

4.16 United Energy Ltd

Strategy documents

United Energy presented the NSW Minister for Energy with a Draft Greenhouse Gas Reduction Strategy in July 1998. A further strategy-related document in the possession of the EPA is entitled Greenhouse Gas Reduction Strategy—Submission of 1 Year Environmental Plan and is dated February 2000. This is presumed to be a revision to the 1998 strategy document

The general approach adopted by the EPA is to conduct the performance audit against the plan that was in place on 30 June 2000, and hence the EPA has attempted to use the plan inherent in the February 2000 strategy document. Some additional information is contained in an exchange of letters between the Department of Energy (now the MEU) and United Energy dated 24 July 1998.

Where quantitative assessment for implementation against a strategy is required, the EPA has made the assessment against the 2000 strategy, the letters associated with the 1998 strategy and the 1998 Strategy itself in that priority order.

Independent verification report

Examination and assessment of United Energy'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 United Energy, 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 United Energy 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 **high level** of detail.
- There appeared to be a **medium level** of detail on what was verified (e.g. which assigned generation declarations were verified) with respect to low-emission generation.
- 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 **high level** of detail on the qualifications and experience of the independent verifier.

Provision of performance data

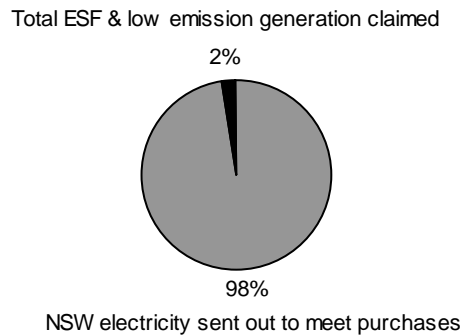
The EPA asked United Energy to prepare a PST. United Energy responded as requested, and has generally provided reports and information to a **medium standard** of data sufficiency and appropriateness.

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

Effectiveness of United Energy's GHG strategy

Comparison of pool purchases with low-emission options

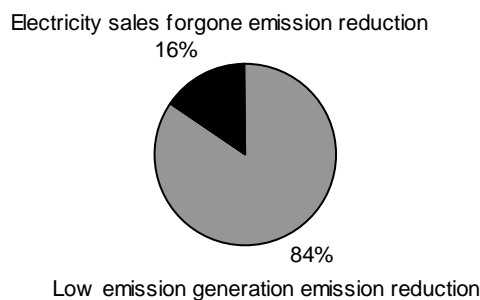
Figure 4.16.1 Low-emission options relative to pool purchases



Approximately 98% of all energy supplied by United Energy is sourced from the NSW pool (Figure 4.16.1). The remaining 2% represents actions claimed as contributing towards the NSW GHG reduction licence condition, and comprise a variety of low-emission generation activities and claims for ESF derived from energy efficiency activities.

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

Figure 4.16.2 Proportion of ESF and low-emission generation activities claimed



Approximately 84% of United Energy's implemented activities under the GHG reduction strategy requirement are related to low-emission generation using assigned declaration agreements or under Greenpower accredited power purchases (Figure 4.16.2). The remaining 16% of implemented activities (by volume of GHG reductions claimed) related to ESF from energy efficiency.

The entire ESF claim relates to historical energy efficiency actions. No evidence is provided to substantiate this claim, and the EPA attributes a low level of

reliability to it. If this claim is removed, then 100% of United Energy’s claims for emission abatement actions relate to low-emission generation.

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

United Energy’s plan for implementing its GHG reduction strategy for 1999–2000 comprised biomass/biogas and large gas cogeneration.

As noted above, United Energy has claimed abatement from a number of landfill gas and gas cogeneration projects. It is not easy to find forecasts for either of these strategy measures within the United Energy strategy documents, but a value for landfill gas is given in the reporting spreadsheets.

A comparison of the forecast performance of measures in the revised strategy plan (February 2000) against the actual performance claimed by United Energy in its 1999–2000 greenhouse report is shown below:

| | % of forecast achieved | Effectiveness | Proportion of total claim |
|---|------------------------|------------------|---------------------------|
| Biomass and biogas (including landfill) generation measures | +46.6% | Medium | 96% |
| Large gas cogeneration measures | No forecast provided | Unable to assess | 4% |
| Total | +60.7% | Medium | 100% |

*United Energy’s supply-side GHG emission reduction strategy based on ‘biomass and biogas generation measures’ achieved a **medium level** (> 35% and less than 70% of forecast GHG emission reductions) of effectiveness in reducing GHG emissions during 1999–2000.*

The effectiveness of United Energy’s supply-side GHG emission reduction strategy based on ‘large gas cogeneration measures’ could not be determined because no forecasts were provided in the strategy documents. Forecasts for the generation from such projects must be included in future PSTs and 1,3,5 year strategy plans.

Compared against the planned implementation for 1999–2000 as outlined in the strategy documents, United Energy has delivered 60.7% of the forecast outcome (by CO₂-e emission reduction).

EPA’s audit opinion on supply-side strategies

*Overall, the EPA is of the opinion that the sum total of low-emission generation measures undertaken by United Energy achieved a **medium level** (< 70% of forecast) of effectiveness in reducing GHG emissions during 1999–2000 against the plan forecasts.*

Effectiveness of demand-side strategies (ESF measures)

United Energy's demand-side strategies for 1999–2000 consisted of historical sales forgone carried over from an earlier program.

The entire ESF claim is based on a historical energy efficiency project from before 1998, and no information has been provided about the nature of that project or to verify the impacts. The independent verifier, who attributed a low level of reliability to the claim, also raised this point. Without any evidence to support the claim, the EPA would also attribute a low level of reliability to this claimed project.

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

| | % of forecast achieved | Effectiveness | Proportion of total claim |
|---|------------------------|---------------|---------------------------|
| ESF Measure 1—Historical sales forgone—carryover from earlier program | +21.7% | Low | 100% |
| Total | +21.7% | Low | 100% |

EPA's audit opinion on demand-side strategies

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

In 1999–2000, United Energy has implemented approximately 22% of ESF measures listed in the 1998 strategy document (measured by volume of CO₂-e).

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

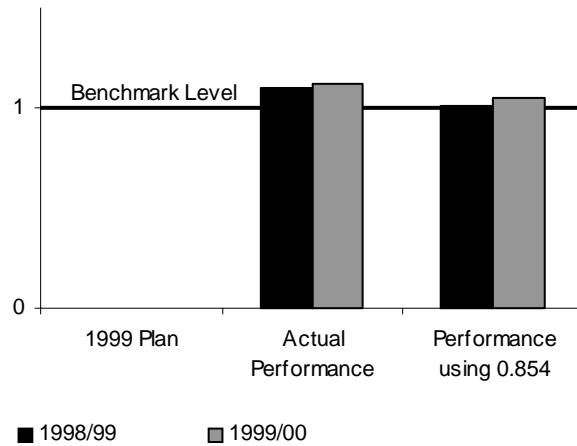
Assessment of overall effectiveness in reaching benchmark

United Energy has under-performed against the benchmark.

United Energy's performance against benchmark

Figure 4.16.3 shows United Energy'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 4.16.3 Performance against benchmark



See notes below Figure 4.1.3 on page 29.

The EPA asked United Energy to provide a PST indicating the above data. United Energy complied, but the data provided did not reconcile with the 1999–2000 and 1998–99 licence compliance reports. The above data has been extracted from the licence compliance reports. United Energy 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 United Energy’s planned performance against the benchmark.

United Energy has exceeded its emissions benchmark for 1999–2000 by 6.5%.

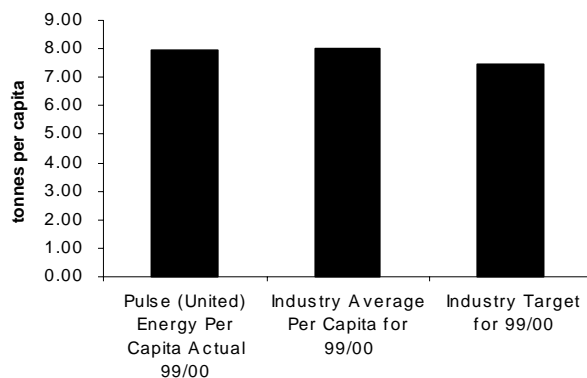
*The EPA is of the opinion that the overall effectiveness of the United Energy strategy implementation is **medium**.*³⁸

The numbers above are to be interpreted as follows:

Per capita performance

Figure 4.16.4 shows United Energy’s performance on a per capita basis (which is the manner of the target formulation).

Figure 4.16.4 Per capita performance



³⁸ 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%.