

## Modelling – Checklist

This checklist has been prepared for applicants undertaking economic and financial analysis to support their request for funding for waste and recycling infrastructure under programs being operated by the NSW Environment Protection Authority or NSW Environmental Trust. An integrated economic and financial model has been prepared to support proposal preparation by funding applicants.

### What is the difference between economic and financial analysis?

**Economic Analysis** (cost-benefit analysis): The economic analysis checks whether the project results in a net public benefit for NSW. Economic appraisal is a systematic means of analysing all the costs and benefits of various options to achieve a particular service objective. The economic analysis is typically framed from the perspective of the whole community.

**Financial Analysis:** A financial appraisal is used to evaluate the financial viability of a proposed project. The financial analysis is typically framed from the perspective of the entity carrying out the project.

### Economic analysis

Key aspects of the modelling

Discount rates	3%, 7%, 10%
Costs (project + broader community)	<ol style="list-style-type: none"> <li>1. Capital: new and replacement infrastructure</li> <li>2. Operating: staff, energy, maintenance, licensing, etc.</li> <li>3. Community: traffic, noise, dust, etc.</li> </ol>
Benefits (project + broader community)	<ol style="list-style-type: none"> <li>1. Avoided costs/savings – e.g. gate fees for landfill disposal</li> <li>2. Revenue: from sale of recovered materials (by product type), energy generation</li> <li>3. Other benefits – amenity, greenhouse gas abatement, leachate, etc.</li> </ol>

For further information on cost-benefit analysis, refer to the NSW Government Guide for Cost-Benefit Analysis ([TPP17-03](#)).

## Financial analysis

### Key aspects of the modelling

Discount rates	3%, 7%, 10%
Costs (project + broader community)	<ol style="list-style-type: none"> <li>1. Capital: new and replacement infrastructure</li> <li>2. Operating: staff, energy, maintenance, licensing, etc</li> <li>3. Tax (where payable)</li> </ol>
Benefits (project + broader community)	<ol style="list-style-type: none"> <li>1. Grant funding</li> <li>2. Revenue: from sale of recovered materials (by product type), energy generation</li> <li>3. Revenue from gate fees</li> </ol>

For further information on financial analysis, refer to the NSW Government Guidelines for Financial Appraisal ([TPP18-06](#)).

## Undertaking the modelling

When completing the model, use the following process:

1. Read the instructions on the 'Cover' sheet
2. Populate 'Sheet 1\_Assumptions' sheet with details, analysis period, financial discount rates and price projections
3. Populate 'Sheet 2\_Inputs & Outputs' with input and output tonnages for the base case and project case.
4. Populate 'Sheet 3\_Project Capex and Opex' with capital and operating cost information. Ensure that all values exclude inflation. The model automatically inflates the values for the financial analysis (nominal values), whereas the economic analysis is based on uninflated (real) values).
5. Populate 'Sheet 4\_Benefits' with the economic and financial benefits
6. Check the results of the economic analysis (Sheet 5\_CBA Results) and financial analysis (Sheet 6\_Fin Analysis)
7. Check for optimism biases in the assumptions, such as assumed high throughput growth, under-valued costs, and over-valued benefits

The model will automatically populate the financial and economic values based on the assumptions and inputs provided in Sheets 1 through 4.