

Comparing the options using a multi-criteria analysis



As part of the process of comparing options, landowners along various transmission line corridor options are invited to weight the importance of the criteria.

Other key stakeholders including Government, industry, local environmental groups and business interest groups are also invited to weight criteria.

The weightings are done at workshops and by post, and are then used to prioritise the importance of the criteria. The impact of each corridor is also assessed against these criteria.

Technical impact assessments are converted into a score for each of the criteria. The score enables the comparison of very different types of impacts.

Once all criteria have been weighted, an analysis is conducted overlaying the criteria weightings of the technical impact assessments for each corridor.

E.g. stakeholders may consider that the criteria 'views' is more important than the criteria of 'impacts on recreation'. In this instance, the criteria 'views' would be more heavily weighted than that of 'impacts on recreation' when comparing the corridors. In this instance, if the first corridor had the least impact on views and another corridor had the least impact on recreation, the first corridor would be preferred by stakeholders.

A statistical process is used to compare the scores for all of the criteria and the importance of criteria per option. This process is called a multi-criteria analysis.

Multi-criteria analysis is a tool to assist decision-making where there are complex multi-criteria problems that include qualitative and/or quantitative aspects.

The process is designed to ensure that the corridor is selected on common values, minimising the lobbying by particular groups for transmission line routes.

Develop sustainability assessment criteria

The sustainability assessment criteria are developed with input from key stakeholders.

Criteria weighting

Stakeholders are asked to weight the importance of each of the sustainability criteria. This is fundamental to incorporating stakeholder values into the decision-making process and is essential to the effectiveness of the multi-criteria analysis.

Impact assessments

The impact assessment is a technical assessment of the impacts of the corridor options for each of the sustainability criteria. The assessment considers a number of measurable indicators for each criterion. The criteria must be able to differentiate between the line route options and be measurable with a level of accuracy that provides meaningful results.

Multi-criteria analysis

The multi-criteria analysis combines the criteria weightings with the results of the impact assessment to produce a ranking of the options. We use two different statistical methods to do this, called concordance and additive weighting. Using the two methods allows the results to be crosschecked.

Preferred corridor identified