### A.1.4 Indicative User Requirements
**UR 1 New Data Items.** The following new data item should be established:

<table>
<thead>
<tr>
<th>Data Item Number:</th>
<th>D2044</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Item Name:</td>
<td>RV Transition Flag</td>
</tr>
<tr>
<td>Data Item Logical Type:</td>
<td>Boolean</td>
</tr>
<tr>
<td>Member of unique serial set:</td>
<td>No</td>
</tr>
<tr>
<td>Member of Valid Set:</td>
<td>No</td>
</tr>
<tr>
<td>Data Group:</td>
<td>SPID (Core)</td>
</tr>
<tr>
<td>Correction Method:</td>
<td>Error Rectification</td>
</tr>
<tr>
<td>Data Owner:</td>
<td>SW</td>
</tr>
<tr>
<td>Description:</td>
<td>Declares whether a Supply Point should be subject to the weighting of both Live RV and RV based charges, or not.</td>
</tr>
</tbody>
</table>

**UR 2 New Scottish Water Data Items.** The Scottish Water Data should be amended for submissions pertaining to FY 2018/19 and thereafter, as follows:

**UR 2.1 RVF.** The RVF (Rateable Value Factor) should be included:
- To be provided annually, along with other Scottish Water Data
- To be of the form decimal (1,8)
- Expected to be 0.66666666 in 2018/19, 0.33333333 in 2019/20 and 0.00000000 in 2020/21, if the D2044 RV Transition Flag is set to True.
- RVF should be set to 0.00000000, if the D2044 RV Transition Flag is set to False.
- NOTE: This data item will not form a formal part of the SW Data, but will be notified to the CMA by SW alongside the SW Data.

**UR 2.2 Assessed Meter Sizes.** The Assessed Meter Sizes (identified against RV ranges, currently) will need to be replaced with two distinct sets of Assessed Meter Sizes:
- Replace the current Assessed Meter Sizes for water (WCMS), with RV Assessed Meter Sizes (RVWCMS),
- Replace the current Assessed Meter Sizes for sewage (SCMS), with RV Assessed Meter Sizes (RVSCMS),
- Include additional Assessed Meter Sizes for water, in relation to LRV (LRVWCMS),
- Include additional Assessed Meter Sizes for sewage, in relation to LRV (LRVSCMS)
- To be provided as the current WCMS and SCMS Assessed Meter Sizes are provided.
- To be of the same form as the current WCMS and SCMS Assessed Meter Sizes.

**UR 2.3 Property and Roads Drainage Prices.** The Scottish Water Data should be amended to include, in addition to the existing Property and Roads Drainage Prices (PDP and RDP):
- A Live RV Property Drainage Price – LRVPDP and
- A Live RV Roads Drainage Price – LRVRD.P.
- The form of these new prices will be the same as that for the existing prices and
- The provision of these new prices should follow the process and timescale for the provision of the existing prices.

**UR 2.4 Volume Conversion Factors.** The current volume conversion factors used to establish an Actual Yearly Volume (AYV/AYSV) from an RV: an RV Volume Conversion Factor (RVVCF), an RV Volume Discount (RVVD) and a Default Return to Sewer Allowance
DRTS, should be converted from being hard-wired into the CMA CS to being configurable items and two such sets created, one set for RV and one for Live RV:

- The RVVCF should initially be set to 0.03730 (with a range of 0.00000 to 0.10000)
- The RVVD should initially be set to 24 (with a range of 0 to 50)
- An LRVVCF should initially be set to 0.02613 (with a range similar to that for RVVCF)
- An LRVVD should initially be set to 24 (with a range similar to that for RVVD)
- The DRTS should initially be set to 0.95 (with a range from 0.00 to 1.00)

NOTE: The values for the LRVVCF and LRVVD will need to be confirmed by SW.

**UR 2.5 Volumetric Prices.** SW will either need to confirm that the volumetric prices (B₁, B₂, B₃, CVP, BS₁ and CSVP) will also be used for the rateable value derived AWAs and EWAs, or that these should be replaced with suitable specific prices:

- RVB₁, RVB₂, RVB₃ and RVCVP for the water RVAWA/RVEWA
- RVBS₁ and RVCSP for the sewage RVAWA/RVEWA
- LRVB₁, LRVB₂, LRVB₃ and LRVCVP for the water LRVAWA/LRVEWA
- LRVBS₁ and LRVCSVP for the sewage LRVAWA/LRVEWA.

**UR 3 Revised Settlement Calculations.** The following revisions to settlement calculations should be applied to all (IP and RF) settlement runs for April 2018 onwards:

**UR 3.1 RV Derived Water Meter Based Charge.** For invoice periods after 2018-04-01, the RV derived Water Meter Based Charge should be calculated, as follows;

\[
UW MBC_d = RV F . RVU W MBC_d + (1 - RV F) . LRV U W MBC_d
\]

where

\[
RVU W MBC_d = \frac{RV W M A N V C (RV WCMS_i)}{DIY}
\]

and

\[
LRVU W MBC_d = \frac{LRV W M A N V C i (LRV WCMS_i)}{DIY}
\]

**UR 3.2 Derived Water Volumes.** For invoice periods after 2018-04-01, the RV derived water volumes should be calculated, as follows;

\[
RVAYV_d = \begin{cases} 
((RVVCF \times RV_d) - RVVD) \times (1 - VAC_d) & \text{if } RV_d \geq 650 \\
0 & \text{otherwise}
\end{cases}
\]

and

\[
LRVAYV_d = \begin{cases} 
((LRVVCF \times LRV_d) - LRVVD) \times (1 - VAC_d) & \text{if } LRV_d \geq 920 \\
0 & \text{otherwise}
\end{cases}
\]
The equivalent RV based Daily Derived Volume RVDDVd is given by

$$RV DDV_d = \frac{RVAYV_d}{DIY}$$

And the equivalent LRV based Daily Derived Volume LRVDDVd is given by

$$LRV DDV_d = \frac{LRVAYV_d}{DIY}$$

**UR 3.3 RV Based AWA/EWA.** For invoice periods after 2018-04-01, the RV based AWA (and EWA) should be replaced with the following:

- An RVAWA; calculated as the RV based AWA is now, except that the calculation should use the RVAYVd, the RVWCMS Assessed Meter Size and the RVB1, RVB2, RVB3 and RVCVP.
- An LRV AWA calculated as the RV based AWA is now, except that the calculation should use the LRVAYVd, the LRVWCMS Assessed Meter Size and the LRVB1, LRVB2, LRVB3 and LRVCVP.
- EWA should be treated in identical fashion.

**UR 3.4 RV Based Daily Metered Cost (Water).** For invoice periods after 2018-04-01, the RV based UDMC should be replaced with the following:

$$UDMC_d = RFV \times RVU DMCd + (1 - RFV) \times LRVU DMCd$$

where

$$RVU DMCd = RVWA_d \times RV DDV_d \times (1 - WS3_d - S29d_e)$$

and

$$LRVU DMCd = LRVWA_d \times LRV DDV_d \times (1 - WS3_d - S29d_e)$$

**UR 3.5 RV Derived Sewage Meter Based Charge.** For invoice periods after 2018-04-01, the RV derived Water Meter Based Charge should be calculated, as follows;

$$USMBC_d = RFV \cdot RVUSMBCd + (1 - RFV) \cdot LRVUSMBCd$$

where

$$RVUSMBCd = RVSMANVCi(RVSCMS_i)$$

and

$$DIY$$
\[ LRVUSMBC_d = \frac{LRVSMANVCI(LRVSCMS_i)}{DIY} \]

**UR 3.6 Derived Sewage Volumes.** For invoice periods after 2018-04-01, the RV derived sewage volumes should be calculated, as follows:

\[ RVASYV_d = \begin{cases} DRTS \times [(RVVF \times RV_d - RVVD)] \times (1 - VAC_d) & \text{if } LRV_d \geq 650 \\ 0 & \text{otherwise} \end{cases} \]

and

\[ LRVASYV_d = \begin{cases} DRTS \times [(LRVVCF \times LRV_d - LRVVD)] \times (1 - VAC_d) & \text{if } LRV_d \geq 920 \\ 0 & \text{otherwise} \end{cases} \]

The equivalent RV based Daily Derived Volume RVSDDVd is given by

\[ RVSDDV_d = \frac{RVASYV_d}{DIY} \]

And the equivalent LRV based Daily Derived Volume LRVDDVd is given by

\[ LRVDDV_d = \frac{LRVASYV_d}{DIY} \]

**UR 3.7 RV Based Sewage AWA/EWA.** For invoice periods after 2018-04-01, the RV based sewage AWA (and sewage EWA) should be replaced with the following:

- An RVAWA is calculated as the RV based sewage AWA is now, except that the calculation should use the RVASYVd and the RVSCMS Assessed Meter Size and the RVBS1 and RVSCVP.
- An LRV sewage AWA is calculated as the RV based AWA is now, except that the calculation should use the LRVASYVd and the LRVSCMS Assessed Meter Size and the LRVBS1 and LRVSCVP.
- Sewage EWA should be treated in identical fashion.

**UR 3.8 RV Based Daily Metered Cost (Sewerage).** For invoice periods after 2018-04-01, the RV based UDMC should be replaced with the following:

\[ UDMC_d = RVF \times RVUDMC_d + (1 - RVF) \times LRVUDMC_d \]

where

\[ RVUDMC_d = RVAWA_d \times RVSDDV_d \times (1 - WS3_d - S29e_d) \]
and

\[ LRVUDMC_d = LRVAW_d \times LRVSDDV_d \times (1 - WS3_d - S29e_d) \]

**UR 3.9 Property Drainage Charge.** For invoice periods after 2018-04-01, the Property Drainage Charge should be calculated, as follows;

\[ UPDC_d = RV.F.RVUPDC_d + (1 - RVF).LRVUPDC_d \]

where

\[ RVUPDC_d = [PD\times PD_d \times RV_d]/DIY \]

and

\[ LRVUPDC_d = [LRVPD\times PD_d \times LRV_d]/DIY \]

**UR 3.10 Roads Drainage Charge.** For invoice periods after 2018-04-01, the Roads Drainage Charge should be calculated, as follows;

\[ URDC_d = RV.F.RVURDC_d + (1 - RVF).LRVURDC_d \]

where

\[ RVURDC_d = [RDP\times RD_d \times RV_d]/DIY \]

and

\[ LRVURDC_d = [LRVRD\times RD_d \times LRV_d]/DIY \]
**UR 4 Changes to Settlement Reporting.** The X21, X22 and X23 Water and Sewer Settlement Disaggregated Reports should be amended, for settlement periods (IP and RF) after 2018-04-01, for all runs, as follows:

- **Level 2** should also include;
  - The D2042 LRV, as a new column next to the RV.
  - The RVF, as a new column next to the LRV
  - The D2044 RV Transition Flag, as a new column next to the RVF
  - The RV EWA and LRV EWA, as new rows under the RV or LRV, as appropriate
  - The RV AWA and the LRVAWA, as new rows under the RV or LRV as appropriate.

- **Level 3** should also include;
  - Separate lines for the RV based charge components and for the LRV based charge components for RV related charges, as described in UR 2.
  - Commensurate with the above point, the Derived Volume entry should be replaced with two lines; one for the RV related Derived Volume component and one for the LRV related Derived Volume component.

**UR 5 Changes for New Connections/New SPIDs.**

**UR 5.1 T006.6 and T006.7 Content.** The T006.6 and T006.7 transactions should be amended to include the D2044 RV Transition Flag, as follows:

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>T006.6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transaction Name</strong></td>
<td>Provide Live Rateable Value</td>
</tr>
<tr>
<td>From</td>
<td>SW</td>
</tr>
<tr>
<td>To</td>
<td>CMA</td>
</tr>
<tr>
<td>DI #</td>
<td>Name</td>
</tr>
<tr>
<td>D2001</td>
<td>SPID</td>
</tr>
<tr>
<td>D2042</td>
<td>Live Rateable Value</td>
</tr>
<tr>
<td><strong>D2044</strong></td>
<td>RV Transition Flag</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Provision of Live Rateable Value by SW. This transaction may be used for both WS or SS SPIIDs. If no D2044 is provided, the value should be set to False.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>T006.7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transaction Name</strong></td>
<td>Notification of Live Rateable Value</td>
</tr>
<tr>
<td>From</td>
<td>CMA</td>
</tr>
<tr>
<td>To</td>
<td>LP</td>
</tr>
<tr>
<td>DI #</td>
<td>Name</td>
</tr>
<tr>
<td>D2001</td>
<td>SPID</td>
</tr>
<tr>
<td>D2042</td>
<td>Live Rateable Value</td>
</tr>
<tr>
<td><strong>D2044</strong></td>
<td>RV Transition Flag</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Notification of Live Rateable Value to an LP. This transaction may be used for both WS or SS SPIIDs</td>
</tr>
</tbody>
</table>

**UR 5.2 T006.6 Validation.** Validation for the T006.6 should be amended to also include a check that, if submitted, the D2044 RV Transition Flag is in a valid format.
• If no D2044 RV Transition Flag has been submitted, the value should default to False.
• Existing processing should be left unchanged.

**UR 5.3 Tradability Test.** The Tradability/Chargeability test, currently undertaken to ensure that a SPID only becomes Tradable when it has at least one Service Element, should be modified, as follows;
  • The successful submission of a T006.6 should be added as a trigger for the Tradability Test and
  • The current Chargeability Test which checks that an RV exists should be modified, as follows;
    o If the D2044 RV Transition Flag is set to True – both an RV and a Live RV must exist.
    o If the D2044 RV Transition Flag is set to False – a Live RV must exist (but there is no requirement for an RV to exist).

**UR 6 Changes to Update Transactions.**

**UR 6.1 T012.7 and T012.8** The T012.7 and T012.8 transactions should be amended to include the D2044 RV Transition Flag, as follows (see red text);

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>T012.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Name</td>
<td>Update Live Rateable Value</td>
</tr>
<tr>
<td>From</td>
<td>SW</td>
</tr>
<tr>
<td>To</td>
<td>CMA</td>
</tr>
<tr>
<td>DI #</td>
<td>Name</td>
</tr>
<tr>
<td>D2001</td>
<td>SPID</td>
</tr>
<tr>
<td>D2042</td>
<td>Live Rateable Value</td>
</tr>
<tr>
<td>D2044</td>
<td>RV Transition Flag</td>
</tr>
<tr>
<td>D4006</td>
<td>Effective From Date</td>
</tr>
<tr>
<td>Description</td>
<td>Update of Live Rateable Value and/or RV Transition Flag by SW. This transaction may be used for both WS and SS SPIIDs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>T012.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Name</td>
<td>Notify Live Rateable Value</td>
</tr>
<tr>
<td>From</td>
<td>CMA</td>
</tr>
<tr>
<td>To</td>
<td>LP</td>
</tr>
<tr>
<td>DI #</td>
<td>Name</td>
</tr>
<tr>
<td>D2001</td>
<td>SPID</td>
</tr>
<tr>
<td>D2042</td>
<td>Live Rateable Value</td>
</tr>
<tr>
<td>D2044</td>
<td>RV Transition Flag</td>
</tr>
<tr>
<td>D4006</td>
<td>Effective From Date</td>
</tr>
<tr>
<td>Description</td>
<td>Notification of an update of Live Rateable Value and/or RV Transition Flag to an LP. This transaction may be used</td>
</tr>
</tbody>
</table>
UR 6.2 T012.7 Validation and Processing. Validation and processing of the T012.7 should be amended as follows:

- An initial validation step should be introduced, as follows. The D2042 Live RV, the D2044 RV Transition Flag, or both D2042 and D2044 data items must be submitted in a valid format. If this is not the case, the transaction should be rejected, via the T9 Helper, with Error Code [tbc].
- If a valid D2042 Live RV has been submitted, further validation of this data item should proceed as now.
- If no D2042 Live RV has been submitted, the current further validation for the D2042 should not be executed.
- Updating of the CMA CS should then proceed as now, except that updates should be made for any of the D2042, D2044 and D4006 that have been submitted and are valid. No update should be made for the D2042, or for the D2044, if no valid entry has been provided in the transaction.

UR 7 LVI Changes.

UR 7.1 Tariff Tables. The tariff tables (under the Tariffs tab, under Admin) should be modified, so as to provide (subject to existing access and security privileges):

- Assessed Meter Sizes for Live RV ranges
- Assessed Meter Sizes for RV ranges
- RVB₁, RVB₂, RVB₃ and RVCVP for the water RVAWA/RVEWA, if these are to differ from the standard (measured) volumetric prices
- RVBS₃ and RVCVP for the sewage RVAWA/RVEWA, if these are to differ from the standard (measured) volumetric prices
- LRVB₁, LRVB₂, LRVB₃ and LRVCVP for the water LRVAVA/LRVEWA, if these are to differ from the standard (measured) volumetric prices
- LRVBS₁ and LRCVP for the sewage LRVAVA/LRVEWA, if these are to differ from the standard (measured) volumetric prices
- The RVPDP, LRVDP, RVRDP and LVRDP
- For suitably authorised CMA Users only, a table of the configurable volume factors; RFV, RVVCF, RVVD, LRVVCF, LRVVD and DRTS.

UR 7.2 Settlement Reports. Settlement Reports should be available, as described above.

UR 7.3 Transaction Submission Pages. The T006.6 and the T012.7 submission pages should be modified to reflect the revised content of these txns.

UR 7.4 SPID View pages. The SPID view pages should include the D2044 RV Transition Flags, alongside the Live RV and RV values. These should be provided in a table, along with their EFDs (in similar manner to that for the CI Flags).

UR 7.5 MDS. The MDS should be modified to also include the D2044 RV Transition Flag, immediately after the D2042 Live RV.

UR 8 Implementation.

UR 8.1 To allow for the April and May 2018 IP settlement runs to accommodate the revised calculations, these requirements should be deployed before the February 2018 settlement run date.

UR 8.2 To allow for UR 8.1 to be met, the SW Data for 2018/19 will need to be provided by mid-December 2017, to enable the April P1 settlement run (and subsequently the May
P1) to be based on the revised settlement calculations. If not provided, the P1s may be calculated under the prior settlement arrangements.

**UR 8.3** A provisional SW Data set will be required in mid-September to allow for testing to take place.

NOTE: It is assumed that Live RVs will have been submitted for most SPIDs prior to such testing.

**UR 8.4 RV Transition Flag Script.** A one-off script will need to be developed and run to populate D2044 values for all existing SPIDs, as follows:

- **Title;** RV Transition Flag Script.
- **Input Data;** SW should provide a list of SPIDs (New, Partial, Tradable, or TDISC) for which the D2044 RV Transition Flag is to be set to False (i.e. where a SPID is to be subject to RV based charges on Live RV only).
- **Processing;** The script should set all D2044 RV Transition Flags to True, except where SW has identified a SPID to have its flag set to False.
- **Reporting;** The script should produce a report, identifying all SPIDs for which the D2044 has been set to False. This report should be made available to SW and to the CMA. Reports should also be created for each LP, identifying SPIDs for which the D2044 has been set to False for SPIDs that the LP is responsible for. The content of the report should be;
  - **Title;** RV Transition Flag Report
  - **Description;** being a text field, as follows; 'This report identifies all SPIDs that have had their RV Transition Flag set to False and will, as a result, have their RV based charges derived only from the Live RV'.
  - **LP;** being the LP to which the relevant SPID or SPIDs belong.
  - **SPID;** being the SPID for which the D2044 has been set to False.
  - **SPID Status;** being one of New, Partial, Tradable, or TDISC.
  - **Connection Date;** identified for Tradable and TDISC SPIDs only.
  - **Live RV
  - **Rateable Value
  - **SAA Reference
  - **SAA Absence Cod

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