand - KVA MDI
AH	No change	kVAh - cumulative KVA register
CN	No change	Controlled - all load on the register is subject to control via LineCo
D	No change	Day - daytime only
DC	No change	Day register for a fully controlled meter
<u>DIN</u>	<u>New</u>	<u>Day of a day/night meter where the load on the channel is a combination of controlled and uncontrolled loads</u>
DOP	No change	Triple Saver Off Peak (1100-1700 2100-2300)
DPK	No change	Triple Saver Peak (0700-1100 1700-2100)
DWD	No change	Day of Week Days (7:00am - 9:00pm)
EG	No change	Embedded Generation
IN	No change	Inclusive - load on the register is a combination of controlled and uncontrolled loads
<u>INEM</u>	<u>New</u>	<u>Emergency — load on the register is a combination of load controlled in an emergency and uncontrolled load</u>
KD	No change	kW demand - KW MDI
N	No change	Night - night-time only
NC	No change	Night register for a fully controlled meter
<u>NIN</u>	<u>New</u>	<u>Night of a day/night meter where the load on the channel is a combination of controlled and uncontrolled loads</u>
NWD	No change	Night of week Days (9:00pm - 7:00am)
RH	No change	kVArh - reactive meter register
<u>SR</u>	Changed	Summer - records consumption during summer

OPTION B - EXISTING CODES, REFORMATTED BY NUMBER OF CHANNELS

Register content code	Description	Period channel is active for
Single channel prices		
AD	kVA demand - KVA MDI	24 hours
AH	kVAh - cumulative KVA channel	24 hours
CN	Controlled - all load on the channel is subject to control at any time via a load control device	Refer to distributor's pricing information for the minimum number of hours in any day that supply is available to the controlled load
DC	Day channel for a fully controlled single channel meter	Refer to distributor's pricing information for time blocks
EG	Embedded Generation	24 hours
...
2-channel prices		
D	Day - daytime only for a 2-channel day/night meter	Refer to distributor's pricing information for time blocks for each channel
N	Night - night-time only for a 2-channel day/night meter	
...
3-channel prices		
DOP	Triple Saver Off Peak 1100-1700, 2100-2300	Refer to distributor's pricing information
DPK	Triple Saver Peak 0700-1100, 1700-2100	
N	Night 2300-0700	
...
4-channel prices		

OPTION C - POTENTIAL FUTURE GENERIC CODES

Register content code	Description	Period channel is active for
Single channel prices		
...
2-channel prices		
...
3-channel prices		
...
4-channel prices		
WDPK	Weekday peak	Refer to distributor's pricing information for time blocks for each channel. Generic codes for: SEPK/SEOP/SENW
WDSP	Weekday shoulder peak	
WDOP	Weekday off peak	
WE	All weekend	
OP	Off peak. Any day	Refer to distributor's pricing information for time blocks for each channel. Generic codes for: OPKOOA/PKOOA/SPKOOA OPKOOB/PKOOB/SPKOOB
WDPK	Weekday peak	
WDSP	Weekday shoulder peak	
WEPK	Weekend peak	
...

OPTION D - (RECOMMENDED) – AS FOR OPTION C, BUT WITH EXISTING CUSTOMISED CODES DELETED

Register content code	Description	Period channel is active for
Single channel prices		
...
2-channel prices		
...
3-channel prices		
SEPK	Peak Monday – Friday 0700 – 1100 and 1700 – 1930	Refer to distributor's pricing information
SEOP	Off peak Monday – Friday 1100 – 1700 and 1930 – 2100	
SENW	Weekday night Monday 2100 – Friday 0700 Friday 2100 – Monday 0700	
...	...	
4-channel prices		
WDPK	Weekday peak	Refer to distributor's pricing information for time blocks for each channel.
WDSP	Weekday shoulder peak	
WDOP	Weekday off peak	
WE	All weekend	
OP	Off peak. Any day	Refer to distributor's pricing information for time blocks for each channel. Generic codes for:
WDPK	Weekday peak	
WDSP	Weekday shoulder peak	
WEPK	Weekend peak	
...

OPTION E AND F – LIBRARY OF POTENTIAL FUTURE CODES ADDED (NUMERIC 4 CHARACTERS)

Description	Option E – existing and new register content codes		Option F – new register content codes		Unit of measure
	Register content code	Period of availability	Register content code	Period of availability	
Standard					
Reactive anytime	RH	24	1300	24	kVArh
Anytime kWh	UN	24	1500	24	kWh
Inclusive	IN	24	1503	24	kWh
<u>Emergency – load on the channel is a combination of load controlled in an emergency and uncontrolled load</u>	<u>INEM</u>	<u>24</u>	<u>1504</u>	<u>24</u>	<u>kWh</u>
Controlled to a maximum of 2 hours	CN	22	1600	22	kWh
Controlled to a maximum of 4 hours	CN	20	1601	20	kWh
Controlled to a maximum of 6 hours	CN	18	1602	18	kWh
Controlled to a maximum of 7 hours	CN	17	1606	17	kWh
Controlled to a maximum of 8 hours	CN	16	1603	16	kWh
Controlled to a maximum of 12 hours	CN	12	1604	12	kWh
Controlled to a maximum of 16 hours	CN	8	1605	8	kWh
Priority controlled to a maximum of 2 hours	1650	22	1650	22	kWh
Priority controlled to a maximum of 4 hours	1651	20	1651	20	kWh
Priority controlled to a maximum of 6 hours	1652	18	1652	18	kWh
Priority controlled to a maximum of 8 hours	1653	16	1653	16	kWh
Priority controlled to a maximum of 12 hours	1654	12	1654	12	kWh
Priority controlled to a maximum of 16 hours	1655	8	1655	8	kWh
Day only single-channel controlled 0600 to 2400	DC	18	1690	18	kWh
Day only single-channel controlled 0700 to 2400	DC	17	1691	17	kWh
Day only single-channel controlled 0700 to 2300	DC	16	1692	16	kWh
Day only single-channel controlled 0700 to 2200	DC	15	1693	15	kWh
Day only single-channel controlled 0700 to 2100	DC	14	1694	14	kWh
Day only single-channel controlled 0800 to 2400	DC	18	1695	18	kWh
Night only single-channel controlled 2400 to 0600	NC	6	1700	6	kWh
Night only single-channel controlled 2400 to 0700	NC	7	1701	7	kWh
Night only single-channel controlled 2300 to 0700	NC	8	1702	8	kWh
Night only single-channel controlled 2200 to 0700	NC	9	1703	9	kWh
Night only single-channel controlled 2100 to 0700	NC	10	1704	10	kWh
Night only single-channel controlled 2400 to 0800	NC	8	1705	8	kWh
Night only 2400 to 0600 with day boost	1750	As programmed	1750	As programmed	kWh
Night only 2400 to 0700 with day boost	1751	As programmed	1751	As programmed	kWh
Night only 2300 to 0700 with day boost	1752	As programmed	1752	As programmed	kWh

QUESTIONS AND DISCUSSION