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EX
GERMAN COAL AND COKE IMPORTS TO DENMARK (1940-1944)

4 June 1940: The stoppage of supply of coal is the knottiest problem in the raw materials field. While the Danes were figuring on the import from Germany of 300,000 tons of coal and 100,000 tons of coke per month, during the period 1 Apr - 31 May 1940 only 241,909 tons of coal and 122,632 tons of coke were imported. Thus, in the months of April and May together, only 364,541 tons + about 50,000 tons for the Danish State Railroads = 414,541 tons of fuel were delivered, instead of the 300,000 tons planned under the import program. The reasons for this delay in shipment are: (1) differences between the Danish shipping companies and the German suppliers over unloading conditions, and (2) inefficient distribution.

It proved necessary to curtail private coal consumption in order to keep the main plants operating.

19 August 1940: Coal deliveries are 118,503 tons behind schedule and coke deliveries are 48,453 tons behind. The difficulties are to be found in the dispatching of Danish steamers in the German loading ports.

15 August 1940: During the period 1 April - 31 July 1940, a total of 714,497 tons of coal and 284,547 tons of coke were imported by Denmark.

The planned import of coal of the Danish State Railroads, about 500,000 tons per year, is not included in the above figures.

Besides the 500,000 tons for the Danish State Railroads, the annual Danish requirement of coal is about 2,500,000 tons and of coke, about 1,000,000 tons, or 833,000 tons of coal and 333,000 tons of coke per quarter (sic) per 4-month period. Therefore, 833,000 - 714,497 = 118,503 tons of coal and 333,000 - 284,547 = 48,453 tons of coke are behind in delivery.

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The delivery of large quantities of coal dust from Upper Silesia in July did not help much, as this can be used only by individual big plants with special furnaces.

The reason for much of this shortage is still to be found in the dispatching of the Danish steamers in German ports. This is especially true for deliveries from the Rhine-Westphalia mining district.

15 October 1940: During the month of September, only 132,464 tons of coal were delivered, instead of the 250,000 tons which were supposed to be delivered. This contributed further to the critical position of the Danish economy. During the six-month period April-September 1940, 204,000 tons too little coal and 33,455 tons too little coke were delivered to Denmark. On the other hand, too much coal dust was delivered -- this can be used only in power plants and individual plants.

The delivery problem is not due to inadequate shipping space -- Denmark can provide 75 per cent of the bottoms needed and Germany can provide the other 25 per cent. The problem is the quarrel between the Danish Freightage Committee and the German coal syndicates over the charter conditions.

15 November 1940: Deliveries came through better in October than in the previous months. Of the required 250,000 tons of coal, 231,200 tons were delivered, and the required tonnage of coke, 83,333 tons, was exceeded by shipments totalling 90,500 tons.

15 December 1940: The supply of Denmark with coal is not going according to plan. In November, the required amount of 300,000 tons of coal was not delivered; only 235,000 tons arrived, so that for November a quantity of 65,000 tons, or 20 per cent of the requirement, has yet to be delivered.

In consequence, the Varde steel works, among others, had to close down operations for 2 days. Moreover, the Aalborg gas works often gets the vital coal only at the last minute, with the result that the numerous field kitchens dependent on the gas (feeding about 8,000 men) were in danger of having to do without.

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15 January 1941: The required quantity of 300,000 tons of coal was not delivered; only 150,000 tons arrived. For the first time, coke deliveries also were behind. Instead of the required 100,000 tons, only 47,000 tons arrived.

Only 202,000 tons -- 50 per cent -- of the combined monthly coal and coke requirement was delivered.

The reasons for this deplorable situation are: (1) the transportation situation in Germany has become more critical, and disruption of the Kaiser Wilhelm Canal has taken place, and (2) most of the steamers bearing coal for Denmark have to go to Esbjerg, where a shortage of railroad cars and limited ferry traffic have resulted in the piling up of 70,000-80,000 tons of coal on the piers. In order to mitigate the critical fuel situation, as of 4 January 1941, 10,000 tons of coal daily are being shipped out by train from Germany to Danish stations.

A cutback in industrial production was necessary in late December, owing to the lack of fuel.

It was difficult to scrounge up enough coal for the industries like the glass industry, the furnaces of which must not cool off, and those which absolutely must be kept producing. The Vardo steel works has been shut down since 18 December 1940 because of the coal shortage. Conversion to Upper Silesian coal is recommended.

15 February 1941: 312,000 tons of coal and coke were delivered from Upper Silesia and Westphalia, but about 60,000 tons of this have not been delivered to their destination because of the ice conditions or because it has been shipped elsewhere. 50,000 tons of coal and coke destined for Sjaelland and the southern islands are still sitting in Esbjerg.

As regards the fuel supply, Fyn and Jylland are currently in pretty good shape, but the situation in Sjaelland and the southern islands grows worse daily. The only way of getting fuel to Sjaelland is to ferry it across the Store Bælt. The severe weather and ice conditions

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may mean that only Fyn and Jylland, directly connected by rail with the Westphalian mines, can be supplied in February. This would amount to only 120,000 tons, or one-third of the Danish monthly requirement.

15 March 1941: Only 204,000 tons of coal and coke were delivered for unloading to Denmark. Because of the Baltic ice conditions, the 333,000 ton requirement cannot be met.

The stocks of coal and coke are very low. So far, no industry has had to shut down completely, but their production capacity has suffered.

60,000 tons of Danish shipping are available for coal transport from Baltic ports.

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5 March 1943: In view of the fuel shortage in Denmark, the Danish government has taken measures to raise peat production.

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3 April 1943: Because of the mild winter, it was possible to start peat production almost everywhere by early March, six weeks earlier than in the previous year. If the good weather continues, a record production of 5-6 million tons of peat is to be expected for 1943.

A big deposit of high-grade lignite has been discovered in central Jylland.

Coal and coke deliveries in March 1943 were considerably better -- 230,601 tons of coal and 65,812 tons of coke were delivered during the period 1-27 March 1943.

The German officials in Norway need 2,000 tons of coal for their potato-drying plant.

4 May 1943: Coal deliveries in April were worse -- 200,738 tons of

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coal (including 37,000 tons for the Danish State Railroads) and 63,900 tons of coke arrived. The fuel situation is unsatisfactory.

21 May 1943: During the first half of May, the delivery of only 48,000 tons of coal and 27,000 tons of coke was absolutely inadequate. We can figure on only about 150,000 tons of coal and coke for the whole month of May. So far, the Danish State Railroads have received only 1,000 tons of coal. As the summer months must be utilized to build up the depleted stocks, a considerable increase in exports over the next few months is mandatory, in order that we can face the winter.

21 June 1943: The supply of coal and coke, as before, is a very serious problem. Only 118,000 tons of coal (including 26,000 tons for the Danish State Railroads) and 82,000 tons of coke arrived. During the period 1-12 June 1943, only 40,000 tons of coal and 10,000 tons of coke arrived for unloading. A total of only 150,000 tons of coal and coke (including 30,000 tons for the Danish State Railroads) are planned for June 1943.

The gas works have reserves for only one week. Copenhagen has coal for illumination purposes for only six days. All fuel ration cards and purchase permits were rendered invalid on 16 June. Unless the fuel supply of Denmark is radically changed, the occupation troops, the armament industry, transportation, and power facilities will suffer. Peat and lignite production are being pushed to the utmost, but the shortage of railroad cars and the poor condition of the means of transportation are very limiting factors in this connection.

1,910 tons of bituminous and 166 tons of anthracite were made available to the Organization Todt, among others, for the construction of fortifications and special Air Force installations; an additional 1,500 tons has been allotted for July-August.

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21 July 1943: 102,803 tons of coal (including 13,531 tons for the Danish State Railroads) and 30,272 tons of coke were shipped to Denmark in June. 173,000 tons of coal and coke are planned for July. Despite the slight improvement in deliveries, the situation grows worse daily. The daily requirements are not being covered; furthermore, the reserves must be built up for the coming winter.

This year peat production could reach a ^{record} high, if transportation could only keep pace with production. The transportation problem is intensified not only by the poor condition of the rolling stock, but also because the Danish State Railroads are inadequately supplied with fuel. Approximately 25 per cent of the freight traffic is for the Armed Forces - 15,000 tons of coal. An unsuccessful attempt was made to utilize lignite briquettes for the production of gas, but these, although producing a goodly percentage of gas, also produced too much carbon dioxide.

The high wages paid peat diggers has resulted in a shortage of agricultural workers.

20 August 1943: 143,400 tons of coal (including 33,200 tons for the Danish State Railroads) and 46,200 tons of coke were shipped to Denmark in July. An additional 14,400 tons of Sudeten coal came. 155,000 tons of coal and 11,000 tons of coke are planned for August. The percentage breakdown of coal and coke for an additional promised 65,000 tons has not yet been determined. The Danes estimate that 55,000 tons of coke will have to be imported, if there is to be any sort of minimal rationing program. The coke supply in Denmark on 15 July 1943 was only half so large as that on 1 September 1942, and then the coke situation was critical.

Source: GMS Doc No W1/IE 1.19
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30 October 1943: In August 1943, 172,300 tons of coal and 38,100 tons

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of coke were imported; in September, 143,300 tons of coal (including 27,900 tons for the Danish State Railroads) and 53,800 tons of coke were imported. As the quantity of coal allocated the Danish State Railroads did not cover its monthly requirement, the Railroads already have had to dip into the emergency reserves.

The gas works and the power plants have a month's supply of coal on hand. As the electrical power plants gradually exhaust their peat supplies, difficulties will arise in their switchover to the poorer lignite, as they will not be able to develop the necessary steam pressure. The complete utilization of the installed capacity is thereby jeopardized.

30 November 1943: In October 1943, 194,500 tons of coal and 36,200 tons of coke were imported. 29,871 tons of coal were given to the Danish State Railroads. Inasmuch as this quantity does not cover the Railroads' monthly requirement, it is considered possible that the German Reichsbahn will release 20,000 tons.

Coke deliveries are far behind.

The Danish lignite production amounts to about 150,000 tons per month, the equivalent of about 50,00 tons of bituminous in heat yield.

31 December 1943: In November 1943, 197,400 tons of coal and 27,300 tons of coke were imported. 43,700 tons of coal were given to the Danish State Railroads, the largest quantity they have received this year.

In no month since the occupation of Denmark, except for February 1942 (ice conditions), has the monthly import of coke been so low as in November 1943.

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31 March 1944: In January 1944, 152,500 tons of coal, 43,000 tons of coke, 5,500 tons of Sudeten coal, and 40,000 tons of lignite briquettes were shipped to Denmark.

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31 March 1944: In February 1944, 201,500 tons of coal were delivered, the largest quantity to arrive since June 1943. On the other hand, the delivery of 28,700 tons of coke was inadequate.

March 1944 saw the following imports:

<u>Fuel</u>	<u>Delivered in March</u>
coal	216,400 tons
coke	45,100 "
briquettes	45,000 "
Sudeten lignite	12,400 "
	<hr/>
	319,100 "

31 May 1944: In April 1944, 200,100 tons of coal (including 30,800 tons for the Danish State Railroads), 22,800 tons of coke, 2,500 tons of Sudeten coal, and 20,000 tons of lignite briquettes, a total of 262,400 tons, were delivered from Germany.

Danish coal production has been delayed by stormy, rainy weather.

3 May 1944: Coal Situation for 1943

Total production (Denmark)	2.6 million tons of lignite
	6.0 " " " " peat
German imports to Denmark	2,029,000 tons of coal
	520,000 " " coke
Of these quantities, the Danish State Railroads received	403,000 " " coal
Small businesses, through importers, received	334,000 " " "
Gas works and power plants received	1,008,000 " " "
Large businesses themselves imported	200,000 " " "
Household consumption received	519,000 " " coke, and lignite and 639,000 " " lignite briquettes
Power plants received a supplementary	70,000 " " Sudeten lignite dust
Household consumption received a supplementary	45,000 " " lignite coke
To the emergency stocks of the power plants and the gas works were allocated	67,000 " " coal

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To the emergency stocks of the Danish State 40,000 tons of coal
Railroads were allocated

Moreover, the Danish government declared that it would provide 80,000 tons of peat and 20,000 tons of lignite from Danish production for the months of January through May for the occupation troops. In view of the diminishing supply of fuel from Germany, however, it stated that it could do this only once.

15 August 1944: During the period 1-31 July 1944, the following quantities of fuel were imported:

103,000 tons	of	Upper Silesian coal
60,400 "	"	Westphalian coal, including 30,000 tons for the Danish State Railroads
34,700 "	"	coke
42,000 "	"	lignite briquettes
25,000 "	"	Sudeten lignite
<u>333,100 "</u>		

A breakdown for the years 1940-1944 is as follows (in thousands of tons):

	1 Jun 40- 31 Dec 41	1 Jun 41- 31 Dec 42	1 Jun 42- 31 Dec 43	1 Jun 43- 31 May 44
Upper Silesian coal	1,245.1	610.7	1,147.2	1,140.6
Westphalian coal	1,302.3	1,235.7	1,011.4	968.5
Upper Silesian coke	77.3	10.6	78.3	60.5
Westphalian coke	266.7	210.4	300.1	297.6
Total coal	2,537.4	2,296.4	2,159.0	2,118.1
Total coke	1,041.0	221.0	410.4	450.3
Total coal + coke	4,581.4	3,167.4	2,777.4	2,573.4

While the delivery of coal and coke from Germany has remained at the same level in the last six months, the Danish production of peat and lignite is unsatisfactory. Bad weather in the months of March and April ruined a good beginning, and the record production of 1943 of 6.5 million tons of peat will be only about 70 per cent attained in 1944. A shortage of railroad cars and trucks makes the situation more critical. The trucks used in peat production need tires, and the situation is growing steadily worse. Since the peat bogs are often more than 4-5 kilometers from a railroad station, trucks must be used for transportation. Sufficient trucks are not available, and the wear-and-tear on tires is great.

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15 September 1944: During the period 1-31 August 1944, the following quantities of fuel were shipped to Denmark:

65,800 tons	of	Westphalian coal, including 42,400 tons for the Danish State Railroads
44,900 "	"	Westphalian coke
151,000 "	"	Upper Silesian coal
3,900 "	"	" " coke
36,000 "	"	Sudeten coal
10,000 "	"	lignite briquettes
<u>341,600 "</u>		

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26 May 1944: During the period 1940-1943, lignite production in Denmark amounted to 5.5 million tons, 2.5 million ~~tons~~ tons of which were produced in 1943 alone. At the time the survey of deposits was made, the total reserves were estimated at 5 million tons, but further boring and investigation has led to the discovery of many new lignite deposits. The present estimate of reserves, therefore, is 17 million tons. If the present rate of production is kept up, these reserves will be exhausted in 3 1/2 years. Although more than 2.5 million tons can be produced annually now, it is most unlikely that such large quantities could be transported from the production areas, as the lack of transportation facilities is becoming ever more acute.

Peat production during the period 1940-1943 totalled 17.5 million tons, 5.9 million tons of which were produced in 1943. Former deposit estimates indicate a total of about 250 million tons of peat in Denmark. However, only about one-half of this figure, 125 million tons, are suitable for production. This quantity of exploitable peat would last for 20 years at the present rate of production.