

United Utilities response to Ofwat

Bioresources market information



1. Company

- Lines 1 -3 - Reconciles to Table 4W line 11 plus third party costs
- Line 4 & 8– Total measure of intersiting work done by pipeline:
 - PR19 Table Bio1 Line 9 previously reported this as the digested sludge transported via Mersey Valley Sludge Pipeline. In response to this data request we have reported the amount of raw sludge transported by pipeline.
 - This is the total raw sludge volume transported down the following pipelines:
 - Salford & Eccles > Manchester Bioresources Centre
 - Urmston > Manchester Bioresources Centre
 - Woolton > Huyton
 - The volume down the Skelmersdale > Wigan pipeline has been reported in the Wigan indigenous volume due to a metering issue.
 - There was no reported flow down the Hyde > Dukinfield or Formby > Hillhouse pipelines in FY20.
- Line 5 & 7 – Total measure of intersiting work done by tanker:
 - This is the total liquid raw sludge volume transported by tanker. This does not include any digested sludge movements, for example tanker movements from St.Helens > Warrington (N) or Dukinfield to Oldham for onward transport down the Mersey Valley Sludge Pipeline.
- Line 6 & 9 – This is the total amount of raw sludge cake moved excluding movements to restoration/reclamation or exports to 3rd party.

2. Transport

Amendments to Bioresource Market Information:

Following review of the Bioresources Market Information there have been amendments to the following WwTWs - Quantity of Raw Sludge (tDS) to account for raw sludge pipelines:

- Davyhulme WwTW
- Eccles WwTW
- Huyton WwTW
- Salford WwTW
- Urmston WwTW (Site added to Bioresources Market Information)
- Woolton WwTW

There has also been amendments to the following WwTWs - Quantity of Raw Sludge (tDS):

- Workington WwTW
- Crewe WwTW
- Barrow-In-Furness WwTW

Notes on the Transport data table:

- WwTW's which have an associated Sludge Treatment Centre (STC) as per the Bioresources market information display the indigenous figure in column 2 with the primary destination in column 3 listed as the STC name and transport mode "Other". This is to indicate that the sludge has originated at the WwTW and has flowed on to treatment at the STC.

- The following STC's export digested sludge down the Mersey Valley Sludge Pipeline (MVSP) for onward treatment at Manchester Bioresource Centre before being transported down the MVSP again to the Shell Green Dewatering Centre. In the transport data table, these are listed as having primary destination "Shell Green (DWC)" and transport mode "Pipeline" as to avoid confusion with the transport of raw sludge into MBC:
 - Bolton
 - Bury
 - Oldham
 - Dukinfield (First tankered to Oldham)
- The following STC's also export digested sludge down the MVSP to Shell Green Dewatering Centre. In the transport data table, these are listed as having primary destination "Shell Green (DWC)" and transport mode "Pipeline"
 - St Helens (First tankered to Warrington North)
 - Warrington North
 - Liverpool
 - Manchester Bioresource Centre (also exports enhanced cake to agriculture)

3. Total capacity

Digestion: Our approach to defining our total annual capacity for our regional digestion operations is as follows.

- Usual hydraulic residence time for sludge is defined as hydraulic residence time based on our asset standards for differing digestion technologies
- Average effective volume defined for the digesters across the regional system
- Expected dry solids (DS) feeding to digestion for each site depending on thickening and digestion operation
- Planned downtime for planned CHP maintenance
- Planning downtime for planned digester cleaning
- Loss of capacity where we have import restrictions (this only impacts two digestion sites)
- Unplanned downtime

The above defines the capacity we have for digestion. Please note we have presented a flat capacity across the ten year period in the excel document. In the first two years of AMP7 (FY21 and FY22) we have significant maintenance activities at two large digestion sites which is restricting the actual usable capacity so we will not have the full availability in those years. We estimate the restriction in capacity for each year is circa 14,000 tDS.

Thickening: We operate bioresources sites which produce thickened product, with either a cake or liquid sludge output. Many of our cake production sites do not import due to specific operational requirements. To provide a capacity we have used our historic throughput to define this for these sites.

4. Tradeable capacity

Digestion: The request is to define the guaranteed tradeable capacity for each year. For digestion operations we operate a regional system. We have seasonal variation over the year and short term operational impacts (unplanned) and therefore we cannot guarantee an annual tradeable capacity. We have previously offered capacity to facilitate short term trades and will continue to explore and develop these opportunities.

Thickening: We have declared our tradeable capacity as zero based on the commentary for total capacity above.

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5. Headroom capacity

Digestion: The headroom capacity for digestion is based on our annual total capacity presented in Section 3 of the excel document. We have used our latest regional sludge forecast to define headroom at a regional level. We have not set out headroom on a site by site basis for digestion as we operate a regional system. Please note in the first two years of AMP7 we have significant maintenance activities at two large digestion sites which is restricting capacity so we will not have the full availability in those years. We estimate the restriction in capacity for each year is circa 14,000 tDS. Therefore this will impact the headroom presented in the excel document.

Thickening: Headroom is presented as zero. We have capacity to treat the current sludge throughput. We currently believe indigenous growth from population change can be accommodated.