



Best practice guidance Upstream services – methodology statement disclosures

In 'IN 15/02 Expectations for company reporting 2014-15 – regulatory accounts, accounting separation and performance information', we stated:

Methodology statement

Each company must publish on its website an accounting methodology statement and accompanying commentary at the same time as its regulatory accounts. ['Disclosure requirements for companies' accounting separation and upstream services data methodology statements 2013-14'](#) remains relevant and is available on our website.

Trial of cost allocation to upstream

Services

We are continuing to ask companies to publish extra information about their costs in delivering the less customer-facing ('upstream') services they deliver as part of a trial. For 2014-15, we require companies to:

- complete a form with their upstream services data and publish it along with a methodology statement and commentary on their website; and
- report the main factor causing changes to their costs ('cost drivers') for each of the upstream services they provide. Each company has the flexibility to choose the cost driver it decides is the most appropriate for each service. Companies should also explain in their commentaries why the cost drivers they have chosen are the most appropriate. Where the most appropriate cost driver information is not available we expect companies to use the next most appropriate and explain their reasoning.

We have reviewed companies' upstream services methodology statements for 2013-14 and felt it might be helpful to identify some examples of best practice. Please note that these examples have been chosen to demonstrate best practice in terms of clarity and level of detail of disclosure and are not a comment on the companies' approach to allocating and attributing costs. We hope that by highlighting areas of

good practice, the level of content and detail in companies' methodology statements will improve the usefulness and comparability of the data for users.

Example 1 – How costs have been allocated between raw water transport and raw water storage

This company has provided a clear explanation of how it has allocated its operating expenditure between raw water transport and raw water storage in its raw water distribution business unit.

3.2. Raw Water Distribution business unit

Raw water transport

Operating expenditure: all direct and indirect operating expenditure relating to raw water distribution was allocated 100% to raw water transport.

IRC: spend relating to aqueducts was attributed to raw water transport.

CCD: raw water pumping stations CCD in the raw water network was allocated to the raw water transport service. All other CCD (excluding storage reservoirs) was allocated pro-rate to the allocation of storage reservoirs and pumping stations.

Raw water storage

Operating expenditure: A small number of sites have assets that are classed as raw water storage. Analysis was undertaken to identify any operating expenditure relating to those assets. There was no operating expenditure specifically incurred relating to those assets resulting in 100% of the raw water distribution costs being allocated to raw water transport.

IRC: spend relating to impounding reservoirs without abstraction licences was attributed to raw water storage. There was no spend in 2013/14.

CCD: all CCD relating to storage reservoirs was allocated to the water storage service. All CCD relating to raw water pumping stations in the raw water network was allocated to the raw water transport service. CCD on all other raw water assets was allocated equally between storage and transport.

Example 2 – How costs have been allocated between trunk and local

This company has provided a clear explanation of how it has allocated its costs between trunk and local treated water distribution in its treated water distribution business unit.

Trunk and local treated water distribution

Trunk treated water distribution

Guidance

Trunk treated water transport includes activities related to transporting treated water from the treatment works to District Metered Areas (DMAs). This service includes all trunk network repair and maintenance activities, as well as activities associated with any new network development. In addition to directly attributable costs, other activities that might need to be considered within this service may include the provision and maintenance of storage towers and reservoirs and ancillaries such as booster pumps, pressure reduction, hydrants, air release valves, washouts and flow measurement.

Methodology

The water distribution network is managed on a fully integrated basis and therefore we do not recognise the split between trunk and local water distribution in our day to day operational management of the business. However, for this purpose we have gone through the cost centres that are included in treated water distribution and have allocated, as much as we can either to trunk or local treated water distribution. The cost centres included in this business unit are; trunk mains, service reservoirs and water pumping stations. A report has been created in SAP which extracts the direct costs relating to this business unit.

All Bulk supply costs and third party services cost, reported as treated water distribution have been allocated fully to trunk treated water distribution. Other indirect costs have been allocated to trunk or local treated as follows:

Pension actuarial credit and bonus payments -allocated over employment costs

Insurance and cumulo rates - allocated using PR14 MEAV revaluation information

General and support costs - allocated over direct costs for treated water distribution

Other business activities -allocated over direct costs for treated water distribution

The 2013 MEAV revaluation has been used to allocate the assets between the both services in treated water distribution for both IRC and CCD.

For infrastructure assets we have allocated all water mains pipes >320mm and communication pipes that are included within treated water distribution as trunk treated water distribution. This accounts for 21% of the infrastructure assets. We have applied this to the IRC charge for treated water distribution to arrive at the IRC for this service

For above ground assets we have allocated service reservoirs, water towers, booster pumping stations, treated water storage and general and management costs to this service. These accounts for 84% of the above ground assets within treated water distribution .We have applied this to the CCD charge for treated water distribution to arrive at the CCD for this service.

Local treated water distribution

Guidance

Local treated water distribution includes the activities related to distributing treated water to customers within DMAs including secondary disinfection and other chemical dosing. This service includes all distribution network repair and maintenance activities, as well as the activities associated with any new network development

Methodology

Within SAP which is our finance system, costs relating to Local treated water distribution is recorded within identified cost centres and have therefore been 100% allocated to local treated water distribution. This includes minor works, network inspectors, leakage inspectors, clerical and all associated costs. A report has been created in SAP which extracts the direct costs relating to this business unit.

Scientific services have been fully allocated to local treated water .In addition customer compensation payments relating to wholesale performance are included in local treated water distribution.

Other indirect costs have been allocated to trunk or local treated as follows:

Pension actuarial credit and bonus payments -allocated over employment costs

Insurance and cumulo rates -allocated using PR14 MEAV revaluation information

General and support costs -allocated over direct costs for treated water distribution

Other business activities -allocated over direct costs for treated water distribution

Example 3 – How costs have been allocated between trunk and local

This company has provided a clear explanation of how it has allocated its costs between trunk and local treated water distribution in its treated water distribution business unit.

Treated water distribution [TWD]

DEFINITIONS

Trunk treated water transport [TTWT]

Trunk treated water transport includes activities related to transporting treated water from the treatment works to District Metered Areas (DMAs). This service includes all trunk network repair and maintenance activities, as well as activities associated with any new network development. In addition to directly attributable costs, other activities that might need to be considered within this service may include the provision and maintenance of ancillaries such as booster pumps, pressure reduction, hydrants, air release valves, washout and flow measurement.

Local treated water distribution [LTWD]

Local treated water distribution includes the activities related to distributing treated water to customers within DMAs including secondary disinfection and other chemical dosing. This service includes all distribution network repair and maintenance activities, as well as the activities associated with any new network development.

Other activities that may be considered within this service include the provision and maintenance of district and customer meters, storage towers and reservoirs and ancillaries such as booster pumps, pressure reduction, hydrants, air release valves, washouts and flow measurement.

OPERATING EXPENDITURE

- POWER

Power has been allocated based on the location and usage cost of booster stations on the TWD network. Each booster station has been spatially mapped in our GIS system. Our Energy team track the volume and cost used by each.

- OTHER OPERATING COSTS

Service Delivery – The majority of the operating costs included in TWD relate to work undertaken on our treated water infrastructure assets (for example, finding and fixing leaks). These activities are undertaken by our Service Delivery department. The costs of this department have been allocated to the relevant services based on an analysis of the costs associated with different job types, which have been associated with each service.

We confirmed the outputs of the above analysis are reasonable based on a sample of three months' jobs which were mapped to trunk or local in our GIS system (2012/13).

Operations and maintenance department (O&M) – This department undertakes work relating to non-infrastructure assets (mainly service reservoirs and booster stations). Costs in the table are allocated based on an analysis of costs booked to individual non-infrastructure assets in SAP. Any remaining cost is allocated in line with this analysis.

Customer Operations Service Centre (COSC) – The costs relating to alarms included in TWD (mainly relating to non-infrastructure assets) have been allocated in line with O&M costs. Costs relating to Operations Services (mainly supports Service Delivery) and Traffic Management Act costs are allocated on the basis of Service Delivery costs. Overhead-type costs are allocated based on the costs already allocated.

Water Strategy – the costs of the Water Strategy department that are included in TWD have been allocated using length of pipe attributed to each service on the basis of management judgement.

Field Services Manager cost centre – costs captured in this cost centre mainly relate to insurance payments. These costs are allocated based on an analysis of the number and value of insurance payments relating to trunk mains incidents.

Scientific Services costs – these costs relate to sampling, mainly at customer taps. Pipe length associated with each service has been used to allocate these costs. This is on the basis that the further treated water has to travel, the more likely it is that its quality will be effected (e.g. by a defect or incident). This method is deemed reasonable given that these costs represent less than 1.5% of the costs included in TWD.

Overhead type costs – costs such as those relating to senior management and activities that support the whole of Water Services that are included in TWD have been allocated based on the proportion of costs already allocated to each service.

Central costs – general and support and other central costs (e.g. costs of regulation) have been allocated on the basis of the proportion of TWD operating costs allocated to each service. Any remaining costs are also allocated on this basis.

- LOCAL AUTHORITY RATES

Local authority rates included in the treated water distribution business unit are allocated to the services on the basis of the proportion of infrastructure assets associated with each service. Using value of assets to allocate rates is consistent with accounting separation.

Example 4 – How costs have been allocated between trunk and local

This company has provided a clear explanation of how it has allocated its costs between trunk and local treated water distribution in its treated water distribution business unit.

Treated Water Distribution

The split of operating costs between Trunk and Local Treated Water Distribution has been done with a series of allocations, depending on the type of expenditure, as follows:

Power

This is allocated mainly to Trunk Treated Water Distribution, and reflects the pumping costs of moving water from Water Treatment into the distribution network. There are a few booster stations along the length of the Local distribution network and the power associated with these is included in Local Treated Water Distribution. These booster stations include Madehurst, Shedfield and Titchfield.

Other Pumping Costs

These are allocated on the same proportion as the power costs, and include employment costs, contractor costs and materials.

Mains & Services

Employment costs are allocated on a management estimate, and this reflects the fact that it is not usually internal labour which is used to repair trunk mains, but contract labour. Materials and other direct costs are allocated on total length of mains for each of Trunk and Local mains.

Inspectors

One senior inspector works solely on Trunk mains and there is an assistant inspector who is working alongside him. This means that there are 2 FTE's working on Trunk mains. Costs of inspectors are allocated on the proportion of FTE's working on Trunk mains.

Contractors

Contract labour which is used on Trunk mains is directly coded to 'Other Contractor's Charges' and can be allocated to Trunk Treated Water Distribution.

Other Direct Costs

Other costs include Company Reinstatement, Distribution Administration, Cleaning and Operations Centre, and are allocated on the basis of total length of mains for each of Trunk and Local mains.

Overheads

Overheads are split on the same proportion as the total direct costs.

Example 5 – How costs have been allocated between foul, surface water drainage and highway drainage

This company has provided a clear explanation of how it has allocated its costs between foul, surface water drainage and highway drainage in its sewage collection business unit.

Sewage collection [SC]

OPERATING EXPENDITURE

POWER

We have derived a level of power related to foul flows in the sewer network by analysing consumption during dry periods. Consumption levels above this are associated with non-foul flows. This analysis has been undertaken for large sites on the sewer network as historic data for small sites is less robust. Power costs are allocated to foul and drainage based on the proportion of consumption associated with each. The cost allocated to drainage is then split between surface water drainage and highway drainage based on the relative surface area associated with properties and highways per the Office of National Statistics.

OTHER OPERATING EXPENDITURE

Contractor costs – The operating costs included in SC have been allocated based on an analysis of the asset-types with which work is associated, the causes of work undertaken and the types of works undertaken. Each of these has been associated with either foul drainage where possible. For example, reactive jobs arising as a result of fats are categorised as foul, and jobs which are recorded as being related to drainage-only assets are associated with drainage.

The data that this analysis relies upon is not wholly accurate and complete. Some assumptions have therefore been required in the analysis described above. For example, manhole-related jobs and repairs which have no asset type recorded against them have been allocated on the basis of the relative pipe length of foul and drainage assets.

Employment costs – Employment costs associated with maintenance of pumping stations have been allocated on the basis of an analysis of historical foul/drainage-related flows (consistent with the methodology applied for power, applied to the last 5 years' data). This is on the basis that the volume/type of

material being pumped drives the necessity for repairs and maintenance of pumps. Networks team costs are split on the basis of contractor costs.

Other direct costs (mainly vehicle-related costs) have been allocated based on the allocation of employment costs to services on the basis that the majority of vehicle costs relate to employees.

Support and overhead type costs included in direct costs, and general and support costs are also allocated based on the allocation of employment costs to services.

Drainage allocation – The cost allocated to drainage is split between surface water and highway drainage based on the relative surface area associated with properties and highways per the Office of National Statistics.

INFRASTRUCTURE RENWALS CHARGE [IRC]

IRC has been allocated on the basis of IRE. Job data relating to block budgets is recorded in SAP Workforce Management. The same data is captured as for jobs recorded in operating expenditure. A consistent methodology has been applied to this cost.

IRE also arises on individual projects in the capital programme. A review of mapping of projects in the capital programme to asset-types has been undertaken. This indicates that a similar allocation as that on block projects is appropriate. This has therefore been used to allocate total IRC to services.

CURRENT COST DEPRECIATION [CCD]

The majority of current cost depreciation in SC is related to pumping stations and associated assets. This has been allocated in line with historical power costs (last 5 years) on the basis that the wear on such assets in any particular period is related to the relative volumes being pumped.

As we develop our approach to accounting separation services, we intend to review our design standards for pumping stations and derive a straight line method of allocating depreciation to services. We believe the method described above is reasonable as it is linked to the cause of the cost.

The remainder of the CCD has been allocated in line with the above. This includes CCD that cannot be directly associated with services such as management and general-related CCD.

The cost allocated to drainage is split between surface water and highway drainage based on the relative surface area associated with properties and highways per the Office of National Statistics.

Example 6 – How costs have been allocated between sludge transport, sludge treatment and liquor treatment

This company has provided a clear explanation of how it has allocated its costs between sludge transport, sludge treatment and liquor treatment in its sludge treatment business unit.

3.7. Sludge treatment business unit

Sludge transport

Operating expenditure: sludge transport costs, which are principally associated with interworks tankering were identified and directly attributed.

IRC: was allocated based on sludge pumping mains using GIS data. Mains between sewage treatment works and sludge treatment facilities carrying raw sludge were allocated to the sludge transport service.

CCD: the CCD charge for pumping stations transporting raw sludge from sewage treatment works to sludge treatment works, and sludge vehicles was fully allocated to sludge transport.

Sludge treatment

Operating expenditure: the balance of the other operating expenditure within the sludge treatment business unit (that had not been attributed to either sludge transport or liquor treatment) was attributed to the sludge treatment service.

IRC: was allocated based on sludge pumping mains (using GIS data). Mains between two sludge treatment facilities carrying treated (or partially treated sludge) were allocated to the sludge treatment service.

CCD: sludge CHP engines were fully allocated to sludge treatment. Sludge treatment works and pumping stations transporting treated (and partially treated) sludge between sludge treatment facilities were primarily allocated to the sludge treatment service with the exception of the allocation of the company's dedicated sludge liquor plants which were directly allocated to liquor treatment. Sludge treatment business unit CCD is shown net of a recharge to the water treatment business unit in respect of water sludge treated at sludge treatment facilities. The Mogden formula was used as the basis for this recharge.

Liquor treatment

Operating expenditure: liquor treatment costs at dedicated liquor treatment plants can be separately identified and directly attributed. Additionally, 4.6% of the sewage treatment business unit operating expenditure was classified as liquor treatment. The 4.6% represents the share of sludge liquor treatment costs within the sewage treatment process and is U UW Process Engineering's estimate of the power cost differential (between theoretical, using Company Design Standards, works with/without liquor treatment) attributable to thickening raw sludge and dewatering digested sludge.

CCD: the CCD of the company's dedicated sludge liquor plants was directly allocated to liquor treatment. In addition a management estimate of the element of sludge treatment works CCD relating to liquor treatment, excluding the dedicated sludge liquor plant, was recharged from the sewage treatment to sludge treatment business unit.

Example 7 – How costs have been allocated between sludge transport, sludge treatment and liquor treatment

This company has provided a clear explanation of how it has allocated its costs to its 'upstream' services between sludge transport, sludge treatment and liquor treatment in its sludge treatment business unit.

Sludge transport

Guidance

This service includes the transport of sludge from the sewage to the sludge treatment plant. All types of transport, and associated fuel costs, are included within this service. However, transport within the treatment plant or between sludge treatment plants is not included in this service, which is instead an activity of the 'sludge treatment' service.

Methodology

Costs of our internal and contracted sludge transport service are used to manage routine haulage work and these costs are separately identifiable.

Sludge treatment

Guidance

This service includes all the activities related to sludge treatment. While different technologies exist for sludge treatment, sludge treatment is defined as a technology-neutral service for the purpose of accounting separation

Methodology

Total sludge treatment costs as reported in the regulatory accounts less sludge transport and liquor treatment costs.

Liquor Treatment

Guidance

Includes all activities in transporting and treating liquors generated during the sludge treatment process. The liquors may be treated either on site at a sludge treatment plant or at a sewage treatment plant.

Methodology

For 2013 this costs was arrived at by management allocation of 7%.

For this report year, we asked the managers if they could support this allocation. An exercise was carried out for a typical site with primary settlement, activated sludge and no imported sludge. The strengths of centrates were measured and compared to the total measured biological load on the works. The result was that, based on BOD, 8.6% of the total loads being treated by the works was due to return liquors from the centrate. We have used this revised split for 2013/14.

Sludge transport, sludge treatment and liquor treatment

For CCD we have split the costs to Liquor treatment based on 2009 MEAV splits. We have not used the 2013 valuation in this case as these assets were not separately identified. We do not currently have a meaningful way of splitting our sludge transport and

treatment assets costs and have assumed a split based on manager's estimate for transport 2%, sludge treatment 91% and liquor treatment 7%.

Example 8 – Structure/ layout of upstream data

This company presented its upstream data table in a useful way that shows the cost drivers it has used to allocate costs across each of the ‘upstream’ services.

Regulatory supplementary table- upstream services trial 2013-14

Wholesale water		Network plus						
		Water resources		Raw water distribution		Water treatment	Treated water distribution	
		Abstraction licence	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Trunk treated water distribution	Local treated water distribution
Business unit								
Service								
Total operating expenditure	£m	10.550	10.541	6.259	0.077	37.117	15.092	42.269
IRC	£m	0.000	4.939	0.036	0.000	0.000	7.352	26.958
CCD	£m	0.000	4.574	0.171	0.923	33.121	19.063	3.739
Total operating costs	£m	10.550	20.054	6.466	1.000	70.238	41.507	72.966
Total BU operating costs	£m	30.604		7.466		70.238	114.473	
Drivers used -opex		Abstraction licence plus an element of costs for negotiating	All other costs included in water resources less abstraction licence	Raw water distribution less raw water storage	MEAV valuation to split insurance and rates	As in Accounting separation	Specific cost centres and some indirect csts allocated using MEAV and direct costs	Specific cost centres and some indirect csts allocated using MEAV and direct costs
Drivers used -IRC			All costs within water resources	All costs within raw water distribution	No infrastructure assets	As in Accounting separation	MEAV	MEAV
Drivers used -CCD			All costs within water resources		MEAV	As in Accounting separation	MEAV	MEAV
Volume/Drivers for unit costs		Raw water abstracted table 10b line4	Raw water abstracted table 10b line4	Raw water abstracted table 10b line12 (830.01 ml/d) plus non potable supplies table 10b line11(37.08 ml/d)	Raw water abstracted table 10b line12 (830.01 ml/d) plus non potable supplies table 10b line11(37.08 ml/d)	Potable Water Produced from Own Works	Treated (potable) water into the local distribution network or delivered to retail customer / 3rd Party Company	Supply of treated (potable) water to retail customer
Units used	ml/d	868.058	868.058	867.091	830.011	793.90	715.85	588.51
Unit costs	£/m3/day	12	23	7	1	88	58	124

Wholesale wastewater		Network plus							
		Sewage collection			Sewage treatment	Sludge treatment		Sludge disposal	
		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge transport	Sludge treatment	Liquor treatment	Sludge disposal
Business unit									
Service									
Total operating expenditure	£m	19.429	5.207	7.111	53.404	5.094	6.566	0.616	3.796
IRC	£m	18.219	4.882	6.668	0.488	0.000	0.000	0.000	0.000
CCD	£m	14.223	3.811	5.206	64.660	0.108	4.934	0.380	0.329
Total operating costs	£m	51.871	13.900	18.985	118.552	5.203	11.500	0.995	4.125
Total BU operating costs	£m	84.756			118.552	17.698		4.125	
Drivers used -opex		Findings from study in 1999 by Hyder Consulting which is used as basis for tariffs (61%)	Findings from study in 1999 by Hyder Consulting which is used as basis for tariffs (16%)	Findings from study in 1999 by Hyder Consulting which is used as basis for tariffs (22%)	As in Accounting separation	cost centres	total costs less sludge transport and liquor treatment	sampling approach	As in Accounting separation
Drivers used -IRC					As in Accounting separation	No IRC	No IRC	No IRC	As in Accounting separation
Drivers used -CCD					As in Accounting separation	managers estimate(2%)	managers estimate (91%)	managers estimate (7%)	As in Accounting separation
Volume/Drivers for unit costs		Sewerage table 17a line 4- Volume of sewage collection (daily average) MI/d * 61.2%	Sewerage table 17a line 4- Volume of sewage collection (daily average) MI/d* 16.4%	Sewerage table 17a line 4- Volume of sewage collection (daily average) MI/d * 22.4%	Sewage loads Table 15 line5- total loads entering sewerage system	Total volume moved	Sewage loads Table 15 line14 total sewage sludge produced	Assumption that 9 % of total output relates to liquor treatment	Sewage loads Table 15 line15- total sewage sludge disposed
Units used		341.552 ml/d	91.526ml/d	125.012 ml/d	84768 t BOD/year	465578 m3	65.98 ttds	3.62 ttds	65.98 ttds
Unit costs	£/m3/day	£151.86 m3/d	£151.86 ml/d	£152 ml/d	£1399tBOD/year	£11.18/ m3	£174295/ttds	£274520/ttds	£62524 /ttds