

Energy Loss Factors: Compliance Review

Terms of Reference

Accepting that:

- 1.1 the main focus of this review is the network provider's derivation of transfer loss factors (reflecting transmission losses), with the exit point loss factors (which reflect distribution losses) entering into the review to the extent that total network losses come into consideration;
- 1.2 the methodology laid down in Schedule 13 for deriving transfer loss factors in paragraph 2(2) is not as prescriptive as the derivation of exit point loss factors in paragraph 4, thereby requiring the network provider to exercise reasonable judgment and estimation in establishing and applying a methodology for deriving transfer loss factors consistent with Schedule 13;
- 1.3 in view of the speed with which it was necessary to put transfer loss factors in place, Power and Water – as the network provider – was justified in implementing a reasonable simplified methodology when calculating transfer loss factors for inclusion in NT Power's access agreement;
- 1.4 paragraph 2(2) of Schedule 13 requires that a transfer loss factor is to be "...derived from simulations of forecast network load and generation conditions for multiple energy usage periods reflecting actual conditions experienced in the preceding 12 months and anticipated changes to demand and generation location and output" (emphasis added);
- 1.5 paragraph 2(2) of Schedule 13 requires account to be taken of factors "...applying to each specific location during a financial year" (emphasis added); and
- 1.6 the first "financial year" for the purposes of applying Schedule 13 was the 15 month period between 1 April 2000 and 30 June 2001, with subsequent financial years being the 12 months commencing on 1 July each year;

in the Commission's assessment:

- 2.1 did Power and Water's derivation of the transfer loss factors in March-April 2000 diverge in any way from the strict requirements of Schedule 13?
- 2.2 were Power and Water's calculations in any way "incorrect"?
- 2.3 is there any evidence that the judgments exercised and estimates made by Power and Water in designing and applying the methodology to derive the transfer loss factors while NT Power operated in the NT

contestable market were unfairly biased against NT Power and/or unreasonably favourable to Power and Water Generation?

and, if the answer to any of these questions, is yes:

- 3.1 what is the Commission's estimate of under- or over-recovered energy, that is the electricity generated or purchased by NT Power in excess of that which would have been required if Schedule 13 had been correctly or appropriately or fairly applied?, and
- 3.2 if in the opinion of the Commission the amount of the under- or over-recovered energy is significant, what remedial actions are called for?

In addressing these questions, the Commission expects to address the following issues, among other things:

- 4.1 whether the matter of compliance with Schedule 13 is restricted to the 15 April 2000 to 30 June 2001 period – when the Mt Todd power station was exporting power, or whether the loss factors were used for other Code-related purposes beyond that period;
- 4.2 the precise nature of the assumptions and methodology applied by Power and Water to “simulate of forecast network load and generation conditions” in order to derive the transfer loss factors in question;
- 4.3 the assumptions about “actual conditions experienced in the preceding 12 months” that were incorporated into Power and Water’s methodology, and whether these assumptions were reasonable in view of knowledge available at the time, and particularly:
 - the relevance, if any, of historical information on actual (average) system losses;
- 4.4 the forecasts of ‘anticipated changes to demand and generation location and output’ that were incorporated into Power and Water’s methodology, and whether these forecasts were reasonable in view of the outlook expected at the time, and particularly:
 - the nature of Power and Water’s expectation in March-April 2000 regarding the change in losses attributable to the Mt Todd power station displacing CIPS generation, and whether this was reasonable given the circumstances at the time, and
 - the generation patterns expected at the Pine Creek and Katherine power stations in March-April 2000;
- 4.5 the extent to which certain inputs into Power and Water’s methodology were by their nature commercially sensitive or confidential at the time, thereby reasonably preventing Power and Water from releasing such information in order that its calculations could be independently verified by NT Power; and
- 4.6 whether factors to apply during the financial year commencing 1 July 2001 were revised or re-estimated in light of developments after April 2000, and if not why not.