

Incentive on Connections Engagement (ICE) Initiative 20.17

Review the Connection Offer and assess whether the level of technical and cost detail is appropriate to larger jobs



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1. Background

ICE 20.17 initiative was included in UK Power Networks Service Delivery plan for 2017/18 following feedback from customers and stakeholders. The ICE initiative is as follows

Ref.	Initiative	Target date	Measure
20.17	Review the Connection Offer and assess whether the level of technical and cost detail is appropriate to larger jobs	Sept 2017	Proposal circulated for comment by stakeholders by target date

Our previous Connection Offer letter comprised 30+ pages. Stakeholders reported this was too lengthy and that much of the detail was replicated. Two years ago we simplified our Connection Offer to comprise approximately 15 pages. Hyperlinks are used to access generic data. A limited number of stakeholders have since commented that the level of technical and cost detail in the current Offer could be improved.

2. Introduction

Our current S16 Connection Offer (example below) provides three prices A, B and C allowing a customer to make an informed choice as to how they might wish to proceed.



Registered Office
Newington House
237 Southwark Bridge Road
London SE1 6NP

Company:
UK Power Networks
(Operations) Limited

Registered in England and Wales No: 3870728

Mr. Customer
A Street
A Town
A Location
A postcode

Date: XX July 2017
Our Ref: 860000XXXX / QID 360000XXXX

Dear Mr. Customer

Site Address: The Site, Acacia Avenue

Thank you for your recent enquiry regarding an electricity connection at the above site. I am writing to you on behalf of South Eastern Power Networks plc, the licensed distributor of electricity for the above address known as "UK Power Networks". I am pleased to be able to provide you with a Quote to carry out the work requested.

The Works will enable the provision of an import capacity of XXX kVA and a maximum export capacity of XXXXX kW and will provide 1x XXMW ~~Tesla~~ Synchronous generation connection to our 33kV overhead network,

UK Power Networks would like to carry out all of the requested work for you. However, [there are other companies, who can do some or all of the work for you](#); these are Independent Connection Providers (ICPs). You can approach NERS accredited ICPs directly, or you can approach an Independent Distribution Network Operator (IDNO) to request this work and they will arrange for an ICP to carry out the Contestable Works. To find out more about which ICPs work in our area and what work they can undertake please [click here](#).

To give you as much choice as possible we are able to offer you **the following options** for getting your work done:

How much is it going to cost?		Price excluding VAT	Price including VAT
A	UK Power Networks carries out all of the requested 'contestable' and 'non-contestable' works required for your connection	£928,243.54	£1,113,892.25
B	UK Power Networks carries out all the 'non-contestable' work and the 'contestable closing joint'. The ICP carries out all other requested 'contestable' work	£172,221.02	£206,665.23
C	UK Power Networks carries out the 'non-contestable' works only. The ICP carries out all of the works classified as 'contestable'	£171,235.22	£205,482.27

A short guide is available to help you understand the three different Prices (options A, B and C). To see this guide please [click here](#).

- Price A UK Power Networks carries out all of the requested 'contestable' and 'non-contestable' works required for your connection
- Price B UK Power Networks carries out all the 'non-contestable' work and the 'contestable closing joint'. The ICP carries out all other requested 'contestable' work
- Price C UK Power Networks carries out the 'non-contestable' works only. The ICP carries out all of the works classified as 'contestable'

Within Connection Offers hyperlinks to our website use [click here](#).

Each Connection Offer comprises 5 headline sections as below

Your Information Pack

The following pack provides all of the information you should need to successfully complete your electrical connection for the work you have been quoted. Please pay particular attention to the information that is specific to your project.

Do not hesitate to contact me should you require any further support.

Section **1** The Scope of Works

Section **2** Cost Breakdown

Section **3** Your Responsibilities

Section **4** Information To Help You As You Plan For Your Work

Section **5** Acceptance Form To Proceed With The Works

The aim of this document is to review the current Connection Offer and set out our proposals for improvement. In line with stakeholder feedback, this document focuses primarily on sections 1 and 2 – the scope of the works and cost breakdown.

Existing Connection Offers – a review

Project designers and project managers in our Connections team prepare Connection Offers. Planners and designers from our Asset Management and Capital Programme teams support them depending on the complexity of the design. A variety of planning, design, costing and pricing tools are used. The Connection Offer is however a standard document which is populated with outputs from the tools used.

We asked a customer who had raised this issue with us to identify examples of Connection offers where they felt the level of technical and pricing detail could have been improved. A number of examples were provided – we reviewed these and took the opportunity to also analyse a random sample of Connection Offers (not only those associated with larger jobs).

In one example, Price A was just over £137,000. The scope of all works was as follows. Due to the nature of the project all was described as Non-contestable.

Section 1 Scope of Works

Please read the details in this section in conjunction with the attached customer proposal plan.

UK Power Networks will carry out the following Contestable and Non-Contestable Works:

Additional export to be connected via existing on site 11kV infrastructure.

To enable the generation to connect UK Power Networks will need to submit a statement of works (SOW) to National Grid (NG) and receive formal confirmation the proposed site can connect.

UK Power Networks will need to carry out Non-Contestable works to enable the generator/s to connect the existing distribution network, specifically;

- SuperTapp installation at Fords Dunton Primary
- Watts & Vars Transducer installation at Fords Dunton Primary
- Network outage/s to connect the new equipment
- Submit SOW to NG
- G59 Witnessing of new customer equipment
- Assessment of customer proposal including SLD and generator information.
- Complete voltage study
- Update protection settings
- Review P28,P29,P18 & G5/4 reports provided by an accredited ICP

The corresponding price breakdown is shown in figure 1 below - this is our current arrangement. In the example here the majority of work is categorised as Commercial Services.

Description of NON-CONTESTABLE WORK	
Work involved	Net price (£)
Commercial Services	
<ul style="list-style-type: none"> • SuperTapp installation at Fords Dunton Primary • Watts & Vars Transducer installation at Fords Dunton Primary • Network outage/s to connect the new equipment • Submit SOW to NG • G59 Witnessing of new customer equipment • Assessment of customer proposal including SLD and generator information. • Complete voltage study • Update protection settings • Review P28,P29,P18 & G5/4 reports provided by an accredited ICP 	£129,205.04
Transactional Charges	
<ul style="list-style-type: none"> • Assessment Only Charges 	£5,150.00
<ul style="list-style-type: none"> • Design Approval Charges 	£3,080.00
Other charges	
TOTAL	£137,435.04

Figure 1

On reflection we agree that a better more detailed breakdown of the price would have been useful. We have mocked-up a more detailed breakdown below (in Figure 2) using Excel rather than our estimating system. This is shown below – the £129K is subdivided into four more relevant categories;

- Commercial services
- EHV plant and Switchgear

- Miscellaneous
- Transactional charges

Analysis of a range of projects have identified inconsistencies in how we present the price to the customer and in some instances the breakdown provided for projects with a lower price had a relatively better price breakdown.

Breakdown of Costs

Description of CONTESTABLE WORK	
Work involved	Net price (£)
TOTAL	£0.00

Description of CONTESTABLE FINAL CLOSING JOINT WORK	
Work involved	Net price (£)
TOTAL	£0.00

Description of CONTESTABLE FINAL CLOSING JOINT WORK	
Work involved	Net price (£)
Commercial Services	
• Network outage/s to connect the new equipment	£4,674.50
• G59 Witnessing of new customer equipment	
EHV Plant & Switchgear	
• SuperTapp installation at Fords Dunton Primary	£104,205.06
• Watt & Vars Transducer installation at Fords Dunton Primary	
Miscellaneous	
• Submit SOW to NG	£20,325.49
• Assessment of customer proposal including SLD and generator information	
• Complete voltage study	
• Update protection settings	
• Review P28,P29,P18 & G5/4 reports by an accredited ICP	
Transactional Charges	
• Assessment Only Charges	£5,150.00
• Design Approval Charges	£3,080.00
Other Charges	
TOTAL	£137,435.04

Figure 2

Q1	Is the above a more useful price breakdown? If not, why not?
Q2	Do the headline categories provide you with a sufficiently detailed price breakdown?

Some customers have told us that the headline categories we use are not how they would like the price breakdown to be presented. They have told us that categorising the price breakdown by elements of work would be more useful. We have been trialling a more detailed breakdown in our SPN area.

Price breakdown – our proposals

We have taken a different real project and anonymised it such that no reference to the actual project can be established. We set out below three different version of the price breakdown and we seek your views. For all of these we have used the following headline structure for the price breakdown.

Proposed headline structure

- Works at the Grid/primary substation (UK Power Networks end of the project)
- Connection to the existing network – the PoC (Jointing and associated equipment)
- Cable route works (the between our network and your site)
- Customer substation (the termination at your site)
- Other works

Q3	Do these headline categories provide a sufficiently clear description/breakdown of the works? If not, why not?
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Using the price breakdown methodology in [Figure 1](#) above the original price breakdown for the anonymised project is as shown in [Figure 4](#)

Q4	Does using the new headline categories (with the existing method of breaking down the price) provide a better and more detailed overall breakdown of the price and description of the works? If not, how could it be improved further?
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We present two further options each providing more a detailed breakdown.

Option 1 provides a price breakdown to the level shown above – Figure 5

Option 2 provides a price breakdown to the next level – Figure 6

Q5	Does option 1 provide a sufficient breakdown? If not, why not? Is this level of detail sufficient for lower priced projects?
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Q6	Does option 2 provide a sufficient breakdown? If not why not?
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Q7	Should the level of the price breakdown be dependent upon/a function of the price of the project?
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Q8	Should all projects be provided with the same level of price breakdown?
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Original Arrangement

Description of CONTESTABLE WORK that is included in option	A	only	
Work involved			Net price (£)
Commercial Services			
Cable Route Works			
<ul style="list-style-type: none"> Excavation, installation of 11kV cable and reinstatement - un surfaced ground 			
Customer Substation			
<ul style="list-style-type: none"> Installation and commissioning of an 11kV Substation comprising of a GRP Housing and 11kV Metered Ring Main Unit Installation of 11kV Power Quality Meter Installation of COP3 metering cabling Installation of NVD panel 			£487,168.46
Other Works			
<ul style="list-style-type: none"> NG Statement of Works 			
		TOTAL	£487,168.46

Description of CONTESTABLE FINAL CLOSING JOINT WORK that is included in option	A	and in option	B	
Work involved				Net price (£)
Commercial Services				
Connection to Existing Network				
<ul style="list-style-type: none"> Undertake one straight joint 				£2,329.41
		TOTAL		£2,329.41

Description of NON-CONTESTABLE WORK that is included in option	A	and in option	B	and in option	C	
Work involved						Net price (£)
Commercial Services						
Grid/Primary Site Works						
<ul style="list-style-type: none"> Installation of a reverse power transducer 						
Connection to Existing Network						
<ul style="list-style-type: none"> Installation of 11kV ABSD 						
Customer Substation						
<ul style="list-style-type: none"> Installation and commissioning of post mounted Satellite Communications Undertake a G59 Witness Test 						£80,658.48
Other Works						
<ul style="list-style-type: none"> Locks, Labels and Log Book Provide a National Grid Statement of Works Shutdown Undertake a review of the Customers P28, P29 and G5/4 studies Wayleaves and Consents 						
Transactional Charges						
<ul style="list-style-type: none"> Assessment & Design Charges 						£9,320.00
Other charges						
		TOTAL				£89,978.48

Figure 4

Option 1 [Figure 5]

Description of CONTESTABLE WORK that is included in option	A	only	
Work involved			Net price (£)
Commercial Services			
Cable Route Works			£400,104.00
<ul style="list-style-type: none"> Excavation, installation of 11kV cable and reinstatement - un surfaced ground 			
Customer Substation			£80,035.48
<ul style="list-style-type: none"> Installation and commissioning of an 11kV Substation comprising of a GRP Housing and 11kV Metered Ring Main Unit Installation of 11kV Power Quality Meter Installation of COP3 metering cabling Installation of NVD panel 			
Other Works			£7,028.99
<ul style="list-style-type: none"> NG Statement of Works 			
TOTAL			£487,168.46

Description of CONTESTABLE FINAL CLOSING JOINT WORK that is included in option	A	and in option	B	
Work involved				Net price (£)
Commercial Services				
Connection to Existing Network				£2,329.41
<ul style="list-style-type: none"> Undertake one straight joint 				
TOTAL				£2,329.41

Description of NON-CONTESTABLE WORK that is included in option	A	and in option	B	and in option	C	
Work involved						Net price (£)
Commercial Services						
Grid/Primary Site Works						£13,412.91
<ul style="list-style-type: none"> Installation of a reverse power transducer 						
Connection to Existing Network						£27,233.15
<ul style="list-style-type: none"> Installation of 11kV ABSD 						
Customer Substation						£14,538.96
<ul style="list-style-type: none"> Installation and commissioning of post mounted Satellite Communications Undertake a G59 Witness Test 						
Other Works						£25,473.46
<ul style="list-style-type: none"> Locks, Labels and Log Book Provide a National Grid Statement of Works Shutdown Undertake a review of the Customers P28, P29 and G5/4 studies Wayleaves and Consents 						
Transactional Charges						£9,320.00
<ul style="list-style-type: none"> Assessment & Design Charges 						
Other charges						
TOTAL						£89,978.48

Option 2 [Figure 6]

Description of CONTESTABLE WORK that is included in option	A	only	
Work involved			Net price (£)
Commercial Services			
Cable Route Works			
<ul style="list-style-type: none"> Excavation, installation of 11kV cable and reinstatement - un surfaced ground 			£400,104.00
Customer Substation			
<ul style="list-style-type: none"> Installation and commissioning of an 11kV Substation comprising of a GRP Housing and 11kV Metered Ring Main Unit 			£45,710.21
<ul style="list-style-type: none"> Installation of 11kV Power Quality Meter 			£13,120.31
<ul style="list-style-type: none"> Installation of COP3 metering cabling 			£1,203.62
<ul style="list-style-type: none"> Installation of NVD panel 			£20,001.35
Other Works			
<ul style="list-style-type: none"> NG Statement of Works 			£7,028.99
			£487,168.46

Description of CONTESTABLE FINAL CLOSING JOINT WORK that is included in option	A	and in option	B	
Work involved				Net price (£)
Commercial Services				
Connection to Existing Network				
<ul style="list-style-type: none"> Undertake one straight joint 				£2,329.41
			TOTAL	£2,329.41

Description of NON-CONTESTABLE WORK that is included in option	A	and in option	B	and in option	C	
Work involved						Net price (£)
Commercial Services						
Grid/Primary Site Works						
<ul style="list-style-type: none"> Installation of a reverse power transducer 						£13,412.91
Connection to Existing Network						
<ul style="list-style-type: none"> Installation of 11kV ABSD 						£27,233.15
Customer Substation						
<ul style="list-style-type: none"> Installation and commissioning of post mounted Satellite Communications 						£13,689.56
<ul style="list-style-type: none"> Undertake a G59 Witness Test 						£849.40
Other Works						
<ul style="list-style-type: none"> Locks, Labels and Log Book 						£226.77
<ul style="list-style-type: none"> Provide a National Grid Statement of Works 						£7,559.11
<ul style="list-style-type: none"> Shutdown 						£2,569.34
<ul style="list-style-type: none"> Undertake a review of the Customers P28, P29 and G5/4 studies 						£7,559.11
<ul style="list-style-type: none"> Wayleaves and Consents 						£7,559.11
Transactional Charges						
<ul style="list-style-type: none"> Assessment & Design Charges 						£9,320.00
Other charges						
						£89,978.48

3. Next Steps

The consultation phase will commence on Monday, 02 October 2017 and will remain open for six weeks closing on Monday, 13 November 2017.

Following the completion of the consultation, UK Power Networks will consider all responses and address any issues. We envisage a robust consultation process strengthening the relationship with our customers and offering them the best service.

Please note the above proposal has been developed without the constraints of the legislation and regulations under which we operate. Once feedback has been received we will work to ensure the updated proposal is in compliance with legislation and regulations.

Consultation Questions

Please complete the attached questions and return to Steve Halsey by email to steve.halsey@ukpowernetworks.co.uk
Alternatively, you can complete the questions online at <https://www.surveymonkey.co.uk/r/BZ7737N>

Q1	Is it reasonable that customers considering adding another technology to an existing site are Is the above a more useful price breakdown? If not, why not?
Q2	Do the headline categories provide you with a sufficiently detailed price breakdown?
Q3	Do these headline categories provide a sufficiently clear description/breakdown of the works? If not, why not?
Q4	Does using the new headline categories (with the existing method of breaking down the price) provide a better and more detailed overall breakdown of the price and description of the works?
	If not, how could it be improved further?
Q5	Does option 1 provide a sufficient breakdown? If not, why not?
	Is this level of detail sufficient for lower priced projects?
Q6	Does option 2 provide a sufficient breakdown?
	If not why not?
Q7	Should the level of the price breakdown be dependent upon/a function of the price of the project?
Q8	Should all projects be provided with the same level of price breakdown?