



NAV CHARGING ARRANGEMENTS

2019/20

CHAPTER I: INTRODUCTION

1. Context

The NAV¹ regime in England and Wales provides a mechanism to facilitate new entry into the sector and to allow those water companies already present to expand into other geographic areas. The introduction of this form of competition is intended to challenge incumbent water companies, drive efficiencies and stimulate innovation. We support the development of markets where they deliver long term benefits to customers.

Under the existing legislation, Ofwat can appoint a new water company for a site (for water services, waste water services or both), if one of three qualifying criteria is met:

- (i) unserved - the site is not connected to the water and/or sewerage infrastructure of the existing water company;
- (ii) consent - the existing water company consents to the application; or
- (iii) large user - the premises comprising the site use at least 50MI in any year (or 250MI for end-customers of Welsh water companies) and the customer consents.

2. Bulk services from an incumbent water company to a NAV

Typically, NAV water appointees will require a bulk supply of water from the network of the incumbent, and NAV sewerage appointees will usually require bulk sewerage services from the incumbent. The terms upon which these services are supplied will be set out in a "bulk agreement", either a "bulk supply agreement" for water supply or a "bulk discharge agreement" for sewerage services.

3. Bulk charges

Bulk charges are a critical part of a bulk agreement. This is because bulk charges influence the on-going margin and, therefore, whether a NAV can compete to offer water and waste water services to a site.

4. Aims of these NAV charging arrangements

The aims of this document are to:

- (i) set out clearly how we will formulate our charges in the bulk supply agreement or bulk discharge agreement, setting clear expectations in varying circumstances; and
- (ii) to provide transparency on the calculation of relevant charges thereby enabling NAVs to formulate their own strategies as to where and how to compete in the market.

5. Limitations of these NAV charging arrangements

The principles set out in these arrangements are not intended to give rise to legal rights or liabilities but rather to inform the likely terms of any statutory agreement to which they will be subject.

¹ "NAV" is shorthand for a company that was not one of the original water companies on privatisation, but which becomes appointed as a water and/or sewerage undertaker. The term derives from the New Appointment that it is given, and the Variation of the incumbent's appointed area.

6. Relevant legal and regulatory considerations

6.1. Statutory basis

The Water Industry Act 1991 (“the Act”) sets out a framework for bulk water supplies in sections 40 and 40A of that Act. In essence, if a NAV has approached a water undertaker for a bulk supply and the two parties have been unable to reach an agreement, the NAV may apply to Ofwat to make an order setting out the rights and obligations of the parties to each other. In addition, even where an agreement has been reached, Ofwat is empowered to alter the terms of that agreement, or even to terminate it. The Act sets out various criteria for the exercise of these powers and a number of mandatory considerations.

Sections 110A and 110B of the Act work in a very similar way with respect to bulk sewerage services.

6.2. NAV charging rules

Ofwat has a statutory power under section 40E of the Act to issue rules about charges for the supply of water in bulk. It also has power under section 110F to issue rules about charges for bulk discharges. No such rules have been issued (in either case).

6.3. Competition Act 1998

Section 18 of the Competition Act 1998 prohibits any conduct on the part of one or more undertakings which amounts to the abuse of a dominant position in a market if it may affect trade within the United Kingdom. A particular form of abuse that can potentially arise in situations such as the NAV market is “margin squeeze”. Anglian Water takes this, and indeed all, legal duties seriously. Accordingly, the development of these charging arrangements set out in this document has been guided and informed at all stages by the paramount importance of complying with these duties as well as wider legal obligations.

6.4. Ofwat guidance

On 8th May 2018, following a consultation process, Ofwat issued new Guidance for bulk charges to NAVs. The central requirement of the Guidance is that bulk charges should be set in line with a “wholesale minus” methodology; starting with the relevant wholesale tariff(s) and deducting costs that the incumbent would not have incurred given a NAV supplies the new development.

The “minus” calculation methodology comprises the following elements:

Components of the Wholesale Minus Methodology	
Relevant Wholesale Tariff charges (allowing for on-site leakage)	
	Minus
Avoided on-site ongoing costs including capital replacement	
	Minus
Avoided WACC on initial on-site assets	
	Minus
Avoided depreciation on initial on-site assets	
	Equals
	Bulk supply charge

In addition to the minus elements set out above, we have also provided for the following:

6.4.1. Operating margin on ongoing operating costs

Our approach to calculating deductible costs has been designed to facilitate an adequate margin is available for NAVs. However, as a transitional measure, we have provided an additional minus-element (incorporated in the avoided on-site costs) to provide a margin of 4.74% on those costs (the "operating cost margin"). The operating cost margin amounts to £1.36 per dual service connection (including surface water drainage). This is recognition of the fact that where there is no upfront investment in on- site assets, there can be no avoided WACC on those assets (as incumbent companies receive no "regulatory" return for spend that is expensed rather than capitalised). We are undertaking a further review of the margin that is generated by our approach to bulk supply pricing and reserve the right to remove the operating cost margin when we calculate bulk supply charges in future years.

Our Bulk Supply Charges set out below are consistent with the approach set out above, and reflects the outcome of the consultation process we previously undertook. All new bulk supply agreements will be based on this approach.

CHAPTER II: CHARGES FOR WATER SUPPLY & SEWERAGE SERVICES

1. Relevant Wholesale Charges

The Relevant Wholesale Tariff is calculated by applying the customer characteristics supplied by the NAV to our wholesale charges to produce a weighted average Fixed and Volumetric Charge.

Table 1 below summarises the 2019-20 wholesale tariffs for the Anglian region. For our full charges, including the Hartlepool region, please see the link below to our Wholesale Charges Schedule:

www.anglianwater.co.uk/assets/media/Wholesale_Charges_Schedule_2019-2020.pdf

Table 1

	Household	Non-household ²
Measured Water		
Fixed charge (p.a.)	£5.35	£7.00
Volumetric charge (per m ³)	159.03p	135.42p
Measured Sewerage		
Fixed charge – connected for surface water (p.a.)	£63.20	£79.00
Fixed charge – not connected for surface water (p.a.)	£29.20	£44.00
Volumetric charge (per m ³)	174.54p	161.99p

Therefore the calculation of the “Relevant Wholesale Tariff” for each service is:

$$\text{Total Wholesale Fixed Charge} = (NH \times HF) + (NN \times NF)$$

$$\text{Wholesale Volumetric Charge per m}^3 = \frac{((NH \times HD \times HV) + (NN \times ND \times NV))}{(NH \times HD + NN \times ND)}$$

NH = Number of households

NN = Number of non-households

HD = Average household demand

ND = Average non-household demand

HF = measured household fixed charge

HV = measured household volumetric rate

NF = average measured non-household fixed charge

NV = average measured non-household volumetric rate

For all NAV sites a downward adjustment of 2.16% will be applied to volumes recorded on the bulk meter to take account of leakage and other types of network losses.

² For the purposes of illustration we assume that all non-household premises use less than 500m³ per annum. However, where consumption is higher the appropriate alternative non-household tariff will apply in line with our published Wholesale Charges Schedule.

2. Ongoing On-Site Costs Including Future Capital Replacement

Ongoing on-site costs are categorised as:

- (i) operating expenditures on manpower (including hired and contracted services), transport and materials required to operate and monitor the network on the NAV site including overheads; and
- (ii) capital expenditure on the replacement of on-site assets over time, including mains and associated fixtures such as valves, communication pipes, sewers and meters; and
- (iii) the return on the capital expenditure of replacement on-site assets.

These costs are calculated on the basis of the number of household and non-household billable properties in the NAV appointed area.

For 2019-20 this element of the tariff is set out in table 2 below:

Table 2

	Operating expenditure	Depreciation	Return	On-site costs per property
Water	£19.20	£7.95	£7.45	£34.60
Foul Water	£6.00	£0.60	£3.50	£10.10
Surface Water	£4.20	£0.40	£2.45	£7.05
Highway Drainage	£1.90	£0.20	£1.10	£3.20

These values are expressed as a 'minus' against the Wholesale Revenue.

The calculation of the ongoing on-site costs is:

$$\text{Ongoing on-site costs} = OC \times (NH + NN)$$

OC = Ongoing on-site costs per property

NH = Number of households

NN = Number of non-households

3. Avoided WACC and Depreciation on on-site assets

The avoided WACC on the initial up-front investment in a site is dependent on the impact it would have had on the incumbent's RCV.

Under the RCV methodology used by Ofwat for setting price controls, in the hypothetical situation in which an inset is not awarded, the increment to RCV is equal to "net capital expenditure" for the site in question, which in turn is equal to the gross capital expenditure for the site less the capital contributions made by developers. This means that where an asset that is fully funded by a developer is acquired by an undertaker it has no impact on the RCV, because the gross capital expenditure is fully offset by the capital contribution.

Where there is an impact on the value of the RCV this will reflect the value of the "income offset" which will be different from one site to another, meaning that this part of the NAV tariff cannot be common to all NAVs or sites.

Therefore for relevant sites, a case-by-case approach will be undertaken for the purposes of calculating the site-specific "minus" for each site including local authority rates.

The process can be summarised as follows:

- (i) NAVs provide information on property numbers for each year of the first 12 years of operation of the site, together with averages for billed volumes (household and non-household);
- (ii) We calculate what the income offset would have been at the time had we served the site, in order to calculate the initial RCV;
- (iii) We calculate for each asset category of the RCV the depreciation, on an annual basis, based on average life of the asset;
- (iv) We calculate the Return by applying the WACC detailed by Ofwat to the net RCV and include the appropriate allocation of local authority rates; and
- (v) The depreciation and return are expressed as a 'minus' against the wholesale revenue

4. Annual Charge Methodology

The annual charge can therefore be summarised as a two part tariff per service consisting of a Fixed Charge per property and a volumetric charge per m³:

$$NAV \text{ Fixed Charge per property} = \frac{FC - OC - WD}{(NH + NN)}$$

FC = "Relevant Wholesale Tariff" Total Fixed Charge

OC = Avoided On-site Costs

WD = Avoided WACC and Depreciation (where appropriate)

NH = Number of households

NN = Number of non-households

$$NAV \text{ Volumetric Charge} = \frac{VC}{(1 + LA)}$$

VC = "Relevant Wholesale Tariff" Volumetric Charge

LA = Leakage Allowance

5. Annual Charges

For 2019-20 the charges are set out in table 3 below:

Table 3

Water Supply NAV Tariff	Household	Non-household²	Weighted Average
Wholesale Fixed Charge per property	£5.35	£7.00	Dependant on site property characteristics
Ongoing on-site costs per property	-£34.60	-£34.60	
NAV Fixed Charge per property	-£29.25	-£27.60	
Avoided WACC and Depreciation on on-site assets for upfront investment	Where relevant. This is calculated on a site specific basis		
NAV Fixed Charge per property			
Wholesale Volumetric Charge per m ³	159.03p	135.42p	
Leakage Allowance	2.16%		
NAV Volumetric Charge per m ³	155.67p	132.56p	

Foul Water & Highway Drainage NAV Tariff	Household	Non-household²	Weighted Average
Wholesale Fixed Charge per property	£29.20	£44.00	Dependant on site property characteristics
Ongoing on-site costs per property	-£13.30	-£13.30	
NAV Fixed Charge per property	£15.90	£30.70	
Avoided WACC and Depreciation on on-site assets for upfront investment	Where relevant. This is calculated on a site specific basis		
NAV Fixed Charge per property			
Wholesale Volumetric Charge per m ³	174.54p	161.99p	
Leakage Allowance	2.16%		
NAV Volumetric Charge per m ³	170.85p	158.56p	

Surface Water Drainage NAV Tariff	Household	Non-household²	Weighted Average
Wholesale Fixed Charge per property	£34.00	£35.00	Dependant on site property characteristics
Ongoing on-site costs per property	-£7.05	-£7.05	
NAV Fixed Charge per property	£26.95	£27.95	
Avoided WACC and Depreciation on on-site assets for upfront investment	Where relevant. This is calculated on a site specific basis		
NAV Fixed Charge per property			

6. Process Summary

The following illustrates the process for calculating the bulk supply price:

- (i) Before the start of the charging year NAV's provide a forecast for each site, of:
 - (a) the average number of households and non-households; and
 - (b) the average annual consumption of households and non-households.
- (ii) We will calculate the overall wholesale charges for the forthcoming year and deduct:
 - (a) the calculated ongoing on-site costs (see section 2); and where appropriate
 - (b) the calculated avoided WACC and depreciation (see section 3) for the up-front investment.
- (iii) Calculate and confirm to NAV the NAV tariffs to be charged (see section 4)
- (iv) Bills will be calculated on a monthly basis using the forecast number of properties supplied by the NAV and meter readings from the bulk meter, or in their absence forecast meter readings, and the calculated NAV Charges. Sewerage Services will be based on either the volume of water supplied less the standard sewage abatement of 10% or, where appropriate, a Sewage Discharge meter.

See appendix 1 for an example.

7. Reconciliation

As described above the NAV tariff is based on a forecast of customer characteristics and as such there will inevitably be deviations (up or down) between NAVs' actual bills and the bills they would pay if there were an automatic year end ex post true-up (although these should be immaterial).

No automatic true up will be applied, but NAVs will be required to provide details of actual connected property numbers at the end of the Charging Year. Either party can require a retrospective true-up after the end of the Charging Year.

CHAPTER III: CHARGES FOR NEW INFRASTRUCTURE

1. Introduction

When a NAV is seeking a new appointment, it will be planning to construct new infrastructure within the new appointment area. To facilitate such a supply or such sewerage services, new infrastructure linking the new appointment area to the incumbents existing network may also be required, and sometimes this infrastructure can be substantial. This section of our NAV charging arrangements relates to:

- (i) the capital contribution that new appointees must make in respect of that infrastructure; and
- (ii) how zonal charges will be dealt with.

2. Definitions and Scope

2.1. "Site Specific" and "Network Reinforcement"

In these charging arrangements, we use the same definitions of "site-specific" and "network reinforcement" that we use in our developer charging arrangements. Consequently:

- (i) "site specific" work means work undertaken beyond our existing network, which means downstream of the point of connection on our water network or upstream of the point of connection on our sewerage network; and
- (ii) "network reinforcement" means work undertaken to our existing network, which means upstream of the point of connection on our water network or downstream of the point of connection on our sewerage network.

2.2. Capital Contributions to Site Specific Work

A capital contribution is payable where capital costs are incurred in carrying out site-specific work for the purposes of providing new or additional water supply and/or water recycling services. It is not payable in respect of network reinforcement

2.3. Zonal Charges fund Network Reinforcement

The cost of Network Reinforcement in respect of the bulk supply or bulk sewerage services is not charged directly to the NAV. Instead, the costs of all Network Reinforcement in the Anglian Water region (whether to NAVs or direct to developers) are funded via the Zonal Charge. The Zonal Charge is payable by the developer or the NAV each time a property is connected to the relevant network.

2.4. Activities to which this Policy is relevant

The table below highlights the activities for which this Policy is relevant, together with the sections of the [Water Industry Act](#) that set out our duties in respect of each activity.

Table 4

Applicant	Purpose of Infrastructure	Properties to be served	WIA section
NAV	Domestic water supply	Household	40, 40A
NAV	Domestic water supply	Non-household	40, 40A
NAV	Non-domestic water supply	Non-household	40, 40A
NAV	Domestic discharge	Household	110A, 110B
NAV	Domestic discharge	Non-household	110A, 110B
NAV	Non-domestic discharge	Non-household	110A, 110B

2.5. Governing Laws and Rules

Ofwat has set out rules governing how undertakers may charge for requisitions made under sections 41 (water infrastructure for domestic purposes) and 98 (sewerage infrastructure for domestic purposes). However, charging rules do not currently extend to the other activities set out in section 2.4 at the current time, although Ofwat has the ability to create charging rules in respect of NAV charges under sections 40B and 110C of the [Water Industry Act](#).

Condition E of our Instrument of Appointment requires us to ensure no undue discrimination in certain charges: in general these include customer charges (including developer charges where appropriate) but not NAV charges. Ofwat has proposed a modification to the conditions to Anglian Water's Instrument of Appointment, which may have the effect of prohibiting discrimination in NAV charging.

Section 18 of the Competition Act 1998 prohibits undertakings from abusing a dominant position in a market in order to distort competition. It is clear law that section 18 is engaged even if the dominant position and the distortion of competition occur in different markets. It is therefore important that we do not apply charges for infrastructure in a way that either unduly subsidises or unduly penalises a potential NAV.

3. Principles of these Charging Arrangements

3.1. Application of a Discount

- (i) For requests by NAVs for site-specific work by way of the provision by Anglian Water of new water mains for domestic purposes between the current network and the boundary of the NAV's appointed area (including the new connection itself), we will levy a charge equal to 12% of the actual cost of the site specific work.
- (ii) If the NAV wishes to construct this infrastructure itself and offer it for adoption by Anglian Water, we will apply the same principles as are set out in Part H of our new connections (developer) charging arrangements. This means that subject to the same terms as set out in that document, we will make an asset payment of 88% of the notional costs of the site specific work.

- (iii) For requests by NAVs for sewerage infrastructure or for water infrastructure for non-domestic purposes, we will not apply a discount. We will therefore require a full capital contribution towards the infrastructure costs, and we will not make any asset payment.

3.2. Water Infrastructure for Both Domestic and Non-domestic Purposes

Where capital costs are incurred in providing a new water main to be used for both domestic and non-domestic purposes, the principles in this section will apply to the domestic and non-domestic demand on a proportional basis. Hence:

$$\text{Capital contribution required from the customer} = I\left(\frac{N}{T} + F\frac{D}{T}\right)$$

I = the total cost of the new infrastructure (or such proportion of it, given the provisions of paragraph 3.3 below, that is subject to contribution by the customer)

N = the peak flow of water in the new water main that will be used for non-domestic purposes (in litres per second)

D = the peak flow of water in the new water main that will be used for domestic purposes (in litres per second)

T = the sum of N and D in litres per second

F = the contribution percentage for requisitions of new water mains for domestic purposes as set out in Part E of our new connections (developer) charging arrangements

- (i) There will be no upper or lower threshold to application of this principle. Consequently, even if only one property (or all but one property) among those to be supplied via the main is using water for non-domestic purposes, the principle in this paragraph will still be applied.
- (ii) We will apply standardised peak flow assumptions for each household unit that will be served by the new water main.
- (iii) The principle in this paragraph will be applied regardless of whether the application is by a developer under sections 41 and 55, by a developer with its retailer under section 66A, or by a NAV under section 40A of the Act.

3.3. Network Reinforcement and the Zonal Charge

Developer charging rules prohibit the costs of network reinforcement being added to charges for requisitions for domestic purposes. Instead, these are socialised into our zonal charge, details of which can be found in part K of our new connections (developer) charging arrangements.

We will seek to apply the principles of the zonal charge in exactly the same way, whether the application is by a developer under sections 41 and 55, by a developer with its retailer under section 66A, or by a NAV under sections 40A and 110B of the Act and whether the water main or sewer is constructed in order to provide a service for domestic or non-domestic purposes. The NAV will be required in its bulk supply and/or bulk discharge agreement to pay the equivalent of the zonal charge each time premises are connected.

3.4. On-site infrastructure and the Zonal Charge

In its November 2017 "[Decision Document](#)", Ofwat noted that the position of the NAV is not the same as that of a developer in respect of the infrastructure they may construct within the new appointment area or development. Whereas the developer is entitled to an asset payment, the NAV is not. In expectation of changes to the charging rules, we will offer a discount on the water zonal charge as set out in *Table 5*.

The same NAV discount will be given against the "relevant multiplier" zonal charges payable in respect of the connection of non-household properties. This is described in Condition C of our [Instrument of Appointment](#).

However, no discount will be given in respect of properties that use water for non-domestic purposes (process water); nor will any discount be given against the sewerage zonal charges, because we do not make any asset payments to developers when they lay sewers for adoption.

Table 5

Water zonal charge (household)	
Fixed element	£370.00
Variable element	£88.50
NAV discount per property	£409.29
Net NAV water zonal charge (household)	£49.21

3.5. Supporting greater capacity than that required by the primary customer

Where it is appropriate to do so, we may decide to provide additional capacity beyond that required by the applicant (whether developer or NAV) in anticipation of demand from future developments. In such circumstances it would be unreasonable to request a capital contribution for the entire scheme from that applicant.

In this case we will apportion the cost of the infrastructure in accordance with the capacity provided to the applicant.

Our position on attributing the costs of that extra capacity to subsequent developers or NAVs that use it has changed. We no longer charge requisitioning developers on an individual scheme basis for capacity provided in water mains or sewers requisitioned in the previous 12 years (under sections 43(4)(b) or 100(4)(b) of the Water Industry Act): this charge is "socialised" within our zonal charge. The same charge will be made to any NAV seeking a bulk supply for domestic purposes in the same way.

3.6. Alternative connection points and phasing

The charging basis for new water mains and sewers between the appointment area and our network assumes a connection point that is the nearest water main or sewer (as appropriate) on our network to the desired point of delivery, whose diameter is no less than the new water main or sewer. Occasionally, we may select a different point on our network. If we lay the new water main or sewer, the NAV's contribution will not change; if the NAV lays it, we will pay the reasonable marginal costs in addition to the asset payment set out in paragraph 3.1.

Occasionally, either we or the NAV may seek to install more than one connection between the new appointment area and the existing network in order to accommodate accelerated phases of development, or to accommodate network reinforcement works necessary to avoid supply deficiencies or flooding risks. This may, or may not, involve the installation and subsequent disconnection of a temporary supply or discharge point. If these works are undertaken at the NAV's request, the NAV will be charged in accordance with the principles set out in paragraph 3.1; but if these works are undertaken at our option, we will bear the costs of the additional work in accordance with the foregoing paragraph.

4. Date these arrangements comes into effect

These charging arrangements come into effect in full on the date of publication, although they substantially follow charging principles that we have been applying since 1 April 2018.

However, Part N of our new connections (developer) charging arrangements sets out transitional provisions that apply to developers seeking new infrastructure. We will apply these in the same way, whether the application is by a developer under sections 41 and 55, by a developer with its retailer under section 66A, or by a NAV under section 40A of the Act and whether the water main or sewer is constructed in order to provide a service for domestic or non-domestic purposes.

5. Application

These charging arrangements, along with Ofwat's charging rules for new developments and our charges regime, will guide our approach to collecting contributions for capital infrastructure as a result of additional demand. Setting out our principles in - and consistently applying - these arrangements will ensure that we treat all of those to whom we provide a service fairly, transparently and equivalently.

APPENDIX 1

1. Water Service Example (no upfront investment)

Information Required	Code	Provider	Sample Data
Number of households	NH	NAV	200
Number of non-households	NN	NAV	1
Average household demand	HD	NAV	100m ³
Average non-household demand	ND	NAV	250m ³
Measured household fixed charge	HF	AWS	£5.35
Measured household volumetric rate	HV	AWS	£1.5903
Measured non-household fixed charge	NF	AWS	£7.00
Measured non-household volumetric rate	NV	AWS	£1.3542
Leakage Allowance	LA	AWS	2.16%

Demand

$$\text{Forecast Customer Demand} = (200 \times 100\text{m}^3) + (1 \times 250\text{m}^3) = 20,250\text{m}^3$$

Relevant Wholesale Tariff

$$\text{Wholesale Fixed Charge} = (200 \times £5.35) + (1 \times £7.00) = £1,077$$

$$\text{Wholesale Volumetric Charge per m}^3 = \frac{((200 \times 100\text{m}^3 \times £1.5903) + (1 \times 250\text{m}^3 \times £1.3542))}{20,250\text{m}^3} = £1.5874$$

Ongoing On-Site Costs

$$\text{Ongoing On – Site Costs} = £34.60 \times (200 + 1) = £6,955$$

NAV Charges

$$\text{NAV Fixed Charge} = \frac{£1,077 - £6,955}{(200 + 1)} = -£29.24 \text{ per property}$$

$$\text{NAV Volumetric Charge per m}^3 = \frac{£1.5874}{(1 + 0.0216)} = £1.5538$$