New Studies Slated Soon On National Power Grid

By ARCH MacKENZIE

OTTAWA (CP)—The cost and the benefits of a national power grid will be assessed in a second round of studies on the huge project. This will begin shortly, Resources Minister Arthur Laing told the Commons.

But difficult technical obstacles will stand in the way of an economic national system of long - distance power transmission and exchange.

Officials said other studies also will be required later into various aspects of the proposal, subject of a one - day federal-provincial conference in 1962.

That meeting authorized an initial feasibility study conducted by H. G. Acres Limited of Niagara Falls and Toronto and Mr. Laing said Friday this report has been made.

The second phase, for which an engineering firm will be appointed, will cover a broader geographic area and bear down on the cost and benefits to produce some sort of financial picture Mr. Laing said he hopes to use industry co-operation.

COST RUNS HIGH

Such a study will have to take account of the cost for long-distance power transmission, which still runs high despite research in Canada, Sweden, the Soviet Union and other countries with markets located some distance from power sources.

Mr. Laing reported on the matter in answer to Alvin Hamilton, a former Conservative resources minister, who said the United States apparently intends to run a high - voltage power line from California to the Canadian border.

That line will be to tap Columbia River power initially, he suggested, but also power from the Peace River in northern British Columbia and the Yukon. He asked about progress on the grid concept to make Canadian power available to Ontario.

The Peace, the Yukon, the Nelson in northern Manitoba and Hamilton Falls in Labrador all have been mentioned as hydro resources essential to a national grid.

Canada has two higher-voltage transmission lines scheduled to come into operation next year.

QUEBEC BUILDING LINE

One is the Ontario Hydro line from near James Bay to Toronto, to operate at about 460 kilovolts compared with the standard 250. Hydro Quebec is building another to operate at 750 kilovolts from the Manicouagan-Outardes dam and cost is said running around $140,000 a mile for the stretch of more than 350 miles.

Direct - current transmission, as opposed to the normal alternating current transmission, is the usual method for higher-voltage, longer - distance lines now being built.

High - voltage electricity is comparable to a high-pressure garden hose and provides a sharp increase in the amount of electricity that can be transmitted. But, again like a garden hose under pressure, it is more difficult to tap for use in industry or home.

David Cass - Beggs, general manager of the Saskatchewan Power Corporation, estimated in 1959 that a 3,000-mile direct-current line linking seven provinces might cost $150,000,000 or more to build and another $36,000,000 annually to operate.

The Canadian General Electric Company has done extensive work on some problems associated with high - voltage transmission. The National Research Council has been working on high voltages since the 1940s.

TOWERS COST MORE

Even the towers necessary for these lines cost more and a national grid would require several thousand at prices well in excess — by today's technology—of the $8,000 to $15,000 needed for lower - voltage towers.

Special technical problems include tapping high-voltage lines, curbing loss of electrical energy due to heat production, and a special phenomenon called corona losses. This is a leakage of energy from the transmission line due to the breakdown of the surrounding air.

Measuring devices of voltage and of large direct currents also are needed.

Nova Scotia and New Brunswick since 1960 have had an integrated grid and arrangements exist for some power swapping between Ontario and Quebec, Ontario and Manitoba, Manitoba and Saskatchewan, and Alberta and British Columbia.

Links with the United States exist in Ontario and B.C. and projected development of the Hamilton Falls by Newfoundland and Quebec envisages transmission to the U.S.

ON THE AIR

TUESDAY PROGRAMS

CFCY-TV

1.15 p.m.—Musicale
1.45 p.m.—Sign On
1.45 p.m.—All Star Baseball
4.31 p.m.—Vacation Time
5.30 p.m.—Space, The New Ocean
6.00 p.m.—TBA
6.31 p.m.—Gazette
7.01 p.m.—CFCY-TV News
7.15 p.m.—Challenge Golf
8.00 p.m.—My Favourite Martian
8.30 p.m.—Hennessey
9.00 p.m.—Patty Duke
9.30 p.m.—Ben Casey
10.30 p.m.—The Planemakers
11.30 p.m.—The Nature of Things
12.00 p.m.—CBC TV News
12.13 p.m.—Local Weather
12.14 a.m.—Sign Off

CKCW-TV

1.40 p.m.—Station Sign On
News, Weather, Sports
1.45 p.m.—All Star Baseball
4.30 p.m.—Vacation Time
5.30 p.m.—Space, The New Ocean
6.00 p.m.—Buckskin
6.30 p.m.—Television News
6.45 p.m.—Weather
6.50 p.m.—Sports
7.00 p.m.—Ripcord
7.30 p.m.—Checkmate
8.30 p.m.—To Tell the Truth
9.00 p.m.—Patty Duke
9.30 p.m.—Ben Casey
10.30 p.m.—The Planemakers
11.30 p.m.—Nature of Things
12.00 p.m.—CBC TV News
12.15 a.m.—Viewsoint
12.20 a.m.—Lionel Network News
12.25 a.m.—Station Sign Off

CFCY

TUESDAY

6.28—Sign On
6.30—New & Weather
6.35—Country & Western Roundup
6.55—News & Weather
7.00—Hebrew Christian Hour
7.15—Country & Western Roundup
7.30—News & Weather
7.35—Farm Report
7.41—Country & Western Roundup
8.00—News
8.11—Weather
8.16—Country & Western Roundup
8.45—Weather
8.50—Atlantic News
9.00—Thought For Today
9.00—News & Voice Reports—CBC
9.10—Preview Commentary—CBC
9.15—Notes & Music
9.27—Matinee Musical Charades
9.30—Notes and Music
9.53—What's The Song Contest
10.00—News and Weather
10.05—Notes & Music
11.00—News and Weather
11.05—Notes and Music
11.27—Matinee Musical Charades
11.30—Notes and Music
11.45—Bulletin Board
11.50—Notes and Music
11.55—Atlantic News
12.00—Weather
12.05—Town and Country Time
12.30—News & Weather
12.43—P.E.I. Road Report
12.45—Town and Country Time
1.00—News, Weather & N.S. Road Report
1.05—Town and Country Time
1.15—Shirley Harmon—CBC
1.45—Cafe Variety
2.00—News & Weather
2.05—Tops In Country and Pops
2.27—Matinee Musical Charades
2.30—Tops In Country and Pops
3.00—News & Weather
3.03—Trans-Canada Matinee—CBC
3.30—Tops in Country and Pops
4.00—News & Weather
4.03—Canadian Roundup—CBC
4.10—Tops In Country and Pops
4.30—The Outports
5.00—News & Weather
5.05—Matinee Musical Charades
5.08—The Outports
5.25.20—Marine Weather
5.28—The Outports
6.00—News & Weather
6.15—On Parliament Hill—CBC
6.30—Sports Parade
6.30—Tonight's Music
7.00—Back to the Bible
7.00—News & Weather
7.45—Program Schedule
7.46—Lone Guide Program
8.00—Tonight's Music
8.00—Citizen's Forum—CBC
9.30—Talent Festival—CBC
10.00—CBC National News
10.30—Reserved For Music CBC
11.00—News & Regional Weather
11.05—Starlight Serenade
11.30—News & Maritime Weather
11.35—Starlight Serenade
12.00—News, Regional Weather & Sports Scores
12.05—Sign Off

CRA

TUESDAY

6.00—The Gerry Fogarty Show Part 1
8.00—CBC News & Inland Weather
8.15—Maritime Sportscast
8.21—The Gerry Fogarty Show Part 2
8.35—Max Ferguson Show
9.00—CBC News and Direct Reports
9.10—Preview Commentary
9.16—A.M.Chronicle
9.15—Young At Heart
9.30—University of The Air
10.00—CBC News
10.05—Shirley Brett
11.15—For Consumers
11.20—Record Album
11.30—The Archers
11.45—Devlit Drops
12.00—Jamboree Junction
12.15—Tennessee Ernie Ford
12.30—Maritime Farm B'cast
13.00—CBC News & Weather
13.15—Shirley Harmer Show
13.45—The Open Road Show
13.59—D.O. Time Signal
14.00—The Open Road Show
14.45—John Drainie Tells a Story
15.00—CBC News

Commonwealth Role Is On Talks Agenda

By JOSEPH MacSWEEN

LONDON (CP) — Sir Alec Douglas-Home hopes to make a broader concept of Commonwealth co - operation the main theme of the conference of prime ministers opening at Marlborough House Wednesday.

This is the British prime minister's answer to persistent criticism of the Commonwealth and to the question, as expressed by one newspaper Friday: "Is this a farce — or has it a future?"

Prime Minister Jomo Kenyatta of Kenya was scheduled to arrive today, joining Australia's Sir Robert Menzies and Uganda's Milton Obote, who are already here. That trio symbolizes the changing complexion of the Commonwealth.

Prime Minister Lester B. Pearson arrives Tuesday and will have an audience with the Queen at Buckingham Palace that afternoon. He faces a heavy social schedule as well as the seven days of 18-country conference sessions.

NEW OPPORTUNITY

For some months Douglas-Home has been developing the idea that, with a relaxation of tensions between East and West, the opportunity is clear for new co - operation between the rich white countries of the north and the poor dark countries of the south.

The Commonwealth with its unique linking of countries of all colors and stages of development can be of immense importance in this mission, Sir Alec maintains.

"If people are searching for a new role for Britain, this is it," he has told the House of Commons.

Douglas - Home proposes a stepped - up program of exchange of experts, trainees and volunteers among Commonwealth countries, covering agriculture, education, medicine, scientific development, industrialization and trade.

CENTRAL AID PROGRAM

The plan, meaning finance from such richer countries as Britain and Canada, would involve a central agency by which Commonwealth aid programs could be gathered under one umbrella.

Also envisaged is exchange of Commonwealth teachers and students on an unprecedented scale, recalling the advice of John W. Holmes, president of the Canadian Institute of International Affairs, that:

"If the Commonwealth survives the difficult times ahead, it may well be because thousands of teachers, scholars and administrators, working or studying in each other's countries, strengthen the fabric of an association in which peoples get along better than governments."

Missing Cadet Back In Canada

HALIFAX (CP) — Arthur H. Balders of Halifax says the "present whereabouts" of his son, who disappeared from the Royal Navy College at Dartmouth, West England, last month, "are unknown to us."

In a statement Mr. Balders said his son arrived in Quebec by the Empress of Canada on June 29. "We have been informed by the Royal Navy he is being released and that there are no charges whatsoever against him."

Hugh Langdon Balders arrived at Britannia College, Dartmouth, June 8, his fare from Canada having been paid by the defence ministry.

Next day he disappeared and reappeared in Quebec. His father refunded the defence ministry the $240 air fare from Canada to Britain. "I have nothing further to say," the father said Friday.

RIPLEY'S BELIEVE IT OR NOT

DAILY CROSSWORD

ACROSS
1. Tonkin native
4. Cigarettes, sl.
8. Auditory organs
10. Malarial fever
11. Surpass
12. Jewish month
14. Talk: sl.
15. Shakespearian character
17. Editorial
18. Flags
20. Maul
21. Steamship: abbr.
22. Greek letter
23. Gains
24. A modern airplane
25. Tuft on bird's head
26. Exclamations
28. Boy's nickname
29. Part of "to be"
31. Escape: sl.
32. Restrict within limits
34. I am: contracted
35. Fall month: abbr.
36. Station: abbr.
37. Inundation
39. Eyes
41. Old Norse work
42. Behind
43. Rip
44. Type measures

DOWN
1. Natives of Houston
2. Cuts carelessly
3. Metallic rock
4. Long powerful teeth
5. Exchange premium
6. Boy's nickname
7. Wampum: Algonquian Indians
8. Bleeder
11. Buds of potatoes
13. Tidings
16. Cuckoo
19. Frozen desserts
20. Apple seed
23. Dog-like mammal
24. Predicament: colloq.
25. A precentor
26. 1st letter: Arab.
27. Shakespearian play
28. Jump
29. Buries
30. Bodies of water
32. Evergreen tree
33. Mohammedan religion
35. Bicarbonate
38. Poem
40. Minced oath

Yesterday's Answer

DAILY CRYPTOQUOTE — Here's how to work it:

A X Y D L B A A X R
is L O N G F E L L O W

One letter simply stands for another. In this sample A is used for the three Ls, X for the two O's, etc. Single letters, apostrophies, the length and formation of the words are all hints. Each day the code letters are different.

A Cryptogram Quotation

E M S W X O U N G Z S U G N B X J E Q S - Q R, Z X Z S U R N I E G Z E U W N H X O. — Z S Y J E V V

Yesterday's Cryptoquote: ALL HUMAN ACTS INVOLVE MORE CHANCE THAN DECISION.—ANDRE GIDE

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CONTRACT BRIDGE

By B. JAY BECKER

East dealer.
Neither side vulnerable.

	NORTH	
	♠ QJ107	
	♥ 87	
	♦ 1072	
	♣ J107	
WEST		EAST
♠ 52		♠ 6
♥ A965		♥ QJ1032
♦ KJ853		♦ Q964
♣ A5		♣ K63
	SOUTH	
	♠ AK984	
	♥ KJ	
	♦ A	
	♣ Q9842	

The bidding:

East	South	West	North
Pass	1♠	2♦	2♠
3♦	4♠		

Israel finished 15th and Ireland 22nd in the World Bridge Olympiad played this year in New York, but they each upset some of the leading teams in the course of the 30-nation contest. Israel was especially impressive in its first international tournament, scoring unexpected victories against such giants as Italy and Switzerland, who finished first and fifth respectively.

When Israel and Ireland met head-on in the round robin event, Ireland was the clear victor by 40 international match points to 34. This, translated into victory points gave the Irish a 5-to-2 win in the scoring table.

Perhaps the outstanding deal of the match, at least from a dramatic viewpoint, was this one. The Irish North-South pair played the hand first, and in four bids, as shown, they arrived at six spades.

West led the ace of hearts which dummy ruffed. Declarer forced out the ace of spades, and then had no trouble making twelve tricks. As a result Ireland scored 980 points on the deal. The Israeli East-West pair were somewhat despondent over the outcome, since the Irish pair had bid and made a slam even though the opponents between them held three aces, a king, a queen and a jack.

It was therefore with bated breath that the Israeli East-West pair waited to hear what their North - South teammates had done on the hand.

Strangely enough, it turned out that at the other table the bidding was precisely the same! North-South made the identical four bids to also score 980 points and the result was that the hand was a standoff.

The play went a little differently when the Irish West led the ace of spades and then shifted to a diamond. South went up with the ace, led a trump, and later trapped West's ace of hearts by leading the king through him. The declarer at this table had much more to worry about, but everything came out all right at the end.

OUR BOARDING HOUSE MAJOR HOOPLE

GRANDMA — MICKEY MOUSE — NUBBIN — SECRET AGENT X-9 — ETTA KETT — HENRY — JOE PALOOKA — MUGGS & SKEETER — THE LONE RANGER — LI'L ABNER