**Portsmouth Water**

**Bulk Supply Charges for NAVs – 2020/21**

**1. Background**

Portsmouth Water published its first NAV Charges in June 2019, for the charging year 2019/20. This paper updates our charges for the charging year, 2020/21, which start on 1 July 2020.

Under existing legislation, Ofwat may appoint a new water company for a site (for water supply) if it is currently unserved by the incumbent water company, the incumbent gives its consent or the premise is a large user of water of at least 50 Ml per annum.

Most Newly Appointed Variation (NAV) sites have to date been unserved sites and relate to a mixture of residential and mixed use developments. A developer of any new site has one of three options to provide water infrastructure on its site:-

* to work with the incumbent water company,
* to work with a Self-Lay Provider or
* invite a NAV to build and continue to provide services to end user customers

This paper again provides an illustration of the detail underpinning any ongoing tariff we would apply to the NAV situation.

We have reviewed the guidance published by Ofwat in May 2018 and used that as a basis for our proposal.

We believe the proposed tariff is appropriate for 2020/21.

*To determine a site specific NAV tariff (as required in the Ofwat guidance) we will need to understand the detail of the site to be served by the NAV including number, usage volumes and length of mains. NAVs are therefore encouraged to talk with the Company at its earliest convenience.*

Any party wishing to discuss this tariff further or discuss a specific site should contact the Company using the details below:-

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**2. Approach to tariff setting**

To determine a site specific NAV tariff (as required in the Ofwat guidance) we will need to understand the detail of the site to be served by the NAV including number, usage volumes and length of mains.

Ofwat use the wholesale-minus approach to determine a tariff if there is any dispute between the incumbent and the NAV on the appropriate tariff for bulk water.

We will apply this “wholesale minus” approach to any new NAV who requests a bulk supply of water from Portsmouth Water. The following explains the steps in determining a bulk supply tariff for the NAV.

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| 1 | Relevant Wholesale Tariff | this is determined by the number and usage of the expected customers on the site. |
| 2 | Avoided on-site ongoing operating costs | these costs are implicit in the current wholesale tariff and will not be incurred by Portsmouth Water as the NAV will operate the local distribution system.  |
| 3 | Avoided on-site maintenance of assets | these costs are implicit in the current wholesale tariff and will not be incurred by Portsmouth Water as the NAV will maintain the local distribution system. |
| 4 | Avoided WACC on on-site assets | these costs are implicit in the current wholesale tariff and will not be incurred by Portsmouth Water as the NAV will own the local distribution system. Further, Ofwat have been prescriptive on the relevant cost of capital. |
| Equals | Bulk Supply Tariff | The relevant NAV tariff is determined therefore by subtracting steps 2, 3 and 4 from step 1. |

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**3. Detail to determine the tariff**

The proposed tariffs are purely illustrative. Further detail is given in the attached appendix.

As previously noted, to determine a site specific NAV tariff (as required in the Ofwat guidance) we would need to understand the detail of the site to be served by the NAV including number, usage volumes and length of mains. We therefore explain below the detail of how we will approach the quantification of the any NAV tariff. We have inflated our 2018/19 outturn costs by the November 2018 RPI and November 2019 CPI to ensure consistency with current tariff setting methodology.

**Step 1 – The Relevant Wholesale Tariff** – we have already published our 2020/21 wholesale tariffs. Specifically we have household and non-household wholesale standing charges and wholesale volumetric charges. These are applied to illustrative numbers of customers on the site.

In scenario A we assume a mixed site with 300 households and 50 non-households with 120 and 400 m3 per annum.

***1. This allows us to quantify the wholesale revenue of £45,047 or a unit rate of £0.805 / m3***

**Step 2 – On-site ongoing** – as part of our annual Accounting Separation exercise we quantify the total operating costsfor the local network for 2018/19 as £4,584k, inflated to 2020/21 prices. Given we have a local distribution network of 2,858km we establish an operating cost per metre length of network to be £1.63.

For this example we assume 7.5 metres main for each household and 10m for a non-household. We quantify the length of mains on the new site to be 2.75 km.

***2. We quantify the onsite operating costs would be £4,653***

**Step 3 – Maintenance Costs** – as part of our annual Accounting Separation exercise we quantify the renewals costsfor the local network for 2018/19 as £1,004k, inflated to 2020/21 prices. Given we have a local distribution network of 2,858km we establish a renewals cost per metre length of network to be £0.35.

Again, we assume the length of mains on the new site to be 2.75 km.

***3. We quantify the onsite maintenance costs would be £1019***

**Step 4 – Return** – we have applied a Cost of Capital of 4.74% (as recommended by Ofwat) to the above ground assets which will be owned by the NAV. We have assumed this is only the meter and chamber at this stage. We have assumed a unit cost of £255 per meter, implying a return per meter of £12.08.

***4. We quantify the return on 350 meters to be £4,228***

**Step 5 – NAV Tariff** – we deduct the costs “foregone” from the wholesale charge to determine the NAV tariff.

**5. The NAV charge is therefore £35,362, or a unit rate of £0.631 / m3 a reduction of 21% on the standard wholesale tariff.**

**5. Scenarios**

The table below shows how the percentage varies depending on the mix of properties on the site as suggested in the Ofwat publication.

Four scenarios are provided varying the mix of properties on the site. Scenario A is the one described thus far; Scenario B has no non-households, Scenario C has twice as many households and Scenario D is non-household only.

The discounts relative to the wholesale charge varies by scenario.

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| --- | --- | --- | --- | --- | --- |
| Scenario |  | **A** | **B** | **C** | **D** |
| Household | No. | 300 | 300 | 600 | 0 |
| Non-households | No. | 50 | 0 | 0 | 50 |
| Wholesale charge | £ | 45,047 | 30,033 | 60,066 | 15,014 |
|  | £/m3 | 0.804 | 0.834 | 0.834 | 0.751 |
| Costs “forgone” | £ | 9,685 | 8,089 | 16,178 | 1,596 |
| NAV Charge | £ | 35,362 | 21,944 | 43,888 | 13,418 |
|  | £/m3 | 0.631 | 0.610 | 0.610 | 0.671 |
| “Discount“ | % | 21% | 27% | 27% | 11% |

The table below shows the detail of our calculation.

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|  | **NAV tariff** |  | **A** |  |  |  | **B** |  |  |  | **C** |  |  |  | **D** |  |  |
|  |  | **Units** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Number of households | # | 300 |  |  |  | 300 |  |  |  | 600 |  |  |  | 0 |  |  |
| 2 | Number of non-households | # | 50 |  |  |  | 0 |  |  |  | 0 |  |  |  | 50 |  |  |
| 3 | Length of mains | km | 2.75 |  |  |  | 2.25 |  |  |  | 4.5 |  |  |  | 0.5 |  |  |
| 4 | Implied density rate | m/# | 7.86 |  |  |  | 7.50 |  |  |  | 7.50 |  |  |  | 10.00 |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | Annual water demand per household | m3 | 120 |  |  |  | 120 |  |  |  | 120 |  |  |  | 120 |  |  |
| 7 | Annual water demand per non-household | m3 | 400 |  |  |  | 400 |  |  |  | 400 |  |  |  | 400 |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | **Wholesale Tariffs (from 1 July 2020)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Household standing charge | £ | 13.83 |  |  |  | 13.83 |  |  |  | 13.83 |  |  |  | 13.83 |  |  |
| 11 | Non-household standing charge | £ | 12.68 |  |  |  | 12.68 |  |  |  | 12.68 |  |  |  | 12.68 |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Household volume charge | £/m3 | 0.7190 |  |  |  | 0.7190 |  |  |  | 0.7190 |  |  |  | 0.7190 |  |  |
| 14 | Non-household volume charge | £/m3 | 0.7190 |  |  |  | 0.7190 |  |  |  | 0.7190 |  |  |  | 0.7190 |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | **Operating Costs (2018/19 inflated)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | Local distribution operating costs (excl o'heads) | £ 000s | 4653 |  |  |  | 4653 |  |  |  | 4653 |  |  |  | 4653 |  |  |
| 19 | Length of local distribution | km | 2858.4 |  |  |  | 2858.4 |  |  |  | 2858.4 |  |  |  | 2858.4 |  |  |
| 20 | Implied opex per metre (length) | £/m | 1.628 |  |  |  | 1.628 |  |  |  | 1.628 |  |  |  | 1.628 |  |  |
| 21 | **Maintenance Costs** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 | Local distribution renewals charge | £ 000s | 1019 |  |  |  | 1019 |  |  |  | 1019 |  |  |  | 1019 |  |  |
| 23 | Length of local distribution | km | 2858.4 |  |  |  | 2858.4 |  |  |  | 2858.4 |  |  |  | 2858.4 |  |  |
| 24 | Renewals charge per metre (length) | £/m | 0.356 |  |  |  | 0.356 |  |  |  | 0.356 |  |  |  | 0.356 |  |  |
| 25 | **Return on investment** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | No. of meters on site | # | 350 |  |  |  | 300 |  |  |  | 600 |  |  |  | 50 |  |  |
| 27 | Unit cost (£/meter) | £ | 255 |  |  |  | 255 |  |  |  | 255 |  |  |  | 255 |  |  |
| 28 | Cost of capital |  | 4.74% |  |  |  | 4.74% |  |  |  | 4.74% |  |  |  | 4.74% |  |  |
| 29 | Return per meter (asset) | £ | 12.08 |  |  |  | 12.08 |  |  |  | 12.08 |  |  |  | 12.08 |  |  |
| 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 31 | **Total Cost forgone** | **£** | 9685 |  |  |  | 8089 |  |  |  | 16178 |  |  |  | 1596 |  |  |
| 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 33 |  |  | Cost |  | Unit Rate |  | Cost |  | Unit Rate |  | Cost |  | Unit Rate |  | Cost |  | Unit Rate |
| 34 |  |  | £ |  | £/m3 |  | £ |  | £/m3 |  | £ |  | £/m3 |  | £ |  | £/m3 |
| 35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 36 | **Wholesale Charge** | £ | 45047 |  | 0.804 |  | 30033 |  | 0.834 |  | 60066 |  | 0.834 |  | 15014 |  | 0.751 |
| 37 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 38 | **Costs forgone** |  | 9685 |  |  |  | 8089 |  |  |  | 16178 |  |  |  | 1596 |  |  |
| 39 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 | **NAV charge** |  | 35362 |  | 0.631 |  | 21944 |  | 0.610 |  | 43888 |  | 0.610 |  | 13418 |  | 0.671 |
| 41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 42 | **Reduction on standard charges** |  | -21% |  | -21% |  | -27% |  | -27% |  | -27% |  | -27% |  | -11% |  | -11% |