



CANADA

CANADIAN WEEKLY BULLETIN

INFORMATION DIVISION • DEPARTMENT OF EXTERNAL AFFAIRS • OTTAWA, CANADA

Vol. 13 No. 16

April 16, 1958

CONTENTS

Electric Power In a Growing Economy	1
Agriculture Price Stabilization	3
Envoy to Argentina	3
At NATO Meeting	3
Teachers' Salaries Up	4

Lines Still Busy	4
Housing Data	4
Tour Europe and Asia	5
New Military Hospital	5
Aerial Surveys in Bolivia	5

ELECTRIC POWER IN A GROWING ECONOMY

One of the most impressive aspects of Canada's postwar growth is the increase in electric power capacity, the Bank of Nova Scotia "Monthly Review" points out. In twelve years generating capacity has approximately doubled, a record addition will be made in 1958, and projects already under way promise substantial further increases in the next few years. The scale on which new facilities have been added all across the country has both reflected and contributed to Canada's rapid and varied postwar expansion.

The surge of resource development could hardly have come about without the availability of low-cost hydro-electric power. At the same time, growing industrial activity in the more settled areas of the country, the extraordinarily rapid rate of population growth and the increasing use of electrical equipment in the home have meant soaring demands for power, particularly in the heavily populated and industrialized areas centred on Montreal, Toronto and Vancouver.

As in the past, the emphasis has been primarily on hydro-electric power. But thermal generating facilities, using coal, fuel oil, and more recently natural gas, have become increasingly important and now make up some 15 per cent of the installed capacity in the country as compared with less than 6 per cent of a much smaller total in 1945. In time, of course, the costs of nuclear power are expected to become competitive, and the large re-

sources of uranium in Canada will then be used to meet rising power requirements.

POWER EXPANSION

Every region in Canada has shared in the postwar expansion of power facilities. Most spectacular has been the "power boom" in Ontario where the amount of electricity generated rose by no less than 17 billion kilowatt-hours between 1949 and 1957, more than 40 per cent of the entire growth in Canadian output during this period. Quebec's expansion, the second largest in absolute terms, has been less striking proportionately, partly because capacity there was already so large, reflecting the importance of the pulp and paper and aluminum industries in that province. Though overshadowed by the central provinces, growth in British Columbia has been very substantial and at a faster rate than in Ontario.

Outstanding in these three provinces have been the huge hydro-electric projects of recent years -- Kitimat-Kemano in British Columbia, Bersimis in Quebec, and the Sir Adam Beck Niagara-River plant and the St. Lawrence power project in Ontario. But these are only the largest and best-known in a long list that has also included added facilities in the Saguenay Valley area and at such long-established sites as Beauharnois on the St. Lawrence River in Quebec, major additions on the Ottawa River in Ontario, and the extensive development of the Bridge River system in British Columbia, as

well as the first large steam plants in Ontario.

In the Prairie Provinces, a good deal of the twofold rise in generating capacity has consisted of thermal plants (now in part using the abundant resources of natural gas); however, sizeable additions to hydro-electric capacity have been made on the Winnipeg River to serve southern Manitoba and in the Alberta foothills to serve the Calgary area. The Atlantic region has also leaned heavily on expansion of thermal facilities, but a number of small hydro sites have been developed and the first stage of the Beechwood project on the St. John River has now been completed.

The capital investment expenditures involved in this vast programme, spanning the country and ranging all the way from the most ambitious hydro-electric undertakings to small diesel installations in the north, have of course been enormous. In the past eight years alone something like \$4 billions has been spent on additional generating capacity and transmission lines -- some 8 per cent of total capital expenditures in this period. Last year, the outlays reached a record \$778 millions, almost 9 per cent of the total, and roughly half as much as was spent by all the manufacturing industries together.

It is of some interest that the electric power industry has relied considerably less on foreign capital than some of the other resource industries. Apart from the power installations developed by such industries as pulp and paper and aluminum primarily for their own use (roughly one-fifth of total installed capacity), the major share of the capacity is publicly owned and the largest of the privately-owned utilities are owned and controlled in Canada. By and large the expansion of the utilities has been financed by plowing back earnings and through the sale of bonds, the major share on the domestic market, though there have been some large issues marketed in the United States.

In terms of demand for labour and materials, additions to power capacity have had a major impact on the economy. Construction of a big hydro project may take up to five years. If it is in a remote area, roads and other facilities must be built in addition to dams, reservoirs, penstocks and power houses. Some postwar undertakings have required the diversion of rivers and the construction of tunnels, and the potential of others has been increased by the provision of extensive storage basins. Thus large installations, which when completed require comparatively few workers to operate, may well require thousands of construction workers to build.

The massive requirements of power projects for cement and for sand and gravel are obvious. Indeed, rising demands from this quarter have been an important factor in the sharp growth of the cement industry since the war. Significant, too, have been the requirements

for steel of many kinds as well as for copper and aluminum. One has only to think of the thousands of miles of new transmission and distribution lines threading their way across the landscape to grasp the magnitude of this demand. Of the very large quantity of heavy electrical equipment required, some has been imported, notably certain types of custom-built steam generators, but a great deal of it has been made in Canada and has provided a major stimulus to the Canadian electrical manufacturing industry.

CHANGING CONSUMPTION

The large proportion of total electric power consumption accounted for by the resource industries has historically been one of the most striking features of the Canadian electric power picture. In the mid-thirties, the pulp and paper industry consumed over 40 per cent of all the electricity used in Canada. This industry is still the largest single consumer of power, but partly because it now uses less power in proportion to its output than it formerly did, and partly because other uses of power have increased so sharply, its consumption now represents only around 20 per cent of the total. Meanwhile, however, consumption of power for metal smelting and refining has forged ahead. And these two industries, together with mining, account for over 40 per cent of the total.

The aluminum industry stands out as a heavy user of power and its growth has been largely responsible for the sharp upward trend in power use by the metal-smelting group. The search by this industry for big power sites away from settled areas and near tidewater led to the great Kitimat project. In the east, a further major hydro development is under way on the Peribonca River to serve the longer-established plants in the Saguenay Valley. And the building of a new aluminum smelter at Baie Comeau, on the north shore of the St. Lawrence, has meant the expansion of facilities on the Manicouagan River.

Apart from the impressive localized growth associated with the aluminum industry, development of forest and mineral resources has been pushing up the demand for power all across the country. Hydro power has been developed to serve the new iron ore industry in Quebec-Labrador, is supplied to the titanium smelter at Sorel from the St. Maurice River and flows from the large Bersimis project by cable under the St. Lawrence to the Gaspé Peninsula and the copper smelter there. In the Lakehead area of Ontario requirements for power have increased by nearly 300 per cent since 1945, reflecting sharply rising production of iron ore, the opening of new base-metal mines and growth in the pulp and paper industry. To the east, expansion at Sudbury and the opening up of new uranium areas have added to the power load. In northern Manitoba, an essential part of the nickel development now

AGRICULTURE PRICE STABILIZATION

Mr. Douglas S. Harkness, Minister of Agriculture, has announced the first set of prices established under the Agricultural Stabilization Act. These include mandatory floor prices for six of the nine key commodities named in the act and guaranteed yearly prices for three commodities, butter, hogs and wool. Prices have been set by the Government following recommendations made by the Advisory Committee and the Agricultural Stabilization Board.

Guaranteed yearly prices, which may be called the working support prices, include a Federal Government agreement to purchase Canada First Grade creamery butter at a price of 64 cents per pound effective May 1, 1958 basis delivery Montreal with appropriate price and market differentials for other markets and butterfat in other forms which the Board may specify. This is approximately 107 per cent of the base price, i.e. the average price for the last 10 years. The previous support price on butter was 58 cents.

The working price support for hogs to be in effect for the next year effective April 1, 1958, is \$25.00 per 100 lb. for warm dressed weight from Grade A carcasses basis Toronto with appropriate differentials for other public stockyards throughout Canada as may be established by the Board. This is approximately 84 per cent of the base price. The previous support price for hogs was 23 cents.

The price of wool will be supported by deficiency payment at the level of 60 cents per pound for wool grading Western Range Choice 58/60's, half blood staple, F.O.B. Toronto, and appropriate rates for all other grades except Rejects. This will be effective from April 1, 1958, to March 31, 1959, and is approximately 110 per cent of the base price of 54½ cents per pound for sheep's wool. In the past no support price was in effect for wool.

Mandatory floor prices established for six of the nine key commodities named in the Act are at 80 per cent of the base price, which is the average price during the last ten years. The base prices and the mandatory 80 per cent floor prices for these six commodities are shown in the accompanying table. They will be effective from April 1, 1958, to March 31, 1959.

Prices on other markets will be at appropriate differentials.

Mr. Harkness said that owing to the difficulty of securing sufficient statistical data the mandatory 80 per cent floor prices on wheat, oats and barley not coming under the Canadian Wheat Board will not be available until following the next meeting of the Advisory Committee to be held in the near future.

	Base Price 100%	Mandatory 80%
Cattle	\$21.80 cwt.	\$17.50 (Toronto)
Hogs (Grade A, dressed carcass)	29.70 "	23.75 (Toronto)
Butter (First Grade)	60 lb.	48 (Montreal)
Cheese (First Grade Cheddar)	31 "	25 (Ontario)
Eggs (A Grade Large)	52 doz.	42 (Montreal)
Lamb (Good)	24.45 cwt.	19.55 (Toronto)

* * *

ENVOY TO ARGENTINA

Mrs. Ellen L. Fairclough, Secretary of State, has been appointed special ambassador for the inauguration of the President of Argentina, His Excellency Arturo Frondizi, on May 1 next. Ceremonies in connection with the installation of President Frondizi will take place in Buenos Aires between April 28 and May 3.

In announcing the appointment, Prime Minister John G. Diefenbaker said that Mrs. Fairclough will carry with her his personal greetings and warm regards for President Frondizi and the good wishes of the Canadian people who will share in the happiness of the Argentine nation on this occasion. The Prime Minister said that Mrs. Fairclough's mission will serve to enhance and deepen the understanding and friendship already existing between the two countries.

In addition to Mrs. Fairclough, who will be accompanied by her husband, the Canadian special mission will include the Canadian Ambassador to Argentina, Mr. L. Philippe Picard, Q.C., and other members of the Canadian Embassy in Argentina.

* * * *

AT NATO MEETING

Defence Minister George R. Pearkes, V.C., is now in Paris attending a meeting of NATO Defence Ministers, April 15-17. He is accompanied by Gen. Charles Foulkes, Chairman Chiefs of Staff.

Following the NATO sessions, Mr. Pearkes will visit No. 1 RCAF Air Division Headquarters at Metz, France, and Fighter Wings of the Air Division at Grostenquin, France; Zweibrücken and Baden Soellingen, Germany. He will return to Ottawa on April 21.

TEACHERS' SALARIES UP

Median salary of teachers in universities and colleges rose 14.3 per cent to \$6,598 between 1956-57 and 1957-58, Dominion Bureau of Statistics reports in an advance statement based on returns received from 54 universities and colleges covering basic salary rates at November 1, 1957 for 123 deans, 1,144 professors, 1,023 associate professors, 1,257 assistant professors, 58 ungraded professors, and 778 lecturers and instructors, or a total of 4,383 teachers.

Median salary in 1957-58 is highest in Ontario at \$6,893, only slightly lower in the Western Provinces at \$6,804, 6.2 per cent lower in Quebec at \$6,463, and 21.3 per cent lower at \$5,425 in the Atlantic Provinces. The percentage increase in median salary in 1957-58 was greatest in Ontario (16.2 per cent) and least in the Atlantic Provinces (12.4 per cent). For Canada as a whole, percentage increases were greater in the higher academic ranks than in the lower.

As in 1956-57, highest median salary was paid to teachers (deans omitted) of the biological sciences, including medicine, at \$7,122. This was followed by the physical sciences at \$6,540, the social sciences \$6,387, and the humanities \$5,954. The percentage increase in the median salary in 1957-58 was greatest in the biological sciences (15.1 per cent) and least in the humanities (11.3 per cent).

* * * *

TELEPHONE LINES STILL BUSY

Another record year was established by the telephone industry in 1956 as facilities and services were expanded. The Dominion Bureau of Statistics announces more telephones were installed in 1956 than in any previous year and the number of telephone calls, both local and long distance, rose to a new high. At the end of 1956 there were close to 4,500,000 telephones in service in Canada or 28.17 per 100 population. Among principal countries of the world only the United States with 34.45 and Sweden with 31.50 ranked ahead of Canada in this regard.

During the year a record 347,647 telephones were installed in Canada, some 56,000 more than the previous high of 291,409 recorded in 1955. This brought the total number of telephones in service to 4,499,325 at the end of 1956, an increase of 8.4 per cent over the 1955 year-end total of 4,151,678. Installations did not keep pace with the heavy demand for new service and at the end of the year many orders still remained unfilled.

Residential telephones in service increased 9 per cent during 1956 to 2,625,787 from 2,408,959. Business telephones rose 8.5 per cent to 1,229,150, rural telephones 5.7 per cent to 584,484, and public pay telephones

4.3 per cent to 59,904. Estimated number of completed calls over all systems was 7,764,804,793 in 1956, an increase of 11.5 per cent over 1955's 6,961,476,485.

HOUSING DATA

In 1955, the latest year for which detailed information on family incomes is available, 49.8 per cent of home-owner borrowers and purchasers under the National Housing Act in Centres of 30,000 population or more were in the middle third family income group of \$3,513 to \$5,423, Central Mortgage and Housing Corporation revealed in its quarterly report of Canadian housing statistics. Family income includes income of dependents as well as the head of the family.

The Corporation noted that 6.8 per cent of the borrowers in large urban areas were drawn from the lower third income group, under \$3,513, and 43.4 per cent from the upper third of \$5,424 and over. By regional areas, Ontario had the highest proportion of borrowers in the middle third income group in 1955 in large urban areas, 60.5 per cent, while Quebec was lowest with 32.3 per cent. In Ontario 10.6 per cent of the borrowers were in the lower third group and only 28.9 per cent in the upper third.

Family income data included in the report were compiled from surveys carried out by the Dominion Bureau of Statistics. The surveys show that average family incomes in centers of 30,000 population and over increased from \$4,738 in 1954 to \$4,933 in 1955 or, in terms of "median" incomes, from \$4,142 in 1954 to \$4,320 in 1955. "Median family income" is that income below which and above which are 50 per cent of all families.

In all non-farm areas, the average family income was \$4,370 in 1955, and the median income was \$3,829.

HOUSING DEMAND

The report also draws attention to the increase in the demand for housing as shown by the results of the 1956 Census conducted by the Dominion Bureau of Statistics. Between 1951 and 1956, non-family households were formed at an average annual rate of 12,000. The average for the 1941-51 period was only 7,000 a year. A significant increase in the movement of families off farms is also noted, from an annual average of 6,300 in the 1941-51 period to 10,000 in the 1951-56 period. This movement adds to the demand for non-farm housing.

The number of doubled-up families declined between 1951 and 1956, from 9.8 per cent of all families to 7.7 per cent. In the central parts of the large urban areas, however, the proportion of doubled-up families was 12.2 per cent in 1956. Of the 285,335 doubled-up families in 1956, more than half were living with relatives.

TOUR EUROPE AND ASIA

Students of the National Defence College in Kingston, Ont., left Canada this week on a 52-day tour of defence and industrial sites in eight European and seven Asian countries.

The course, comprising 28 members from the Armed Forces, Civil Service and civilian industry of the United Kingdom, the United States and Canada, left April 15 for Gibraltar, first stop of a tour which will take them to Italy, Yugoslavia, West Germany, The Netherlands, Belgium, France, Luxembourg, the United Kingdom, Lebanon, Bahrein, India, Pakistan, Iraq, Turkey and Greece between now and the end of May.

Included among the students are 20 Canadians, four from the United Kingdom and four from the United States. In addition four members of the directing staff of the National Defence College will accompany the students on the tour.

The National Defence College is the Canadian equivalent to the Imperial Defence College in London and the National War College in Washington. Each year senior officers of various departments of government and the Armed Forces study and examine the principles and practices of higher governmental administration.

The object of the course is to broaden the outlook of the students and to increase their knowledge and understanding of all matters relative to collective security and national defence. Economic, political and defence problems of foreign nations studied at the college are examined at first hand during the tour. Each course lasts approximately 11 months.

Through a series of studies, lectures and visits, the National Defence College students learn the historic, economical, social and political factors affecting Canadian defence and war potential; the international scene and Canada's place therein; the influence of scientific developments on war; and the interrelation of the Armed Forces with each other and with other departments of government.

The Commandant of the National Defence College is Maj.-Gen. J.D.B. Smith, 46, of Ottawa. He is assisted by a directing staff of four officers, one from each of the Armed Services and the Department of External Affairs, and an executive staff officer.

NEW MILITARY HOSPITAL

Foundation and excavation work tenders have been called for a 350-bed hospital in the Ottawa area for the armed forces, the Department of Veterans Affairs and the R.C.M.P.

The R.C.A.F. is charged with design and construction of the \$8,500,000 hospital and it is expected that tenders covering the main structure and services will be called later this year.

It has been recognized for some time that, because of the limited space and temporary nature of the buildings at the R.C.A.F. hospital at Rockcliffe and the fact that the veterans pavilion at the Civic Hospital will have to be vacated to meet purely civilian needs, a definite requirement exists in the Ottawa area for members of the armed forces as well as for veterans and members of the R.C.M.P.

With the expansion of the R.C.N., the Canadian Army and the R.C.A.F., it has also been realized that there is a need for a medical centre to co-ordinate the training of medical personnel to meet the special needs of military service.

The new hospital, to be called the National Defence Medical Centre - Ottawa, will have accommodation for 350 beds and provision for dental services, medical and diagnostic services, out-patient treatment and casual and definitive care for members of the R.C.N., Canadian Army, R.C.A.F. and R.C.M.P. and for veterans eligible for treatment under DVA regulations.

In addition to its other functions, the medical centre will also serve, in affiliation with the University of Ottawa, as a clinical teaching establishment for medical students and for post-graduate studies for Service Medical Officers and University graduates.

Although it will not serve as a training school for student nurses, it will be a centre for advanced training of nurses, medical assistants, laboratory technicians and operating room assistants.

Situated on property adjacent to the Rideau Health and Occupational Centre, the new institution will be housed in a seven storey cruciform building of contemporary design. In addition to this main hospital building, there will be a laundry and heating plant with maintenance shops, while a psychiatric unit will be housed in existing buildings which will be altered for this purpose.

AERIAL SURVEYS IN BOLIVIA

A Canadian organization has obtained half-a-dozen separate aerial survey contracts in Bolivia for a total area half that of the British Isles, some 60,000 square miles. The contracts, from several international oil companies, are valued in excess of half a million dollars with the possibility of extension to the present work with operations extending throughout this coming summer.

The Canadian Hunting group clinched the multiple deal by having senior executives negotiating in California, Texas, Oklahoma, New York and Holland the same day. This is the first job the Canadian Hunting group has done in Bolivia where the new Government policy has opened up the petroleum development to foreign capital, in remote areas east of the Andes. Hunting is well known for its operations in

most other countries in Latin America and it has associate companies in Brazil, Venezuela and the Argentine. Apart from the integrated resources inventories of Pakistan and Ceylon under the Canadian Colombo Plan and large provincial surveys of Ontario and Alberta and elsewhere in Canada, this Bolivian assignment is one of the largest the Canadian group has undertaken in its operations on seven continents.

The contracts generally call for aerial photography, photogrammetric mapping, mosaicing, astro control, airborne magnetometer surveys and their interpretation. Robert Brocklebank, of Toronto, is in charge of the operation with headquarters at Cochabamba in central Bolivia. Three aircraft from Hunting's operating company, Kenting Aviation, a high altitude photographic Flying Fortress and two magnetometer and camera-equipped Hudsons are operating from the Bolivian towns of Trinidad, Santa Cruz, and Tarija.

As well as the aerial magnetometer and air photography side, the assignment calls for surveyors on the ground to take astronomical shots of the stars in jungle locations to locate exactly the aerial surveys. The ground surveyors and aerial photographers work for The Photographic Survey Corporation Limited, of Toronto, and the magnetometer operators for an associated company, Aeromagnetic Surveys Limited. Much of the advanced stages of work will be carried out in the Hunting Group's Toronto headquarters.

ELECTRIC POWER IN A GROWING ECONOMY

(Continued from P. 2)

getting under way is a large hydro project on the Nelson River. In British Columbia new hydro-electric facilities have been built to meet the needs of the smelter at Trail, while on Vancouver Island development of the water-power resources of the Campbell River has reflected in part the demand of new pulp and paper mills.

Important as the resource industries have been in the postwar upsurge in power consumption, it is a striking fact that general industrial, commercial and domestic use of power has accounted for a substantially larger part of the increase. The chemical industry and the primary iron and steel industry, both big users of electricity, have been among the most rapidly expanding segments of Canadian manu-

facturing industry. This expansion, along with the growth in a wide range of other manufacturing industries using power-driven machinery and electrical processes of one kind or another, has brought a 50 per cent increase in power use since the war by manufacturing industries other than metal-smelting and pulp and paper.

Most of this demand has been felt in the thickly settled parts of the country where at the same time the rise in population, particularly the explosive growth of suburban areas, has created big new commercial and domestic demands. The requirements of new shopping centres, new office buildings (many now air-conditioned) and increased municipal services such as street lighting have all converged on the power supply. Most striking of all is the growth in domestic use; power consumption by households and farms in 1956 was more than four times as large as at the end of the war and accounted for about 16 per cent of total consumption compared with 8 per cent in 1945. Behind this phenomenal expansion, of course, lie a great variety of factors -- a big inflow of immigrants, a high rate of family formation, a record rate of housebuilding, and accelerated rural electrification programs.

Quite as spectacular as the rise in the number of households served is the more intensive use of power in the home. One of the commonplaces of this electrical age is the constantly increasing variety of electrical appliances and equipment ranging all the way from washing machines and stoves to electric blankets and power tools for the home workshop. The number of households with electric refrigerators has risen from only 30 per cent in 1948 to over 80 per cent in 1957, and roughly two-thirds of Canadian households now own television sets. One measure of this rising domestic use of electricity is that consumption per customer more than doubled between 1945 and 1956. And the fact that the market for such relatively new items of domestic equipments as clothes dryers, freezers and air-conditioning units has only begun to be tapped in Canada points to a continued upward trend. It is perhaps worth noting in connection with the remarkable increase in domestic power use that, although the cost to the domestic customer varies greatly from province to province, the average charge per kilowatt-hour has either declined or shown only moderate increases during the postwar years and in most provinces is lower than in 1939, in several cases substantially so.