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**BHP New Zealand Steel**

03 March 2000

The Manager,  
Inquiry into the Electricity Industry,  
Level 11,  
Ministry of Commerce Building,  
PO Box 1473,  
Wellington

Attn: Mr J Gilbert

Dear Sir,

SUBMISSION

Please find attached our submission. We do not wish to appear before the Panel and speak about our submission.

An electronic copy of this submission has already been sent to you.

Yours faithfully,

R P Whitelaw  
ELECT/ENERGY COORDINATION MANAGER



# MINISTERIAL INQUIRY INTO THE ELECTRICITY INDUSTRY

**Submission by**

**BHP NEW ZEALAND STEEL LTD**

**March 2000**

## **1. INTRODUCTION**

BHP New Zealand Steel (BHP) welcomes the opportunity to respond to the Ministerial Inquiry into the Electricity Industry.

BHP is the only integrated steelmaker and manufacturer of flat rolled steel products in New Zealand and is situated at Glenbrook in South Auckland. Locally mined ironsand and coal deposits are converted into a variety of flat steel products, both for export and domestic markets.

The company employs approximately 1350 people at our Glenbrook Mill and at our two minesites (at Waikato North Head and Taharoa).

The company uses approximately 1065GWh of electricity per year, the vast majority (1020GWh) being used at Glenbrook where we are a direct consumer. Of this 1020GWh per year, about 500GWh is bought from Duke Energy New Zealand Ltd who own and operate the two waste heat power generation schemes on site and the balance of 520GWh (about 1.5% of the country's total generation) is purchased directly from the grid.

Waikato North Head and Taharoa between them purchase some 45GWh per year and are supplied via lines companies.

## 2. SUBMISSION

BHP fully supports the submission made by the Major Electricity Users Group.

In addition to that, we have one extra issue that we wish to raise:

Issue: That from 1 April 2001, Transpower's Interconnection charge will be based on the Interconnection Rate times the average of the 12 highest anytime peaks incurred at the point of supply in the previous 12 months.

Comment: The fact that the charge is based on the average of the 12 highest anytime peaks unfairly penalises those companies that have embedded generators in their system. For such companies, their highest peaks usually occur when their generation is low or zero. In theory, this can occur on a public holiday or at night when the grid is lightly loaded and it can therefore easily accommodate the increase.

Such an approach to charging for peaks will reduce the attractiveness of waste heat power generation. This type of generation has numerous positive points including reducing grid losses (as the generation is situated close to a large load) and also reducing the load of the marginal generator on the grid (which is normally a thermal station), thereby lessening the country's CO<sub>2</sub> emissions.

Proposal: Basing the charge on a very low number of peaks per year (12) means that during one generator outage, all your chargeable peaks can be incurred (irrespective of the load on the grid at the time).

The grid is usually sized to be able to accommodate high winter daytime loads and we would favour the Interconnection Charge being based on our winter weekday peaks or even our contribution to the grid's anytime peaks as either of these approaches is more efficient.