**QUESTION ON NOTICE**

**No. 879**

**asked on Thursday, 19 August 2004**

MR QUINN ASKED THE MINISTER FOR NATURAL RESOURCES, MINES AND ENERGY (MR ROBERTSON)—

QUESTION:

With reference to interruptions to the supply of electricity to all types of Energex customers—

Will he provide for each day of 2004 (reported separately) where there were interruptions to electricity supply the (a) date of the interruptions, (b) total number of interruptions, (c) total number of customers affected by all interruptions and (d) average duration of the interruptions?

ANSWER:

Distribution of electricity is based on a complex system of networks that progressively reduce in voltage. The transmission system carries electricity at very high voltages (such as 275 kilovolt (kV)) over hundreds of kilometres and a single line may serve between 100,000 and 200,000 customers. The sub transmission system (voltages in the range 33kV to 132kV) typically services the needs of up to 30,000 customers. High voltage feeders (11kV) supply up to a few thousand customers. In Urban areas, these may be a few kilometres long and each of the distribution substations connected to them typically supply a few hundred customers. In rural areas, the high voltage feeders are much longer, and each distribution substation may only supply a handful of customers.

As a general rule, ENERGEX and Ergon Energy automatically receive a signal in their control room if a transmission, sub-transmission or high voltage feeder (11kV) suffers an outage.

It is common practice in the electricity industry worldwide to accumulate and report reliability data based on 11 kV feeders. If outages occur at a higher voltage, they are 'catalogued' against the 11 kV feeders they affect. Outages at a lower voltage make partial contributions to the reliability performance of the relevant 11kV feeder.

ENERGEX and Ergon each have approximately 1,100 11kV feeders. In ENERGEX's case, each feeder services on average approximately 1,000 customers. A small town may be serviced by only one 11kV feeder (which may serve a number of towns). Outages on that feeder interrupt the whole town, but outages in the low voltage system may only interrupt a few streets, or in many cases, only one customer. Larger towns may have a number of 11 kV feeders.

Outages occur for a wide variety of reasons at all voltage levels.
These include:

- Equipment failure;
- Vegetation;
- Wildlife;
- Storms; and
- Third party interference (eg vandalism, motor vehicle accidents, excavation).

As a consequence, outage data in the format requested is not readily available. Outage data can be broken down to the 11 kV feeder level.

The Independent Panel's Report has highlighted that there is a wide variation in the performance of individual feeders. As part of the implementation of the 44 Recommendations stemming from this report, the Government will require both ENERGEX and Ergon Energy to publish a Network Management Report annually.

From the commencement of next financial year, this report will require each distributor to publish details of their worst performing feeders on a case-by-case basis. These details will include information on the areas served, the reliability of these feeders, the causes of poor reliability and the proposed actions to improve reliability. They will be required to report on the success of their programs in the following year. Extensive analysis is required to complete this task.

In the meantime, each distributor is required to report on a monthly basis to the Government on the overall performance of their feeders using standard industry reporting measures (as outlined in the Somerville Report).

Should the Member refine his question to a particular area or areas I would be happy to provide details on the performance of the 11 kV feeders in that area compared to ENERGEX's overall average performance.