

Capital Expenditure Range Finder Tool

FAQs

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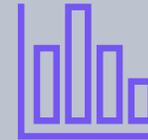
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1. General

1.1 What is the Capital Expenditure Range Finder?

The Capital Expenditure 'Range Finder' tool is used to understand infrastructure costs based on similar historic schemes. It is part of the Better Value Rail (BVR) suite of tools and sits on the BVR website. The BVR website has been developed in conjunction with Department for Transport, Office of Rail and Road, and Network Rail. Range Finder provides users with insights on potential capital cost ranges by scheme and asset type.

1.2 What is Range Finder used for?

Range Finder provides a high-level indicative range of costs through either Scheme Type or Asset Type, and is useful for conducting capital cost viability assessments for early project proposals.



1. General

1.3 Who is Range Finder intended for?

Range Finder has been designed to help rail industry stakeholders understand infrastructure costs based on similar historic Network Rail projects, aiding discussions when planning and during the early stages of developing business cases.

1.4 Who can use Range Finder?

Anyone can use the Range Finder tool, accessing it through the Better Value Rail website.

1.5 Why do we need Range Finder?

Range Finder can account for a given cost range and provide users with an idea of possible scope that could be delivered within that cost range. It can also take the size of a project into account and output an estimate cost range for said project.



1. General

1.6 How can Range Finder help me?

Benefits of Range Finder include earlier insights, easier access to data, and increased efficiency. Range Finder draws upon Network Rail data to provide an indicative cost range for upcoming projects, based on historic projects delivered. It efficiently provides a high-level range figure, making it useful for early project viability purposes.

1.7 How should Range Finder be used?

Range Finder should be used to aid discussions surrounding planning and business cases, where a range is useful in understanding the viability of a project concept. It should not be used as a tool that provides a detailed estimate, this still needs to be completed by a competent, qualified person.



1. General

1.8 What are the key design features of Range Finder?

Range Finder is made up of a suite of PowerBI dashboards. It is driven by analytics and works to collate data in a way that is most helpful to users.

1.9 Where can I find more information?

Click to access the [Capital Expenditure Ranger Finder Video Walkthrough](#) to learn more.



2. Technology

2.1 How do I navigate the tool?

See the [Capital Expenditure Ranger Finder Video Walkthrough](#) for guidance on how to the navigate Range Finder and to see what information you can access through the tool.

2.2 How do I filter projects on Ranger Finder?

Projects can be filtered using the drop-down menus and sliders on each page.

2.3 How do I clear filters?

Use the Reset button at the top of the page to clear all filters.



2. Technology

2.4 How can I see more information about historical projects?

You can bring up the Project on a Page by hovering over any of the project details including Project Name, Region and Estimate Cost. This will give you the Project Details, Project Description, Technical Information and Cost Profile of the selected project.

2.5 Why can't I find the project I'm looking for?

Use the search button at the bottom of the page to search by Project Name. Not all historic Network Rail projects are in Range Finder, but the data has been carefully selected to provide suitable variation.

2.6 Who can I contact if I encounter any errors or technical problems with Range Finder?

Please find contact details on the [Terms & Conditions](#) page of Range Finder.



3. Data

3.1 Where is the data in Range Finder from?

Range Finder is driven by data from a selection of historic Network Rail projects.

3.2 How often is the data in Range Finder updated?

The data in Range Finder will be updated annually.

3.3 How do I know when the data in the Power BI reports was last refreshed?

There is a last refreshed date included on the [Terms & Conditions](#) page of Range Finder.



3. Data

3.4 Can I download the data from Range Finder?

Currently, the dashboards do not allow users to download all data used in Range Finder. However, users are able to download and print [Project on a Page](#) views, which provide a useful overview of selected project details.



4. Glossary

- 4.1 Benchmark Value** - derived from either final account or contract award. All of our benchmarks are medians, not means, ensuring they are not skewed by outliers.
- 4.2 Level 1** - Level 1 provides a high-level range based on Scheme Type Selection. Level 1 shows the cost range using a box and whisker plot, with the ability to select specific project types. This is best used by someone with little knowledge on the cost breakdown structure, giving a higher level range than Level 2.
- 4.3 Level 2** - Level 2 provides a more detailed range based on Primary Asset Type Selection. Level 2 shows the cost range for that specific asset type alongside examples of historic projects, and is best used by someone with knowledge on the cost breakdown structure, which provides a more accurate range figure.
- 4.4 Pound in the Ground** – cost metric used by the construction industry to measure the amount of indirect cost compared to direct cost in a capital delivery programme. Total cost of programme divided by the contractor’s direct cost. This relies on each organisation’s allocation of cost to indirect and direct buckets.
- 4.5 Primary Asset Type** - the most important asset in a given rail project, generally the primary area of spend or scope. Does not mean the only asset type in a given project. Includes Power, Structures, Depot Complex, Station Complex, Corridor Formation, and Railway Control Systems. Click for definitions of each [Primary Asset Type](#).



4. Glossary

4.6 Project Compendium – provides a selection of completed Network Rail schemes for comparison, and outlines the historic projects with location and specifications responding to the asset type selected by the user.

4.7 Project Estimate Range – AFC with inflation taken into account.

4.8 Project on a Page – provides details of a selected project on one page. This includes an overview of the project, Project Details, Project Description, Technical Information based on Attribute, and a Cost Profile for the most recent submission of the project by Category, Asset Type and High Level Unit.

4.9 Project Parameters – additional parameters, including Region and Completion Date, can be added when filtering out projects you want to view, to bring up projects more relevant to your search and range.

4.10 Scheme Type – the central focus of a given project. There are 4 different scheme types: Capacity Improvement, Freight to Passenger, Restoring Railways, and Decarbonisation. Click for definitions of each [Scheme Type](#).

4.11 Year of Construction – provides a base date of costs contributing to the range given so that inflation can be taken into account.



4.5 Primary Asset Types

Primary Asset Type	Definition
Power	Electric power systems and equipment, including all power supply, distribution and power systems for railway operation and the movement of rolling stock.
Depot Complex	All depot or sidings infrastructure that supports the railway, defined by site boundary and entry/exit roads from the railway.
Station Complex	All station infrastructure that supports or interfaces with the railway, defined by site boundary.
Corridor Formation	Infrastructure required to support or provide the railway corridor on which railway systems operate.
Railway Control Systems	Equipment and systems that manage the movement of Rolling Stock.
Structures	All other structures and buildings that interface with the railway.



4.10 Scheme Type

Scheme Type	Definition	Example
Capacity Improvement	A solution that seeks to allow more train services to run on the network. This could be achieved by making infrastructure changes (evaluation tool supports) or a change in service patterns (excluded – see OpEx tool for operational costs).	Changes to the track layout and/or signalling systems enabling increased flexibility and capacity.
Freight to Passenger	A solution that makes an existing route suitable to accommodate different traffic types: freight routes could be made suitable for passenger trains, or freight services could be enabled on passenger routes.	Updating the infrastructure to: Change a dedicated freight route to a specification enabling passenger trains use, and/or modifying existing passenger routes to allow freight train use.
Restoring Railways	A solution that seeks to reinstate out-of-use or off-network routes to enable new train services and more/better journey opportunities.	Reestablishment of railway service (Passenger / Freight) on an old railway alignment previously closed or joining a heritage railway to the national network.
Decarbonisation	A solution that seeks to reduce the carbon impact of the rail services provided. This includes changing how we power our trains to less carbon intensive means. (New electrification systems only are included in the evaluation tool)	Changing the traction power of trains to lower carbon technologies such as electrification or hydrogen.



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