



LETTER NO. L-22-94

ROBERT J. PELLATT
COMMISSION SECRETARY

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August 4, 1994

Mr. Roger Emanuels
16271 Glenwood Crescent S.
North Surrey , B.C.
V4N 1W9

Dear Dr. Emanuels:

Re: British Columbia Hydro and Power Authority ("B.C. Hydro")
Complaint - Subdivision Development at 108th Street and 164th Avenue, Surrey

For your information, we attach herewith the July 26, 1994 response from B.C. Hydro to the questions raised in your letter to the Commission dated June 30, 1994.

In B.C. Hydro's response, the utility has explained the rationale for the specific distribution planning initiatives in your area, and has attempted to clarify the issues raised in your letter.

After carefully reviewing B.C. Hydro's July 26, 1994 letter, the Commission is of the view that the utility's planning decisions in this case were technically sound and consistent with the utility's filed tariffs and established policies.

The Commission also believes that B.C. Hydro's policies regarding system reinforcement should be publicly reviewed, and accordingly has initiated steps to have this matter discussed at the utility's upcoming Rate Application Hearing, which is scheduled to commence on September 12, 1994.

Regarding the specific questions raised in your June 24, 1994 letter, the Commission accepts the explanations provided by B.C. Hydro and therefore does not intend to pursue this matter further.

Yours truly,

A handwritten signature in black ink, appearing to be "Constance M. Smith".

Constance M. Smith
for: Robert J. Pellatt

NCJS/mmc
Atch.

cc: Mr. Thom. M. Thompson, Vice President
Corporate and Aboriginal Affairs
British Columbia Hydro and Power Authority

Thom M. Thompson
Vice-President
Corporate & Aboriginal Affairs

26 July 1994

Mr. Robert J. Pellatt
Commission Secretary
British Columbia Utilities Commission
Box 250
600 - 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Dear Mr. Pellatt:

**Re: British Columbia Hydro and Power Authority
Complaint of Dr. E.J. Emanuels
Subdivision at 108th Avenue and 164th Street, Surrey, B.C.**

This letter is in response to your request for clarification on seven items Dr. E.J. Emanuels raised in his letter dated 30 June 1994 to the British Columbia Utilities Commission.

As a general comment, when planning for a service area, consideration must be given to the total development area and the requirements for existing and future customers within that area. This planning determines the extent, economics and timing of the facilities installed. Load growth occurs based on individual customer additions, whether a single or multiple customer (ie. subdivider). B.C. Hydro must respond to the immediate needs of the specific customer while ensuring the installation will meet longer term requirements of the service area.

"Reinforcement" is only applied where the system to be installed is significantly beyond the needs of the specific customer involved. This project was an extension of the electrical infrastructure within the service area. In the case of Dr. Emanuels, a "System Reinforcement Allowance" was provided to cover the difference between a single and three phase O/H supply as covered in earlier correspondence.

B.C. UTILITIES COMMISSION RECEIVED & ACKNOWLEDGED JUL 26 1994 ✓ FOR STATE REVIEW RESPONSE FOR RESOURCE ROOM INFO. TO BE FILED
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In the particular case of Dr. E.J. Emanuels' subdivision, the requirement for a three phase system was based on the following:

- A three phase line on 164th Street was required to serve the entire subdivision area and create a loop feed. Within this loop feed (from which Dr. Emanuels' is served) there are several customers that require a three phase supply such as Fraserwood Elementary School.
- The three phase system is required to provide capacity, reliability, and load balance. Specifically, single phase loads can be switched within the three phase system as the load in the area dictates. In essence, this distributes the load for that area amongst all three phases.

In summary, the three phase system was installed in order to reliably meet the needs of all customers in the area. It was pointed out in our letter dated 30 May 1994 to the Commission, that Dr. Emanuels has gained the benefits paid for by other subdividers in the area to bring the three phase electrical service to the point where it can now supply his subdivision. The loop for that area necessitated completion as a three phase service in order to avoid much greater costs in the future in converting the single phase service into that of a three phase service.

The following are responses to Dr. E.J. Emanuels' seven questions outlined in his letter to the Commission dated 30 June 1994:

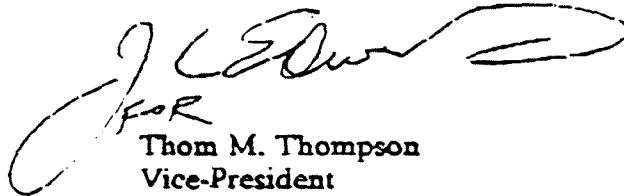
- 1) The three phase system installed is a legitimate system extension that will benefit all of the customers that it supplies in the neighbourhood of Dr. E.J. Emanuels' subdivision.
- 2) This extension could not have been provided utilizing the existing overhead lines on 168th Street as the service supply point was from 164th.
- 3) A single phase line along this alignment would not have provided adequate capacity or reliability for the general supply area. We do not believe that it would have been the appropriate engineering or planning decision. A three phase system was installed for the reasons provided above.
- 4) Three phase power was not extended to the north along 164th Street because of insufficient future plans for development in that area.
- 5) B.C. Hydro does have existing switching equipment to re-route power supply between the existing three phase circuits on 108th Avenue and 104th Avenue.

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- 6) The three phase circuits on 108th Avenue, and 104th Avenue are connected to the same substation circuit. In the event that this circuit is lost, 104th Avenue and 108th Avenue would be supplied by another circuit in the B.C. Hydro power grid system from the opposite direction. More importantly, we now have the standard capability to switch within the immediate service area to re-route power due to faults in the area. This type of an outage is much more likely than a full feeder outage.
- 7) The three phase system installed on 108th Avenue last December supplies power to a portion of the subject area. The three phase system required upgrading along 108th Street this year to meet the ongoing load growth in the area.

I hope that the above explanation answers Dr. Emanuel's questions. Should you require any further specific information on this development, Mr. Doug Bryson, Lower Mainland South/Fraser Valley Regional Manager at 543-6001 would be pleased to assist.

Yours truly,



FOR
Thom M. Thompson
Vice-President
Corporate and Aboriginal Affairs

c: R.J. Threlkeld
D.C. Bryson