


Substation Civils Re-Opener Basic Project Investment Paper

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| Author | Steve Barnett | Date Started | 14/06/2022 |
| Reference Number | 2020-260 | | |

1. Scheme Summary by Regulatory Category

| Unique Identifier | Site | Asset | RIO Financial Category | Output Year | Total Costs (£m) |
|-------------------|----------------------------------|-------------|------------------------|-------------|------------------|
| 2020-260 | Jordanthorpe 275kV Substation | Access Road | Roads | 2025 | ■ |

2. Driver Summary

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|----------------------------------|---|
| Project Overview | <p>Access to Jordanthorpe Sub Station is from the Sheffield outer ring road, which is a dual carriageway. The geometry of the access road is such that it is not possible to turn into the access road from the nearside carriageway. Instead, vehicles are required to access from the far carriageway, turning through a gap in the central reservation and crossing the near carriageway in the face of oncoming vehicles.</p> <p>This project is to alter the geometry of the access road to permit direct access from the near carriageway and avoid vehicles obstructing a lane of the dual carriageway whilst waiting to turn.</p> |
| Plant Status Link: | 2020-260 |
| Scope Diagram/Photographs |  |



3. Project Summary

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| Overview | To rebuild the access road entrance, improving the geometry and allowing vehicles to left turn directly into the site from the adjacent carriageway, rather than cross the central reservation and near carriageway having travelled from the far carriageway |
| Programme/Duration | 4 months |
| Outage Requirements & Ops Resource | The works will be undertaken by the highway authority, Sheffield city Council. Little interaction with Ops is anticipated. |
| Key Risks and Hazards | The works are to take place in the carriageway of a high speed road. Significant traffic management measures will be required to protect the site and personnel from vehicles. |
| Design to Be Resolved | Detailed design is yet to be undertaken, but will be based on existing outline designs prepared by Sheffield City Council's Highways Department |
| Development Strategy/Interacting Works | N/A as work is due to take place on the highway outside of the substation. |
| Assets In Ellipse: | JORD2SROAD |
| Contract Strategy | Contract design and build to Sheffield City Council. |

4. Baseline Cost Estimates

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

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|------------------|---------|
| 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) |
|-----------------------|--|-----------------------------|-------------------|-------------------------|-----------------------------------|---------------------------------|------------------|-------------------------|
| | 2020-260 | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Notes: | National Grid do not have the necessary licences to undertake works to highways. Sheffield City Council's Highways department have been engaged however National Grid have not yet received a quotation for these works. The above costs represent National Grid's best estimation of what it would cost the highways agency to construct the design they have provided. | | | | | | | |

5. 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. |