

# Using the Integrated System Plan Generation Outlook workbooks

This fact sheet is designed to assist users in navigating the Integrated System Plan's (ISP's) companion Generation Outlook Excel workbooks.

These workbooks provide the capacity development and retirement outlook, coupled with generation outcomes, emissions outcomes and a cost benefit analysis of each Development Path against the Counterfactual for each scenario.

*To aid understanding, users should read and understand the 2020 ISP report before using these companion workbooks.*

## Disclaimer

AEMO has made every effort to ensure the quality of the information in this workbook but cannot guarantee that the information, forecasts and assumptions in it are accurate, complete or appropriate for your circumstances. This generation outcomes workbook does not include all of the information that an investor, participant or potential participant in the electricity or gas market might require, and does not amount to a recommendation of any investment. Refer to each workbook for a full disclaimer on use.

## Generation Outlook.zip: collection of Outlooks

This file contains eight different folders – one for each of the five scenarios, the four market event sensitivities (with variants on the development paths) and the two additional sensitivities. Each folder contains workbooks for specific cases that have been produced by AEMO as part of the 2020 ISP. The following scenarios and sensitivities are included:

Scenarios	Market event sensitivities	Additional sensitivities
• Central	• Central-West Orana REZ	• Updated demand
• Slow Change	• Closure of industrial load	• Tasmanian Renewable Energy Target (TRET)
• Fast Change	• Delay of Snowy 2.0	
• Step Change	• Early coal closure	
• High DER	<ul style="list-style-type: none"> <li>– Early coal closure and early VNI West</li> <li>– Early coal closure, updated demands and early VNI West</li> <li>– Early coal closure, updated demands, early VNI West and no early storage</li> </ul>	

Each Excel Workbook compares a Development Path (DP1 – DP8) in the given scenario, against the counterfactual.

## Worksheets within the Generation Outlook

After the Disclaimer and Index, three primary worksheets are available for analysis. All other worksheets contain the data behind the charts and table on these summary worksheets. Users should not change this data, to avoid risk of data corruption.

Worksheet	Description
<b>Summary 1</b>	This worksheet presents the total system costs, capacity development, storage development, generation, and other useful insights across the modelled horizon. In most workbooks, this assesses the Counterfactual.
<b>Summary 2</b>	This worksheet presents the total system costs, capacity development, storage development, generation, and other useful insights across the modelled horizon. In most workbooks, this assesses the Development Path (DP x).
<b>Comparison 1 vs 2</b>	<p>This worksheet provides a direct comparison of market benefits, capacity development, storage development, generation and other useful insights across the modelled horizon, comparing the counterfactual against the development path.</p> <p>Some of these outcomes appear directly in the ISP and its appendices.</p>

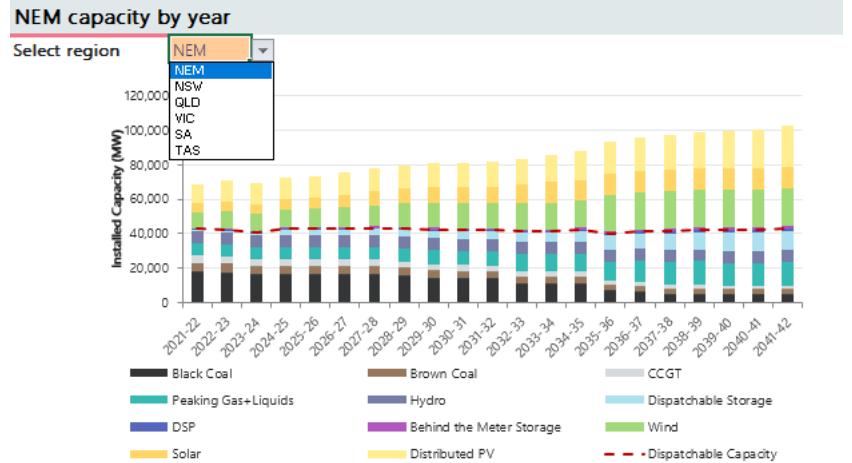
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## Using the workbook and interpreting the charts

### Description

Several of the charts in the Summary and Comparison sheets have **selectors** that allow the user to view outcomes at either a NEM-wide level or on a regional basis. The image to the right demonstrates the use of the regional selector for the installed capacity chart on the summary sheets. The default selection is **NEM**, however the user can 'zoom in' on a region by selecting the region name. The chart (and data) will then show only that which is relevant to that region for the selected chart.

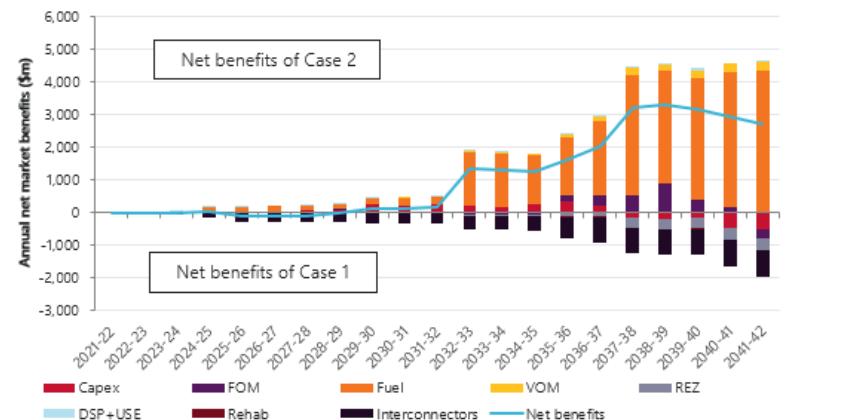
### Example



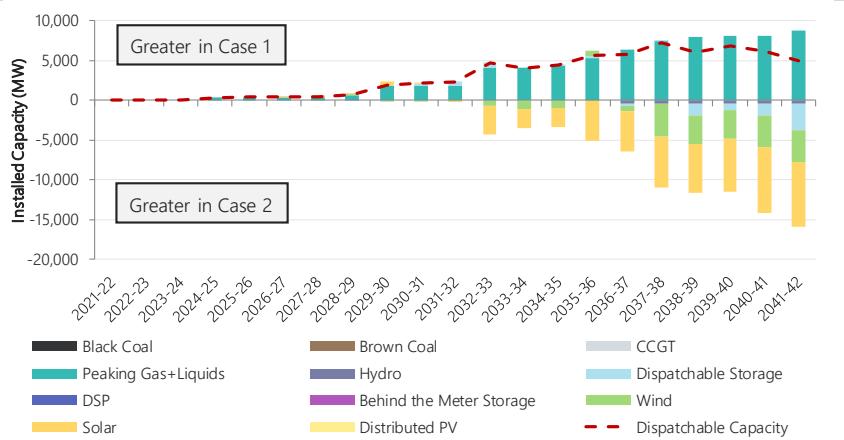
The benefit comparison charts in the "**Comparison 1 vs 2**" sheet present the annual net benefits of Case 2 over Case 1. The blue line represents the projected annual difference in benefits between the two cases, with a positive value indicating greater net benefits in Case 2.

The stacked columns illustrate the projected values for different classes of benefits for each case on an annual basis. More detail on these are provided in [Appendix 2](#).

A positive value indicates the benefits of Case 2, and a negative value indicates the benefits of Case 1. For example, the orange and red bars represent greater fuel and generation capital deferral cost savings in Case 2, while the black bars below the line indicate greater transmission cost savings in Case 1.



All other charts on the "**Comparison 1 vs 2**" sheet present the differences between Case 1 and Case 2, with values on the charts being equal to Case 1 minus Case 2. As demonstrated in the example to the right, items above the x-axis represent there being a greater amount in Case 1 (*in this example there is more installed capacity of Peaking Gas + Liquids in Case 1*), while items below the x-axis are higher in Case 2 (*in this example there is more installed capacity of wind and solar in Case 2*).



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## Where can I find more information?

Further information on the ISP is available in the ISP Report, its appendices and supporting material. A **transmission outlook** data package is also available to complement these **generation outlooks**. The AEMO Interactive Map may also provide stakeholders with another interactive means of analysing the ISP.

Web link: <https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp>

