

<b>Title:</b> Government Electricity Rebate <b>IA No:</b> DECC 0167 <b>URN:</b> 14D/371  <b>Lead department or agency:</b> Department for Energy and Climate Change  <b>Other departments or agencies:</b> Ofgem	<b>Impact Assessment (IA)</b>		
	<b>Date:</b> 02/10/2014		
	<b>Stage:</b> Final		
	<b>Source of intervention:</b> Domestic		
	<b>Type of measure:</b> Tax and spend		
<b>Contact for enquiries:</b> GER@decc.gsi.gov.uk, 0300 068 4000			
<b>Summary: Intervention and Options</b>		<b>RPC Opinion: N/A</b>	

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Two-Out?	Measure qualifies as
£77.0m	£-18.7m	N/A	N/A	N/A

**What is the problem under consideration? Why is government intervention necessary?**  
 Average prices of gas and electricity paid by domestic consumers have risen by around 25% and 15% (in real terms), respectively, between 2010 and 2013, putting upward pressure on energy bills. Against this context of rising energy bills placing pressure on household budgets, the Government announced in December 2013 a package of measures intended to reduce the impact of policy costs on household energy bills.

**What are the policy objectives and the intended effects?**  
 The Government Electricity Rebate (GER) is part of a wider package of measures, the objective of which is to reduce the impact of policy costs on household energy bills. The estimated combined impact of the measures announced is to reduce household energy bills by an average of around £50 in 2014. The GER will contribute £12 to this overall reduction, by means of a direct rebate payment to domestic electricity customers.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**  
 Two options were considered for the delivery of the Government Electricity Rebate. Option 1: issue a universal rebate to all domestic electricity consumers through the energy industry, accepting suppliers' best endeavours as sufficient to resolve exceptions so as to allow suppliers to deliver the rebate as close as possible within 'business as usual' operations. Option 2: issue a universal rebate to all domestic electricity consumers through the energy industry with specific delivery requirements on suppliers intended to ensure that the rebate reaches only the intended population (and as much of it as possible); has a tangible impact on bills; and is effectively communicated to its recipients. Option 1 is the chosen option. In the absence of better evidence we assume Options 1 and 2 have broadly the same benefits. However, Option 1 involves lower delivery costs. Therefore, Option 1 is expected to increase the effective value of the rebate to domestic electricity customers, relative to Option 2.

**Will the policy be reviewed? Yes** **If applicable, set review date: 08/2014**

Does implementation go beyond minimum EU requirements? No					
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	<b>Micro Yes</b>	<b>&lt; 20 Yes</b>	<b>Small Yes</b>	<b>Medium Yes</b>	<b>Large Yes</b>
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)			<b>Traded:</b> 0.003	<b>Non-traded:</b> 0.006	

***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 :  Date: 2/10/14

# Summary: Analysis & Evidence

# Policy Option 1

**Description:** Issue a rebate to all domestic electricity consumers through the energy industry, accepting suppliers' best endeavours as sufficient to resolve exceptions, so as to allow suppliers to deliver the rebate as close as possible within 'business as usual' operations

## FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
2014	2014	2	Low: 60.1	High: 91.8	Best Estimate: 77.0

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low		10.7	21.1
High		15.5	30.5
Best Estimate		12.3	24.2

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

Electricity suppliers would initially incur the costs of delivering the rebate. It is expected that, over time, suppliers would seek to recoup this cost through energy bills and that it would therefore ultimately fall on energy bill payers. Using equity weights, we estimate the delivery cost at between £18.7m and £28.5m (with a best estimate of £22.0m). We estimate an energy demand response owing to householders' marginal propensity to consume energy, which would generate costs of between £2.0m and £2.4m (with a best estimate of £2.2m)

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

None identified

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		46.1	90.6
High		57.4	112.9
Best Estimate		51.5	101.2

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

We use equity weights to estimate the positive distributional impact of issuing rebates to electricity bill payers at between £87.6m and £109.4m (with a best estimate of £98.0m). We estimate an energy demand response owing to householders' marginal propensity to consume energy, which the willingness to pay principle implies households derive utility (satisfaction) from, estimated at between £3.0m and £3.5m (with a best estimate of £3.2m).

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

None identified

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

There are barriers to delivery which may prevent certain eligible households receiving the rebate in exceptional circumstances. In addition, pre-payment meter customers issued the rebate by means of a voucher may not redeem the voucher. We have applied different assumptions regarding the proportion of the eligible population that would receive the rebate in order to generate the estimate ranges for the distributional, environmental and household utility impacts. Delivery cost estimates are based on data provided by electricity suppliers as well as assumptions regarding staff time required to complete underlying administrative tasks, both of which are subject to a large degree of uncertainty. Costs and benefits of this policy option are measured relative to a 'do nothing' scenario. Administrative costs to Central Government are assumed to be marginal and will be absorbed into business as usual.

## BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies
Costs:	NA	Benefits: NA	Net: NA	NA

# Summary: Analysis & Evidence

# Policy Option 2

**Description:** : Issue a universal rebate to all domestic electricity consumers through the energy industry with specific delivery requirements on suppliers intended to ensure that the rebate reaches only the intended population (and as much of it as possible); has a tangible impact on bills; and is effectively communicated to its recipients

## FULL ECONOMIC ASSESSMENT

<b>Price Base Year</b> 2014	<b>PV Base Year</b> 2014	<b>Time Period Years</b> 2	<b>Net Benefit (Present Value (PV)) (£m)</b>		
			<b>Low:</b> -0.2	<b>High:</b> 49.0	<b>Best Estimate:</b> 25.1

<b>COSTS (£m)</b>	<b>Total Transition (Constant Price) Years</b>	<b>Average Annual (excl. Transition) (Constant Price)</b>	<b>Total Cost (Present Value)</b>
<b>Low</b>		32.4	<b>63.7</b>
<b>High</b>		46.1	<b>90.6</b>
<b>Best Estimate</b>		38.6	<b>75.9</b>

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

Electricity suppliers would initially incur the costs of delivering the rebate. It is expected that, over time, suppliers would seek to recoup this cost through energy bills and that it would therefore ultimately fall on energy bill payers. Using equity weights, we estimate this cost at between £61.5m and £88.7m (with a best estimate of £73.9m). We estimate an energy demand response owing to householders' marginal propensity to consume energy, which would generate costs of between £1.8m and £2.2m (with a best estimate of £2.0m) through resource, CO<sub>2</sub> and air quality impacts.

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

None identified

<b>BENEFITS (£m)</b>	<b>Total Transition (Constant Price) Years</b>	<b>Average Annual (excl. Transition) (Constant Price)</b>	<b>Total Benefit (Present Value)</b>
<b>Low</b>		46.0	<b>90.4</b>
<b>High</b>		57.3	<b>112.7</b>
<b>Best Estimate</b>		51.4	<b>101.0</b>

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

We use equity weights to estimate the positive distributional impact of issuing rebates to electricity bill payers at between £87.6m and £109.4m (with a best estimate of £98.0m). We estimate an energy demand response owing to householders' marginal propensity to consume energy, which the willingness to pay principle implies households derive utility (satisfaction) from, estimated at between £2.7m and £3.3m (with a best estimate of £3.0m).

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

None identified

Key assumptions/sensitivities/risks	<b>Discount rate (%)</b>	3.5
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There are barriers to delivery which may prevent certain eligible households receiving the rebate in exceptional circumstances. In addition, pre-payment meter customers issued the rebate by means of a voucher may not redeem the voucher. We have applied different assumptions regarding the proportion of the eligible population that would receive the rebate in order to generate the estimate ranges for the distributional, environmental and household utility impacts. Delivery cost estimates are based on data provided by electricity suppliers as well as assumptions regarding staff time required to complete underlying administrative tasks, both of which are subject to a large degree of uncertainty. Costs and benefits of this policy option are assessed relative to a 'do nothing' scenario. Administrative costs to Central Government are assumed to be marginal and will be absorbed into business as usual.

## BUSINESS ASSESSMENT (Option 2)

<b>Direct impact on business (Equivalent Annual) £m:</b>	<b>In scope of OITO?</b>	<b>Measure qualifies</b>
<b>Costs:</b> NA	NA	NA
<b>Benefits:</b> NA		
<b>Net:</b> NA		

## Evidence Base

### Problem under consideration

1. Average prices of gas and electricity paid by domestic consumers have risen by around 25% and 15% (in real terms), respectively, between 2010 and 2013. This has put upward pressure on energy bills. The main driver of the increase in energy prices has been rising wholesale energy costs, which account for nearly half of the household energy bill.

### Rationale for intervention

2. Against a context of rising energy bills putting pressure on household budgets, the Government has decided to intervene. Government cannot, however, control wholesale prices – by far the largest contributor to recent energy cost rises. As a result, the decision was taken to reduce the impact of energy and climate change policies through a package of measures announced in December 2013.

### Policy objective

3. The Government Electricity Rebate (GER) is part of a wider package of measures, the objective of which is to reduce the impact of policy costs on household energy bills. The estimated combined impact of the package announced is to reduce the average household energy bills by an average of around £50 (including VAT) in 2014, compared to what bills would have been without this package. The GER will contribute £12 to this overall reduction per year, by means of a direct rebate payment to domestic electricity customers in 2014/15 and 2015/16.

### Central policy design

4. Paragraphs 6-9 set out the policy options considered for the GER. There are certain aspects of the proposed policy design which are common to all policy options, relating to:
    - **Eligibility** – how the Government has chosen to define a ‘domestic electricity customer’. Options here included for instance whether to deliver the rebate to account holders or meter users; as well as whether account holders who do not live at the property (such as landlords) should be eligible to receive the rebate.
    - **Delivery** – how the Government has decided to practically deliver the rebate. Options here included who would be responsible for delivery; how the rebate would be communicated; delivery methods for reaching pre-payment meter (PPM)<sup>1</sup> customers; and the timetable for delivering the rebate.
- Enforcement** – how the Government has decided the policy will be implemented and enforced. Options here were linked to those concerning delivery and

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<sup>1</sup> Pre-payment: a method of paying for energy usage in advance. Customers purchase energy using a card key or token from a designated top-up point, e.g. newsagent or Post Office, which is then applied to their meter allowing them to use energy.

included for instance how to compel the chosen delivery agent to deliver the rebate as desired<sup>2</sup>.

5. The Government's final position in respect of each of the above aspects of the policy design is set out in the Government Response and scheme guidance, summarised as follows:

#### *Eligibility for a rebate*

- The rebate will be delivered to domestic electricity customers<sup>3</sup>
- Where several domestic electricity accounts are held by an individual and the accounts are supplied on domestic terms and conditions, the individual will be eligible to receive the rebate for each account
- Those who pay for their energy bills via a fixed contribution as part of the charge for their accommodation or who have a sub-metered supply (i.e. Park Homes) will not be eligible to receive the rebate
- Where a premises has dual purpose such as a home office/home, if the consumption at the premises is wholly or mainly for domestic use, they will be eligible for the rebate
- Customers who are supplied via a private network by an exempt supplier will not be eligible for the rebate
- Properties which are vacant and where the cost of electricity is met either by the supplier or a landlord will be eligible for the rebate

#### *Delivering the rebate to eligible customers*

- The rebate will be delivered by energy suppliers<sup>4</sup>
- The Government will reimburse energy suppliers once they have credited customers' accounts with the rebate, or arranged to provide the rebate to pre-payment meter (PPM) customers through a service provider – suppliers will need to provide self-certified evidence of rebates issued as part of their claim for being reimbursed
- Suppliers will be required to ensure that all rebates are provided to eligible customers by a set date, 28<sup>th</sup> February.
- Suppliers will be responsible for ensuring that customers only receive the rebate once (Options 1 and 2 set different specific requirements to this end)
- All recipients will be informed of the credit in writing, usually via their bills, statements or letters accompanying their vouchers (PPM customers).

#### *Enforcing the policy*

Given the decision to issue the rebate via energy suppliers, the Government has

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<sup>2</sup> For instance, there were early discussions that it might be delivered via contracts with suppliers but this has been rejected.

<sup>3</sup> The scheme will follow the definition within the supply licence conditions as customers who have or require a supply of electricity at a premises "wholly or mainly for a domestic purpose, with additional clarification set out in the Government response"

<sup>4</sup> On the basis that: (a) suppliers have the best knowledge of and access to electricity bill customers; and (b) delivering policies through industry creates an incentive for suppliers to seek most efficient delivery routes to minimise the costs to their customers and compete in the market.

considered practical options for doing so. In view of the possible options, the Government has decided to issue a Direction<sup>5</sup> to all licensed domestic electricity suppliers outlining their obligations under the policy. For this Direction to have effect, Ofgem will introduce a licence modification requiring suppliers to comply with it. The licence modification is due to come into force on 3 October 2014.

## Policy options considered

### *'Do nothing' option*

6. The 'do nothing' option would entail not giving domestic electricity customers a £12 rebate on their electricity bill. This option would not achieve the policy objective and has therefore been disregarded. Options 1 and 2 are assessed against this baseline so all costs and benefits are additional to the do-nothing option.

### *Viable policy options*

7. This Impact Assessment considers different options around delivery of the GER. The two policy options considered in this Impact Assessment are as follows:
  - **Option 1 (chosen option)** – issue a universal rebate to all qualifying domestic electricity consumers through the domestic electricity supply industry, ensuring that suppliers' make **best endeavours** to ensure rebates are only paid to those eligible, i.e., through 'business as usual' operations
  - **Option 2** – issue a universal rebate to all qualifying domestic electricity consumers through the energy industry with **specific delivery requirements** on suppliers intended to ensure that the rebate reaches only the intended population (and as much of it as possible); has a tangible and visible impact on bills; and is effectively communicated to its recipients.

### Option 1 – 'best endeavours' approach to delivering the rebate

8. Under this option, electricity suppliers would be responsible for delivering the GER in line with the high level delivery requirements set out in paragraph 5 above (described in more detail in the Government response document). A key feature of this policy option is that the Government would require suppliers to make best endeavours through business as usual processes to deliver the rebate to the eligible population. Under this option, suppliers would not be required to ensure an immediate impact on their direct debit customers' monthly payments, the implication being that customers may not feel the impact of the rebate until the point at which suppliers reconcile their customers' accounts, whether this occurs through the supplier's BAU or a request from the customer. Under this option, suppliers would need to highlight the effect of the rebate as part of the billing process (credit customers) or delivery process (PPM customers).

### Option 2 – additional delivery requirements on suppliers

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<sup>5</sup> Secretary of State (SoS) Direction: under the Electricity Act 1989, the SoS has powers to issue a direction to suppliers which is enabled by the Authority, Ofgem, under the supply licence conditions.

9. The delivery requirements of Option 2 would differ from Option 1 in the following respects (each one requiring more effort on the part of suppliers):

- **Audit and verification requirements** – the Government would apply greater scrutiny in determining that suppliers had made appropriate efforts to reach the eligible population. For example, suppliers would be required to evidence steps taken to avoid the rebate being delivered to ineligible customers; and show that they had followed up on initial attempts to deliver the rebate to hard-to-reach customers.
- **Ensuring a tangible impact on the electricity bill** – under this option, suppliers would need to ensure that all eligible customers received £12 off their very next payment following the qualifying date. This differs to Option 1, where suppliers would be permitted simply to deduct £12 from the balance on an electricity account at a point. This would only likely differ for Direct Debit customers (around 56% of the total customer base)<sup>6</sup>.
- **Communication of the rebate to recipients** – suppliers would be required to issue a separate communication, e.g. a letter, informing recipients of the rebate. This differs to Option 1 where suppliers will need only to label the rebate on the energy bill (for credit and DD customers). For PPM customers under Option 1, the communication is likely to happen as part of the voucher or Special Action Message delivery.

Differences between the policy options

Table 1: summary of key differences in policy options

		Option 1 – ‘best endeavours’ delivery	Option 2 – additional delivery requirements
Eligibility for rebate		The eligibility criteria for ‘domestic electricity customer’ would be as per paragraph 5 above.	
Delivery of the rebate	Ensuring the rebate reaches intended recipients	Suppliers will need to be able to demonstrate proportionate effort in ensuring the rebate reaches the intended population. In particular they must make at least one reasonable attempt to try to reach non-standard customers where there is a particular barrier to delivery	Suppliers would need to: <ul style="list-style-type: none"> <li>• take steps to ensure the rebate is issued only to eligible customers</li> <li>• follow up with PPM customers for whom the rebate is issued by means of a voucher if that voucher is not redeemed</li> <li>• issue the rebate by</li> </ul>

<sup>6</sup> See table 242 for standard electricity consumers (and 243 for E7 consumers): <https://www.gov.uk/government/statistical-data-sets/quarterly-domestic-energy-price-stastics>

			means of a Special Action Message for customers issued a voucher who do not 'cash in'
	Ensuring a tangible impact on the electricity bill	Suppliers will need to subtract £12 from the balance on a customer's electricity account.	Suppliers would need to amend direct debit payments as appropriate to ensure that the £12 rebate has a tangible impact on customer's bills, in the first month after the account has been credited
	Communicating the rebate to recipients	Suppliers will inform all their customers in writing. Methods will be different depending on customer and delivery type.	Suppliers would need to issue a letter to all recipients highlighting the effect of the rebate, in addition to it being shown on bills
Enforcement	The policy on enforcement would be as per paragraph 5 above.		

## Cost benefit analysis

### Monetised costs and benefits

10. The net benefit of the policy is estimated by taking the following approach: firstly, the size of the income transfer from the Exchequer to domestic electricity customers is estimated; secondly, equity weights are applied, which increases the overall value of that income transfer. We then subtract our estimate of the costs of delivering the policy, which we equity-weight in the same way as the initial income transfer as we assume it would ultimately be borne by electricity bill payers. Finally, we estimate a small energy demand response owing to householders' marginal propensity to consume energy; we estimate the resource and environmental costs associated with this, using Green Book values<sup>7</sup>, and subtract this cost from our estimate of the benefit of the policy.

### *Equity-weighted transfers to electricity consumers*

11. The cost of issuing rebates to electricity customers is being funded out of general taxation. In cost-benefit terms, this amounts to a transfer, as bill payers receive a benefit equal to the cost incurred by tax payers. The transfer is estimated at £324m<sup>8</sup> in 2014 and 2015 respectively. This is an upper bound estimate, based on every domestic

<sup>7</sup> Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal, available at: <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

<sup>8</sup> Based on 27m electricity account holders in Great Britain eligible for the rebate. See: DECC (2014). *Regional and local authority electricity consumption statistics: 2005 to 2012*, available at: <https://www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics-2005-to-2011>



electricity customer receiving the rebate. Electricity suppliers have indicated there are delivery barriers which mean that in practice it will not be possible to ensure that all eligible customers will receive the rebate, meaning the transfer will be lower. It may also not be possible to ensure that account holders do not mistakenly receive a rebate more than once, due to account holders changing address, for example, without informing their electricity supplier in good time. In the event for instance that the rebate was delivered to 93 per cent of eligible customers in each year, the transfer would amount to approximately £305m in real terms, 2014 prices.

12. How much the £12 transfer is worth to different households will depend on their circumstances. For example, a household with an income of less than £10,000 will typically value £12 more than a household with a higher income. This means the transfer may have a positive distributional impact. We have quantified this using the concept of equity weights, in line with the methodology outlined in the HM Treasury *Green Book*<sup>9</sup>. Annex A of this impact assessment describes in more detail the approach taken to valuing the distributional impact of the policy, including the specific equity weights used. We estimate the transfer would produce an annual net benefit (i.e. the extra social benefit derived from lower income households benefitting from the transfer) of between £44.6m and £55.6m in real terms, 2014 prices (between £87.6m and £109.4m over the 2 years of the policy in present value terms), as summarised in Table 2 below.

Table 2: estimated equity-weighted benefit to electricity bill payers of receiving a £12 rebate

		Low	Central	High
Options 1 and 2	Equity-weighted benefit of transfer in each year of the rebate (2014 real prices)	£44.6m	£49.8m	£55.6m
	Present value of benefit equity-weighted benefit (2014 prices)	£87.6m	£98.0m	£109.4m

The range is driven by differing assumptions regarding the proportion of the eligible population that would receive the rebate, specifically:

- Suppliers must deliver the rebate to all of their eligible customers. However, due to factors beyond suppliers' or Government's control the rebate may not be provided to a small subset of customers, e.g. those whose accounts are in transit during the crediting period, due to switching or customers changing other account details such as moving house and not informing their supplier
- Informal discussions with suppliers indicate that their systems will in general be able to cope with this activity, but even if all such activity resulted in customers not receiving the rebate, i.e. a worst case scenario, this would result in 5% of

<sup>9</sup> Green Book guidance is available at: <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

customers *not* being provided with the rebate. Some suppliers have indicated that they expect very few customers to not be credited with the rebate. Therefore our low (high) estimate assumes a success rate of 95% (100%). We believe that a credible central scenario for rebate provision would therefore be that 97% of customers are provided with the rebate. This is ultimately a simplifying assumption to account for the expectation that a small percentage of direct debit customers eligible for the rebate would not receive it.

- In the central estimate, 70% of customers issued their rebate in the form of a voucher<sup>10</sup> redeem the payment. For the low (high) estimate we use an assumption of 60% (80%). This assumption has the effect of reducing the estimated size of the transfer compared to a scenario in which the claim rate was 100%, and thus also reduces the equity-weighted benefit. This assumption is informed by discussions with suppliers, who indicated the rate would likely be somewhere between 60 and 80%. A greater success rate than this would mean a greater distributional impact of the policy
- It is generally accepted that the distribution of PPM customers is skewed heavily towards the low end of the income distribution. We have made assumptions to reflect this, which are conservative and have the effect of further decreasing the equity-weighted value of the income transfer. We use the same assumption in the low, central and high NPV scenario.
- The rebate will be available to 97% of customers. However, depending on the take-up among PPM customers, we assume that in our central case around 93% of the eligible domestic electricity customers receive the rebate. For our low (high) estimate, the figure is 90% (97%).
- As previously stated, it is possible some account holders may mistakenly receive the rebate more than once due for example to account holders changing address without informing their electricity supplier in good time. We assume that our scenarios, which imply success rates of between 90 and 97%, are sufficiently wide to account for this effect.
- The low, central and high estimates assume that domestic electricity customers are distributed evenly among income deciles. We make this assumption in the absence of evidence on the income distribution of domestic electricity account holders. To the extent that domestic electricity customers are in fact skewed towards the low (high) end of the income distribution, our estimate of the distributional impact of the policy will represent an underestimate (overestimate) of the benefit of the policy.

13. We do not apply equity weights to the tax contributions from households to fund the cost of rebate payments. This is consistent with HM Treasury Green Book guidance. In taking this approach, we make an implicit assumption that the cost of rebate payments is funded by the median income household. Given the progressive nature of the tax system, which results in a higher income household paying a greater share of a given quantity of government expenditure, this approach likely underestimates the positive distributional impact of the policy.

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<sup>10</sup> For the number of customers issued the rebate in the form of a voucher, we assume all large suppliers deliver the rebate to their PPM customers by means of voucher. This equates to around 4.1m customers. This is based on the latest discussions with suppliers. To the extent that more (less) vouchers are issued as a means of reaching PPM customers, our estimate of the distributional impact of the policy will represent an overestimate (underestimate) of the benefit of the policy.

14. We assume Options 1 and 2 have broadly the same benefits, as the number of rebates paid is assumed to be the same under each with the costs of delivery varying. Our rationale is as follows: Option 2 would require greater effort from suppliers to ensure the rebate was issued only to eligible recipients. On the one hand this may increase the number of payments made, increasing the size of the transfer, compared to Option 1. On the other hand, it may ensure fewer account holders that are not eligible for the rebate receive it, lowering the size of the transfer, compared to Option 2. In the absence of better information at present, we have assumed each option has the same equity benefit.

*Cost of delivering the rebate (bill payers)*

15. The Government has decided to deliver the rebate through energy suppliers, as this ensures that the rebate is transferred directly on to electricity bills, thereby directly offsetting some of the policy costs funded through energy prices, as well as ensuring those without access to the gas grid also benefit. While suppliers would be reimbursed by the Government for rebate payments made, they would incur costs through delivering the rebate, which will not be reimbursed. Annex B sets out our best estimate of delivery costs, which is based largely on limited information submitted by suppliers as part of early discussions and responses to the consultation. To account for the uncertainty that surrounds our estimates we applied a +/-15% range to our central estimate to derive an upper and lower bound estimate. This range broadly covers the range of costs estimates received through consultation.

16. As Table 3 below summarises, under Option 1, delivery costs are estimated at between £8.7m and £12.2m in 2014 and between £6.9m and £11.7m in 2015 (undiscounted). The reason they are estimated to be lower in 2015 is that we assume communication costs would be lower (Annex B sets out the specific assumptions we made). It is also reasonable to assume delivery would be generally more efficient in the second than first year, though we have not made an explicit assumption to this effect due to uncertainty and there being little evidence to support a specific assumption at present. We estimate the cost of delivering the rebate under Option 2 to be higher due to its additional delivery requirements, between £26.3m and £37.3m in 2014 and between £25.2m and £36.9m in 2015 (undiscounted).

Table 3: estimated total cost to the industry of delivering the rebate under Options 1 and 2 (real 2014 prices)

	2014	2015
Option 1	£8.7m to 12.2m	£6.9m to 11.7m
Option 2	£26.3m to 37.3m	£25.2m to 36.9m

17. It is expected that, over time, suppliers would seek to recoup this cost through energy bills and that it would therefore ultimately fall on energy bill payers. Table 4 shows that our estimated cost of delivering the rebate amounts to between 32p and 45p per customer in 2014 under Option 1 and between £0.98 and £1.39 per domestic electricity customer in 2014 under Option 2 (in real terms, 2014 prices).

Table 4: estimated delivery costs per domestic electricity customer under Options 1 and 2 (real 2014 prices)

	2014	2015
Option 1	32p to 45p	26p to 43p
Option 2	£0.98 to £1.39	£0.94 to £1.37

18. Given our assumption that this cost will be faced by electricity bill payers<sup>11</sup>, we estimate the equity-weighted value of the costs of delivering the rebate by applying equity weights to the above per customer delivery cost estimates in the same way as the initial income transfer. In order to do so we assume domestic electricity customers are distributed evenly among income deciles in the absence of evidence on the income distribution of domestic electricity account holders. Table 5 shows that our estimated equity-weighted value of the total cost of delivering the rebate is between £10.6m and £14.8m in 2014 under Option 1 and between £31.9m and £45.4m in 2014 under Option 2 (in real terms, 2014 prices).

Table 5: equity-weighted value of the total cost of delivering the rebate under Options 1 and 2 (real 2014 prices)

	2014	2015
Option 1	£10.6m to £14.8m	£8.4m to £14.2m
Option 2	£31.9m to £45.4m	£30.6m to £44.9m

### *Impact on domestic energy consumption (environmental costs and household utility benefits)*

<sup>11</sup> It is assumed that energy suppliers pass through the delivery costs of the policy as a fixed lump sum per domestic electricity consumer. However, in practice, energy suppliers have a wide number of options through which they may choose to re-coup the costs, for example, placing some of the charge on non-domestic energy bills or on other energy bills, or placing a fixed fee per unit of energy supplied rather than per account represent a few of the alternative ways this could be done.

19. The policy has the potential to lead to a change in domestic energy consumption, either directly (lower electricity bills mean households have more resources to spend on consuming domestic energy) or indirectly (households have more money to spend on other goods, some of which will involve consuming energy). Direct energy demand responses would be determined by the elasticity of demand for energy. Specifically, since the rebate would result in a lump sum reduction in electricity bills (rather than a change in the price of electricity), any change in energy consumption would be similar to a change in income, and therefore could be estimated using the income (as opposed to price) elasticity of demand for energy use in the home of those households receiving the rebate.
20. A study<sup>12</sup> into the determinants of energy expenditures in Great Britain estimates the income elasticity of demand for gas, electricity and all energy sources for different income groups and thus provides the means to estimate the impact on domestic energy consumption of the rebate policy.<sup>13</sup>
21. There are resource and environmental costs associated with an increase in energy demand, which we value using the Green Book values<sup>14</sup>. Table 6 below shows the estimated impact on domestic energy consumption of the rebate and the associated environmental costs, based on an assumed income elasticity of demand for different fuel types.

Table 6: estimated impact on domestic energy consumption of the rebate and associated environmental costs (costs are in 2014 real prices)

		Estimated increase in fuel consumption (GWh)	Resource cost of estimated increase in fuel consumption (£m)	Air quality cost of estimated increase in fuel consumption (£k)	Estimated increase in CO <sub>2</sub> emissions (tCO <sub>2</sub> e)	Cost associated estimated increase in CO <sub>2</sub> emissions (£k)
Option 1	2014	19.9 - 23.5	0.8 - 0.9	36.5 - 43.1	4,466 - 5,278	190 - 224
	2015	19.9 - 23.6	0.8 - 1.0	37.0 - 43.8	4,435 - 5,263	193 - 229
Option 2	2014	18.2 - 22.2	0.7 - 0.9	33.5 - 40.7	4,105 - 4,984	174 - 212
	2015	18.3 - 22.2	0.7 - 0.9	33.9 - 41.3	4,076 - 4,960	177 - 215

<sup>12</sup> <http://www.econ.cam.ac.uk/dae/repec/cam/pdf/cwpe1011.pdf>

<sup>13</sup> Income elasticities estimated in this study were used by DECC to assess the impacts of the Warm Home Discount policy: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/42595/1308-warm-home-disc-impact-assessment.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/42595/1308-warm-home-disc-impact-assessment.pdf)

<sup>14</sup> Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal, available at: <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

22. For a householder to increase their expenditure on energy implies that they must derive some utility (benefit) from doing so. Benefit may be derived for instance through comfort taking, i.e. heating the home at a more comfortable temperate than previously. We estimate the demand response using our assumed income elasticities of demand for fuel consumption and value the utility to households using retail energy prices.
23. Under Option 1, recipients of the rebate would collectively spend between an additional £1.5m and £1.7m on energy in 2014 (between £1.5m and £1.8m in 2015) as a result of receiving a £12 income transfer (the ranges reflect our different scenarios for the proportion of those eligible for the rebate that receive it). The willingness to pay principle, i.e. the principle that you can value the utility derived from something by the amount people are willing to pay for it, suggests that, under Option 1, the policy would generate between £3.0 and £3.5m (present value terms) in utility benefits. Our best estimate is £3.2m.
24. Under Option 2, recipients of the rebate would collectively spend between an additional £1.4m and £1.7m on energy in 2014 (between £1.4m and £1.7m in 2015). In present value terms, the utility benefit under Option 2 is estimated at between £2.7m and £3.3m (with our best estimate at £3.0m). The utility benefits are lower under Option 2 because the increase in energy consumption is lower, owing to high delivery costs which reduce the size of the income transfer to households (given our previously stated assumption that delivery costs will ultimately fall on electricity bill payers).

#### *Administrative costs to Central Government*

25. There would administrative costs to Central Government under Options 1 and 2, mostly relating to the cost of verifying rebate payments made and reimbursing suppliers. We have not quantified these costs since we expect they would be absorbed within business as usual operations.

#### Summary of costs and benefits of Option 1 (the preferred option)

Table 7: summary of costs and benefits of the chosen option (present value, 2014 prices)

		Benefits	Costs
Group affected	Electricity bill payers	Equity-weighted value of a £12 rebate for each domestic electricity account holder, estimated at £87.6–109.4m.	Cost of delivering the rebate, initially incurred by energy companies but assumed to be passed on to electricity bill payers, estimated at £18.7m–28.5m (equity-weighted value).  Cost to electricity bill payers of the increase in energy consumption not monetised as transfer to electricity
		Utility derived by electricity bill payers from increased energy consumption, estimated at £3.0m – 3.5m (valued using retail energy prices).	

			suppliers (in theory valued using retail energy prices)
	Electricity suppliers	Income received from electricity bill payers of the increase in energy consumption not monetised as transfer from electricity bill payers (in theory valued using retail energy prices)	
	Central Government	-	Administrative costs to Government of reimbursing energy companies assumed to be marginal and would be absorbed into business as usual.
	Society	-	Resource cost of supplying the extra energy (valued using long-run variable cost); GHG (valued using carbon prices); and air quality (valued using air quality damage costs) impacts of the extra energy. Collectively estimated at £2.0m and £2.4m.

## Equalities impacts

26. We have considered the impacts of the rebate on different groups of the population. Overall, given the rebate is a universal policy, the impacts, which are positive, should in general be evenly distributed throughout the population. However, the rebate will not reach residents of those park homes who do not have an account directly with a domestic supplier. Residents of park homes may be more likely to be over the age of 55. The rebate will also not reach residents of care or residential homes as they are likely to pay a single fee for all services provided by such homes which would include energy.

## Micro-companies impact

27. Micro-companies are not exempt from this policy but none of the companies in scope qualifies as a micro-company.





## Annex A – valuing the distributional impact of the policy

### Equity weights used

Equity weights are used to capture the value placed on the transfer by different households receiving the Government Electricity Rebate (GER), in line with methodology set out in the HM Treasury *Green Book*<sup>15</sup>.

The additional benefit to society of the GER is calculated by applying a larger weight to poorer households and a smaller weight to wealthier households.

The equity weights used are based on income data from the English Housing Survey 2011 and are set out in the below table. It is assumed that these weights are representative of GB.

Table A1: equity weights used to calculate distributional impact of the GER

Income decile	1	2	3	4	5	6	7	8	9	10
Equity weight attached to transfer to this group	2.8	2.0	1.6	1.3	1.0	0.9	0.8	0.6	0.5	0.4

Using these equity weights, an additional £1 for any household in the lowest income decile would be valued at £2.80, whereas an additional £1 to any household in the highest income decile would be valued at 40p.

### Valuing the distributional impact

To estimate the equity weighted value of the transfer, we make the following simplifying assumptions:

- In the central estimate, 70% of customers issued their rebate in the form of a voucher<sup>16</sup> redeem the payment. For the low (high) estimate we use an assumption of 60% (80%). This assumption has the effect of reducing the estimated size of the transfer compared to a scenario in which the claim rate was 100%, and thus also reduces the equity-weighted benefit. This assumption is informed by discussions with suppliers, who indicated the rate would likely be somewhere between 60 and 80%. A greater success rate than this would mean a greater distributional impact of the policy
- It is generally accepted that the distribution of PPM customers is skewed heavily towards the low end of the income distribution. We have made assumptions to reflect this, which are conservative and have the effect of further decreasing the equity-weighted value of the income transfer. We use the same assumption in the low, central and high NPV scenario.

<sup>15</sup> Green Book guidance is available at:

<https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

<sup>16</sup> For the number of customers issued the rebate in the form of a voucher, we assume all large suppliers deliver the rebate to their PPM customers by means of voucher. This equates to around 4.1m customers. This is partly informed by informal discussions with suppliers regarding their preferred approach to delivering the rebate. To the extent that more (less) vouchers are issued as a means of reaching PPM customers, our estimate of the distributional impact of the policy will represent an overestimate (underestimate) of the benefit of the policy.

- Attempts to deliver the rebate to credit customers result in a 97% success rate in our central scenario, as set out above. A lower (higher) success rate than this would mean a lower (higher) distributional impact of the policy. Our low (high) estimate assumes a success rate of 95% (100%)
- Taken together, the assumptions used to generate our central estimate imply that around 93% of the eligible domestic electricity customers receive the rebate. For our low (high) estimate, the figure is 90% (97%)
- As previously stated, it is possible some account holders may mistakenly receive the rebate more than once, due to said account holders changing address without informing their electricity supplier in good time. We assume that our scenarios, which imply success rates of between 90 and 97%, are sufficiently wide to account for this effect
- The low, central and high estimates assume that domestic electricity customers are distributed evenly among income deciles. We make this assumption in the absence of evidence on the income distribution of domestic electricity account holders. To the extent that domestic electricity customers are in fact skewed towards the low (high) end of the income distribution, our estimate of the distributional impact of the policy will represent an underestimate (overestimate) of the benefit of the policy

We value the distributional benefit of the policy by calculating the difference between the equity weighted value of transfer and the real value (2014 prices) of the transfer in each year of the rebate. For instance, in the central scenario the distributional benefit of the policy in each year of the rebate is equal to £49.8m as shown in Table A2.

Table A2: estimating the distributional impact of the policy

	<u>Low estimate</u>	<u>Central estimate</u>	<u>High estimate</u>
Value of the transfer in each year of the rebate, real terms, 2014 prices (£m)	294.5	305.0	318.4
Equity weighted value of the transfer in each year of the rebate (£m)	339.0	355.0	374.0
Distributional benefit of the policy in each year of the rebate <sup>1</sup> (£m)	44.6	49.8	55.6
Present value of benefit <sup>2</sup> (£m)	87.6	98.0	109.4

Notes

<sup>1</sup> This is the difference between the equity weighted value of the transfer and the real value of the transfer. E.g. for the central estimate: 355.0 – 305.1 = 49.9

<sup>2</sup> Applying a discount rate of 3.5%, in line with HM Treasury Green Book guidance

We do not apply equity weights to the tax contributions from households to fund the cost of rebate payments. This is consistent with HM Treasury Green Book guidance. In taking this approach, we make an implicit assumption that the cost of rebate payments is funded by the median income household. Given the progressive nature of the tax system which results in a higher income household paying a greater share of a given quantity of government expenditure, this approach underestimates the distributional impact of the policy.

## **Annex B – estimating the cost of delivering the rebate**

### Introduction

The Government has decided to deliver the rebate through energy suppliers. While suppliers will be reimbursed by the Government for rebates issued, they will incur costs in delivering the rebate, which will not be reimbursed. This annex sets out our estimate of the total cost of delivering the rebate. It is assumed that suppliers will seek to recoup delivery costs through energy bills, implying the costs will ultimately be borne by electricity customers.

### Approach to estimating delivery costs of the rebate

To assist in the process of estimating the delivery costs of the policy, we issued a request to domestic electricity suppliers to provide information on costs they would expect to incur in undertaking each of the various tasks involved in delivering the rebate. Our delivery cost estimate is based largely on information provided by suppliers.

Not all suppliers provided information. In order to estimate the total delivery costs for the industry as a whole therefore, we initially estimated delivery costs on a 'per eligible customer' basis (dividing by the responding suppliers' domestic electricity customer bases). We then distinguished between large and small suppliers, and estimated a unit cost for each group. Finally, we weighted each group's delivery unit cost by their (estimated) market share to produce a weighted average delivery unit cost. We scaled up this delivery unit cost for the total domestic electricity account holder population.

### *Limitations of the data*

There are limitations concerning the data we use to estimate the cost of delivering the rebate. Suppliers were asked to provide rough estimates of the cost of specific delivery tasks and many of the responses received highlighted the uncertainty surrounding their estimates. Moreover, there was wide variation in suppliers' estimates of the cost of undertaking the same delivery task. While this may represent differences in the efficiency with which suppliers are able to deliver the rebates, it could also suggest suppliers have interpreted the scope of a particular task rather differently, meaning estimates are not comparable.

To reflect this uncertainty in our estimates we have introduced a +/- 15% range to our central estimates to produce an upper and lower bound. This range is deemed to be sufficiently wide to encompass the key variations in costs.

### *Hourly wage assumptions*

Where information was not obtained from suppliers to help in estimating the cost of a particular task, we have made assumptions regarding the amount of staff time that would be spent at relevant grades in the completion of that task. We have used the hourly wage costs set out in Table B1 below. These values are based on wage rates in the Annual Survey of Hours and Earnings (ASHE)<sup>17</sup>, inflated by 30% to account for overheads in the line with Standard Costs Model approach and adjusted in line with observed wage growth since the ASHE publication.

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<sup>17</sup> <http://www.ons.gov.uk/ons/rel/ashes/annual-survey-of-hours-and-earnings/index.html>

Table B1: Hourly wage costs used to estimate certain administrative tasks

Grade	Assumed hourly wage cost (£)	Used in estimation of task of
Administrator	13.27	Identifying eligible population
Middle administrator	31.27	
Finance administrator	14.10	Submitting invoices; audit & verification
Financial manager	37.54	
Senior manager	54.90	Audit & verification
Director	71.06	

Overview of delivery tasks

Suppliers will need to undertake the following (broadly defined) tasks in delivering the rebate: deliver a £12 payment to each domestic electricity account holder; communicate the rebate to its recipients; and reclaim from Central Government the cost of payments made. These tasks are broken down further below.

- 1) Deliver a £12 rebate to each domestic electricity account holder
  - a. Identify eligible customers
  - b. Delivering a £12 payment to each customer (may involve financing)
  
- 2) Communicate the rebate to recipients,
  - d. Alongside delivery of the rebate; and
  - e. Reactively (customer enquiries)
  
- 3) Reclaim rebate payments from Central Government
  - f. Document the payment process (audit & verification)
  - g. Submit invoices to Central Government

*Identifying eligible customers*

Early feedback from energy suppliers indicates that the task of identifying their domestic electricity account holders is relatively straightforward. However, to identify specific information about account holders for the purposes of exempting certain customers would require considerable effort. Suppliers also indicated that people moving property means that they would have to go to great lengths to ensure that everyone eligible for the rebate received it, equally that an account holder did not receive the rebate more than once. Information was not obtained from supplier responses relevant specifically to the task of identifying eligible customers. In the absence of this information, we have made assumptions regarding the amount of staff time required to complete this task. We invite suppliers through the consultation to comment on the validity of these assumptions.

Option 1 would require suppliers to demonstrate proportionate effort in ensuring the rebate reaches eligible domestic electricity account holders. Accordingly we assume suppliers would spend only minimal time identifying exceptions from their list of domestic electricity account holders, based on the most obvious exceptions. For our central estimate, we assume that this

could be carried out by an administrator and middle manager working for 1.5 days and 1 day respectively. For our low (high) cost estimate we assume these staff would work 1 day and ½ day (2 days and 1.5 days) respectively. Using hourly wage figures set out above, we estimate that under Option 1 this task would cost each supplier (the industry as a whole) between £208 and £529 (£4,400 and £11,100) in each year of the rebate.

For Option 2, under which suppliers would need to ensure that only eligible customers (and as many of them as possible) receive the rebate, we assume for the purposes of our central estimate that this task would require a week of an administrator's time and a day of a middle manager's time. For our low (high) estimate we assume these staff would work 3 days and 1 day (7 days and 3 days). Using hourly wage figures set out above, we estimate that under Option 2 this task would cost each supplier (the industry as a whole) between £512 and £1,344 (£10,700 and £28,230) in each year of the rebate in each year of the rebate.

### *Delivering payment to each customer*

Early discussion with industry indicates suppliers will face different costs for delivering the rebate to credit customers<sup>18</sup> and to pre-payment meter (PPM) customers<sup>19</sup>. The cost of delivering the rebate to credit customers is expected to stem from: updating IT systems to enable the rebate to be issued automatically to these customers' accounts; and manual processing for those customers where automatic processing fails. Based on information submitted by suppliers, we estimate the cost of automatic processing for Options 1 and 2 at around £0.03 per eligible customer in each year. Suppliers expect manual processing to be more costly per customer for whom it is required. Expressed as an average of all eligible customers it is estimated also at £0.03 in each year.

Under Option 2, suppliers would be required to ensure a tangible impact on customer bills. In practice, this would involve amending direct debit customers' payments. Based on information submitted by suppliers we estimate that to do this would cost suppliers around £0.47 per customer in each year. This figure comprises the cost of processing changes to direct debit payments (£0.05) and communication with customers to inform them of the changes, as required by law (£0.42). In practice, suppliers may be able to inform direct debit customers of changes to their debit payments at the same time as informing them of the rebate, which would lower the cost of this additional requirement of Option 2.

For PPM customers, suppliers have different options for delivering the rebate. The two mechanisms most likely to be utilised are a voucher that could be redeemed from a vendor, usually a news agents or a Post Office; and Special Action Message (SPAMs)<sup>20</sup>. Based on information submitted by suppliers, we estimate the cost the voucher delivery route at around £1.16 per customer; and the cost of SPAMs at around £0.02 per customer. There is a large degree of uncertainty around these estimates due to the variation in suppliers' estimates. Therefore, we introduced a +/-15% range to capture this uncertainty.

Suppliers have indicated different preferences for these alternate delivery routes. It is expected

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<sup>18</sup> A domestic customer supplied pursuant to a Domestic Supply Contract or a Deemed Contract who is neither a prepayment customer nor a direct debit customer. Usually, these customers are issued a bill based on actual or estimated usage and pay in arrears.

<sup>19</sup> A domestic customer to whom electricity is supplied pursuant to a Domestic Supply Contract or a Deemed Contract through a Prepayment Meter

<sup>20</sup> This is a message which is sent by a supplier to a customer's top up terminal where it is downloaded onto their top-up key. This is how suppliers effect tariff changes for PPM customers.

that in practice a combination of these delivery mechanisms will have to be utilised. This is because if the industry relied solely on SPAMs, for example, this would create significant system pressures that could prevent successful delivery of the rebate.<sup>21</sup> For the purposes of this Impact Assessment, we have assumed that large suppliers would deliver the rebate by means of a voucher and that small suppliers would use SPAMs. This implies a large number of pre-payment customers receiving a voucher and therefore means our estimate is probably a conservative (i.e. a high) estimate of the costs of pre-payment delivery.

Since suppliers will be responsible for delivering rebate payments in the initial instance, before reclaiming costs from Central Government, this will have a cost to them as either they will have to borrow money to deliver the rebate, which will give rise to financing costs; or they will use their exiting funds, which will bring about an opportunity cost (as they could have used these funds to generate a return). In the absence of better information to guide us, for the purposes of producing an estimate of finance and opportunity costs for Options 1 and 2 we have produced a range of estimates based on different assumptions regarding the amount and period of borrowing required. To calculate borrowing costs we use evidence which says average finance costs for large and small energy suppliers are 6% and 12% annually respectively. We assume an opportunity cost of 2.46% annually, the 10-year UK bond yield used as a proxy for the interest rate of a risk-free investment<sup>22</sup>.

Table B2 below summarises the range of our funding cost estimates and the assumptions that underpin them.

Under Option 1 financing costs are expected to stem from delivering the rebate to PPM, Standard Credit and a proportion (one third) of DD customers. In a scenario whereby large (small) suppliers needed to borrow an amount equivalent to the cost of delivering rebates for 10% to 100% (20% to 100%) of their PPM and standard credit and 5% to 15% (10% to 30%) of ¼ direct debit customers for between ½ month to 2 months, we estimate that the total funding costs (including opportunity cost) would be between £210,000 and £1.5m for the industry as a whole in each year. This range reflects the uncertainty as to how much and for how long a supplier would have to borrow/use their own resources, which in itself would be determined by factors such as suppliers’ account reconciliation processes and the efficiency of the invoicing process.

Table B2: estimated funding costs (including opportunity cost) for Option 1, based on scenarios for required borrowing

	% of PPM customers for which borrowing required	Implied amount borrowed for the industry as a whole	Estimated funding costs for the industry as a whole in each year, assuming borrowing and opportunity over:		
			0.5 month	1 months	2 months
Low cost (high NPV)	10% for large suppliers;	£14.7m for large suppliers +	£210k	£420k	£840k

<sup>21</sup> In the case of vouchers, it would cause high demand for Post Office services; while in the case of Special Action Messages, the technology infrastructure that supports this mechanism would struggle to cope with multiple demands.

<sup>22</sup> <http://markets.ft.com/research/Markets/Bonds>

	20% for small suppliers	£2.3m for small suppliers			
Central estimate	40% for large suppliers; 60% for small suppliers	£52.6m for large suppliers + £6.2m for small suppliers	275k	£545k	£1.1k
High cost (low NPV)	100% for large suppliers; 100% for small suppliers	£125.3m for large suppliers + £10.0m for small suppliers	£385k	£770k	£1.5k

Under Option 2, suppliers would be required to ensure a tangible impact on all their customers' bills, which may increase their funding costs. Again we assume companies might need to borrow money or use their own funds for a period ranging from half a month to two months. We also assume that large (small) companies might need to borrow to cover between 10% and 100% (20% to 100%) of their PPM and Standard Credit customers and between 5% and 15% (10% to 30%) of their DD customers. We estimate funding costs for the industry as a whole at between £375,000 and £2.3m in each year of the rebate.

#### *Communicating the rebate to recipients*

Under Option 1, suppliers would be required simply to highlight the effect of the rebate on recipients' bills as part of the billing process (standard credit and direct debit customers) or delivery process (PPM customers). We assume that this cost is negligible or that it is implicit in the information submitted by suppliers on their costs of delivering the payment to customers.

Under Option 2, suppliers would need to issue a standalone communication to all recipients of the rebate, explaining its purpose. Based on information submitted by suppliers, we estimate this cost at £0.32 per eligible customer in each year, based on the cost of sending a letter to customers. This amounts to around £8.8m for the industry as a whole in each year of the rebate. There is significant uncertainty around this estimate due to the wide variation in suppliers' estimates. In practice, many suppliers would be able to make use of cheaper alternative forms of communication, such as email, meaning this is likely to be an overestimate of the costs of this requirement under Option 2. As before, the range provided captures part of this variation.

Under each option, suppliers would incur costs from dealing with ad hoc customer enquiries regarding the rebate. Suppliers have expressed different expectations regarding the volume of enquiry that the policy would generate. Taking into account the range of supplier expectations and information they submitted regarding the cost of dealing with an enquiry, we estimate the cost of dealing with customer enquiries for Options 1 at around £0.08 per eligible customer in 2014. In 2015, we assume that fewer people will enquire due to most having received the



rebate in the previous year. For 2015, we revise down our estimate of total costs of this delivery requirement in 2014 by 30%, 50% and 80% for our low, central and high estimate respectively.

It is not clear whether there would be a greater volume of enquiry under Option 2. On the one hand, the additional standalone communication requirement may reduce the number of enquiries relative to Option 1, as customers may have greater clarity on the purpose of the rebate. On the other hand, it could draw more attention to the rebate, driving more enquiries. In the absence of better information, we produce a range of estimates which assume that the volume of customer enquiries under Option 2 are 80% of those estimated under Option 1.

### *Audit and verification*

Suppliers will be subject to some form of audit as part of the process of validating their applications for rebate payments. It is difficult to estimate the precise impact of this on suppliers; it will be partly determined by how well suppliers document the delivery process as it happens.

For the purposes of this Impact Assessment, we make simplifying assumptions to estimate the cost of audit and verification as part of the GER. We assume that 2 members of operational staff (a finance administrator and financial manager) would each spend a day assisting the auditor in carrying out their duties; and that a senior manager would spend a day and half. These assumptions underpin both our low and central estimates and are based on discussion with Ofgem, who anticipate that an auditor would spend 1.5 days auditing an organisation. To produce a high cost estimate, we assume a finance administrator and financial manager would each spend two days assisting the auditor. We use hourly wage costs for staff at these grades as per Table B1 in this annex. This does not account for the time spent by suppliers preparing for the audit as this is assumed to be reflected in suppliers' estimates of the cost of delivering payments (see above).

It is expected that some suppliers (most likely large suppliers) would incur additional costs associated with internal governance procedures, e.g. getting a Committee or Board to consider the audit report; and preparing a management response. To estimate this cost we assume that 6 Directors (hourly wage costs as per Table B1) would each spend up to 3 hours considering the audit report. We assume that all large suppliers would incur this additional cost. To the extent that any small suppliers would also need to follow these procedures our estimate will be an underestimate.

On the basis of these assumptions, we estimate the cost audit and verification at between £1,000 and £1,700 per audit for small suppliers; and between £2,200 and £5,000 per audit for large suppliers.

We assume that all suppliers involved in delivering the GER will be audited at least once. In addition we assume that between one-third and two-thirds (for the purposes of our lower and upper bound estimate respectively) will be subject to a second audit. This assumption is again informed by discussions with Ofgem. Accordingly, we estimate the total cost of audit and verification for all suppliers at between £28,000 and £55,000 for the industry as a whole in 2014 and between £9,000 and £36,000 for the industry as a whole in 2015.

### *Submit invoices to Central Government*

We assume that it would require up to 2 hours of a finance administrator's time to prepare an invoice and up to 2 hours of a finance manager's time to review and approve it. Our assumed hourly wage figures are as per Table B1. Using these assumptions, we estimate that the process of preparing and submitting an invoice to Central Government would cost around £100 per invoice. This represents our low and central estimate of the cost of submitting an invoice per supplier. To produce a high estimate, we assume 4 hours of both a finance administrator and finance manager on this task, which puts the cost of submitting an invoice per supplier at around £200.

The total cost of submitting invoices would be determined by the frequency with which suppliers submitted invoices to Central Government. This is expected to differ under the two policy options. Under Option 1, suppliers would not be required to ensure an immediate impact on customers' bills. Therefore, we expect that suppliers would submit invoices following each reconciliation process<sup>23</sup>, as this is when suppliers would actually incur the cost of the rebate. Reconciliation processes differ between suppliers: some suppliers have fixed reconciliation dates that occur for instance quarterly or bi-annually; other suppliers reconcile customer accounts on the anniversary of each customer's account set-up date, so that reconciliation happens continually throughout the year. Based on information received from electricity suppliers about their reconciliation processes, we have estimated the number of invoices that would be submitted in 2014 and 2015 under Option 1 and accordingly the cost to the industry as a whole of this delivery task. We estimate that it would cost between £3,000 and £6,200 in 2014 and between £9,000 and £18,100 in 2015.

Under Option 2, suppliers would be required to ensure an immediate impact on customers' bills. Accordingly, suppliers would incur costs of delivering the rebate in the period between the qualification date and the deadline for delivering the rebate. In principle therefore, under Option 2, suppliers would submit an invoice once in each year of the rebate. However, for the purposes of our central estimate we assume each supplier would submit 2 invoices in each year of the rebate under Option 2. Accordingly, we estimate the cost of this delivery task under Option 2 at between £4,300 and £8,600 for the industry as a whole.

### Summary of estimated delivery task costs

Table B3: total estimated cost of delivering the rebate (2014 real prices)

	Option 1 (preferred)		Option 2	
	2014	2015	2014	2015
<b>Deliver the rebate</b>				
Identify eligible customers	£4.3k–11.1k	£4.3k–£11.1k	£10.7k–28.2k	£10.7k–28.2k
Deliver payment	£6.0m–9.4m	£6.0m–9.4m	£16.9m–24.4m	£16.9m–24.4m
<b>Communicate the rebate</b>				
...alongside payment	*	*	£7.5m–£10.2m	£7.5m–£10.2m

<sup>23</sup> This means the process by which electricity suppliers 'reconcile' with their account holders by refunding any credit on the account balance.

...reactively (customer enquiries)	£2.6m	£800k–2.1m	£1.5m–2.1m	£500k–1.6m
Reclaim rebate payments made				
Audit and verification	£28k–54k	£9k–37k	£28k–55k	£9k–37k
Submit invoices	£3k–6k	£9k–18k	£4k–9k	£4k–9k
<b>Total cost of delivering the rebate</b>	£8.6m–12.0 m	£6.8m–11.5m	£26.0m–36.7m	£24.9m–36.3m
<b>Per customer cost of delivering the rebate</b>	32–45p	25-43p	£0.96–£1.36	£0.92–£1.35
* The cost of communicating the repayment alongside payment under Option 1 is assumed to be included in the costs of delivering payment.				