4.12 Northpower

As of June 2001 Northpower has become part of the merged entity Country Energy.

Strategy documents

Northpower negotiated an Environmental Strategy Incorporating Greenhouse Gas Emission Reduction Measures in September 1998. It then submitted an updated 1-, 3- and 5-year plan dated 9 December 1998 which comprised a one-page spreadsheet outlining numerical targets for a variety of measures and two pages outlining responsible persons. Despite its brevity, this is actually a highly effective manner of outlining the strategy from the EPA's point of view.

The EPA has audited for effectiveness against the plan that was in effect on 30 June 2000, and has accordingly examined Northpower against the document issued in December 1998.

Independent verification report

Examination and assessment of Northpower's IVR

In assessing the IVRs for 1999–2000, the EPA has reviewed each IVR against the criteria listed in Figure 3.1 and ranked each criterion using the grading system given on page 18.

In respect of the reliability and accuracy of the GHG emission data reported by Northpower, the EPA is of the opinion that there was a **medium quantity** *of appropriate information to provide the EPA with reasonable assurance that the GHG emission data reported by Northpower is reliable and accurate.*

The audit opinion is based on the following findings in the IVR:

- The verification methodology appeared to in the IVR in a **medium level** of detail.
- There appeared to be a **medium level** of detail on what was verified (e.g. which assigned generation declarations and attribution declarations for sales forgone were verified).
- There appeared to be a **medium level** of detail on how and when GHG emissions, emission reductions and ESF were verified and assumptions made by the independent verifier.
- There appeared to be a **medium level** of detail on records, documents or other information used as verification evidence.
- There appeared to be a **medium level** of detail on the qualifications and experience of the independent verifier.

Recommendations for future IVRs

- Each of the mandatory reporting requirements could be addressed as separate sections.
- The level of accuracy of the GHG emission data reported by Northpower could be quantified (e.g. ± y%) by the independent verifier.

Provision of performance data

Northpower has cooperated with the EPA, and has generally provided reports and information to a medium standard of data sufficiency and appropriateness.

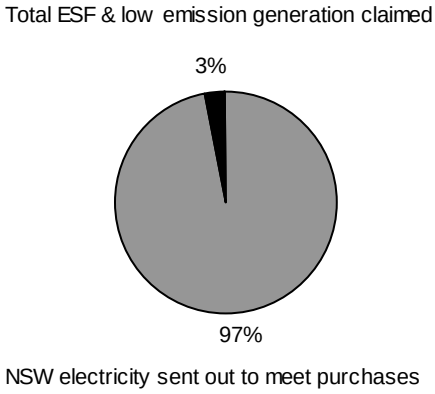
The EPA is of the opinion that the quantity and appropriateness of data provided by Northpower is generally **high.**

However, Northpower has not provided cost data for implemented measures. The EPA asked Northpower to provide a PST outlining the performance of implemented measures against forecasts, but no response was received.

Effectiveness of Northpower's GHG strategy

Comparison of pool purchases with low-emission options

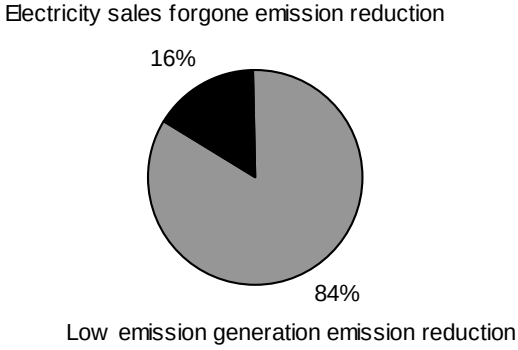
Figure 4.12.1 Low-emission options relative to pool purchases



In aggregate terms, low-emission actions undertaken by Northpower as part of its licence compliance strategy represent approximately 3% of its total electricity sales in NSW (Figure 4.12.1).

Comparison of contributions from supply-side (low-emission generation) and demand-side (ESF) measures

Figure 4.12.2 Proportion of ESF and low-emission generation activities claimed



Approximately 85% of Northpower's claimed implemented activities are related to low-emission generation purchased as Greenpower or using assigned declaration agreements (Figure 4.12.2).

Approximately 16% of implemented activities (by volume of GHG reductions claimed) related to ESF from energy efficiency activities (Figure 4.12.2).

Approximately 99% of the reductions claimed for ESF activities are for a single claim related to expenditure on a generalised energy efficiency information campaign, with the impact quantified by using the SEDA deeming formula.

Effectiveness of supply-side strategies (low-emission generation measures)

Northpower's plan for implementing its GHG reduction strategy for 1999–2000 comprised wind, hydro, biomass/biogas, solar and coal seam methane.

A comparison of the forecast performance of measures in the strategy plan (December 1998) against the actual performance claimed by Northpower in its 1999–2000 greenhouse report is shown below:

	% of forecast achieved	Effectiveness	Proportion of total claim
Wind generation measures	+0.0%	Low	0%
Hydro generation measures	+136.1%	High	91%
Biomass and biogas generation measures	+14.6%	Low	9%
Solar generation measures	+0.0%	Low	0%
Coal seam methane generation	+0.0%	Low	0%
Total	+30.8%	Low	

Note: Where cells record a 0% achievement, this means that the strategy included measures of those categories, but there were no successful implementations.

EPA's audit opinion on supply-side strategies

Northpower's supply-side GHG emission reduction strategy based on 'wind generation measures' achieved a **low level** *(< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

Northpower's supply-side GHG emission reduction strategy based on 'hydro generation measures' achieved a **high level** *(> 70% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

Northpower's supply-side GHG emission reduction strategy based on 'biomass and biogas generation measures' achieved a **low level** *(< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

Northpower's supply-side GHG emission reduction strategy based on 'solar generation measures' achieved a **low level** *(< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

Northpower's supply-side GHG emission reduction strategy based on 'coal seam methane generation measures' achieved a **low level** *(< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

Overall the EPA is of the opinion that the sum total of low-emission generation measures undertaken by Northpower achieved a **low level** *(< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000 against the plan forecasts as of December 1998.*

Effectiveness of demand-side strategies (ESF measures)

Northpower's demand-side strategies for 1999–2000 consisted of energy conservation programs and an internal energy efficiency program.

More than 99% of the ESF claimed by Northpower relates to a single item of expenditure noted as 'general promotion of energy efficiency'. Northpower used the SEDA deeming formula to estimate the ESF impact for this expenditure.

The table below shows the performance of Northpower's ESF measures against forecast GHG emission reductions for 1999–2000:

	% of forecast achieved	Effectiveness	Proportion of total claim
ESF measure 1—Energy conservation programs, evaluated using the SEDA deeming formula	+22.1%	Low	99%
ESF measure 2—Internal energy efficiency program	+41.7%	Medium	1%
Total	+22.2%	Low	

EPA's Audit opinion on demand-side strategies

Northpower's demand-side GHG emission reduction strategy based on the ESF measure 'energy conservation programs' achieved a **low level** *(< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

Northpower's demand-side GHG emission reduction strategy based on the ESF measure 'high-efficiency street lighting' achieved a **medium level** *(35%–70% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

Overall, the EPA is of the opinion that the sum total of demand-side strategy measures undertaken by Northpower has achieved a **low level** *(< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000 against the plan forecasts as of December 1998.*

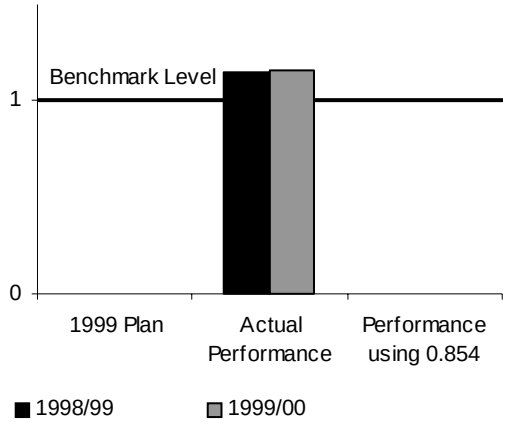
Assessment of overall effectiveness in reaching benchmark

Northpower has significantly under-performed against the benchmark requirements (see below).

Northpower's performance against benchmark

Figure 4.12.3 shows Northpower's reported performance against its emission benchmark (the 1998–99 performance is included for comparison). A positive value implies that actual emissions exceeded the benchmark.

Figure 4.12.3 Performance against benchmark



See notes below Figure 4.1.3 on page 29.

The EPA asked Northpower to provide a PST indicating the above data but received no response. Data on the performance targeted under the 1-, 3- and 5-year plans and performance using the benchmark pool coefficient of 0.854 kg/kWh is not in any of the documents provided to the EPA. Accordingly, the EPA is unable to quote Northpower's planned performance against the Benchmark.

The EPA is of the opinion that the overall effectiveness of the Northpower strategy implementation is **low**.[33]

Per capita performance

Figure 4.12.4 shows Northpower's performance on a per capita basis (which is the manner of the target formulation).

[33] The EPA gradings are as follows: high: retailer achieved benchmark emissions or lower; medium: retailer exceeded the benchmark emissions by < 10%; low: retailer exceeded the benchmark emissions by > 10%.

Figure 4.12.4 Per capita performance