

4.14 Powercor Australia Ltd

Strategy documents

Powercor's initial Environmental Strategy for Greenhouse Gas Reduction in NSW was dated June 1998, and was accepted by the NSW Minister for Energy. Powercor has subsequently submitted a one-year Environmental Plan for Greenhouse Gas Reduction in NSW to June 2001. This revised plan is dated February 2001.

The EPA has audited for effectiveness against the strategy document that was in place on 30 June 2000. Accordingly, this effectiveness audit is performed against the plan inherent in the original strategy document.

The initial strategy document contains a high level of information about proposed measures, with forecast impacts, and performance has been audited against these forecasts.

Independent verification report

Examination and assessment of Powercor'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 Powercor, the EPA is of the opinion that there was a **low quantity** of appropriate information to provide the EPA with reasonable assurance that the GHG emission data reported by Powercor is reliable and accurate.*

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

- The verification methodology appeared to be reported in a medium level of detail.
- There appeared to be a **low 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 **low 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 **low level** of detail on records, documents or other information used as verification evidence.
- There appeared to be a **low level** of detail on the qualifications and experience of the independent verifier.

Provision of performance data

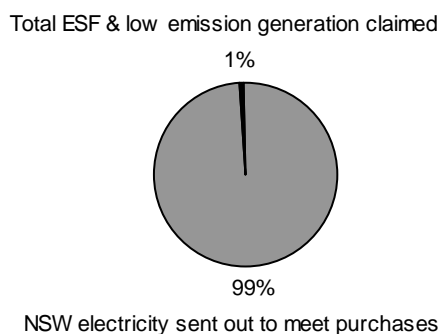
The EPA asked Powercor to provide a PST but has not received any additional information in response to this request.

*The EPA is of the opinion that the quantity and appropriateness of data provided by Powercor are generally **medium**.*

Effectiveness of Powercor's GHG strategy

Comparison of pool purchases with low-emission options

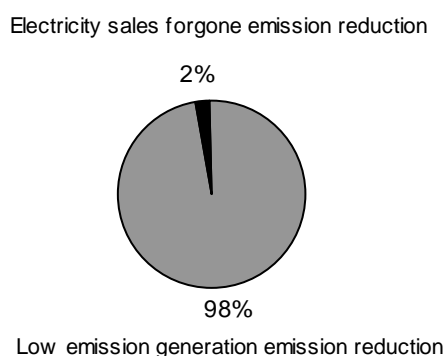
Figure 4.14.1 Low-emission options relative to pool purchases



Approximately 99% of the electricity sold by Powercor is sourced directly from the NSW pool (Figure 4.14.1). The remainder (approximately 1%) comes from Greenpower sales, assigned low-emission generation and ESF activities (Figure 4.14.1).

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

Figure 4.14.2 Proportion of ESF and low-emission generation activities claimed



Approximately 98% of Powercor's claims for abatement activities relate to the purchase of low-emission generation. The other 2% of claims relate to ESF (Figure 4.14.2).

Powercor is undertaking a variety of actions that lead to claims for ESF—primarily energy efficiency activities.

It is unclear from the licence compliance report how the claims for energy efficiency activities have been developed.

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

Powercor's plan for implementing its GHG reduction strategy for 1999–2000 comprised hydro and biomass/biogas.

A large portion of Powercor's claims for low-emission generation relate to biogas and landfill projects. Powercor has achieved approximately 80% of the generation planned to come from these sources.

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

	% of forecast achieved	Effectiveness	Proportion of total claim
Hydro generation measures	No forecast for this measure provided in strategy document	Not determined	11%
Biomass and biogas generation measures	+78.6%	High	89%
Total	+88.2%	High	100%

EPA's audit opinion on supply-side strategies

The effectiveness of Powercor's supply-side GHG emission reduction strategy based on 'hydro generation measures' could not be determined because no forecasts were provided for hydro generation. Forecasts for the generation from such projects must be included in future PSTs and 1-, 3- and 5-year strategy plans.

*Powercor's supply-side GHG emission reduction strategy based on 'biomass and biogas generation measures' achieved a **high level** (> 70% 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 Powercor achieved a **high level** (> 70% of forecast) of effectiveness in reducing GHG emissions during 1999–2000 against the plan forecasts as negotiated in June 1998.*

Effectiveness of demand-side strategies (ESF measures)

The original strategy document from Powercor proposed nine major energy efficiency programs. Most of these programs were not reported against in the 1999–2000 licence compliance report. The 1998–99 licence compliance report reveals that Powercor has discontinued most of these programs.

Powercor's demand-side strategies for 1999–2000 consisted of the Greenhouse Challenge consultancy service, electric motor optimisation service, compressed

air efficiency program, SEDA Energy Smart Business, implementing Energy Star features on equipment, residential high-efficiency water heating program, home energy rating scheme, high-efficiency lighting—PowerLux program and PowerCommand purchasing program.

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

	% of forecast achieved	Effectiveness	Proportion of total claim
ESF measure 1—Greenhouse Challenge consultancy service	+0.0%	Low	0%
ESF measure 2—Electric motor optimisation service	+0.0%	Low	0%
ESF measure 3—Compressed air efficiency Program	+0.0%	Low	0%
ESF measure 4—SEDA Energy Smart Business	+0.0%	Low	0%
ESF measure 5—Implement Energy Star features on equipment	+0.0%	Low	0%
ESF measure 6—Residential high-efficiency water heating program	+0.0%	Low	0%
ESF measure 7—Home energy rating scheme	+0.0%	Low	0%
ESF measure 8—High-efficiency lighting—PowerLux program	+0.0%	Low	0%
ESF measure 9—PowerCommand purchasing program	+18.6%	Low	100%
Total	+1.6%	Low	100%

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

Note that the 1999–2000 licence compliance report does not separately report for the PowerLux and PowerCommand programs. Possibly some of the impact claimed under PowerCommand should be counted towards PowerLux.

EPA's audit opinion on demand-side strategies

*Powercor's demand-side GHG emission reduction strategy based on the ESF measure 'Greenhouse Challenge consultancy service' achieved a **low level** (< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

*Powercor's demand-side GHG emission reduction strategy based on the ESF measure 'electric motor optimisation service' achieved a **low level** (< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

*Powercor's demand-side GHG emission reduction strategy based on the ESF measure 'compressed air efficiency program' achieved a **low level** (< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

*Powercor's demand-side GHG emission reduction strategy based on the ESF measure 'SEDA Energy Smart Business' achieved a **low level** (< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

*Powercor's demand-side GHG emission reduction strategy based on the ESF measure 'implement Energy Star features on equipment' achieved a **low level** (< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

*Powercor's demand-side GHG emission reduction strategy based on the ESF measure 'residential high-efficiency water heating program' achieved a **low level** (< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

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

*Powercor's demand-side GHG emission reduction strategy based on the ESF measure 'high-efficiency lighting—PowerLux program' achieved a **low level** (< 35% of forecast) of effectiveness in reducing GHG emissions during 1999–2000.*

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

Overall, Powercor has delivered only approximately 1.6% of the ESF impacts planned in the strategy document negotiated with the Minister for Energy.

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

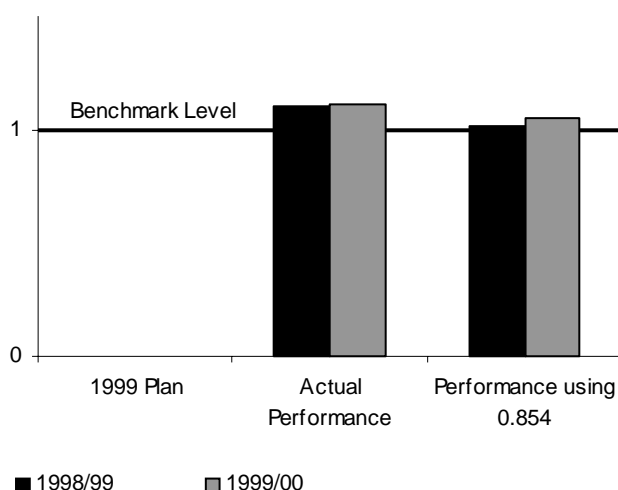
Assessment of overall effectiveness in reaching benchmark

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

Powercor's performance against benchmark

Figure 4.14.3 shows Powercor'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 4.14.3 Performance against benchmark



See notes below Figure 4.1.3 on page 29.

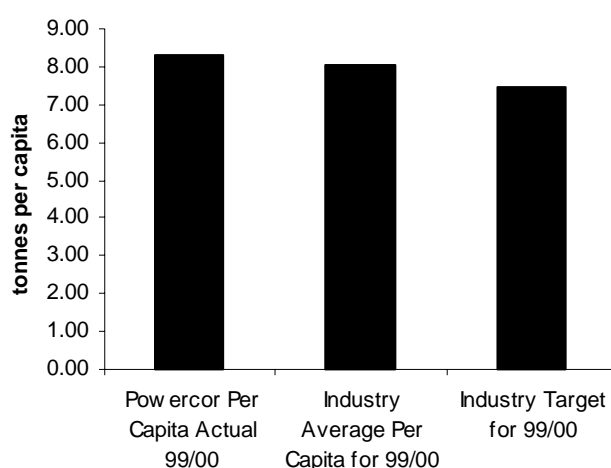
The EPA asked Powercor to provide a PST indicating the above data but received no response. Powercor did not provide data about the performance targeted under the 1-, 3- and 5-year plans. This information is not in any of the documents supplied to the EPA. Accordingly, the EPA is unable to quote Powercor's planned performance against the benchmark.

*The EPA is of the opinion that the overall effectiveness of the Powercor's strategy implementation is **low**.*³⁶

Per capita performance

Figure 4.14.4 shows Powercor's performance on a per capita basis (which is the manner of the target formulation).

Figure 4.14.4 Per capita performance



³⁶ 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%.