

Portsmouth Water

Bulk Supply Charges for NAVs – 2021/22

1. Background

This document explains our NAV charge for the year 2021/22, which starts on 1 July 2021.

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, 2021/22 is same as last year, 2020/21, and effectively applies a top down approach to determining the costs forgone.

We believe the proposed tariff is appropriate for 2021/22.

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:-

Paul Treagust

Network Engineer

Portsmouth Water

PO Box 8

Havant

PO9 1 LD

p.treagust@portsmouthwater.co.uk

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 2020 CPI to ensure consistency with current tariff setting methodology.

Step 1 – The Relevant Wholesale Tariff – we have already published our 2021/22 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 £46,919 or a unit rate of £0.838 / 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 2021/22 prices. Given we have a local distribution network of 2,858km we establish an operating cost per metre length of network to be £1.64.

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 £4,678

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 2021/22 prices. Given we have a local distribution network of 2,858km we establish a renewals cost per metre length of network to be £0.36.

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 £1,024

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 £255 per meter, implying a return per meter of £12.15.

4. We quantify the return on 350 meters to be £4,252

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

5. The NAV charge is £37,181, or a unit rate of £0.664 / 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 0.7467 / m³ and a daily reduction of £12.70.

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.

Scenario		A	B	C	D
Household	No.	300	300	600	0
Non-households	No.	50	0	0	50
Wholesale charge	£	46,919	31,348	62,969	15,571
	£/m ³	0.838	0.871	0.871	0.779
Costs "forgone"	£	9,739	9,131	12,776	6,094
NAV Charge	£	37,181	22,217	49,921	9,477
	£/m ³	0.664	0.617	0.693	0.474
"Discount"	%	21%	29%	20%	39%
NAV tariff					
Volume charge	£/m ³	0.7467	0.7467	0.7467	0.7467
Daily payment to NAV	£	12.70	12.78	10.53	14.95
NAV Charge	£	37,181	22,217	49,921	9,477

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 2021)				
10	Household standing charge	£ 14.89	14.89	14.89	14.89
11	Non-household standing charge	£ 12.74	12.74	12.74	12.74
12					
13	Household volume charge	£/m3 0.7467	0.7467	0.7467	0.7467
14	Non-household volume charge	£/m3 0.7467	0.7467	0.7467	0.7467
15					
16	Operating Costs (2018/19 inflated)				
17	Local distribution operating costs (excl o'heads)	£ 000s 4678	4678	4678	4678
18	Length of local distribution	km 2858	2858	2858	2858
19	Implied opex per metre (length)	£/m 1.637	1.637	1.637	1.637
20	Maintenance Costs				
21	Local distribution renewals charge	£ 000s 1024	1024	1024	1024
22	Length of local distribution	km 2858.4	2858.4	2858.4	2858.4
23	Renewals charge per metre (length)	£/m 0.358	0.358	0.358	0.358
24	Return on investment				
25	No. of meters on site	# 350	300	600	50

26	Unit cost (£/meter)	£	256		256		256		256
27	Cost of capital		4.74%		4.74%		4.74%		4.74%
28	Return per meter (asset)	£	12.15		12.15		12.15		12.15
29									
30	Total Cost forgone	£	9739		9131		12776		6094
31									
32			Cost	Unit	Cost	Unit	Cost	Unit	Cost
33			£	£/m3	£	£/m3	£	£/m3	£
34									
35	Wholesale Charge	£	46919	0.838	31348	0.871	62696	0.871	15571
36									
37	Costs forgone		9739		9131		12776		6094
38									
39	NAV charge		37181	0.664	22217	0.617	49921	0.693	9477
40									
41	Reduction on standard charges		-21%	-21%	-29%	-29%	-20%	-20%	-39%
42									
43	Retail Price Index								
44	November 2018		284.6						
45	Average 2018/19		283.3						
46									
47	Consumer Price Index								
48	November 2020		109.1						
49	November 2018		106.9						
50									
51	Indexation		1.025						
52	Inflator		2.5%						

53		A	B	C		
54	Build up					
55	Standing charge income	£	5104	4467	8934	637
56	Volume charge income	£	41815	26881	53762	14934
57	Cost forgone		9739	9131	12776	6094
58	NAV charge	£	37181	22217	49921	9477
59						
60	Volume charge	£/m3	0.7467	0.7467	0.7467	0.7467
61	Annual Fixed Charge	£	-4635	-4664	-3842	-5457
62						
63	Volume income	m3	41,815	26,881	53,762	14,934
64	Standing charge income	£	-4635	-4664	-3842	-5457
65	NAV charge		37,181	22,217	49,921	9,477
66	Unit price		0.664	0.617	0.693	0.474
67						
68	NAV pay					
69	Volume charge	£/m3	0.7467	0.7467	0.7467	0.7467
70	Less daily fixed charge	£	12.70	12.78	10.53	14.95