Question No: 69

Question: Feasibility Studies

Date: 01/10/91
Member: Mr BAILEY
To: MINISTER for MINES and ENERGY

1. Was a feasibility study completed last year of a gas-stripping plant in Darwin; if so, what was the outcome of the study.

2. Was a feasibility study of reticulating gas in Darwin undertaken last year; if so, what was the outcome of the study.

3. Was the feasibility study for a LPG gas import and storage plant undertaken last year; if so, what was the outcome of the study.

4. Was a feasibility study for an industrial wax plant undertaken last year; if so, what was the outcome of the study.

5. Was a feasibility study for an ammonia/urea plant in the Northern Territory undertaken last year; if so, what was the outcome of the study.

ANSWER

1. In March 1990 Shedden Pacific Pty Ltd submitted a Feasibility Study of a Gas Stripping Plant as proposed by Rowan Exploration Pty Ltd.

The outcome of the study was that a stand-alone gas stripping plant was technically feasible but commercially marginal.

To enhance the economics of the project it was agreed to extend the study to incorporate gas turbine co-generation at the Royal Darwin Hospital in order to generate electricity for use within the hospital (and possibly for sale to the Power and Water Authority), produce chilled water and provide an assured market for the butane and condensate produced from the stripping plant.

In July 1990 Shedden Pacific Pty Ltd concluded that the co-generation concept at the hospital did enhance the economics of the project.

The assessment by government in August 1990 of risks and benefits (including the impact of sale of Amadeus Basin Gas to Gove) resulted in the project not being actively pursued.

2. Several basic studies have been undertaken by AGL, the most recent being in 1990, all of which found gas reticulation in Darwin non-viable.

Any consideration of gas reticulation in Darwin must distinguish between LPG and natural gas.

(i) There is a limited reticulation scheme for LPG in the city business area. This is owned and operated by Boral, it consists of a pipeline along the Esplanade (from the Boral bulk tanks at the port) with a spur pipeline to the Sheraton Hotel and to the Galleria complex. The main hotels are the major customers.

(ii) Natural gas reticulation has been considered on a number of occasions and remains continually under review. AGL has applied for a pipeline licence from the City Gate station into the city area. This application has not been granted and AGL has not sought to progress the application, as the current gas market is not large enough to justify the cost of the trunk pipeline from City Gate.

3. During 1990 Power and Water Authority was approached by Wesfarmers Kleenheat with a proposal to install an LPG storage facility at Channel Island near Darwin. The proposal involves storage of up to 100 t of LPG which will be delivered from special LPG boats which will arrive about 7 times per year to replenish the storage facility. It is presumed that Wesfarmers Kleenheat conducted a feasibility study to convince themselves that this investment of more than $6m was cost justified.

In considering the proposal, the Power and Water Authority asked Wesfarmers Kleenheat to produce a Hazard Analysis of the facility in view of its proximity to Channel Island Power Station. The Hazard Analysis report was finally submitted in April 1991. The report addresses issues of concern to the authority which included the assessment of risks that could be introduced due to either a vapour cloud explosion (VCE) or a boiling liquid escaping vapour explosion (BLEVE).

The study concluded that there was a statistical probability of a vapour cloud explosion causing considerable loss of life and property at Channel Island Power Station with a probability of 1 in 1 million. This was considered to be an acceptable risk, as it is
comparable to the risk associated with the possibility of an aeroplane crashing into the power station.

At the present time, a draft lease is being provided to Wesfarmers Kleenheat for consideration.

In short then, there was no feasibility study that involved the government, as this is not a government sponsored project. The only
involvement from the Power and Water Authority is the lease of 1.45 ha of land at Channel Island.

4. In July 1990, Dr Duncan Seddon commenced a Pre-Feasibility Study to establish an Industrial Wax Plant at Palmerston's City Gate to produce about 3000 tpa hard wax, 5000 tpa medium wax, 2000 tpa slack wax, along with some distillate and naphtha for
sale in Australia and/or Japan.

In December 1990, the Pre-Feasibility Study concluded that the plant would have a capital cost of $23m, operating cost of $3m per annum and generate $11m per annum revenue. It would have a full time labour force of 29 and use 1.36 PJ/pa of natural gas at a
cost of about $3JG. Under the assumptions, the project appears robust and commercially attractive.

The next step is to form a joint venture with equity participants and undertake a detailed Feasibility Study to confirm the assumptions and acquire letters of interest for the products. A major Australian bank and its venture capital subsidiary have been studying the proposal since August 1991 and 2 Japanese and 2 Northern Territory companies have been provided with the Pre-Feasibility Study.

5. In August 1989, a Victorian company, Westernport Terminals Pty Ltd and its subsidiary South Pacific Petro Chemicals Pty Ltd, advised the Northern Territory it wished to investigate the development of a 450 000 tpa ammonia/urea plant costing $500m.

Over the ensuing months discussions were held with SinoPec and SinoChem (China), Marubeni and Kobe Steel (Japan) to progress the concept. A pre-feasibility study was attempted by the proponents but never completed for a number of reasons including the death of the Chairman. In later 1990, the Northern Territory developed its own financial model and concluded that the project was not viable based on reasonable assumptions for the sale of products, financing and cost of feedstock.