

Title: Allowing upfront Assessment & Design Fees to be charged IA No: BEIS034(F)-17-ESNM RPC Reference No: RPC-4200(1)-BEIS Lead department or agency: BEIS Other departments or agencies:	Impact Assessment (IA)			
	Date: 18/12/2017			
	Stage: Final			
	Source of intervention: Domestic			
	Type of measure: Secondary legislation			
Contact for enquiries: birgit.wosnitza@beis.gov.uk paul.hawker@beis.gov.uk				
Summary: Intervention and Options			RPC Opinion: Green	

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
£153m	-£2.41m	£0.2m	To be determined	To be determined

What is the problem under consideration? Why is government intervention necessary?
 Currently, only customers that accept a connection offer to the electricity distribution network, from a Distribution Network Operator (DNO), are required to pay a fee ('Assessment & Design fee') covering the costs incurred by the DNO in preparing the offer. These customers also pay the DNO costs of providing connection offers that are not accepted. In recent years, the number of connection applications and proportion of connection offers not being accepted has grown. This has led to an increase in the DNO resources required to prepare the connection offers and in the costs being spread across those who accept their offers.

What are the policy objectives and the intended effects?
 The primary policy objective is to allow for a fairer allocation of costs by ensuring that customers who do not accept connection offers contribute to, or entirely pay for, the costs of assessing their applications. A secondary objective is to ensure efficiency in the connections market by potentially reducing the number of non-accepted/potentially speculative connection applications and helping to ease pressure on distribution networks.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)
 This Assessment considers:
 1. 'Do Nothing', where the status quo continues.
 2. Policy Option, which introduces regulations that allow DNOs to charge upfront A&D fees and with the regulations leaving implementation to DNOs, such as exemptions or type of fees charged (e.g. flat, cost-reflective).

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 04/2023				
Does implementation go beyond minimum EU requirements?			N/A	
Are any of these organisations in scope?			Micro Yes	Small Yes
			Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/A	Non-traded: N/A

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister:  Date: 21/02/2018

Summary: Analysis & Evidence

Policy Option 1

Description: Allowing upfront Assessment & Design Fees to be charged

FULL ECONOMIC ASSESSMENT

Price Base Year 2016	PV Base Year 2018	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -3.2	High: 309	Best Estimate: 153

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.3	93	782
High	0.3	93	783
Best Estimate	0.3	93	782

Description and scale of key monetised costs by 'main affected groups'

This Impact Assessment has identified a best estimate present value of costs for DNOs, Ofgem and connection customers of £782m. This includes costs for DNOs and Ofgem of around £2.8m, costs for all connection customers of £156m for better service provision and a transfer cost of £623m for customers not accepting offers, who now face the costs associated with their offers. Note, this transfer cost is offset by £779m of transfer benefits for customers accepting their offers.

Other key non-monetised costs by 'main affected groups'

There are potential costs for DNOs and Ofgem associated with allowing existing regulatory mechanisms to ensure clarity and consistency in implementation. However, DNOs already publish information on their approaches and charges for A&D fees, overseen by Ofgem, and would be required to do so for upfront A&D fees thereby providing clarity and consistency. For both DNOs and Ofgem, any additional costs are assumed to be subsumed in business as usual activities.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0	93	779
High	0	130	1091
Best Estimate	0	112	935

Description and scale of key monetised benefits by 'main affected groups'

This Impact Assessment has identified a best estimate present value of benefits for DNOs and customers accepting offers of £935m, This includes freed-up and better deployed DNO resources of £156m and a transfer benefit of £779m for customers accepting offers, who now face lower costs. Note, that this transfer benefit is partially offset by £623m of transfer costs for customers not accepting their offers.

Other key non-monetised benefits by 'main affected groups'

They key unquantified benefits are the increased sense of equity and improved service in the connections market. In addition, DNOs may benefit from wider benefits linked to better service provision, such as improved reputation. There are also potential other knock-on benefits for others (e.g. Transmission System Operator, Transmission Owners) due to potentially fewer/more targeted requests, which require less resource or costs.

Key assumptions/sensitivities/risks Discount rate (%) 3.5%

The key assumptions made in this Impact Assessment are on

- Implementation and administration costs
- Number of connection offers going forward under Do Nothing and the Policy Option
- Cost of providing connection offers for different projects

Information was provided by DNOs and Ofgem and taken from Ofgem's *Connections Reporting Pack*.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: £80.1m	Benefits: £79.8m	Net: -£0.2m	1.0

Evidence Base (for summary sheets)

Background

1. Electricity distribution networks play an important enabling role in meeting our energy and economic objectives. In particular, by ensuring industrial, commercial and domestic demand and generation can connect in a timely and cost effective manner. Providing an efficient connections service to customers is therefore a key supporting activity for meeting these objectives for distribution network operators (DNOs).
2. DNOs are legally obliged to provide a connection offer to customers¹. Assessment & Design (A&D) costs are incurred by DNOs undertaking activities such as desktop studies, drawing plans and site visits in preparing connection offers. Under the existing legal framework, DNOs can only recover the reasonably incurred costs of providing all connection offers (A&D fees) from customers who accept a connection offer. They cannot recover costs from those customers that do not accept the offer. Therefore, those customers that do accept are, in practice, also paying for the A&D costs incurred by DNOs in providing unaccepted offers. The Secretary of State has powers to make regulations allowing DNOs to recover these costs from customers who do not accept offers too.
3. We believe that allowing DNOs to charge upfront A&D fees would make them fairer and more cost-reflective. In addition, DNOs, overseen by Ofgem, are improving their performance in delivering a more efficient connections process. We believe that allowing DNOs² to charge upfront A&D fees would support this. This position was supported by responses to a March 2016 Government Call for Evidence³ and a September 2017 consultation⁴ where the vast majority of respondents favoured allowing DNOs to charge upfront A&D fees.
4. This Impact Assessment accompanies the Government Response to the September 2017 consultation on a draft Statutory Instrument that set out how Government proposes to allow DNOs to charge fees.

The problem under consideration and rationale for Government intervention

5. Under the current legislation, connection offers are free of charge unless a customer accepts the offer and a growing number and proportion of connection offers are not accepted. Data that Ofgem collects through the annual DNO reporting cycle since 2010/11 (*The Connections Reporting Pack*) shows that the number of unaccepted offers has increased significantly over the period 2010/11 to 2015/16. This has led to an increase in resources required to provide connection offers and increase in the costs being socialised across those who accept the offers made by DNOs.
6. This implies that the current situation has created **equity concerns** and '**moral hazard**', which leads to **economic inefficiency**.
 - Equity concerns: The costs to DNOs associated with issuing offers are socialised only across those who accept the offers. Given the increasing amount of non-accepted/potentially speculative applications relative to accepted offers, there is an upward pressure on the level of costs borne by participants who accept offers. In effect, those customers that accept an offer, and so make a contribution to UK GDP through new economic activity, are cross-subsiding those that do not.

¹ Section 16A(1) of the Electricity Act 1989

² The primary legislation and draft Statutory Instrument on Connection Offer Expenses refers to "electricity distributor". This includes DNOs and independent DNOs. We refer only to DNOs throughout this document as their A&D activities are the focus of this measure. The primary legislation and Statutory Instrument do not apply to independent connection providers who are already allowed to charge upfront A&D fees.

³ <https://www.gov.uk/government/consultations/assessment-and-design-fees-call-for-evidence>

⁴ <https://www.gov.uk/government/consultations/assessment-and-design-fees-consultation-on-draft-regulations>

- Moral hazard: Applicants are incentivised to use quotations as a way to secure high quality information on a range of connection scenarios resulting in multiple and repeat speculative connection applications (for a single development) despite its negative implications for others.
 - Economic inefficiency: DNOs have to increasingly divert resources to produce offers for a growing number of applications, which are in the end not accepted. Instead, DNOs could deploy these resources more efficiently, for example, they could improve the quality of the service provided to customers. Also, other projects might be delayed as capacity cannot be allocated until a response to a previous speculative application has been received.
7. DNOs and the majority of stakeholders who responded to the Call for Evidence, have argued these points and agree that the inability to charge upfront A&D fees has had a significant and growing detrimental effect on customers in general.

Policy objectives and intended effects

8. The primary policy objective of introducing A&D fees is to allow for **a fairer allocation of A&D costs**, by ensuring that customers who do not accept connection offers contribute to, or entirely pay for, the costs of assessing their applications.
9. A further policy objective is to help ensure **efficiency in the connections market**, by potentially reducing the number of non-accepted/potentially speculative connection applications and helping to ease pressure on distribution networks. Large numbers of non-accepted/potentially speculative applications from developers can result in the network appearing “full” in terms of booked capacity, as well as creating a significant workload for DNOs. A reduced number of non-accepted/potentially speculative applications may also enable DNOs to use their resources more efficiently, for example by providing an improved service for connection customers.

Policy options considered, including alternatives to regulation

10. At consultation stage we consulted on two potential policy options, both introducing regulations that allow DNOs to charge upfront A&D fees but one which leaves the implementation details up to DNOs (such as exemptions or type of fees charged (e.g. flat, cost reflective)) and the other which includes more specific provisions in the regulations. The responses to the consultation revealed broad support for leaving implementation details up to DNOs and Ofgem as it was felt that more flexible and less prescriptive regulations were more beneficial given that rules, regulations and stakeholder requirements around connections regularly change and develop. It was also felt that clarity and consistency would be best ensured through existing regulatory mechanisms rather than the regulations themselves. Given this, this Impact Assessment considers one preferred Policy Option relative to ‘Do Nothing’ (the baseline):
- **‘Do Nothing’**: Continue the current framework whereby DNOs only recover A&D costs from those customers accepting connection offers.
 - **Preferred ‘Policy Option’**: Government introduces regulations that allow DNOs to charge upfront A&D fees. The regulations leave implementation details up to DNOs, such as exemptions or type of fees charged (e.g. flat, cost reflective) overseen by the regulator, Ofgem, but include provisions on over recovery of costs and transparency.

11. The introduction of regulations is necessary to enable DNOs to charge upfront A&D fees; it cannot be achieved through other means, for example, voluntary agreements as DNOs need a legal basis to charge upfront A&D fees. The only alternative would be to retain the status-quo (i.e. Do Nothing).

Monetised and non-monetised costs and benefits of each option

12. This section assesses the costs of and benefits associated with the Policy Option of **allowing** DNOs to charge upfront A&D fees (leaving implementation details up to DNOs and Ofgem, such as exemptions or type of fees charged) relative to 'Do Nothing'.
13. To assess the costs and benefits, this Impact Assessment relies on stylised scenario analysis using best available quantitative and qualitative information from stakeholders and Ofgem. The key assumptions are set out below.

Key assumptions

14. Table 1 sets out the 3 different scenarios this Impact Assessment assumes with regards to the development of accepted and unaccepted connection offers going forward under both 'Do Nothing' and the Policy Option. These scenarios are based on historic connection offer information in Ofgem's Connections Reporting Pack⁵ and are assumed to rise going forward (historic rising trend continues). This reflects the trend towards more decentralised generation such as solar PV, an increase in electricity storage, and more electricity demand including from electric vehicles, housing and heat pumps. We also tested flat scenarios (average amounts over 2011/12-2015/16 continue going forward). NPV results for these fall within the 'rising' scenarios' range and for simplicity we have not included them in the below cost benefit assessment. DNOs have advised that a short term application rush ahead of implementation is unlikely. Other factors, such as economic conditions, government policy changes or procurement of new technologies (e.g. storage), are the main drivers for changes in connection applications.
15. The number of connection offers excludes small project connections⁶, as DNOs have stated publicly that they do not plan to charge these categories of customer. The table also excludes connection offers issued by Independent DNOs (IDNOs⁷). It is unlikely that IDNOs would introduce upfront A&D fees, as not introducing them could help them remain or become more competitive with DNOs and Independent Connection Providers⁸ (ICPs). IDNOs are also not subject to the scale of non-accepted/potentially speculative connection applications that DNOs are. In addition, IDNOs are a much smaller part of the connections market and the focus of the measure is on DNOs. We also note that there is a lack of available information on the number of offers made by IDNOs as Ofgem's Connections Reporting Pack only includes the number of IDNO offers for contestable work. ICPs already have the ability to charge upfront A&D fees and are therefore also excluded from the table.
16. While the main objective of the policy option is to allow for a fairer allocation of costs, it may also support efficiency in the connections market, by potentially reducing the number of non-accepted/potentially speculative connection applications, which will result in freed up and better deployed DNO resources. This impact relies on behaviour change of connection customers and is therefore considered to be an indirect impact of the proposed policy option. To quantify the potential efficiency gain this Impact Assessment assumes that at the most 40% of non-accepted/potentially speculative applications could be

⁵ The Connections Reporting Pack shows connection and offer data collected by Ofgem since 2010/11 through the annual DNO reporting cycle.

⁶ Small-scale embedded generation customers and demand customers with up to 4 premises in the same application.

⁷ IDNOs construct, own and operate electricity distribution networks which will predominately be extensions connected to the existing distribution system, eg to serve new housing developments or business parks.

⁸ ICPs are accredited companies who compete in the market to provide connections to the distribution system. They can offer these services directly to the customer, eg installing cable from the premises to the distribution system. ICPs do not own and operate networks; instead the new assets must be adopted either by the DNO or IDNO.

deterred. The Energy Networks Association⁹ business case to the Department making the case for allowing upfront A&D fees stated that “connection offers issued might reduce by up to 40%”. DNOs based this estimate on their initial proposal for a ‘nominal’ upfront A&D fee representing around 25% of the actual A&D costs incurred by DNOs with the residual being recovered in the current manner (socialised over those who accept). While this option would still be open to DNOs, we believe that they will charge upfront A&D fees that are much closer to the actual costs incurred which may have a bigger impact on applications. In this Impact Assessment, the 40% is treated as a maximum as it is likely to also include the effect of other economic drivers, including Government support for renewable generation, for increased volumes of connection offers.

17. In addition, DNOs have provided anecdotal evidence on the sheer scale of non-accepted/potentially speculative connection offers per customer. For example, most of the DNO areas have submitted instances of customers making between 100-300 applications, of which none or only up to 15 offers were accepted. They also note that, typically, such applications are submitted in bulk over a short period of time and without notice. Under the policy option, this sort of behaviour is very likely to be dis-incentivised.
18. It is difficult to quantify how exactly the level of connection offers might reduce following the introduction of upfront A&D fees as this will depend on the level of behaviour change by connection customers. Based on the above it is very likely to have some indirect impact, particularly on the larger schemes and on distributed generation applications, where non-accepted/potentially speculative applications are highest. To capture the possibility of some reductions in the volume of connection offers, we assume a range of 0% (Scenario 1) to 40% (Scenario 3), with a best estimate of 20% (Scenario 2). Without any behaviour change by connection customers, no reduction in connection offers takes place.
19. The Impact Assessment considers a default 10 year time period from 2018 to 2027 to assess costs and benefits and assumes that all DNOs decide to make use of the enabling legislation, that DNOs update their systems and Ofgem makes licence changes in 2018 and that DNOs only implement upfront A&D fees from the beginning of 2019 onwards. All cost estimates are quoted in 2016 prices and present values are discounted to 2018 at a 3.5% social discount rate.

Table 1 – Projected connection offers provided by DNOs over the next 10 years, ‘000

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Accepted offers	21.8	22.5	23.3	24.0	24.8	25.5	26.3	27.0	27.8	28.5
Scenario 1: Unaccepted offers (0% reduction)	46.3	48.6	50.8	53.1	55.3	57.5	59.8	62.0	64.2	66.5
Scenario 2: Unaccepted offers (20% reduction)	37.1	38.9	40.7	42.4	44.2	46.0	47.8	49.6	51.4	53.2
Scenario 3: Unaccepted offers (40% reduction)	27.8	29.1	30.5	31.8	33.2	34.5	35.9	37.2	38.5	39.9

20. Table 2 shows the assumed distribution of connection offers across low, high, extra high voltage demand and generation connections. It also shows the average cost associated with A&D activities. This is based on 2015/16 information in Ofgem’s Connections Reporting Pack¹⁰ and DNOs’ Connection Charging Statements¹¹.

⁹ The Energy Networks Association is the trade association for UK gas and electricity network companies.

¹⁰ The Connections Reporting Pack shows connection and offer data collected by Ofgem since 2010/11 through the annual DNO reporting cycle.

¹¹ The Connection Charging Statements set out DNO connection charges and provide other information to explain the options available for obtaining a connection and the processes that need to be followed. They are approved by Ofgem.

Table 2 – Average distribution and cost of connection offers across DNOs, % and £ (2016)

Low Voltage Demand	37%	£470
High Voltage Demand	39%	£1,900
Extra High Voltage Demand	1%	£5,400
Low Voltage Generation	6%	£800
High Voltage Generation	13%	£3,500
Extra High Voltage Generation	5%	£6,900

Costs under the Policy Option**Costs for DNOs**

21. If DNOs decide to make use of the enabling secondary legislation, they will incur one-off costs for changes to IT systems for billing, changes to the common connection charging methodology (CCCM)¹², changes to their websites and staff training. While DNOs have confirmed that the latter three would fall under business as usual (BAU) and not create any additional costs, they have provided a cost range of £0-£200k for changes to IT systems. Some DNOs have an internal IT unit and expect this cost to fall within BAU; others however expect some additional costs, with £200k being the upper estimate. This Impact Assessment assumes a cost of £100k incurred by half of the six DNOs. This results in a total additional one-off cost of £300k in 2018. As these costs are an immediate result of making use of the enabling secondary legislation, these costs are treated as a **direct impact on business**.
22. Some of the DNOs will also incur ongoing costs, such as additional invoicing and payment processing and pursuing any additional non-payment. DNOs have confirmed that to deal with additional invoicing some might have to increase administrative headcount while others will be able to deal with this under business as usual. This Impact Assessment assumes half of the DNOs would incur these costs, resulting in a range of £60k-£180k additional annual costs. Based on DNO advice, this range assumes that each invoice takes up to 15 minutes and that staff is being paid an average annual salary of £30k. As these costs are an immediate result of making use of the enabling secondary legislation, these costs are treated as a **direct impact on business**.
23. With regards to costs relating to pursuing non-payment, this Impact Assessment assumes that in the vast majority of cases the customer will only receive the connection offer once the A&D fee has been paid. As a result, this Impact Assessment only assumes a small amount (1%) of non-payment occurs, of which half will be unsuccessfully recovered by DNOs. The unrecoverable connection offer cost per case is assumed to be £520, which represents a low voltage connection project weighted average connection offer cost. Any admin costs (i.e. sending out reminder letters) are assumed to be subsumed in established debt recovery processes. This results in a range of £90k-£180k additional annual costs if DNOs decide to make use of the enabling secondary legislation. As these costs are an immediate result of making use of the enabling secondary legislation, these costs are treated as a **direct impact on business**.
24. Over a default 10 year timeframe, the present value of all of these additional one-off and ongoing costs for DNOs is estimated to be between £2.4m-£3.2m across scenarios.
25. There are potential costs associated with allowing existing regulatory mechanisms to ensure clarity and consistency in implementation. DNOs already publish information on their approaches and charges for A&D fees, overseen by Ofgem, and would be required to do so for upfront A&D fees thereby providing clarity. We note that changes to how upfront A&D fees are publicised and recovered are more appropriately made through these regulatory processes and DNO activities rather than through changes to the legislation. Any resulting costs are assumed to be subsumed in business as usual. We

¹² Approved by Ofgem, it sets the approach that DNOs take to calculating connection charges and provides other information to explain the options available for obtaining a connection and the processes that need to be followed

also note that the changes to the legislation would also still require changes through the regulatory process to implement, for example amendments to DNO licence conditions.

Costs for all connection customers

26. If DNOs decide to make use of the enabling secondary legislation, DNOs might benefit from freed-up, better deployed resources if behaviour change occurs and non-accepted/speculative connection offers reduce. While this will benefit all connection customers (i.e. better service provision) DNOs will also recover their costs associated with the better service provision from all connection customers. Across scenarios these present value costs range from £0-£312m (equivalent to the amount of freed-up/better deployed resources described in the DNO benefits section below). As these costs require non-accepting/ potentially speculative connection customers to change their behaviour, these costs are treated as an **indirect impact on businesses**.
27. Customers accepting connection offers (including ICPs) face the risk of accepting an offer that represents worse value for money, as they are incentivised to reduce the number of connection applications. However, it is likely that upfront A&D fees would incentivise customers to engage more with the DNO pre-application and use available network information, therefore making better choices. This Impact Assessment assumes the net costs are negligible.
28. There is also a risk that some customers such as smaller non-professional developers (e.g. community renewable projects) could be deterred from pursuing a connection at all if DNOs decided to make use of the enabling secondary legislation and require payment of a fee at an early stage in the process. Based on feedback from DNO stakeholders, this is likely to be a very small risk as these projects tend not to submit speculative connection applications and the level of A&D fees would be relatively small. We also note that such projects which accept their connection offers would face reduced costs.
29. There is also a risk of a customer not submitting the strongest connection application as the customer is incentivised to reduce the number of connection requests submitted. However, allowing DNOs to charge upfront should incentivise customers to seek information and engage with the DNO pre-application, therefore making more informed choices. We also note that DNOs engage with customers while assessing connection applications and can offer alternatives which may meet the customer's needs in a more efficient manner.
30. Customers not accepting connection offers (including ICPs) now have to pay an upfront A&D fee, which constitutes a transfer between customers not accepting and those accepting their connection offers (and therefore does not constitute a resource cost to society). We note that ICP customers can choose to absorb these costs, which could help their competitive position, or pass them on to their customers as DNOs do. This transfer is calculated by multiplying the number of projected connection offers by the weighted average cost of connection offers. Over a 10 year default time frame this is estimated to have a present value of £779m, assuming no behaviour change takes place (Scenario 1 with no reduction in non-accepted/potentially speculative connection offers). This is treated as a **direct transfer cost to businesses** and doesn't constitute a resource cost to society.
31. If behaviour change takes place (Scenario 2 and 3) and non-accepted/potentially speculative connection offers reduce by up to 40%, the present value transfer cost faced by customers not accepting their offers is lower at £468m if offers reduce by 40% or at £623m if offers reduce by 20%. For the purpose of assessing the impact on businesses scenarios 2 and 3, which both include behaviour change are treated as an **indirect cost on business**.
32. Those customers that continue requesting connection offers and continue to not accept any of them will have to incur the administrative cost of making a bank transfer where previously they did not. Bank transfers are typically made via electronic payments which incur a low administration cost in general. These costs would therefore be subsumed in customers' business as usual expenditure. We also note that customers who submit many connection applications for the same project and accept one of them would be making a payment to the DNO anyway for the connection.

33. Familiarisation costs for all connection customers are assumed to be insignificant as customers would receive detailed explanations of the new approach on the DNOs websites and through other publicity.

Costs for Ofgem

34. Ofgem would face additional one-off costs for the review of and decision making on the necessary changes to the CCCM. Ofgem estimates that these one-off costs would be around £15k. Also, to ensure that DNOs can require payment as a pre-condition for issuing a connection offer Ofgem would have to implement licence changes, which would cost Ofgem £21k (as advised by Ofgem). Ofgem believes that other ongoing costs, such as additional monitoring or appeal costs, are minimal. Over a 10 year default time frame the present value of Ofgem's costs is estimated to be £36k. As Ofgem is an industry-funded regulator, all of these additional costs are passed on as **direct costs to businesses**, i.e. network licensees (the Transmission System Operator (TSO), Transmission Owners (TOs), DNOs, and Gas Distribution Network Operators (GDNs)), who are then assumed to pass these costs through to generators, suppliers and ultimately domestic and non-domestic consumers¹³. Similar to costs for DNOs, there could be potential additional costs for Ofgem associated with ensuring clarity and consistency in implementation due to the preferred policy option not including detailed provisions in the regulations. This is assumed to be subsumed in business as usual costs for Ofgem.

Costs for end users

35. End users would eventually face the **pass through** of most DNOs', connecting customers' and Ofgem's costs as set out above, either through charges or electricity prices. Given that costs are relatively small compared to, say, the wholesale costs of electricity and are mitigated in some cases (e.g. customers engaging with DNOs more effectively pre-application), potential increases in prices due to allowing DNOs to charge upfront A&D fees would be insignificant.

Benefits under the Policy Option

Benefits for DNOs

36. If DNOs decide to make use of the enabling secondary legislation, a potential efficiency gain might materialise in addition to the fairer allocation of A&D costs (increased equity), the primary aim of the proposed policy option. In this case, DNOs may benefit from a reduced and smoother demand for connection offers as customers are assumed to consider their requests for offers more carefully, for example following certain policy or market developments. This implies DNOs can deploy their resources more efficiently elsewhere, for example, they can improve the quality of the service provided to customers. The present value of freed-up and better deployed resources is estimated to be between £0m-£312m across scenarios; this is equivalent to the amount saved from non-accepted/potentially speculative connection offers being deterred (i.e. 0-40%). The actual value to DNOs of being able to provide better services might outweigh this quantified value as it will have wider benefits, such as on reputation. As these benefits require connection customers to change their behaviour, these benefits are treated as an **indirect impact on businesses**. It is important to note that DNOs would not benefit financially from the proposed Policy Option, as DNOs recover their connection offer costs under both Do Nothing and the Policy Option.

37. The flexible and non-prescriptive nature of the proposed secondary legislation is also beneficial given that rules, regulations and stakeholder requirements around connections regularly change and develop. The proposed high level regulations ensure that they are future proof and that the need to change secondary legislation in future is minimised. Furthermore, the non-prescriptive nature of the

¹³ Ofgem costs are passed on to the network businesses that hold licences for gas transportation and electricity transmission with system operator conditions (National Grid Electricity Transmission), and electricity and gas distribution. These costs are treated as 'pass-through costs', which means that licence holders, in turn, recover the costs from generators and suppliers, which ultimately pass costs onto consumers.

proposed secondary legislation allows timely implementation and reduces the risks around delaying the benefits of fairer allocation of costs.

Benefits for all connection customers

38. If DNOs decide to make use of the enabling secondary legislation, the connections market as a whole will benefit from a fairer allocation of A&D costs, by ensuring that customers who do not accept connection offers contribute to, or entirely pay for, the costs of assessing their applications. This equity benefit has not been quantified, but constitutes a **direct impact on businesses and society as a whole**.
39. In addition, if customers not accepting connection offers change their behaviour by requesting fewer connection offers, all connection customers (including ICPs) may benefit from better quality and quicker connection offers and potential additional or improved online tools as DNOs have to divert less resource and can use them more efficiently. While between £0m-£312m of resources across scenarios are now better deployed (counted as an indirect benefit to DNOs), the actual value of better service provision (counted as pass through to connection customers) is likely to outweigh the value of the freed-up resources. This is treated as an **indirect impact on businesses**.
40. Customers accepting connection offers face a reduced socialised connection offer cost as customers who do not accept their offers would now have to pay their own A&D fee. This constitutes a transfer between customers accepting and those not accepting their connection offers (and therefore does not constitute a resource cost to society) and is calculated by multiplying the number of projected connection offers by the weighted average cost of connection offers. Relative to 'Do Nothing' the present value of benefits to customers accepting offers is £779m across scenarios. This benefit is the same across scenarios as no matter what happens under the policy option, customers accepting offers will benefit from not facing the full amount of socialised costs that they would have faced under 'Do Nothing'. This is treated as a **direct transfer benefit to business** between customers and therefore doesn't constitute a resource cost to society.

Benefits for the Transmission System Operator¹⁴ and Transmission Owners¹⁵

41. If DNOs decide to make use of the enabling secondary legislation, the TSO and TOs will benefit from better quality information from DNOs (pass through benefit) based on offers that are more likely to progress and fewer of them. Consequently, the TSO, for example, might be able to reduce the resources it devotes to assessing the impact of potential distribution network connections on the transmission system (indirect benefit). This potential knock-on benefit has not been quantified and is treated as an **indirect benefit to businesses**.

Other groups

42. If DNOs decide to make use of the enabling secondary legislation, other groups (including land agencies, local authorities, Highways Agency etc.) will also receive fewer and more targeted requests from DNOs for information on specific connection projects (pass through benefit). Consequently, these other groups might benefit from reduced work or costs. These indirect benefits have not been quantified and are treated as an **indirect benefit to businesses**.

End users

43. If DNOs decide to make use of the enabling secondary legislation, end users will be able to benefit from connecting customers' lower costs (i.e. as they would no longer pay the full amount of socialised costs), either directly (if they are the customer) or in the form of lower electricity prices through Distributed Generation (DG) connectees. However given that these benefits are relatively

¹⁴ The Transmission System Operator is responsible for managing and operating the GB transmission network. For connections it liaises between Transmission Owners and the connection customer to ensure the most efficient solution is identified.

¹⁵ Transmission Owners construct, maintain and own the GB transmission network.

small compared to, say, the wholesale costs of electricity, potential decreases in prices due to allowing DNOs to charge upfront A&D fees would be relatively insignificant. These benefits are treated as pass-through benefits and are not counted.

Summary

44. Table 3 summarises the quantified and unquantified costs and benefits across all scenarios. The total quantified NPV of the policy over a default 10 year timeframe ranges from a cost of £3.2m, if there is no reduction in non-accepted/potentially speculative connection offers but increased equity (unquantified benefit), and a net benefit of £309m, if in addition to increased equity non-accepted/potentially speculative connection offers reduce allowing DNOs to deploy their resources more efficiently. Our best estimate is based on the medium scenario 2 with a 20% reduction in offers due to allowing DNOs to charge upfront A&D fees. This results in a NPV of £153m.

Table 3: Summary of costs and benefits over 10 years (2016 prices, discounted to 2018)

	Scenario 1	Scenario 2	Scenario 3
	0% reduction in non-accepted/speculative connection offers (No Behaviour Change)	20% reduction in non-accepted/speculative connection offers (Behaviour Change)	40% reduction in non-accepted/speculative connection offers (Behaviour Change)
Costs			
DNOs	3.2	2.8	2.4
All connection customers	0	156	312
Customers accepting offers	0	0	0
Customers not accepting offers	779 (transfer)	623 (transfer)	468 (transfer)
Ofgem	0.03	0.03	0.03
End-user	Pass-through cost		
TOTAL COST	783	782	782
Benefits			
DNOs	0	156 Improved reputation	312 Improved reputation
All connection customers	Increased sense of equity	Increased sense of equity & Improved service	
Customer accepting offers	779 (transfer)	779 (transfer)	779 (transfer)
Customers not accepting offers	0	0	0
SO and TOs		Better information and reduced resources	
Other groups		Fewer/more targeted requests and reduced work or costs	
End-user	Pass-through benefit		
TOTAL BENEFIT	779	935	1091
NPV	-3.2 (Low)	153 (Best Estimate)	309 (High)

Rationale and evidence that justify the level of analysis used in the Impact Assessment (proportionality approach)

The proposed change to allow DNOs to charge upfront A&D fees does not present a contentious policy change. The amendments proposed are designed to enable the establishment of a fairer allocation of A&D costs and to ensure efficiency in the connections market. It is low risk and flexible and is likely to have an overall positive impact. During stakeholder discussions and following the Call for Evidence¹⁶ and

¹⁶ <https://www.gov.uk/government/consultations/assessment-and-design-fees-call-for-evidence>

the consultation on draft regulations¹⁷ the vast majority of respondents favoured allowing DNOs to charge upfront A&D fees (i.e. fees which can be charged when a DNO has incurred connection offer expenses but before a connection offer is made regardless of whether the customer accepts the offer). We have analysed the potential impacts of allowing DNOs to charge upfront A&D fees using detailed information on connection offers and costs associated with them from Ofgem and stakeholders (i.e. DNOs), respectively. While we believe that these are the most reliable sources of information, there is uncertainty especially around the expected benefits of the legislation change, which is why we have undertaken a wider range of scenarios reflecting insights from stakeholders. The Impact Assessment has quantified the impacts as best as possible recognising the inherent uncertainty.

45. To attempt to quantify further the costs and benefits associated with this change would be costly and time-consuming as it would involve undertaking a complex and detailed survey into the potential behaviour change of connection customers. We do not believe this would be proportionate to the proposals being considered.
46. Through our Call for Evidence and Consultation but also through direct engagement with Ofgem, DNOs and connection customers, we have gathered large amounts of evidence and received broad support for allowing DNOs to charge upfront A&D fees.

Direct costs and benefits to business calculations (following BIT methodology)

47. Table 4 shows a summary of the direct and indirect costs in this Impact Assessment. It is important to note that making a judgement about what is a direct or indirect cost is difficult. This Impact Assessment assumes that all costs and benefits that do not require further behaviour change to materialise and are an immediate result of DNOs making use of the enabling secondary legislation are direct, while those costs and benefits that require behaviour change and therefore a further instance of decision making are indirect. Therefore, the direct business impact calculations are based on Scenario 1 (no behaviour change).

Table 4: Summary of direct and indirect costs

Costs		Benefits	
Direct	Indirect	Direct	Indirect
<ul style="list-style-type: none"> DNO costs Ofgem costs Costs to customers not accepting offers (transfer) 	<ul style="list-style-type: none"> Cost for all connection customers of better service provision 	<ul style="list-style-type: none"> Equity benefit (unquantified) Benefits to customers not accepting offers (transfer) 	<ul style="list-style-type: none"> Better service & information due to freed-up/better deployed resources Better information and reduced resources for the SO/TOs Fewer/more targeted requests & reduced work/costs for other groups

48. For the purposes of the Business Impact Target (BIT) and One-In, Three-Out (OI3O), net costs to business are to be presented in 2014 prices and discounted to 2015 (using a 3.5% social discount rate). Costs are considered for a default 10 year period as the proposed secondary legislation has no end date.
49. The *quantified direct cost impact* on businesses includes a direct cost to DNOs to change IT systems, process additional invoicing and payments and pursue any additional non-payment; a direct cost to Ofgem (an industry funded regulator) to review/decide on necessary changes to the CCCM and to implement licence changes; and a direct transfer cost to customers not accepting their connection offer, who now have to pay an upfront A&D fee. The *quantified* direct impact on business (equivalent annual) is calculated to be £80.1m (cost, 2014 prices, discounted to 2015). These quantified direct costs are eventually passed through to end-users. The **indirect costs** include a cost for all connection customers for better service provision.

¹⁷ <https://www.gov.uk/government/consultations/assessment-and-design-fees-consultation-on-draft-regulations>

50. The main *quantified direct benefit impact* on businesses is the lower cost faced by customers that are accepting their connection offers. The main *unquantified direct benefit impact* on businesses is the increased sense of equity for all customers due to the fairer allocation of costs. The *quantified direct benefit impact* (equivalent annual) is calculated to be £79.8m (benefit, 2014 prices, discounted to 2015). The **indirect benefits** include benefits to DNOs, connection customers, the SO and TOs and other groups (including land agencies, local authorities, Highways Agency etc.). All direct and indirect benefits are eventually passed through to end-users.
51. The total *quantified Present Value of Net Costs to Business (PVNCB)* (best estimate) is equal to £2.41m (cost, 2014 prices, discounted to 2015). Using this value, the equivalent annual net direct cost to business (EANDCB), calculated with reference to the 'Do Nothing' option, is £0.2m (cost, 2014 prices). It is important to note that these estimates exclude the *unquantified benefit* of the increased sense of equity for all customers due to a fairer allocation of costs.

Wider impacts

Competition

52. As set out above, if DNOs make use of the proposed secondary legislation that enables them to charge upfront A&D fees, there is a risk that they will charge a flat fee to each ICP competing for the same connection project even where the DNO would incur minimal costs following the first application. This could mean that DNOs over-recover their costs from potential competitors. We note that those ICPs who are successful (and therefore accept the DNO's connection offer) would pass through lower costs to their customers than under the current regime due to the fairer allocation of costs, however costs could increase for unsuccessful ICPs which they would either absorb or pass on to customers. We would expect consideration to be given to this as part of the DNO stakeholder engagement process required in developing the common connection charging methodology. We also believe that legislative provisions preventing over-recovery of costs and the role of Ofgem in ensuring that DNOs do not behave anti-competitively provide further mitigations of this risk.

Impact on Micro-, Small and Medium Businesses

53. As set out above, if DNOs make use of the proposed secondary legislation that enables them to charge upfront A&D fees, there is a risk that some customers such as smaller non-professional developers (e.g. community renewable projects) could be deterred from pursuing a connection at all due to requiring a fee at an early stage in the process. Based on feedback from DNO stakeholders, this is likely to be a very small risk as these projects tend not to submit speculative connection applications and the level of A&D fees would be relatively small. We also note that such projects which accept their connection offers would face reduced costs.

Distributional Impact

54. If DNOs make use of the proposed secondary legislation that enables them to charge upfront A&D fees, a transfer of costs from customers that accept their connection offers to customers that do not accept their connection offers will take place. As customers not accepting their connection offers are now paying for the service provided by the DNO, there will be a fairer allocation of A&D costs. We believe that the policy option leads to a fairer distribution of cost sharing.

Other Impacts

55. There will be no other impacts, including (but not limited to) the following areas:
- Human Rights Impact
 - Wider Environmental impact
 - Greenhouse gas impact

- Health Impact
- Rural proofing impact

Summary and preferred option with description of implementation plan

56. Under the existing legal framework, DNOs can only recover the reasonably incurred costs of providing all connection offers (A&D fees) from customers who accept a connection offer. They cannot recover costs from those customers that do not accept the offer. Therefore, those customers that do accept are in practice also paying for the A&D costs incurred by DNOs in providing unaccepted offers. This represents an equity concern and introduces economic inefficiency in the connections market as resources are diverted.
57. Government believes that allowing DNOs to charge upfront A&D fees would support Ofgem in delivering a more efficient connections process, which would contribute to ensuring timely and cost effective connections and therefore to meeting our energy and economic objectives. DNOs and the majority of other stakeholders (e.g. developers, including trade associations) support the introduction of the proposed secondary legislation.
58. The assessment of costs and benefits of the 'Policy Option' against 'Do Nothing' has shown that the best estimate average annual cost is £93m (including resource costs to Ofgem and DNOs and transfer costs to customers not accepting their offers) while the best estimate average annual benefit to society is £112m (including resources being freed up/better deployed by DNOs and transfer benefits to customers accepting their offers). The benefit due to a sense of increased equity has not been quantified. This results in a quantified net annual benefit to society of £18.3m. The NPV over a default 10 year timeframe is £153m.
59. The scenario analysis has shown that the quantified average annual cost to society could be as high as £93m and the quantified average annual benefit to society could be as low as £0m (although there would be unquantified equity benefits). This results in a quantified net annual cost to society of £0.3m. The NPV over a default 10 year timeframe is -£3.2m. At the other extreme the annual cost to society could be as low as £0.3m and the annual benefit could be as high as £37.2m. This results in a net annual benefit to society of £36.9m. The NPV over a default 10 year timeframe is £309m.
60. Once the regulations come into force, DNOs will decide whether and, if so, how they will charge upfront A&D fees. There are established regulatory mechanisms for DNOs charging connection customers, which will be followed within the framework set by the regulations. DNOs require approval from Ofgem for any changes they make to their connection charges. They must also publish and review these charges on, at least, an annual basis to ensure they remain fair and cost reflective. As required by the regulations, DNOs would also need to notify connection customers of the upfront A&D fees at application stage and inform them of the precise charge, terms and the customer's right of appeal when requiring payment. In addition Ofgem will consult on and make licence changes to ensure that DNOs can require payment before issuing a connection offer.