

Understanding the consumer bill

Calculation methodology – 2020/21 bill December 2021

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Energy bills can sometimes be confusing, and it's not always clear what consumers are paying for. Read on to find some answers...

National Grid Electricity Transmission direct charges account for 3% of the average household electricity bill

That's around £20 a year on average per household

For this, we perform the following role:

£20

Building and maintaining the wires, cables and substations that make up the England and Wales electricity network, so it continues to be one of the most reliable networks in the world

What do we mean by consumers?

When talking about our impact on consumer bills, 'consumer' means households across Great Britain

Our regulator, Ofgem, provides us with an average energy demand per household which we use in our bill calculations

How is this different to customers?

Our customers are people or organisations who pay for the products and/ or services they receive from us

Electricity Transmission: how the £20 is made up

Past Investment	36%	
Funding network spend	28%	
Running and operating costs	13%	
Current investmentin the network	13%	
Rates and licence	8%	
Incentives	1%	
Innovation	1%	

When we invest in the network, the cost is spread so consumers pay over the life of the asset. This portion relates to past investment Upfront spend comes with an associated cost of raising funds - this is similar to the interest paid on a loan The day-to-day costs of running the network, including our staff costs When we invest in the network, the cost is spread so consumers pay over the life of the asset. This portion relates to investment in the current regulatory period The obligatory charges that we have to pay in order to operate We are incentivised to provide additional benefits for consumers We are funded to innovate to ensure we provide future benefits for consumers

For more information on what we do and our performance, please click here.

How are our charges impacted by regulation?

Why we are regulated?

Because there's no alternative to our high voltage electricity transmission network, we're classed as a 'natural monopoly'

To simulate the pressures of competition and make sure we're charging fair prices for the services we provide, we're regulated by the energy regulator, Ofgem

Every few years, we submit our future business plans to Ofgem. They review and assess these plans and tell us what we can charge our customers for the next regulatory period, known as a 'price control' period.

How does regulation impact our charges?



Regulation makes sure that our charges represent an efficient cost for the services we provide, whilst also allowing us to invest in the transmission networks and run them properly

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To encourage us to provide additional benefits for consumers, Ofgem uses financial incentives. These can either be penalties or additional revenue (funded by our customers), depending on whether or not we meet Ofgem's targets.



Ofgem incentivises us to find more efficient ways to deliver our activities, if we can find cheaper solutions the benefit is shared between consumers and National Grid.

How consumer charges are calculated

We calculate our consumer bill impact using Ofgem's consumer bill methodology – this splits costs into segments such as wholesale energy costs, environmental and network charges

The numbers we quote are our *direct impacts* to end consumers. We collect this revenue from electricity generators and suppliers, for example.

This doesn't include the costs we charge to other transmission network users, such as large-scale industrial users.

For more information on Ofgem's bill methodology please click <u>here</u>

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What can change the National Grid element of the consumer bill?

There are two key factors which have an impact on consumer bills:

	What is it?	How does it affect the consumer bill?	
	Revenue is the money we collect for the	Our revenue can go up or down, depending on what we need to deliver	
Factor 1 Revenue	services we provide, as agreed with Ofgem at the start of the price control	Changes to the way we charge our customers can affect the proportion of revenue we collect from different types of users	
Factor 2 Demand	Demand is the amount of energy that is required on the network	Changes in overall demand and average electricity consumption by consumers can alter our bill impact 5	

How revenue is turned into bill impact

We take the part of our revenue that relates directly to consumers	This is divided by demand to give a network unit cost, expressed as cost per MegaWatt hour (MWh)	We then use the Ofgem data for average household consumption	And multiply the network unit cost by average household consumption to give the average bill impact per household
£1.7bn	£1.7bn ÷ demand of 239 million MWh* = unit cost of £6.96 per MWh	2.9 MWh** per household p/a	£6.96 x 2.9 MWH = c£20 per household p/a

* Demand has been adjusted to reflect distribution losses

** Most recent Ofgem data as per October 2019, for more information click here

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