

New Appointments and Variations Methodology of Bulk Charges

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v1

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1. Context

The New Appointments and Variations (NAV) regime was introduced under the Water Industry Act 1991 (WIA91) to provide a mechanism to facilitate new entry into the water and wastewater sector and to allow appointed undertakers (incumbents) to expand outside of their geographical area of appointment.

Under section 7(4) of WIA91 Ofwat can appoint a company in place of the incumbent only where one of the following criteria is met:

- Unserved - the site is not connected to the water and/or sewerage infrastructure of the existing water company
- Consent - the existing water company consents to the application
- Large user - the premises comprising the site use at least 50Ml in any year (or 250Ml for end-customers of Welsh water companies) and the customer consents.

When deciding how to provide water and wastewater connections for a new development site, the developer can choose between the incumbent, a self-lay provider (SLP) or a NAV. If a NAV is appointed, it becomes the monopoly supplier for the site and generally provides, owns and operates the 'last mile' on-site supply infrastructure and retail services. In some cases NAVs provide a full service, including water treatment and/or wastewater treatment and disposal. More commonly, NAVs purchase services in bulk from the incumbent wholesaler through a bulk agreement. This document sets out the basis for setting these bulk charges to NAVs.

1.1 Guidance on charging

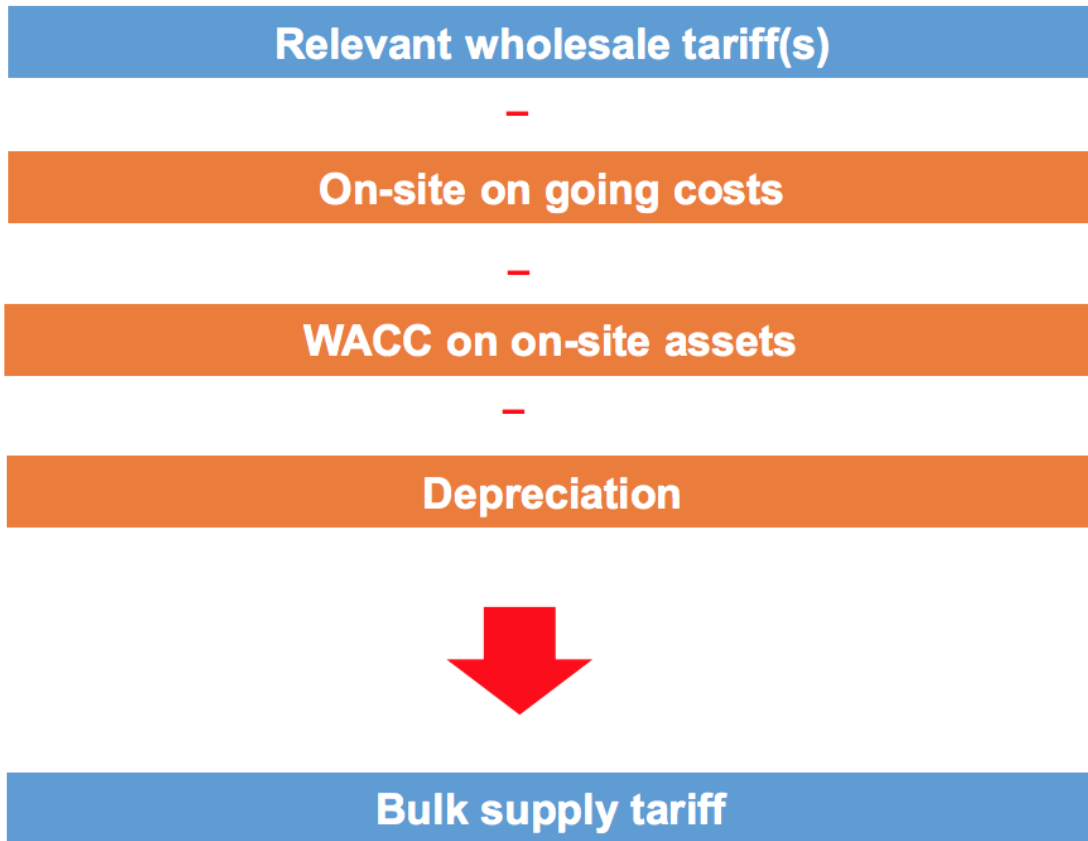
In May 2018 Ofwat published their final guidance on 'Bulk charges for NAVs'¹. This guidance is intended to ensure a level playing field between incumbent water companies, SLPs, developers and NAVs, ensuring that, as far as possible, the increased choice for developers leads to more intense competition and the benefits are passed on to both developers and end-customers in the form of lower prices, better quality services and more innovation. This guidance was further updated in January 2021.

Ofwat's guidance specifies a "wholesale-minus" approach to setting bulk charges. This approach starts from the relevant wholesale tariff(s) and deducts costs that the incumbent water company would no longer incur as a result of the NAV replacing it as supplier.

¹ Bulk charges for NAVs: final guidance, Ofwat, May 2018

Ofwat explain the four essential elements in this approach, which are shown in Figure 1 below.

Figure 1. Relevant starting point for wholesale-minus approach and costs to be deducted



Source : Ofwat - Bulk charges for NAVs: final guidance

2. Summary of our approach

In this section we describe the approach that we have taken to implementing Ofwat's guidance for setting bulk charges. This is intended to provide transparency and help NAVs, developers and other interested parties better understand our approach to calculating our bulk charges.

In developing our approach to bulk charges we have taken full account of Ofwat's charging guidance as well as our general obligations under competition law and in our Licence. Our approach necessarily depends on a number of assumptions. Where NAVs, or others, believe these assumptions are not appropriate or applicable in their particular case, we would welcome a discussion about how we adjust our approach to meet the particular circumstances of a site, while maintaining compliance with Ofwat's guidance and our competition law obligations to ensure a level playing field. We have also considered the best practice framework published by the NAV bulk charges working group.

2.1 Water and wastewater bulk tariff methodology

For developing both our water and wastewater bulk tariffs we built separate cost allocation models to help us understand the costs we incur in serving different customers, and hence the costs that would be avoided if a NAV is appointed. The base data within both our water and wastewater models used to allocate our costs and calculate the avoided costs are derived from our annual regulatory accounts, our PR14 final determination and accounting separation data.

The models follow the four step approach set out in Ofwat's guidance. Below we describe our approach to each of the four steps.

2.1.1 Relevant wholesale tariff

Our approach starts with the relevant wholesale water or wastewater tariff, from which we deduct avoided costs.

The relevant wholesale tariff is our published wholesale unit volume charge per cubic metre of water / wastewater. These tariffs are published in our 'Schedule of Primary Household Charges' in our 'Wholesale Statement of Principles and Charges'. For simplicity we have used the household wholesale tariff which is lower than our standard non-household wholesale tariff. However, should any customer on the site be applicable for the large user tariff, a bespoke tariff will be provided, as described later.

The wholesale unit volume charge excludes any customer service and retail costs, which are included in our retail tariff. Therefore a 100% discount for all customer services, including the customer bad debt provision, has been provided.

Table 1, below, sets out the relevant wholesale charges for 2024-25.

Table 1: Our Wholesale tariffs for 2024-25

MEASURED CHARGES	£
Measured water supplies	1.958
Unit volume charge – per cubic metre	
Sewerage services – measured water	2.461
Unit volume charge – foul water drainage - cubic metre	

Highway Drainage Charges

A proportion of the aggregated highways drainage charge is included in the relevant starting point each billing period. A discount for on-site maintenance and operation of assets is applied to ensure any local network costs are deducted to provide sufficient margin to the new entrant. This ensures compliance with the Ofwat charging guidance for bulk tariffs which states that highway drainage charges should be included within the relevant starting point of wholesale tariffs.

Surface Water Charges

We apply surface water charges as a discrete service offering. Where we do provide a connection for surface water, a proportion of the aggregated surface water charge will be applied to the relevant starting point each billing period. Similar to highways drainage, an allowance for the maintenance and operation of on-site assets will be applied to ensure any avoided local network costs are deducted. Where no connection for surface water is provided, the new entrant is able to charge the surface water fee to the end customer without any wholesale bulk charge to the incumbent.

Large User Tariffs

For sites which have non-household customers where our large user tariff (LUT) is applicable, we will provide a bespoke tariff based on the weighted average wholesale tariff. This would apply to retail customers within the NAV site using over 5ML per annum for water and 100ML per annum for wastewater.

The weighted average wholesale tariff would be calculated based on the following formulas:

Weighted Average Wholesale Tariff – Water

$$= \frac{[(V_{hh} * C_{hh}) + (V_5 * C_5 + F_5) + (V_{20} * C_{20} + F_{20}) + (V_{100} * C_{100} + F_{100})]}{[V_{hh} + V_5 + V_{20} + V_{100}]}$$

Weighted Average Wholesale Tariff – Wastewater

$$= \frac{[(V_{hh} * C_{hh}) + (V_{100} * C_{100} + F_{100})]}{[V_{hh} + V_{100}]}$$

Where C is the volumetric charge, V is the assumed consumption and F is the fixed charge associated with the large user tariff.

NAVs will be required to provide the number of on-site customers on each large user tariff and the annual forecast volumes at 31 March each year. This forecast will be used to calculate the weighted average wholesale tariff and the associated bespoke tariff for the upcoming year. We will also require the volumetric consumption for each customer on each large user tariff band on 31 March for the previous year. Should the actual volumes vary from the forecast by greater than 5% of the total billed large user volume, we reserve the right to apply a true-up adjustment.

2.1.2 On-site ongoing costs

The next step is to understand our ongoing on-site costs, to allow us to identify which costs would be avoided.

Using our cost allocation models and the information contained in our regulatory accounts, we are able to identify the annual operating costs associated with operating and maintaining our water distribution and sewer networks. Adding operational and asset data to the models enables us to estimate at a granular level where on the network costs are incurred. This provided us with on-going costs for different sizes of pipes in our network, including the costs associated with managing leakage from our water distribution network.

Engineering data was used to associate these different pipe sizes with the size of a development site expressed in terms of the number of properties. Using this information we were able to estimate the on-site costs that would be avoided in the event of a NAV supplying a particular site. These are the costs that are discounted from our relevant wholesale tariff.

Tables 2 and 4 below show the calculated water and wastewater avoided on-site ongoing costs for a range of NAV sizes and the network assumptions used in calculating these. The avoided leakage costs and assumptions are shown separately in Table 3.

Table 2: Water avoided on-site ongoing cost discounts

Water NAV Tariffs	% discount from Wholesale tariff	Basis of discount
<20 properties	0%	No identifiable avoided costs
20-50 Properties	4.2%	All supply and communication pipe and a proportion of 100mm distribution mains on-site ongoing costs avoided
50-250 properties	11.3%	All supply and communication pipe, all <100mm distribution mains and a small proportion of <250mm distribution mains on-site ongoing costs avoided
250-1000 properties	12.9%	All supply and communication pipe, all <100mm distribution mains and a large proportion of <250mm distribution mains on-site ongoing costs avoided
>1000 properties	14.0%	All supply and communication pipe, all <100mm distribution mains and a larger proportion of <250mm distribution mains on-site ongoing costs avoided

Table 3: Water avoided on-site leakage reduction cost discounts

Water NAV tariff	% discount from Wholesale tariff	Basis of discount
<20 properties	0%	No discount
20-50 properties	0.8%	Proportion of ongoing leakage reduction costs in <100mm distribution mains and all supply and communication pipe leakage costs avoided
50-250 properties	2.4%	All leakage reduction costs in <100mm distribution mains, a small proportion of leakage reduction costs in >100m distribution mains and all supply and communication pipe leakage costs avoided
250-1000 properties	3.3%	All leakage reduction costs in <100mm distribution mains, a large proportion of leakage reduction costs in >100m pipes distribution mains and all supply and communication pipe leakage costs avoided
>1000 properties	4.0%	All leakage reduction costs in <100mm distribution mains, a larger proportion of leakage reduction costs in >100m distribution mains and all supply and communication pipe leakage costs avoided

We also apply an on-site leakage allowance of 3% to provide for the local network leakage between the bulk meter at the point of connection and the point of supply to customers. This ensures that on-site losses through leakage is deducted from the measured volume of water recorded at the bulk meter(s) as having been supplied.

Table 4: Wastewater avoided on-site ongoing cost discounts

No. NAV properties	% discount from wholesale tariff	Basis of discount
<20 properties	0%	No identifiable avoided costs
20-250 Properties	2.6%	A proportion of <150mm on-site ongoing costs avoided
250-1000	8.7%	All <150mm sewer and a proportion of <225mm sewer on-site ongoing costs avoided
>1000	9.2%	All <225mm sewers and a proportion of 225m-375mm sewer ongoing costs avoided

2.1.3 WACC on on-site assets

Ofwat's guidance next requires us to consider any avoided financing costs associated with on-site assets. We have considered the extent to which other financing costs would be avoided in the event of a NAV providing services to a new development in place of the incumbent provider.

On-site Asset Financing Costs

Typically, for new development sites, the developer will either install the local network themselves or requisition it from the incumbent water company. In the case where the developer lays the network, these assets are adopted by the incumbent at nil cost, so in this

instance there would be no avoided financing costs, since these costs are borne by the developer not the incumbent.

Where assets are requisitioned from the incumbent water company by the developer, the developer will pay the water company for the costs of these assets. Since the requisition payment is paid for upfront by the developer, and these assets are adopted by the incumbent for nil cost, there will be no financing costs to be avoided.

Cost of Debt

We have provided a cost of debt adjustment to acknowledge where a NAV may incur operational financing costs in advance of receiving income in any one particular year. We have calculated this adjustment as one year of maintenance expenditure for the site multiplied by the allowed NAV WACC. The NAV WACC is calculated as 0.75% above the WACC provided to incumbent water companies as set out in Appendix 2 of Ofwat's bulk charging methodology. We therefore make a provision for the cost of debt within our avoided costs.

Working Capital

We also recognise that NAVs will have working capital requirements and have provided a discount for working capital costs within our bulk NAV tariffs.

This element of the water discount is calculated by assuming that the NAV bills its customers once every six months (in reality many customers are likely to be on direct debit and therefore billed monthly), and that Southern Water will invoice the NAV for the bulk water supply monthly. This results in an average three month working capital allowance. This allowance is provided at a cost of capital rate of 4.74%, significantly above the WACC incumbents are provided. For wastewater, the working capital discount is calculated by assuming that the NAV bills its customers once every six months, and that Southern Water will invoice for the bulk discharge quarterly, as provided for in our standard bulk discharge agreement.

Table 5: Working Capital Discount

WACC Discount	% discount from bulk tariff	Basis of discount
Water	c. 1.0%	Three month working capital allowance provided at a cost of capital rate of 4.74%
Wastewater	c. 0.5%	One and half months working capital allowance provided at a cost of capital rate of 4.74%

The actual discount will vary with the size of the development as the discount is applied against the bulk tariff

2.1.4 Depreciation

The final element in Ofwat’s guidance to be considered is depreciation.

Depreciation costs represent an accounting charge to allow for the ongoing maintenance of the water and wastewater networks in a steady state. These ongoing maintenance costs are avoided in respect of local networks owned by NAVs and should be deducted from the bulk charge to a NAV.

As described above, the RCV is a proxy for the value of our network and treatment assets. Our approach uses an allocation of the RCV across the value chain to apportion the annual depreciation charge to different elements of the network, enabling us to identify the relevant avoided costs.

Our starting point for this allocation of the RCV was the net modern equivalent asset values (NMEAV) for each part of the value chain, as provided in our regulatory accounts.

For water, this includes a split of the NMEAV by abstraction licenses, raw water abstraction, raw water transport, raw water storage, water treatment, local treated water distribution and trunk treated water distribution. For wastewater, it includes a split of the NMEAV by sewage collection, surface water and highway drainage, sewage treatment, and bioresources. To this base data we applied a further allocation of local network costs between different pipe sizes, to enable the identification of avoided local network costs. Table 6 and 7 show the resulting allocation of RCV across the water and wastewater value chains.

Table 6: Water RCV allocation

Water Treatment	Water - Distribution Network (mains size:>300mm)	Water - Distribution Network (mains size:<300mm & >250mm)	Water - Distribution Network (mains size: <250mm & >100mm)	Water - Distribution Network (mains size: <100mm)
6%	31%	1%	25%	36%

Table 7: Wastewater RCV allocation

Sewerage secondary network <150mm	Sewerage primary network >150mm - 225mm	Sewerage secondary network >225mm - 375mm	Sewerage secondary network >375mm	Surface water drainage	Highway drainage	Sewage treatment & disposal
35%	27%	6%	7%	10%	5%	10%

We then allocate our total depreciation costs for water and wastewater based on this RCV allocation. Tables 8 and 9 below show the calculated avoided depreciation costs and the network assumptions used in calculating these.

Table 8: Water avoided depreciation costs

Water NAV Tariffs	% discount from Wholesale tariff	Basis of discount
<20 properties	0%	No identifiable avoided costs
20-50 Properties	1.7%	All supply and communication pipe and a proportion of 100mm distribution mains on-site ongoing costs avoided
50-250 properties	4.6%	All supply and communication pipe, all <100mm distribution mains and a small proportion of <250mm distribution mains on-site ongoing costs avoided
250-1000 properties	5.4%	All supply and communication pipe, all <100mm distribution mains and a large proportion of <250mm distribution mains on-site ongoing costs avoided
>1000 properties	6.0%	All supply and communication pipe, all <100mm distribution mains and a larger proportion of <250mm distribution mains on-site ongoing costs avoided

Table 9: Wastewater avoided depreciation costs

Wastewater NAV Tariffs	% discount from Wholesale tariff	Basis of discount
<20 properties		No identifiable avoided costs
20-250 Properties	1.5%	A proportion of <150mm on-site ongoing costs avoided
250-1000	5.5%	All <150mm sewer and a proportion of <225mm sewer on-site ongoing costs avoided
>1000	5.9%	All <225mm sewers and a proportion of 225m-375mm sewer ongoing costs avoided

2.2 Total discounts for each size of NAV site

Having considered each of the three elements of avoided cost identified in Ofwat's charging guidance, we further considered whether there were additional costs that would be avoided and which should therefore be discounted from our NAV bulk charges. We did not identify any further costs that would be avoided with the exception of site specific costs. The total discount included within our NAV bulk charges therefore represents the sum of the elements set out above.

Tables 10 and 11 below show the total discounts for each size of NAV site, defined by the number of properties on the NAV site. These discounts are expressed relative to the starting point of our calculations, the relevant wholesale volumetric charge.

Table 10: Total water bulk charges discounts

Water NAV Tariffs	% discount from Wholesale tariff
<20 properties	0%
20-50 Properties	8.0%
50-250 properties	19.7%
250-1000 properties	22.6%
>1000 properties	25.1%

Table 11: Total wastewater bulk charges discounts

Wastewater NAV Tariffs	% discount from Wholesale tariff
<20 properties	0%
20-250 Properties	4.8%
250-1000	14.9%
>1000	15.7%

For 2024/25, our total discounts have increased with the introduction of a discount for the avoided cost of debt. This year the on-site leakage allowance will be applied as a reduction to the volume of water supplied, rather than incorporated within the volumetric rate. This will appear to reduce the discount provided on the volumetric rate, but will not impact the overall discount provided.

2.3 Additional information

Where there is a large user on the site we would calculate a bespoke tariff as described in section 2.1.1, reflecting the reduction in the starting point of the weighted average wholesale tariff. Where the large user tariff is applied to the weighted average wholesale tariff, both the relevant fixed and a volumetric charges would apply as per our Charges Scheme.

It is possible for the largest sites, that there may be instances where the standard NAV bulk tariff is greater than the large user tariff. In line with Ofwat's guidance published in January 2021, the standard methodology would be applied to ensure the discount is cost reflective and that incumbents' customers do not bear unjustified additional costs.

The above stated NAV tariffs relate to bulk service charges. It does not contain any new connection service charges which may be required by the NAV and which can be found in our published new connection charging document.

2.4 Site Specific Costs

Southern Water accept that for some sites there maybe ongoing costs for additional on-site assets that are driven solely by the new development and which are not included in the standard set of avoided costs used in the wholesale-minus methodology. On-site pumping stations are such an example.

Therefore, in these cases, Southern Water will provide an additional discount for the operation and maintenance of on-site pumping stations. This approach aligns with Ofwat's guidance (Bulk charges for new appointees - guidance on our approach and expectations – Ofwat Jan 2021) that the scope of bulk services required by new appointees will vary depending on the circumstances of a site and which may require bespoke charges or variations to elements of the standard charge. This provides for a variation to the standard bulk charge for sites with on-site pumping stations and forms part of our 'menu' of charges so that new appointees are able to calculate their bulk charges.

In developing our approach for a discount for pumping stations, we have taken full account of Ofwat's latest charging guidance. Therefore, we have gathered information of our own ongoing costs for pumping stations of varied size and the typical replacement costs for these pumping stations. Using our regulatory accounts data for 2021/22, we used a large sample of our pumping stations and found the average amount of OPEX we would spend each year for each pumping station, of which most of this OPEX spend was energy related;

Pumping stations	Average annual OPEX
<2kw	£650
<5kw	£1600
<10kw	£3200
<20kw	£6400
<40kw	£12750

With this same sample of pumping stations, we determined typical replacement costs for each pump at these pumping stations derived through our Pioneer system and assumed a 20 year asset life. From this we derived an annual depreciation cost at 2021/22 prices, as set out below:

Pumping stations	Average replacement costs	Annual depreciation	Depreciation for 2 pumps
<2kw	£6,000	£300	£600
<5kw	£7,000	£350	£700
<10kw	£9,000	£450	£900
<20kw	£13,500	£700	£1,400
<40kw	£22,000	£1,100	£2,200

Our methodology assumes that a pumping station will have two pumps on site (duty and back-up) and therefore we have applied annual depreciation for two pumps.

The OPEX and annual depreciation are the sum of the avoided costs in not adopting the pumping station, and therefore provide an additional discount to our NAV bulk charges. An annual increase for inflation of 4.6% was applied to the charges for 2022/23, 9.3% for 2023/24, and 4.2% for 2024/25.

The site-specific pumping station avoided costs will be applied as a proportion of the fixed annual discount each billing period rather than a reduced volumetric charge. This is because there is insufficient evidence of a direct correlation between pump size and discharged volume. Pump size is impacted by many other factors including topography, along with volume. Therefore, a volumetric discount would not provide an accurate reflection of the avoided costs to be deducted.

3. Compliance with Ofwat guidance and competition law

In developing our approach to bulk supply charges we have taken full account of Ofwat's charging guidance as well as our general obligations under competition law and in our Licence. We believe that we are fully compliant with the charging guidance, competition law and our Licence. We have undertaken independent third party assurance of our charges in order to ensure we are giving NAVs a fair discount and that they can operate on a level playing field.

The base data within both our water and wastewater models used to allocate our costs and calculate the avoided costs are derived from our annual regulatory accounts, our PR14 final determination and accounting separation data. Our models have been subject to independent assurance by a third party to ensure that the calculations in the models are working correctly and the underlying assumptions used are reasonable. Further, they have been assured for compliance of our NAV charges with Ofwat's guidance.

3.1 WaterUK Best Practice Principles

In order to provide clarity in pricing methodology, approach and publication, WaterUK developed and published best practice principles for pricing information transparency.

Based on the findings of the NAV Market – Behavioural improvements project recommendations report, the following principles were recommended and adopted by Southern Water when setting the bulk tariffs as described below:

Principle 1 - NAVs should be able to independently calculate an indicative bulk charge (fixed and volumetric) for the majority of sites, where on-site assets are fully funded by the developer.

The Southern Water NAV bulk charges are simple and transparent and provide a volumetric charge, allowing new appointees to calculate an accurate bulk charge. Where the site contains customers on a large user tariff, the new appointees are able to calculate an indicative charge by using the weighted average wholesale charge formula provided in section 2.1.1.

Principle 2 - Incumbents should maintain a dedicated NAV page on their websites, with all relevant information contained there or clearly signposted.

Southern Water maintain a dedicated NAV page on the website, containing the NAV bulk charges, methodology and other relevant information.

Principle 3 - NAV bulk charges schemes should contain worked examples to make clear how charges are calculated.

The NAV bulk charges scheme contains worked examples.

Principle 4 - Incumbents should inform NAVs when new bulk charges are published and consult with NAVs when they make substantive changes to the 'minus' element of their bulk charges.

New appointees are informed when the NAV bulk charges are published through Business Channels and will be consulted on any substantive changes.

Principle 5 - Incumbents should make efforts to provide clarity on where their new connections charging arrangements for NAVs differ to developers and Self-lay providers.

New connection charges are based on the service received rather than the type of customer, with any specific charges are highlighted within the charging arrangements. For instance an SLP that is undertaking the design work itself would pay a lower application fee than one which required Southern Water to undertake the design, reflecting the difference in the scope of services provided.

Principle 6 - NAV charges should be presented in a table format, with volumetric rates in £/m³ and fixed charges in £s.

The NAV bulk charges are published in a table format, with volumetric rates shown in £/m³.

Principle 7 – Incumbents should publish their NAV bulk charges alongside wholesale charges, other than in exceptional circumstances.

The NAV bulk charges scheme is published at the same time as our wholesale household charges.

Appendix 1:

Schedule of NAV bulk charges 2024-25

New Appointment Bulk Charges

Charges are shown exclusive of VAT

MEASURED CHARGES £	
Measured water supplies	
Unit volume charge - per cubic metre (<20 properties)	£1.958
Bulk supply charges >20 properties	
(i) Band 1 (20 to 49 properties)	£1.801
(ii) Band 2 (50 to 249 properties)	£1.572
(iii) Band 3 (250 to 999 properties)	£1.515
(iv) Band 4 (>1000 properties)	£1.467

MEASURED CHARGES £	
Sewerage services	
Unit volume charge – foul water drainage - cubic metre (<20 properties)	£2.461
Bulk discharge charges >20 properties	
(i) Band 1 (20-249 properties)	£2.343
(ii) Band 2 (250-999 properties)	£2.094
(iii) Band 3 (>1000 properties)	£2.075

Highway Drainage Charge	
Annual Fixed Charge £ per property	
Fixed annual charge >20 properties	£12.99
Band 1 (20-250 properties)	£12.37
Band 2 (250-1000 properties)	£11.05
Band 3 (>1000 properties)	£10.95

The tariff band will be based on the number of properties served within the charging period.

If there are any large users within the newly appointed variation please contact us directly.

This addendum to the Statement of Principles and Charges is published by Southern Water Services Limited as wholesale supplier and shall come into operation from 1 April 2024 to 31 March 2025 inclusive.

Appendix 2

NAV bulk charge discount for on-site wastewater pumping stations 2024-25

Pumping Station Annual Fixed Discount

ANNUAL FIXED DISCOUNT £		
Applied to sites with on-site wastewater pumping stations		
Pumping Station Size		
(i)	Band 1 (2 kW)	£1,480
(ii)	Band 2 (5 kW)	£2,700
(iii)	Band 3 (10 kW)	£4,900
(iv)	Band 4 (20 kW)	£9,300
(v)	Band 5 (40 kW+)	£17,800

Where appropriate, the site specific pumping station discount will be applied as a proportion of the fixed annual discount each billing period.

The discount band will be based on the size of the primary pump operated and maintained by the New Appointee.

Appendix 3: Worked Example

In these charges we have attempted to provide NAV bulk charges which are predictable to allow New Appointees to confidently price for a site, whilst also providing a cost reflective charge, ensuring that any avoided costs are fully discounted from the wholesale charge. This results in several standard tariff bands applicable for different sized developments, with bespoke tariffs offered in cases where a large user tariff is applicable to an on-site customer.

To further provide transparency and explain the charges we have provided worked examples below:

Example 1 – Water Supply to 1010 mixed household/non-household customers

In cases of a development in which there are no large user tariff customers the standard banded tariffs apply. For instance, for a development with 1000 household properties and 10 non-household properties below the large user tariff, a banded tariff for 1000+ properties would be appropriate, resulting in a NAV bulk tariff £1.467/m³.

Customer Type	No. Properties	Tariff	Est. Consumption*	Charge per year
Household	1000	£1.467/m ³	100,000 m ³	£146,700
Non-household	10	£1.467/m ³	1,000 m ³	£1,467
LUT	0	n/a	n/a	n/a
Total	1010	£1.467/m ³	101,000	£148,167

*Estimate based on assumed water consumption of 100m³ per property

Example 2 – Wastewater Services to 250 household customers with on-site pumping station

For wastewater, there are also several standard tariff bands applicable for different sized developments. The highway drainage fixed charge is also included within the relevant starting point with a discount applied for avoided costs. Bespoke tariffs would be offered in cases where a large user tariff is applicable to an on-site customer, where surface water discharge has been agreed, or for on-site pumps where a further discount would be applied.

For example, a site with 250 properties and a 5kW onsite pumping station would receive a discounted volumetric and highway drainage rate, and a further discount for the on-site pumping station.

Discounted Household Wholesale Tariff (Band 2) = £2.094 per m³

Discounted Quarterly Highway Drainage Charge = £2.76 per property

Quarterly Pumping Station Discount = £675

Quarterly Charge	Banded Tariff/Discount	Quarterly Volume	Quarterly Charge
Wastewater Volumetric Charge	£2.094	5781 m ³	£12,106
Highway Drainage Charge	£2.76	250	£690
Pumping Station Discount (5 kW)	£675	1	-£675
Total Charge			£12,121

*Estimate based on assumed annual water consumption of 100m³ per property, therefore an annual return to sewer volume of 92.5m³ per property.



Appendix 4

Publication of avoided cost template

As part of a recent Water UK working group. Water companies have been encouraged to publish details on their approach to setting NAV charges. Further details can be found on the Ofwat website: [New appointee bulk charging working group - Ofwat](#)

Code	Cost	Discount Provided on wholesale charge?	Comment
WD1	Routine and adhoc water quality sampling. Regulatory monitoring at every site irrespective of size	Yes	
WD2	Drinking Water Safety Planning (Water Supply (Water Quality) Regulations 2016 - Regs 27 & 28), Monthly water quality reporting, submission of annual data returns.	Yes	
WD3	Monitoring and auditing of Laboratory performance - Water Supply (Water Quality) Regulations 2016 - Regulation 16	Yes	
WD4	Water Fittings inspections - enforcement of Water Supply (Water Fittings) Regulations 1999	Yes	
WD5	Supplementary water quality monitoring e.g. Response to customer contacts,	Yes	



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WD6	Additional flushing/sampling due to poor performance and/or condition of assets owned and maintained by the upstream incumbent	Yes	
WD7	Local Authority and Public Health England Liaison and updates.	Yes	
WD8	Planned Maintenance - e.g. flushing activities	Yes	
WD9	Unplanned Maintenance	Yes	
WD10	Emergency Response	Yes	
WD11	Meter maintenance / replacement	Yes	
WD12	Meter accuracy testing costs	Yes	
WD13	Meter reading	No	This is a retail cost and therefore included in the retail discount
WD14	Battery replacement	Yes	
WD15	Arrangements for sharing meter data	No	This is a retail cost and therefore included in the retail discount. Any sharing of meter data would be covered under separate data service agreement.
WD16	Standby arrangements	Yes	
WD17	Incumbent bulk metering costs	No	Bulk meter costs are paid for by wholesaler
WD18	Financial penalties for GSS failure - Also GSS payments made to customers as a consequence of upstream incumbent failure.	Yes	Provisions for payment of GSS are provided in the bulk supply contract
WD19	Network losses / unaccounted for water at a direct wholesale cost.	Yes	Leakage allowance discount provided on volumetric calculation where volume is measured at the bulk supply meter
WD20	Activities to monitor and control leakage/unaccounted for water	Yes	
WD21	Wholesale cost for 'free' water provided under social tariffs	No	This is a retail cost and therefore included in the retail discount

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Bulk charges

WD22	Offsite network maintenance / repair (No income if NAV tariff assumes connection at boundary)	Yes	Discount provided for local area network typical for the size of the development and NAV connection typically at site boundary
WD23	Water resource planning and drought plans	Yes	
Wastewater			
WWD1	Planned / unplanned pumping station maintenance	Yes	Provided annual fixed discount for sites with onsite pumping stations
WWD2	Planned sewer jetting maintenance	Yes	
WWD3	Unplanned / emergency response and or maintenance	Yes	Avoided costs for local network 'Unplanned / emergency response and or maintenance' provided
WWD4	Telemetry	Yes	
WWD5	Planned / unplanned sewer jetting, blockage removal	Yes	
WWD6	Incumbent customer meter data costs + supplementary data.	No	This is a retail cost and therefore included in the retail discount
WWD7	Incumbent discharge costs for water losses not returned to sewer i.e. where bulk discharge costs are based on a bulk water meter.	Yes	Leakage allowance discount provided on volumetric calculation where volume measured at bulk meter
WWD8	Capital replacement in made up ground	Yes	
WWD9	Wholesale cost for 'free' sewerage provided under social tariffs	No	This is a retail cost and therefore included in the retail discount
WWD10	Sewer flooding remediation and compensation	Yes	
WWD11	Financial penalties for GSS failure - Also GSS payments made to customers as a consequence of upstream incumbent failure.	Yes	Provisions for payment of GSS provided in bulk discharge contract
WWD12	Offsite network maintenance / repair (No income if NAV tariff assumes connection at boundary)	Yes	Discount provided for local area network typical for the size of the development
WWD13	Tankering incl. pre NAV approval	Yes	Discount provided on wholesale charge for routine maintenance issues. Emergency tankering provided by SW where SW at fault as per bulk discharge agreement. SW also provide tankering where there is insufficient

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Bulk charges

			capacity for the site after 24 months of the date of grant of outline or full planning.
WWD14	Trade effluent costs - admin, monitoring, data sharing with downstream incumbent	Yes	
Surface Water Drainage			
WWD17	Planned / unplanned pumping station maintenance	Yes	Provided annual fixed discount for sites with onsite pumping stations
WWD18	Planned sewer jetting maintenance	Yes	
WWD19	Incidence response sewer jetting	Yes	
WWD20	De-silting	Yes	
WWD21	Clearing and maintenance of drainage areas.	Yes	
WWD22	Capital replacement in made up ground	Yes	
WWD23	Wholesale cost for 'free' drainage (surface water) provided under social tariffs	No	This is a retail cost and therefore included in the retail discount
WWD24	Sewer flooding remediation and compensation	Yes	
WWD25	Offsite (surface water) network maintenance / repair (No income if NAV tariff assumes connection at boundary)	Yes	Discount provided for local area network typical for the size of the development
WWD26	Discharge permits/costs	No	Where the NAV owns the full surface water network requiring a surface water discharge permit, the NAV would not be charged for surface water fees by SW. They would receive 100% surface water revenue for their customers
Central Costs			
C1	Finance/ HR / Legal and IT staff resource costs	Yes	
C2	Regulatory Costs - Licence fees, regulatory reporting and compliance	Yes	
C3	NAV application and administration costs.	No	Costs recovered from Developer
C4	End customer billing and customer service costs	No	This is a retail cost and therefore included in the retail discount
C5	Management costs	Yes	
C6	External consultancy	Yes	

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C7	IT systems and development	Yes	
C8	Travel and subsistence	Yes	
C9	Vehicle fleet costs	Yes	
C10	Plant, tools and equipment	Yes	
C11	Health and Safety	Yes	
C12	Insurance	Yes	
C13	Employer pension	Yes	
C14	Employer NI	Yes	
C15	Premises and utilities	Yes	
C16	Telecommunication costs	Yes	
C17	Business Rates	Yes	
C18	Recruitment	Yes	
C19	Training and Development	Yes	
C20	Bank charges incl. those relating to customer income collection	No	This is a retail cost and therefore included in the retail discount
C21	Customer bad debt and debt recovery costs.	No	This is a retail cost and therefore included in the retail discount
C22	Revenue protection and voids management.	No	This is a retail cost and therefore included in the retail discount
C23	External audit / accountancy costs	Yes	
C24	Asset Financing Costs	No	Typically, for new development sites, the developer will either install the local network themselves or requisition it from the incumbent water company. In the case where the developer lays the network, these assets are adopted by the incumbent at nil cost, so in this instance there would be no avoided financing costs, since these costs are borne by the developer not the incumbent. We do provide a discount for the financing costs associated with capital maintenance.
C25	Working Capital	Yes	See C30

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C26	Incumbent Working Capital	Yes	We recognise that NAVs will have working capital requirements and have provided a discount for working capital costs within our bulk NAV tariffs.
C27	Marketing, Branding and Customer Relations	Yes	
C28	Billing systems costs	No	This is a retail cost and therefore included in the retail discount.
C29	Billing and other postage / stationery costs	No	This is a retail cost and therefore included in the retail discount.
C30	Cost of Debt	Yes	We have included a NAV WACC in our avoided costs model