

August 11, 2003

Erico
Level 1,
37 Railway Road,
Blackburn VIC 3130

Att: Rohit Narayan

Subject: GEM - Ground Enhancement Material

Dear sir,

The Optus Lambda project involved the upgrade of Optus' existing fibre transmission system from Adelaide to Perth through some of the most rugged and dry terrain in Australia, the Nullarbor Plains. Invensys Powerware carried out the design, supply and installation, of the both the mains powered & solar powered fibre nodes, for our customer Nortel.

Due to the rugged terrain, obtaining good earth resistance was always going to be a challenge at these sites. The telecommunication equipment needed less than 5 ohms earth resistance for reliable operation.

Using the ERICO Ground Enhancement Material, GEM and with the use of the GEM Calculator Software we were able to achieve the desired results at all 19 sites.

In locations with uniform soil resistivity with depth, we were able to obtain desired results within 5% accuracy of the predicted results.

This allowed us to use the optimum amount of GEM, hence providing an economical solution for achieving desired earth resistance.

We have been impressed with the results that the GEM and the GEM Calculator Software has provided us on this project.

Yours faithfully,
Invensys Powerware



Conrad Gall
GM, Projects – Network Integration Services