

## Section 10 – Value chain analysis

This section is divided into two parts:

- Value chain analysis for the primary activities of Scottish Water. (tables 1 to 11)
- Costs of household retail activities (no tables).

### Value Chain analysis – primary activities

#### Introduction

The purpose of this Section is to commence the analysis to identify the incidence of costs for the primary activities of Scottish Water's wholesale business. The Section has been built upon the work carried out to date on the development of Regulatory Accounting Rules and the Wholesale Charges Information Submission. Scottish Water should submit value chain analysis that describes the key activities in its value chain and the fully allocated-costs and unit costs of each element of the value chain.

We recognise that this will be preliminary analysis and there may be an element of extrapolation or assumptions required to complete the tables. This is reflected in requiring less precise information<sup>1</sup> than other accounting tables.

Primary activities, as defined in Regulatory Accounting Rule 4, include:

- Water resources (subdivided into impounding reservoirs, lochs, river and burn abstractions and boreholes)
- Water treatment.
- Water distribution (water storage is included as a separate memo table)
- Wastewater reception and conveyance (including septic tank emptying)
- Wastewater treatment
- Wastewater sludge treatment.

#### Asset size categories

The costs for most assets used in the above activities are split in the tables between large/small/very small or bulk/local as appropriate.

A table defining these terms is given below:

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<sup>1</sup> Reflected in fewer decimal places required.

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<b>Primary activity assets</b>	<b>Category</b>	<b>Definition</b>
<b>Water resources (all types)</b>	Large	Net continuous output capacity greater than 25MI/d
	Small	All other source assets (inc 'very small')
	Very small	Assets that are in Band 0 of the Annual Return Asset Inventory, or, where there is no band 0 category, in Band 1.
<b>Water treatment</b>	Large	A treatment works supplying potable water with a net continuous output capacity greater than 25MI/d. Operational outage should be ignored but capacity could be limited by: works process, raw water conveyance/pumping capacity, or abstraction licence.
	Small	All other water treatment works (inc very small)
	Very small	Assets that are in Band 0 of the Annual Return Asset Inventory, or, where there is no band 0 category, in Band 1.
<b>Water distribution</b>	Bulk	Water main of 300mm nominal internal diameter or greater
	Local	All other water mains
<b>Water storage</b>	Large	Available capacity greater than 10MI
	Small	All remaining storage assets (inc 'very small')
	Very small	Assets that are in Band 0 of the Annual Return Asset Inventory, or, where there is no band 0 category, in Band 1.
<b>Wastewater reception and conveyance</b>	Bulk	Critical or non critical sewer of 300mm nominal internal diameter or greater
	Local	All other sewers
<b>Wastewater treatment</b>	Large	Works receiving an average loading in excess of 1500kg BOD5/day (inc effluent from both household and trade sources but excluding any allowance for non resident population. Works that are operated under PPP that meet this load criterion shall be included.
	Small	All other treatment works (including 'very small')
	Very small	Assets that are in Band 0 of the Annual Return Asset Inventory, or, where there is no band 0 category, in Band 1.
<b>Wastewater sludge treatment</b>		Not subdivided by size of asset.

**Outputs**

Cost drivers are included as rows in each table. You are asked to complete each of these rows. There are three main outputs included:

- daily throughput;
- peak daily output; and
- the 'peaking' factor.

These output measures simplify the outputs of each part of the value chain into the volume of water produced (or sewage processed) and the capacity available.

However, you are also invited to submit alternative output measures, along with the accompanying data in your commentary, if you consider these to be more appropriate. The reason for submitting the alternative cost driver should be explained. You may also wish to comment on the relative importance of the volume and capacity measures in driving costs.

### **Table completion**

Scottish Water is asked to complete tables 1 to 11. These tables cover the following activities:

Table 1 – Water resources total

Table 2 - Water resources: impounding reservoirs.

Table 3 – Water resources: lochs

Table 4 – Water resources: river and burn abstractions.

Table 5 – Water resources: boreholes.

Table 6 – Water treatment.

Table 7 – Water distribution

*Table 8 – Water storage (included in table 7).*

Table 9 – Wastewater reception and conveyance (including septic tank emptying)

Table 10 – Wastewater treatment

Table 11 – Wastewater sludge treatment

A separate Table 8 has been included for Water storage but the expenditure associated with these assets should also be included in Table 7, Water distribution.

Rows in tables 1 to 6, 8, 10 and 11 are divided into blocks for large, small and very small assets as defined above. Please note that the 'very small' assets are included on the tables as memo blocks. The expenditure and outputs associated with these assets should also be included in the small asset blocks.

Rows in tables 7 and 9 are split between bulk supply/conveyance and local supply/conveyance. Table 9 'Wastewater reception and conveyance' is also to include septic tank emptying.

Each of these blocks is divided into further blocks as follows:

- Annual expenditure
- Measures of capital employed
- Outputs.

Scottish Water is asked to complete each block, allocating the appropriate proportion of costs described in each line to the named group of assets for which the table is being completed.

Data submitted in this Table should be consistent with that submitted in Section 3 – Business Influences and Base assumptions and Section 7 - Financial projections as well as the relevant tables of the Annual return.

### **Additional commentary**

Scottish Water is required to submit a detailed description of each of the sub-activities that it uses to allocate costs to a particular network activity. It should include a process map that shows the linkages between sub-activities. This should identify:

- Detailed lists and descriptions of any sub-activities that are directly allocated to the activity;
- Detailed lists and descriptions of any sub-activities (including overheads) that are apportioned to the activity and an explanation of the cost-allocation rules used for each; and
- Detail of any apportionments where the ordering of the apportioning is material to the total costs of the activity (or sub-activity as appropriate).

Scottish Water's current ABM Dictionary may be a useful starting model for this additional required commentary.

### **Assumptions**

Please detail any key assumptions made when completing the tables in your commentary.

### **Reporter Guidance**

The Reporter is asked to:

- Confirm that the data submitted in this table is consistent with base data in Sections 3 and 7 of the Business Plan.
- Check that Scottish Water has complied with the guidance when completing this section in relation to both the tables and also detail given in the commentary.
- Identify key assumptions and confirm whether or not they are robust.
- Confirm that the information in the Additional Commentary accurately describes the cost-allocation methodology used and that the requirements for this commentary have been fulfilled in their entirety.
- Give an opinion on the appropriateness of the methodology used to compile the table data.

## **Value chain analysis - household retail costs**

### **Introduction**

Scottish Water is asked to include a free form submission in the Business plan detailing the estimated capital, financing and operating costs that it would incur if it were required to take over all household retail activities, including those currently completed by local councils on its behalf.

### **Detail of submission**

Cost options included for undertaking household retail activities must include one for undertaking the activities in house.

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It would be helpful if the submission could follow the breakdown of retail costs given in the Annual Return M18 tables. Scottish Water should identify the earliest-practical year for which it could undertake these functions and project costs for each year from this date until 2018. Scottish Water should, however, ensure that (regardless of the first year) the information is expressed consistently with the 2007-08 base year.

Scottish Water is asked to outline its strategy for taking over these retail activities in its commentary along with any key assumptions made.

**Reporter Guidance**

The Reporter is asked to:

- Confirm that the methodology for completing this free form submission is fit for purpose.
- Confirm that key assumptions made are appropriate.