

Substation Civils Re-Opener

Barking 275kV Substation – Office Welfare Facilities

Enhanced Project Investment Paper

Section Author	Steve Barnett	Date Started	05/08/2022
Reference Number	2016-197 Barking 275kV - Office Welfare Facilities		

1. Scheme Summary by Regulatory Category

Unique Identifier	Site	Asset	RIO Financial Category	Output Year	Total Costs (£m)
2016-197	Barking 275kV Substation	Office and Welfare Facilities	Buildings	2023	■

2. Project Summary

Driver Detail	The existing facilities are not adequate for the increased level of staff present at the site and are not compliant with modern environmental and inclusive design regulations. Potential increased future personnel levels on site will require corresponding additional welfare facilities, something which the existing unit does not and cannot provide in its current form.
Project Overview	<p>The existing office unit at the entrance to the site was recommissioned from a ■ contractor's office used elsewhere on the site and moved to its current location to become a National Grid office. Works were carried out to improve the offices in 2014 including providing a new septic tank. However, it has now reached the end of its life and is no longer fit for purpose. It is formed of 9 Portakabin units fixed together to provide meeting space, office space, a kitchen and toilets as well as security to the site.</p> <p>Both the welfare facilities and shower blocks are formed with two Portakabin type units and are in poor condition both internally and externally.</p>
Plant Status Link:	

Scope Diagram





Other Options Rejected.

Two other options have been considered:

- 1) Do nothing – not appropriate as the buildings are at the end of their life and will soon become un-inhabitable
- 2) Refurbish the existing modular buildings – deemed not feasible as the prefabricated modules were designed as short duration site cabins and have already outlived their likely design life.

3. Supporting Documents

Please list any other relevant documents that are key to the Gatekeeper's decision

Ref	Document Title	Document Description
A	B3082-18-101	Ground floor plan.
B	B3082-18-102	Elevations Drawing.
C	A123989-010-DRG-C02-102-A	Piling Plan.

D	A123989-010-DRG-C02-103-A	External Layout.
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4. Project Summary

Programme	Since piled foundations are required, but the building will be constructed off site, a 5-month duration is anticipated.		
Outage Requirements & Ops Resource	No outages will be required.		
Land & consents	Planning consent has been granted by the local authority.		
Key Risks and Hazards	Demolition of the existing buildings, and installation of services.		
Design to Be Resolved	Outline design of the modular building is complete, but the supplier chosen may result in slight alterations to both building and foundations.		
Development Strategy	N/A		
Assets In Ellipse:	BARK2SBLD		
Contract Strategy	Competitive tender through the minor civils framework. Potential to purchase the modular building directly from the manufacturer.		
Delivery Vehicle	Asset Operations embedded zone Project Engineers or via traditional ET Minor Schemes delivery	Delivery Vehicle Engaged?	No

5. Delivery & Procurement Strategy

Procurement Strategy	Competitive tender through the minor civils framework. Potentially purchase the modular building directly from the manufacturer.		
Bundled Schemes	n/a		
Material sourcing	No anticipated issues.		

6. Key Risks and Opportunities

Programme Risks	Timescales for fabrication and delivery of modular building from supplier. This is normally confirmed at the point of order. The lead time can fluctuate depending on equipment type and market demand.		
NG Project Risks	Changes to design could impact local planning permissions.		
Envisaged Contractor Project Risks	Ground works including piling.		

Opportunities	n/a
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7. Baseline Cost Estimates

All costs in this section are base costs (pre-out-turned), to 2 decimal places

Base Year	2018/19							
Base Cost totals (£m)	Plant Status No.	Costs incurred to date (£m)	Design Costs (£m)	Contractor Prelims (£m)	Contractor Construction Cost (£m)	Contractor Temporary Works (£m)	Contingency (£m)	Total Project Cost (£m)
	2016-197	■	■	■	■	■	■	■
Notes:	<p>■ quotation (Option B) for similar works at ■ has been used and pro-rate accordingly based on site measurements at Barking. Demolition increased to £■ (from £■) due to increase in size. ■% Risk provision deleted from estimate and allocated to contingency above.</p>							

8. Interacting Projects

There are no interacting projects associated with this work however the following interventions are planned at Barking:

Project Number	Project title	Driver Number	Delivery Date (ACL)
2014-148	Barking 275kV Switchhouse Floor	N/A	RIIO-2
2016-066	Barking 275kV Shunt Reactor 2B	N/A	RIIO-2
2016-173	Barking 275kV Shunt Reactor 1B	N/A	RIIO-2
2019-091	Barking 275kV SGT 1A Bund	N/A	RIIO-2
2019-092	Barking 275kV SGT 2A Bund	N/A	RIIO-2

9. Sustainability

Sustainability Action Plan:

What were the most significant opportunities implemented within the scheme?

N/A

10. Outage Bookings

This section identifies outages relating to the works.

Outage Number	Description	Outage Start	Outage Finish	ERTS
N/A	N/A	N/A	N/A	N/A

11. Declarations

Approval	Name	Signature	Date	Declaration
1 Commercial and Portfolio Manager	Sheena Froggatt		17/08/22	The Investment Team Manager has determined that this scheme is in line with overall business goals and objectives.
2. Asset Management Lead	Damien Culley		22/08/22	The Asset Management Lead has determined that this scheme is in line with overall business goals and objectives.