

material is then conveyed to another machine which evaporates all the water. The dry material is then ground to the consistency of coarse whole wheat flour, a substance which it somewhat resembles in appearance and colour. This operation usually takes place the same day that the fillets are cut so that the meal is just as fresh as the fillet itself and has none of the unpleasant odour which is usually associated with stale fish scraps. In former days most of this waste was either thrown away or used for fertilizer, and it is the introduction of machinery which has made it possible to eliminate this loss.

Indeed it is safe to say that had it not been for the by-products together with the introduction of modern tech-

nical and mechanical methods the fishing industry would not have survived even to the extent that it has in the world of to-day. It has still a long way to go before it will be on an even competitive footing with other food industries. It has many difficulties to overcome, perhaps difficulties greater than have been faced by the farmer or the meat packer and many another who deals with less perishable material. The solution of these problems will lie largely in the direction of more complete technical control over its manufacturing, storing and distributing methods. This control will come as it mechanizes its processes, a movement which is already under way and which brings in its train a series of social and politico-economic problems.

Nova Scotia Coal Industry and Freight Rate Subvention

By DONALD B. WALLACE

THE mining of coal is one of the oldest and most important of Nova Scotia industries. With a physical plant investment of approximately \$50,000,000, a working force of 13,000 workers, and an annual output valued at \$23,000,000, this industry now produces 45 per cent of the total coal mined in Canada. Also, the combination under one corporate head of the allied productive processes of coal mining and steel production, makes the Cape Breton area the steel centre of Canada.

While coal is a factor of major economic importance in the province, it must also be considered as having a definite correlation with the economy of the nation as a whole. The gradual emergence during the past decade of a national fuel policy has given an added impetus to

the industry, and, at the same time, has created a situation wherein coal and politics have largely become synonymous. Thus the functioning of the Nova Scotia coal industry in recent years constitutes a striking example of the manner in which a basic national industry, situated at the extreme eastern tip of Canada's strip economy, has tended, through the medium of Federal transportation subventions, to equalize burden and advantage as between producer and consumer in the national interest.

Admittedly, the fuel situation in Canada is somewhat anomalous, for, in spite of enormous potential reserves, about 50 per cent of the consumption is imported, largely in the most important consuming centres of Ontario and Quebec, as these two provinces are far removed from the Nova Scotian fields in the East and those of Alberta in the West. Therefore, the Dominion Fuel Board was creat-

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ed in 1928 to provide a permanent body responsible to the Federal Government for a systematic and scientific study of fuel production and marketing problems, for probably no subject presents a problem of greater general public interest in Canada than that of fuel supply.

Thus, in 1928, the Federal Government inaugurated the policy of financial assistance to the coal industry in the form of transportation subventions. Even in that year, a record one for the industry, those fully conversant with the rather unique position occupied by the coal industry in the Canadian economic scene realized its vulnerability to American competition, especially in the central Canadian markets.

While Nova Scotia and New Brunswick have generally been grouped together with respect to the majority of the subsidized rates offered, only 32,305 tons of coal from the latter province moved under assisted rates in 1938 compared with 1,388,519 from Nova Scotia, a differential which is not pleasing to the Minto producers in New Brunswick, and one which they are presently attempting to rectify by requesting greater rate reductions because of their inland position and unavailability of water shipments.

The Alberta producers, while mining approximately the same tonnage annually as Nova Scotia, are removed even further from the central Canadian markets than the latter mines, and, being dependent solely on rail transportation, have not shared to any appreciable extent in the assisted coal movement to the central provinces. In fact, in 1936, Alberta shipped only 66,000 tons to Ontario or 2.5 per cent of Nova Scotia's shipments to the Quebec-Ontario area in that year. The inability of Alberta to share to a greater proportionate extent in the central market is a factor of certain political importance insofar as the practical operation of a national fuel policy is concerned. It is therefore clearly evident that Nova Scotia has definitely been the major beneficiary under the Dominion's coal rate subvention policy.

As early as 1924, tentative provision

was made by the Federal Government to pay part of the existing freight charges in an effort to extend the market for coal mined in Nova Scotia, and thus equalize the price disparity between Nova Scotia and American bituminous coal in central Canada. Further consideration was given the matter in 1926 and again by the Royal Commission, presided over by Sir Andrew Rae Duncan, appointed to consider problems affecting the Maritime Provinces.

1928 action was taken in the form of establishing a maximum temporary test rate of \$3.00 per ton on an all-rail movement of Nova Scotia coal to the Quebec market only during the closed season of navigation on the St. Lawrence. The movement was seasonal and extended over a test period of three years and was formulated primarily to make possible the continued operation of the mines in winter and thus aid the employment situation. In addition, a temporary test rate of one-fifth of a cent per ton mile, but not more than 75 cents per ton less than the rate which would otherwise be applicable, was established on coal mined in Nova Scotia and carried by vessel to St. Lawrence ports and thence transhipped by the railways to points in Ontario and Quebec.

At the conclusion of these tests in 1931, the basic framework of the present subvention policy was developed. It provided for a reduction of one-fifth of a cent per ton mile, or a maximum of 75 cents per ton, on coal transhipped at St. Lawrence ports to move inland by rail in Quebec province. With respect to coal transhipped to Ontario points, the rate was fixed at a reduction of one-third of a cent per ton mile up to a maximum of \$1.50 per ton. The all-rail movement on coal from Nova Scotia to points in both Quebec and Ontario was to be at the rate of one-seventh of a cent per ton mile with a maximum rate of \$2.00 per ton. No provision was made at this date for assistance to coal moving by water west of Montreal.

Rates have been increased, and their application widened since 1931, as shown

in the following analysis of the more important Orders-in-Council since that date:

in such centres as Ottawa, Kingston, Toronto, Windsor, and Northern Ontario. Generally speaking, the greater portion

**Dominion Government Maximum Subventions on Nova Scotia Coal
Moving to Central Canada**

Orders-in-Council	Date Issued	Via Water West of Montreal	Via All Rail	Via Water and Rail		Railway Coal
				To Que.	To Ont.	
P.C. 1300.....	May 30/31	\$.....	\$2.00	\$0.75	\$1.50	\$2.00
P.C. 1119.....	May 28/34	1.00	2.00	0.75	1.50	2.00
P.C. 1862.....	Aug. 4/36	1.50	*To Que. To Ont.1.50 †	1.50	2.00
P.C. 2789.....	Nov. 8/38	2.00	*To Que. To Ont.2.00 †	2.00	2.50

*Assistance to Quebec points set at 30 per cent of existing freight rates.

†No assistance in Quebec under this rate except to Hull, P. Q.

While assisted rates have been quoted herewith on a maximum lump sum basis, their actual application takes the form of a reduction, such as one-third, one-fifth, or one-seventh of a cent per ton mile from established rates until shipments moving under these special rates equalize the maximum assistance prescribed.

The rates issued November 8, 1938, and designed primarily to further enlarge the Ontario market, provide for a reduction of 4.5 mills per ton mile from existing rates on shipments by rail from Montreal to Ontario points as compared with the previous rate of 3.3 mills. This new rate now means that Nova Scotia coal delivered in Toronto will be about 40 cents a ton cheaper than formerly and thus placed on a favourable competitive basis with the American product. Also, coal moving from Montreal to Ottawa at the former assisted rate of 39 cents per ton is now entitled to aid totalling about 53 cents per ton. While no substantial increases in sales have been recorded since this new rate was announced, due primarily to the fact that the coal year is from May 1st to April 30th, and large contracts do not expire until the latter date, it is generally admitted that, provided business conditions are satisfactory, consumption of Nova Scotia coal should be substantially increased in Ontario during the coming season, especially

of the annual tonnage from Sydney moves via the water route in the summer to points contiguous to the St. Lawrence River, such as Three Rivers and Montreal, where it is stored in stock piles awaiting shipment inland to Quebec points as well as trans-shipment to Ontario. Gradual enlargement of storage facilities at these ports indicates that the time is not far distant when the winter all-rail movement from Sydney will be largely eliminated. Such a condition, however, will have no material effect upon mining operations, as the mines will continue to be operated on a tonnage basis sufficient to meet sales requirements.

The general increase in assisted rates during the past decade reflects, to an unusually large degree, the intense competitive battle which has been waged to improve particularly the competitive position of Nova Scotia coal in the Ontario markets. Technological changes in industry, the substantial use of electrical power in recent years, and the intermittent dumping of American coal on the Canadian market, have brought pressure to bear on the Nova Scotia coal industry, making necessary aid of the type now provided, for Nova Scotia's production of 6,231,923 tons in 1938 only approximates the 6,220,505 mined 32 years earlier. However, since the assisted rates were first granted in 1928, a total of 11,597,266 tons of Nova Scotia

coal has been marketed in Central Canada at a cost to the Federal Government of \$10,327,240, or an average assistance of 88 cents a ton.

In addition, there is a factor of importance, especially as related to the freight aspect of the issue, in the opening in 1932 of the \$130,000,000 toll-free Welland Canal between Lake Erie and Lake Ontario. This inland navigation improvement, by reducing the transport charges on American coal from Pennsylvania, Ohio and West Virginia, has made it increasingly difficult to expand the market for Nova Scotia coal in the Ontario market without added assistance. On this point it is interesting to note that American bituminous coal has, since the canal was enlarged in 1932, become the first commodity in point of tonnage, and in 1938 accounted for 3,071,493 tons out of total canal traffic of 12,633,093 tons, or approximately 25 per cent. Thus the anomalous situation has been created by the Federal Government of using public monies on the one hand for canal construction which has indirectly improved the competitive position of American coal in the Canadian market, while, on the other, it increases the subvention on Nova Scotia coal to allow it to meet some of the very competitive conditions it has materially assisted in creating.

However, despite all adverse factors, Nova Scotia coal largely continues at least to retain its normal competitive position in the central Canadian market. At the present time it enjoys about 80 per cent of the total Quebec market and holds a rather impregnable position in this area despite the fact that assistance is no longer given to shipments into Quebec. The Ontario situation is, unfortunately, not so satisfactory, due to a combination of factors, and only slightly over 1,000,000 tons of Nova Scotia coal are consumed annually compared with approximately 10,000,000 tons of imported American bituminous. Thus, while a large number of important Ontario companies accept the principle of provincial reciprocity trade, and utilize

the Nova Scotian product, there still remains a substantial potential market to be captured, and it is generally admitted that the Federal Government would like to at least double the present volume of Nova Scotia coal sold in Ontario.

In any study of the utilization of domestic coal particular mention should be given to railway purchases of the Canadian product, which, interestingly enough, account for approximately three out of every ten tons produced in Canada. Coal is not only the largest individual commodity bought by Canada's two great railway systems but it also ranks next to wages as an item of operating expenses. At the present time Canadian railways buy approximately 5,000,000 tons of Canadian coal annually, which is about 30 per cent of the total output, and, as there are 27,000 workers employed in Canadian coal mines, it would be fair to state that approximately 8,000 are almost solely dependent on railway coal purchases. Under these circumstances it is obvious that a sound and prosperous railway industry has a direct relationship with the prosperity of the coal industry in both Nova Scotia and Alberta.

Generally speaking, both railways now use Canadian coal in the Maritimes, to a limited extent in Ontario and Quebec, and almost entirely West of Winnipeg. Therefore it is apparent that, without the existing huge volume of annual coal purchases by the two major railway systems, the coal mining industry of Canada would have considerable difficulty in operating on a profitable basis.

It is rather a problematical matter to arrive at a figure which could be termed to represent accurately the actual increased tonnage, or added revenue, directly resulting from the operation of freight rate subventions on coal. Any figure that might be developed of this type would necessarily have to be based on the assumption that the subvention payments have been materially responsible for the increase, for instance, from an output of 4,084,581 tons in 1932 to 6,231,923 tons in 1938. The acceptance

of this point of view naturally suggests that business recovery has been a secondary consideration. While it is admittedly difficult to draw the line of demarcation between these two factors, it is generally admitted that the increased prosperity of the Nova Scotia coal industry in the past few years has been due, in no small measure, to freight rate aid granted by the Federal Government, which, while perhaps not providing for any drastic increase in output, has at least enabled the industry to maintain a degree of stability that would otherwise perhaps have been impossible. The cost of stabilizing this industry in the last decade which, incidentally, has produced coal valued at slightly more than three-quarters of a billion dollars since 1785, has been as follows:

Year	Tons	Amount
1928.....	113,905	\$ 65,600
1929.....	304,276	205,270
1930.....	372,029	214,720
1931.....	401,597	225,138
1932.....	710,449	545,944
1933.....	1,384,268	1,280,223
1934.....	1,748,004	1,687,451
1935.....	1,588,302	1,489,412
1936.....	1,677,096	1,572,780
1937.....	1,908,821	1,785,792
1938.....	1,388,519	1,254,910
	11,597,266	\$10,327,240

This whole question of Federal assistance to outlying economic areas, such as, for instance, the Western wheat bonus and Maritime coal subventions,

raises two important issues. First, how far should the Federal Government go in artificially supporting an industry which, while of basic national importance, apparently cannot successfully meet unaided the full force of foreign competition on a price parity basis. Secondly, admitting the validity of the theory that compensatory treatment is both necessary and justifiable for industries of this type because of their geographical and marketing disabilities, to what extent should the assistance granted be considered as taking the form of a quid pro quo payment for alleged losses suffered by these economic regions as a result of national policies such as the tariff.

Admittedly it is difficult to formulate answers to these questions which would be accepted with any great degree of unanimity. However, it is becoming increasingly obvious that the compromise policy long followed by the Federal Government of attempting to balance assistance between different economic areas and groups is now becoming both administratively complex and politically costly. It would thus seem reasonable to expect that matters of this nature will be given special consideration in the forthcoming Report of the Royal Commission on Dominion-Provincial Relations, not as they relate to the question of provincial fiscal need, but rather as an integral part of the much broader field of the effect of various national policies on the functioning of the component parts of the Canadian economy.