

Portsmouth Water

Bulk Supply Charges for NAVs – 2022/23

1. Background

This document explains our NAV charge for the year 2022/23, which starts on 1 July 2022.

Under existing legislation, Ofwat may appoint a new water company to supply 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 MI 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 document 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 January 2021 and in the future will need to work with NAVs in our area to meet the regulatory expectations, to ensure the price we charge will result in “efficient” market entry. Our approach to setting the tariff for this year, 2022/23 is same as last year, 2021/22, and effectively applies a top-down approach to determining the costs forgone.

We believe the proposed tariff is appropriate for 2022/23.

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.

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.

Following discussions with NAVs during 2020/21 we have developed our tariff structure further.

Historically we had derived a unit price for water delivered. We have now developed the structure so that the volume charge is our measured wholesale volume charge and introduced a negative charge to reflect the additional discount the NAV will receive relative to our standard customers.

This is described further below and is supported by a detailed spreadsheet deriving the NAV tariff for various scenarios. It also allows NAVs to enter their site specific details to allow them to calculate an indicative charge.

3. Detail to determine the tariff

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

To determine a site-specific NAV tariff (as required in the Ofwat guidance dated January 2021) 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 2021 CPI to ensure consistency with current tariff setting methodology.

Step 1 – The Relevant Wholesale Tariff – we have already published our 2022/23 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. We quantify the wholesale revenue of £48,942 or a unit rate of £0.874 / m³

Step 2 – On-site ongoing – as part of our annual Accounting Separation exercise we quantify the total operating costs for the local network for 2018/19 as £4,584k, inflated to 2022/23 prices. Given we have a local distribution network of 2,858km we establish an operating cost per metre length of network to be £1.72.

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 £4,910

Step 3 – Maintenance Costs – as part of our annual Accounting Separation exercise we quantify the renewals costs for the local network for 2018/19 as £1,004k, inflated to 2022/23 prices. Given we have a local distribution network of 2,858km we establish a renewals cost per metre length of network to be £0.38.

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 £1,075

Step 4 – Return – we have applied a Cost of Capital of 4.74% to the above ground assets which will be owned by the NAV. We have assumed this is only the meter and chamber. We have assumed a unit cost of £269 per meter, implying a return per meter of £12.75.

4. We quantify the return on 350 meters to be £4,463

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

5. The NAV charge is £38,722, or a unit rate of £0.691 / m³ a reduction of 21% on the standard wholesale tariff.

Step 6 – NAV tariff – we will charge the NAV at our standard wholesale volume charge and make a daily reduction to the bill to ensure the correct unit price is paid.

6. The NAV will be charged at 0.7823 / m³ and a daily reduction of £13.94.

4. 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.

Scenario		A	B	C	D
Household	No.	300	300	600	0
Non-households	No.	50	0	0	50
Wholesale charge	£	48,942	32,561	65,122	16,382
	£/m ³	0.874	0.904	0.904	0.819
Costs "forgone"	£	10,221	9,583	13,408	6,395
NAV Charge	£	38,722	22,978	51,713	9,986
	£/m ³	0.691	0.638	0.718	0.499
"Discount"	%	21%	29%	21%	39%
NAV tariff					
Volume charge	£/m ³	0.7823	0.7823	0.7823	0.7823
Daily payment to NAV	£	13.94	14.21	12.64	15.51
NAV Charge	£	38,722	22,978	51,713	9,986

The table below shows the detail of our calculation.

		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	2.75	2.75	2.75
4	Implied density rate	m/#	7.86	9.17	4.58	55.00
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 2022)					
10	Household standing charge	£	14.66	14.66	14.66	14.66
11	Non-household standing charge	£	14.71	14.71	14.71	14.71
12						
13	Household volume charge	£/m3	0.7823	0.7823	0.7823	0.7823
14	Non-household volume charge	£/m3	0.7823	0.7823	0.7823	0.7823
15						
16	Operating Costs (2018/19 inflated)					
17	Local distribution operating costs (excl o'heads)	£ 000s	4910	4910	4910	4910
18	Length of local distribution	km	2858	2858	2858	2858
19	Implied opex per metre (length)	£/m	1.718	1.718	1.718	1.718
20						
21	Maintenance Costs					
22	Local distribution renewals charge	£ 000s	1075	1075	1075	1075
23	Length of local distribution	km	2858.4	2858.4	2858.4	2858.4
24	Renewals charge per metre (length)	£/m	0.376	0.376	0.376	0.376

		A		B		C		D	
25									
26	Return on investment								
27	No. of meters on site	#	350		300		600		50
28	Unit cost (£/meter)	£	269		269		269		269
29	Cost of capital		4.74%		4.74%		4.74%		4.74%
30	Return per meter (asset)	£	12.75		12.75		12.75		12.75
31									
32	Total Cost forgone	£	10221		9583		13408		6395
33									
34			Cost	Unit	Cost	Unit	Cost	Unit	Unit
35			£	Rate	£	Rate	£	Rate	Rate
36				£/m3		£/m3		£	£/m3
37	Wholesale Charge	£	48942	0.874	32561	0.904	65122	0.904	16382
38									0.81
39	Costs forgone		10221		9583		13408		6395
40									
41	NAV charge		38722	0.691	22978	0.638	51713	0.718	9986
42									0.49
43	Reduction on standard charges		-21%	-21%	-29%	-29%	-21%	-21%	-39%
44									-39%
45	Retail Price Index								
46	November 2018		284.6						
47	Average 2018/19		283.3						
48									
49	Consumer Price Index								
50	November 2021		114.5						
51	November 2018		106.9						

52						
53	Indexation	1.076				
54	Inflator	7.6%				
55						
56	Build up		A	B	C	D
57	Standing charge income	£	5134	4398	8796	736 1564
58	Volume charge income	£	43809	28163	56326	6
59	Cost forgone		10221	9583	13408	6395
60	NAV charge	£	38722	22978	51713	9986
61						
62	Volume charge	£/m3	0.7823	0.7823	0.7823	0.78 23
63	Annual Fixed Charge	£	-5087	-5185	-4612	- 5660
64						
65	Volume income	m3	43,809	28,163	56,326	15,6 46
66	Standing charge income	£	-5087	-5185	-4612	- 5660 9,98
67	NAV charge		38,722	22,978	51,713	6 0,49
68	Unit price		0.691	0.638	0.718	9
69						
70	NAV Pays					
71	Volume Charge	£/m3	0.7823	0.7823	0.7823	0.78 23 15.5
72	Daily payment to NAV	£	13.94	14.21	12.64	1