1909.

VICTORIA.

REPORT

FROM

THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS

ON THE QUESTION OF

RAILWAY CONNEXION WITH POWLETT COAL-FIELD;

TOGETHER WITH

MINUTES OF EVIDENCE AND PLAN.

Ordered by the Legislative Assembly *to be printed, 7th December*, 1909.

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EXTRACTED FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

THURSDAY, 5TH OCTOBER, 1909.

4. POWLETT COAL-FIELD RAILWAY.—Mr. A. A. Billson moved, pursuant to notice, That the question of connecting the Powlett coal field with the existing railway system, and with the proposed ports at Inverloch and Western Port Bay, be referred to the Parliamentary Standing Committee on Railways for inquiry and report.

Debate ensued.

Question—put and resolved in the affirmative.

TUESDAY, 16TH NOVEMBER, 1909.

3. POWLETT COAL-FIELD RAILWAY.—Mr. A. A. Billson moved, by leave, That, in the opinion of this House, the Parliamentary Standing Committee on Railways should immediately inquire into the question of connecting the Powlett coal-field with the existing railway system.

Debate ensued.

Question—put and resolved in the affirmative.

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS.

(Ninth Committee.)

The Hon. E. H. CAMERON, M.L.A., Chairman;

J. W. Billson, Esq., M.L.A.,
J. Cullen, Esq., M.L.A.,
The Hon. Dr. W. H. Embling, M.L.C.,
The Hon. D. Melville, M.L.C. (Vice-Chairman),
E. C. Warde, Esq., M.L.A.

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REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS, to which the Legislative Assembly referred the question of connecting Powlett coal-field with the existing railway system, has the honour to report as follows :—

ROUTES OF PROPOSED RAILWAY.

1. Several proposals to connect the Powlett coal-field with the existing railway system were brought under the notice of the Committee by Mr Kernot, Chief Engineer for Railway Construction, and also by a number of witnesses at San Remo, Dalyston, Inverloch, and Outtrim, at which places the Committee took evidence. For the purpose of this inquiry it was assumed that the line from Nyora to Woolamai, which is being constructed and is expected to be completed next month, was part of the existing railway system. Between Woolamai, in the Bass Valley, and the Powlett coal-field there is a range of hills, known as the Blue, or Bass, Range, which extend from Wonthaggi south-westward towards Kilcunda and San Remo. The first proposal submitted by Mr. Kernot was an extension of the Woolamai railway in a south-westerly direction for about 4 miles to Anderson's Corner, where there is a low saddle or gap in the hills which would enable the line to be carried in a cutting of moderate depth to the south or coastal side of the hills, and thence south-eastward through Kilcunda and Dalyston to the township which is to be formed on a site purchased by the Government in the centre of the new coal-field. The field is on the south side of the Powlett River, and extends towards Cape Paterson. This proposal would be 14½ miles in length, and it was estimated by Mr. Kernot to cost £65,000, The through distance by this route, *viâ* Woolamai and Nyora, to Melbourne would be 87 miles, and the ruling grade 1 in 50 between the coal-field and Nyora. The highest altitude reached by the proposed extension from Woolamai, *viâ* Kilcunda, to the coal-field would be 240 feet in the neighbourhood of Kilcunda. From Woolamai, 67 feet above sea level, the railway which is in course of construction gradually ascends until approaching Nyora, where a height of 396 feet is attained. From Nyora there is a down grade towards Melbourne, except near Clyde where the grade is 1 in 75 for a length of about 50 chains, and approaching Sandown Park where there is a grade of 1 in 76 for a distance of 15 chains. Mr. Kernot informed the Committee that the extension referred to could be shortened by half-a-mile, and its cost reduced by £2,000, by taking the line along the coast from Kilcunda to the Powlett coal-field. The objection, however, to this deviation was that the railway would be a mile or so to the south of Dalyston, and this would not only inconvenience the residents of that township, but would compel the farmers in the Wonthaggi Hills, to the north of Dalyston, where there is a large area of rich agricultural land, to cart their produce a further distance to a railway station. A number of witnesses, including the President of the Woolamai Shire Council, when giving evidence before the Committee at Dalyston, strongly urged that the line should be brought as close to that towship as possible, instead of being constructed along the coast near the mouth of the Powlett River. A third proposal brought under the notice of the Committee by witnesses from Queensferry and Grantville was the construction of a direct railway from Woolamai to Dalyston and thence to the coal-field. This connexion would, according to the evidence of Mr. Kernot, be 10½ miles in length, but it would involve tunnelling through the Blue Range for 1¾ miles, a work which would take about three years to complete, and involve an outlay of nearly £200,000 for the line and tunnels. The line would have a grade of 1 in 100 or, perhaps, a little easier, and it would shorten the through distance to Melbourne by 4 miles compared with the Kilcunda route. Its summit level would be 180 feet, which would be reached close to the entrance to the tunnel. A local engineer, Mr. E. W. Cracknell, who has had experience in railway construction, informed the Committee that the engineers of the Construction Branch of the Railway Department had selected a wrong site for the tunnel. If the line were carried a mile eastward a much more favorable place could be obtained, which would considerably lessen the length of the tunnel, and

consequently largely reduce the estimated cost of the route. If the Powlett coal-field, he added, assumed the importance the officers of the Mines Department expected, it would pay to make the tunnel, as the much easier grade—1 in 150 or 1 in 200—which would be obtained on that route, and thence right through from Woolamai to Lang Lang, with a comparatively small outlay in re-grading the main South-Eastern line near Clyde and Sandown Park, would enable heavy train-loads of coal to be hauled from the Powlett field by way of the tunnel, Woolamai, Grantville, and Lang Lang to the metropolis at about ¼d. a ton a mile, or just one-half the present rate. He said that the saving in working expenses on this almost level route compared with the cost of operating the line *viâ* Kilcunda and Nyora, with its 1 in 50 grade, would fully justify the additional capital expenditure if the development of the coal-field reached the anticipations of the officers of the Mines Department. He admitted, however, that even the shorter tunnel on his route would take several months to build, and as a temporary line he thought the Kilcunda connexion was the best in the present emergency.

2. Another proposal was to carry a line from Glen Forbes—a station on the Nyora to Woolamai railway—across the hills to Dalyston and thence on to the coal-field. This line would have a length of 12½ miles, and would cost approximately £95,000. The grade on this route would be 1 in 50 and the summit level 400 feet. It was pointed out by Mr. Kernot that if this connexion were made coal from the Powlett field would have to be hauled to the top of the hills and thence down to the Bass Valley. His objection to the route was that, while it would be 4½ miles shorter to Melbourne than the Kilcunda line, its higher summit level, compared with that of the Kilcunda connexion, would counterbalance the saving in mileage which would be secured by its adoption. Moreover, the Glen Forbes line would not serve Kilcunda, where there are two coal mines—the San Remo Colliery, which has a 3ft. seam of coal of fair quality, and the Western Port Colliery—the owners of which said they were only waiting for a definite promise of the extension of the Woolamai railway to actively enter upon the work of developing the mines. A further proposal was to build a railway from Almurta, another station on the Nyora to Woolamai railway, across the hills by way of the Agricultural College Reserve, at Blackwood, and Archie's Creek to Dalyston, and thence to the Powlett coal-field. This proposal would be 17 miles in length, and was estimated to cost £80,000. The through distance to Melbourne would be 81 miles, but the ruling grade would be 1 in 35 and the highest summit level 560 feet. In the opinion of Mr. Kernot, the grade was an insurmountable objection to this route, although it had the advantage of passing through the good lands on the Wonthaggi hills. Moreover, such a line would be of no value to the two coal mines at Kilcunda. Another proposition was placed before the Committee by the residents of Kongwak. It was to build a line branching off the South-Eastern railway between Jeetho and Bena, and proceeding down the valley of Foster's Creek to Kongwak and thence along the valley of the Powlett River to the coal-field. This proposal would, according to the statements of the local witnesses, be 18 miles in length, and the railway could, they said, be cheaply constructed, except the first 4 miles from the main line, which, being through broken country, would be more costly. Mr. Kernot, however, stated that while this suggested route had not been surveyed it had been inspected by his officers, who put the length down at 20 miles, and the cost at £90,000. The distance to Melbourne by this route would be 82 miles, and the grade 1 in 50 towards Melbourne and 1 in 40 against the traffic from the metropolis. The summit level on this route would be 640 feet as against 396 feet on the Kilcunda-Woolamai-Nyora route. It was urged by those who advocated the Jeetho connexion that it would pass through fertile hills and rich valleys in the neighbourhood of Kongwak, where potatoes and other vegetables, and also hay and grain, could be grown for consumption at the new township and at the coal-field. But under examination the witnesses admitted that they would be within 7 or 8 miles of the coal-field and that the cartage to it would be all down hill. Under such circumstances the Committee considers it improbable that the farmers around Kongwak would use the railway to send products to the coal-field to the extent they thought. A further proposal which was placed before the Committee, when taking evidence at Outtrim, was that the railway from Korumburra to that township should be extended through Kongwak southward to Inverloch, at the entrance to Anderson's Inlet, and thence westward for 9 miles to the Powlett coal-field. This proposal would involve about 21 miles of construction, but it was represented that, excepting the

first 2 miles or so out of Outtrim, the railway would pass through comparatively flat country, and that the construction should not be very costly. Mr. Kernot informed the Committee that no inspection had been made of this route, and consequently no estimate of its cost could be given. There had, however, been a line proposed from Outtrim direct to the Powlett coal-field. Its length would be 16 miles, and the cost about £90,000. He added that the first 2 or 3 miles out of Outtrim had been surveyed, and it showed that the works on that short extension would be heavier than on the rough piece of line between Jumbunna and Outtrim, which cost about £11,000 a mile. The residents of Outtrim, in advocating the Outtrim–Inverloch proposal, said it would enable the collieries at Korumburra, Jumbunna, and Outtrim to export any surplus coal to adjacent States, and also to such places as Warrnambool and Portland, if shipping facilities were provided at Inverloch. The witnesses, when questioned, admitted that so long as the Powlett coal-field was not connected by a railway with a shipping port there was no need to connect the Outtrim and Jumbunna mines with Inverloch, because, if the coal from the Powlett field had to be carried by railway to Melbourne, the collieries at Outtrim and Jumbunna would be able to successfully compete with them, being nearer to the metropolis. None of the estimates given for any of the foregoing lines included the cost of rolling-stock, nor the cost of the land required for the railway track.

Shipping port.

3. Although no evidence was taken by the Committee on this occasion concerning a port of shipment for coal obtained at the Powlett field, Mr. Kernot incidentally informed the Committee that a railway could be constructed from that field to Inverloch at a cost of about £30,000, the distance being 9 miles, and the grade 1 in 66 or easier. The sum mentioned, however, did not include the cost of erecting a wharf and providing better harbor accommodation at that port, so that vessels of large capacity could enter it. He also stated that a line, 6 miles in length, could be constructed from Kilcunda to San Remo, at the eastern entrance to Western Port Bay, at a cost of £25,000. Owing to the sharpness of the curves and the disrepair into which the old tramway or railway from Kilcunda to San Remo had fallen, very little of that track could be used. It would, Mr. Kernot added, be better to build a new line with wider curves. The distance from the Powlett coal-field to San Remo would be 16½ miles and the grade 1 in 50. In this case also, no sum had been included for a wharf and other shipping facilities. A third proposal mentioned by Mr. Kernot was the construction of a railway, 8 miles in length, from Woolamai to Settlement Point, on the eastern shore of Western Port Bay, about 8 miles north of San Remo, there being deep water off that point. This line would cost about £30,000. The distance by it from the Powlett coal-field to the port would be 22½ miles, *viâ* Kilcunda, and 18½ miles if a tunnel were made through the Blue Range. As previously stated, however, the Committee has not yet entered upon its inquiry into the best port of shipment for coal obtained from the Powlett field.

PROSPECTS OF POWLETT COAL-FIELD.

Extent of Powlett coal-field.

4. Boring operations for coal have been actively carried on during the last year or two by the Mines Department on the plains between Powlett River and the coast line near Cape Paterson, and also to the west of Inverloch. These plains, which cover an area of 120 or 130 square miles, are from 12 feet to 127 feet above sea level, the greater part of the country being from 60 feet to 80 feet higher than low-water mark. The boring has resulted in several seams of black coal, varying in thickness from about 1 foot to close on 10 feet, being found at depths ranging from 33 feet to 987 feet from the surface. According to the statement of Mr. E. J. Dunn, Director of Geological Survey, Victorian Mines Department, nearly 8 square miles in the area of 20 square miles reserved for the State coal mine on the Powlett plains, have been proved, by close boring, to contain coal in payable quantity, while in the adjoining 100 square miles there are indications of very promising prospects. He stated that his object in having the area reserved for the Government coal mine drilled in a thorough manner was to completely test the ground. The drill holes had been put down at a distance of 20 chains apart each way, and an area about 3½ miles in length by 2 miles in width had been proved to contain a continuous seam of coal varying in thickness from 2ft 6in. up to 9ft. 11in., with an average thickness of about 5ft. That average would give over 3,000,000 tons of workable coal to the square mile, and, therefore, in the area that was considered as proved, there would be about

25,000,000 or 30,000,000 tons of coal at a depth ranging from about 40 feet from the surface to between 400 feet and 500 feet. A bore which had been put down in the parish of Kirrak, at a distance of 3 or 4 miles in a easterly direction from the proved area, had resulted in a seam of coal 3ft. 6in. in thickness being pierced at a depth of 987 feet. He therefore thought the prospects were very favorable to a considerable area in that parish being found to contain coal seams of a payable character, when boring operations were shortly resumed to the north-west of Inverloch. Mr. Dunn further stated that in the area of about 8 square miles, which had been proved to contain a sheet of coal averaging 5 feet in thickness, there were faults breaking the continuity of the coal seam. These faults were not extensive, and would not interfere with the working of the seam. They ran diagonally through the field, and the drop was greater in some parts than in others, which accounted largely for the differences in the levels of the seams. On one side of one of the faults, the seam, according to the boring, was 2 feet 9 inches in thickness. In the next bore it was 3 feet 2 inches, and in the adjoining ones 5 feet 6 inches, 6 feet, and 5 feet 8 inches ; while on the other side of the fault, the thicknesses in the different bores were as follows :—3 feet 7 inches ; 2 feet 4 inches; 3 feet 4 inches ; 5 feet 2 inches ; 4 feet 3 inches ; 5 feet 10 inches ; 7 feet 6 inches ; 9 feet 1 inch ; 6 feet 1 inch ; 4 feet 2 inches ; 6 feet 5 inches. On the average, therefore, Mr. Dunn remarked there was not much difference in the thickness of the seam on either side of the fault. The seam, like all coal seams, thickened and became thinner in different parts. There was a very material difference between the Powlett field and the Jumbunna and Korumburra field. The beds that contained the coal were of the same character, but those at Powlett River were not disturbed in the same manner as the formation at Jumbunna and Korumburra, which was 600 feet or 700 feet above sea level. Moreover, the rocks were more continuous, and not so broken up as in the Jumbunna district. The whole of the Jurassic coal was on the southern extremity of Victoria, and, Mr. Dunn added, it appeared to him that further south the better would be the coal deposits, and the thicker the seams.

Water difficulty.

5. As the coal seams would be below the level of the neighbouring sea, and also below the bed of the Powlett River, the Committee questioned Mr. Dunn as to the probability of inflows of water seriously impeding mining operations at the field. He replied that there was no likelihood of the working of the mines being interfered with to any extent by the presence of water. A great deal of the rock of which the Jurassic coal measures consisted was shale and a clayey material, so it was practically impervious to water. That prevented the drainage of the country freely circulating through the beds. The proof of that was that in the winter months, the whole of the country was covered with surface water because it could not penetrate those beds. He also considered that there was no danger of water coming into the workings from the ocean, as the clayey material would stop it both vertically and horizontally. At Newcastle, the coal mines were working under the sea, and the beds of sandstone there were far more pervious than the Jurassic rocks in South Gippsland. Judging from the nature of the rock in the Powlett district, there would be but a small quantity of water to be pumped out of the mines. Steps were to be taken to clear the Powlett River of obstructions so that the flood waters might get away rapidly to the sea. That work would cost £5,000 or £6,000. Mr. Stanley B. Hunter, Boring Engineer for the Mines Department, agreed with Mr. Dunn that pumping operations at the Powlett coal-field would not be a very expensive matter. He remarked that he would expect to have a sudden flow of water into the mine if a fault were met with, but a few days' pumping would remove the water.

Quality of coal.

6. Mr. Dunn expressed the opinion that the coal obtained at the Powlett field compared favorably with the best New South Wales coal. Analyses had been made of various cores from the different bores, but he considered such tests were not a fair indication of the value of the coal because the finer and better quality coal was ground up in the cores and went away as slime. Therefore, samples from broken cores were not a fair estimate of the value of the seam, but it was the only one they could at present get as to the quality of the coal at the lower depths. A sample, however, had been taken in the face from a trial shaft at a depth of 40 feet from the surface, and the only disadvantage it showed in comparison with New South Wales coal was that it had 8.4 per cent of water, while the Newcastle coal contained less than that. Being practically a surface coal, the presence of so much water might have been a

local matter. He was not clear about that. Most coals were deteriorated by being close to the surface. But, as regards the other constituents, the fixed carbon and the volatile carbon, this sample compared well with the Maitland, Stanford-Merthyr, Dudley, Aberdare, and Hebburn coals. It was quite as good in quality as the Newcastle coal, the percentage of ash, which was very important, being 3.20 as against Maitland coal, 3.88 ; Stanford-Merthyr, 4.83 ; Aberdare, 3.34 ; Hebburn, 5.67 ; and Dudley, 7.98. Mr. Stanley Hunter regarded the Powlett coal as of very good quality for household purposes, inasmuch as it did not clinker up or form a hard mass the same as some of the Newcastle coals. It was, however, in his opinion slightly inferior to good Newcastle coal for steaming purposes, the difference in value being about 6d. per ton. Mr. Daniel C. Mackenzie, Inspector of Mines for the Victorian Mines Department, speaking as a practical miner and manager of collieries, said the Powlett coal was of a different class to the Newcastle. It was more of a semi-bituminous coal and not so high in carbon. However, there would not be much difference between it and Newcastle coal for steaming purposes. The difference would certainly not exceed 1s. a ton. The Powlett coal, he added, was equal, if not better, than any coal he had seen in the Victorian collieries.

Output at Korumburra and Jumbunna.

7. An explanation was sought by the Committee from Mr. Dunn as to the reason the output of coal from the Korumburra, Jumbunna, and Outtrim district had not reached the anticipations expressed by the late Mr. James Stirling when occupying the position of Assistant Geological Surveyor fifteen years ago. Mr. Dunn stated that the principal reason the coal production had fallen off in that district was the strike of a few years ago, which had set the local industry back. A further reason was that at Jumbunna the seam had become thinner. The seams of coal were much thicker at the Powlett field, and were far more regular, not being so broken up. Mr. Stanley Hunter agreed with Mr. Dunn as to the very favourable prospects of the Powlett field, and stated that, when the Jumbunna mine was started, about three bores only had been put down to test the ground, while there had been nearly 60 at the Powlett, so that the latter field had been proved about 20 times better than the Jumbunna mines.

Cost of working.

8. In speaking of the cost of hewing the coal and bringing it to the surface, Mr Dunn said that he thought that work could be done for 5s. or 6s. a ton as the elements of cheap production were present at the Powlett field, the seam being within a comparatively short distance of the surface, and there being but little probability of water being met with, while the rock formation was such that it could be easily and cheaply sunk through. The thinner seams would, of course, cost more to mine than the thick ones. Any seam having a thickness of 2 feet of good coal would be workable, as the Government would not want to make any profit from its mine. Taking the thick and the thin together the seam at the State mine would have an average of 5 feet, and that was an ideal thickness for cheap working. Mr. Stanley Hunter considered that when the main shaft was put down and the mine opened out giving a production of coal of from 500 to 1,000 tons a day the cost of hewing and putting the coal in the railway trucks at the pit's mouth would be about 8s. 6d. a ton after making ample allowance for all mine charges. If administrative expenses, depreciation, wear and tear were added to the working charges the cost would be about 10s. 6d. or 11s.

RAILWAY DEMAND FOR THE COAL.

9. As it was expected the Victorian Railways would, at any rate for the first few years, be the largest consumer of coal mined at the Powlett field, the Committee, when entering upon this inquiry, asked the Railways Commissioners to have a practical test made of the coal to ascertain its value for railway purposes and whether it would be suitable for use on the express and other fast passenger trains. Accordingly, on the 27th November, 1909, the Commissioners were supplied by the Mines Department with 32 cwt. of the Powlett coal taken from the No. 1 trial shaft at a depth of 40 feet or so from the surface. It was carted from the field to the Outtrim railway station, a distance of 16 miles over roads which were unformed in places. A day or two later the quality of the coal was tested both in the laboratory and in a locomotive. The officers of the Railway Department who made the test reported

that the coal received was not a good sample and probably not representative of the bulk. Moreover it was not suitable for a locomotive test. It contained fully 50 per cent. of slack and was of a friable nature. They, however, expected that clean coal in bulk from the Powlett field would give at least 10 per cent. better results than were obtained from the 32 cwt. That would make it about equal to the best of the Victorian coals, whilst it had the advantage over some of them that the ash was light and it had no tendency to clinker. According to the recent tests the calorific value of the Powlett coal as compared with other coals used by the Railway Department was as follows:—

Coal.		Calorific value, B. T. U.	Percentage of Ash.
Average of Maitland coals (N.S.W.)		13,980	5·98
Average of Newcastle coals (N.S.W.)		13,641	8·14
Gippsland District, Victoria	(Jumbunna)	12,725	9·05
	(Outtrim)	13,032	6·42
	(Austral)	12,771	5·37
	(Powlett River)	12,374	5·59

The Powlett coal was also tested in a locomotive on the suburban running, and its evaporative efficiency as compared with the above coals recently tested under similar conditions was as follows:—

Coal.		Water evaporated per lb. of coal.		Percentage of ash and firebox residue.
		From feed water temperature.	From and at 212 deg. Fahr.	
Average of Maitland coals (N.S.W.) ...		8·07	9·77	8·77
Average of Newcastle coals „		7·79	9.45	10·79
Gippsland District, Victoria	Jumbunna	7·40	8.97	11·02
	Outtrim	7·16	8.66	11·81
	Austral	7·23	8·80	8·53
	Powlett River	6·58	7·90	10·20

Quantity of coal consumed annually.

10. Mr. Tait informed the Committee that the small quantity of Powlett coal supplied to the Railway Department was not sufficient to enable his officers to ascertain positively whether the fuel from the new field would be suitable for express and other fast passenger trains. As soon as a sufficiently large quantity came to hand a trial of the coal would be made on an express train. He stated that, apart from the coal from the Korumburra field not having as great a steam-producing power as the best Newcastle coal, it carried a considerable quantity of ash, and some of it had a tendency to clinker. This required the locomotive fire-box grates to be cleaned more frequently, involving a stoppage of the trains and delay, and caused difficulty in keeping up the steam pressure. The Powlett coal seemed to have less ash than some of the coals from the Korumburra field, and the ash was light with no tendency to clinker. Therefore, the Department might be able to use it on some if not all of the express trains. No definite opinion, however, could be given about that until a proper test had been made. Taking the average for the last three years, the Department consumed annually 333,000 tons of coal. Of this total about 33,000 tons came from the Victorian mines. Of the 300,000 tons of New South Wales coal used by the railways last year, 40,000 tons were consumed by the express and fast passenger trains. In answer to a question, Mr. Tait said it was reasonable to assume that if the Powlett coal was of the same heating value as the coal supplied by the Jumbunna and Outtrim mines, it would be suitable for all trains other than the express and fast passenger trains, and if the required quantity could be obtained from the Powlett field at a reasonable cost it could take the place of the remaining 260,000 tons of coal imported yearly from New South Wales for railway purposes. He added it might be found that when the Department made a proper and exhaustive test of the Powlett coal that the 40,000 tons of New South Wales coal imported annually for the fast passenger trains could also be reduced in quantity.

11. In comparing the relative values of the New South Wales and Victorian coals Mr. Tait stated that if the efficiency of the average New South Wales coal delivered to the Department under the existing contracts was put down at 100 per cent., the value of the Powlett coal, according to the recent tests, would be 82 per cent. But as he regarded the sample supplied as a poor one, it might be found from subsequent trials that the coal from the new field would prove to be about 10 per cent. better. This would bring the relative efficiency of the Powlett coal up to about 90 per cent. Taking the cost of the New South Wales coal at Prince's Bridge station at 15s. 1d. per ton, which included 1s. for hauling the coal from Victoria dock to Prince's Bridge station—a very liberal allowance—and deducting the cost (½d. per ton per mile) of bringing the coal from the Korumburra field to Prince's Bridge, and allowing for the difference in the efficiency of the two coals, the value of the Victorian coal in the railway trucks at the pit's mouth was 9s. 7¾d. for that from the Outtrim mine, and 9s. 11d. for the coal from the Jumbunna mine. The Commissioners, however, offered to pay 12s. a ton for the coal delivered in the trucks at those mines so as to encourage the Victorian production. This was equivalent to a subsidy of 2s. 4.26d. in the case of the Outtrim coal and 2s. 1d. in the Jumbunna coal. The companies owning those mines were not satisfied with this offer, and the Government agreed to give an extra 1s. a ton, which made the price of the Outtrim and Jumbunna coal 13s. a ton, or a total subsidy of 3s. 4.26d. per ton to the Outtrim Company and 3s. 1d. to the Jumbunna Company. In replying to a question, Mr. Tait said that out of the average of 300,000 tons of coal imported annually from New South Wales during the last three years, 71,737 tons were landed at Geelong for use on the railways in the western parts of Victoria. The price paid under existing contracts for that coal delivered at Geelong was 14s. 4d. a ton. Assuming that the Powlett coal was 10 per cent. better than the sample recently tested, and that the price paid for it in the railway trucks at the pit's mouth would be 13s. a ton, the same as the Outtrim and Jumbunna coal, the cost of the Powlett fuel delivered at Geelong would be £1 0s. 2½d. a ton, allowing 5s. 2½d. for haulage by rail from the new field, *viâ* Melbourne, to Geelong and also allowing for the difference in quality compared with the New South Wales coal. But, he added, the Railways Commissioners did not anticipate that they would have to pay anything like 13s. a ton for the coal obtained from the State mine at the Powlett field, but only the actual cost of winning the coal and delivering it into railway trucks at the pit's mouth, plus additions to represent interest on the capital expenditure incurred in connexion with the mine and sinking fund or depreciation. He understood it was not the intention of the Mines Department to make a profit out of the supply of coal to the Victorian Railways.

Prices of Victorian coals.

12. It was stated by Mr. Tait that three years ago the Railway Department made a test of the coal taken from the San Remo colliery at Kilcunda the property of Mr. John Evans. The laboratory test gave the calorific value of the coal as 12,657 B.T.U., and the percentage of ash at 5.06. The locomotive test was as follows:—Water evaporated per 1lb. of coal, 7.12; total ash, 11.5 per cent. Mr. Tait explained that the tests proved the Kilcunda coal was about equal to the average of the coals from the Korumburra and Outtrim field.

Kilcunda coal.

ESTIMATES OF REVENUE AND WORKING EXPENSES.

13. No estimates of revenue and working expenses of any of the proposed railways were obtained by the Committee from the Railways Commissioners because the traffic over the line would so largely depend on the development of the State and other mines at the Powlett coal-field and the energy displayed in sinking the shafts and working the seams. Notwithstanding that the opening of the mines should lead to a rapid increase in the population of the district, and to active building operations, as well as requiring the carriage over the railway of many tons of machinery, &c., for the collieries, it may be taken for granted that during the first two years after the opening of the line it will do little more than pay working and maintenance expenses. After the expiration of that period it is expected by the officers of the Mines Department that the State colliery will be able to deliver coal to the railway at the rate of from 500 to 1,000 tons a day. This traffic should result in the line becoming a paying one as Mr. Tait informed the Committee that it was the intention of the Railways Commissioners to credit the railway at the rate of ½d. per ton per mile in respect of all coal carried over it for the use of the Department. The line will also receive its share

of the revenue for the carriage over it of the coal forwarded from the Kilcunda mine or from any private mines which may be worked at the Powlett field. In the opinion of the Committee the new railway will, after allowing for interest charges, show a loss of about £2,000 per annum during the first two years it is in operation.

PRESENT WORKS AT THE STATE COAL MINE.

14. When the Committee visited the Powlett field on the 27th November last, it found coal was being raised from a trial shaft 45 feet in depth and a level or drive was being opened out to work the seam. Three other shafts were being sunk in a line with the first shaft so as to enable coal to be won from the same seam, which was about 7 feet in thickness. This work, however, was of an emergency character, being intended to get supplies of coal with as little delay as possible owing to the shortness of the stock which the Railway Department has in hand, and the difficulty of getting it replenished during the continuance of the existing coal strike in New South Wales. As the work being done at the Powlett coal-field had little or no relation to the opening up of the State mine at that field, it being intended to sink the large main shaft some distance north of the ones now being worked, the Committee does not consider it necessary to further refer to the hasty and somewhat primitive operations now being carried on at the field.

RECOMMENDATIONS.

15. Relying on the statements of the departmental experts as to the extent of the Powlett field and its encouraging prospects, the fair quality of the coal and its suitableness for railway purposes, the thickness of the seams and facilities for economical working, as well as the probable absence of any water difficulties in the mines, the Committee makes the following recommendations:—

1. That a broad-gauge railway, 14½ miles in length, be constructed from the terminus of the Nyora and Woolamai line by way of Anderson's Corner, Kilcunda, and Dalyston township to the site of the Government township at the Powlett coal-field, at a cost of £65,000, exclusive of land and rolling-stock. This route will be the least expensive, and will also serve the Kilcunda coal mines.

2. That as this work may be of an urgent character, the Bill authorizing the construction of the railway should also provide a sum of money (estimated at £5,000) with which to purchase the land required for the railway track and station grounds.

3. That as the landowners in the Kilcunda and Dalyston district, and also those owning land in the vicinity of the Powlett coal-field, will be benefited by the building and working of the railway, the Bill authorizing the construction of the line should provide that within six months after the Bill becomes law, the Phillip Island and Woolamai Shire Council should be constituted a Railway Construction Trust under the provisions of the Railway Lands Acquisition Act and be responsible for the payment to the Government of the sum expended by the Board of Land and Works in purchasing land required for the extension of the Woolamai railway, the Council to be empowered to levy rates for this purpose on the lands benefited by the extension.

4. That the Board of Land and Works should, on the advice of the Chief Engineer for Railway Construction, define the boundaries of the area benefited by the railway from Woolamai to the Powlett coal-field.

5. Although the question of railway extension to the Powlett coal-field was referred to the Committee without the customary provision for a deficiency rate—presumably because the Mines and Railway Departments are to be so largely interested in the coal-field—the Committee considers that the owners of the land within the area benefited by the extension, excluding lands in the possession of the State, should be required to make good one-third of any loss resulting from the construction and operation of the railway in view of the advantages the line will confer on them. Several of the landowners, when questioned by the Committee, expressed their willingness to pay a deficiency rate.

E. H. CAMERON,
Chairman.

Railways Standing Committee Room,
State Parliament House,
Melbourne, 3rd December, 1909.

[*Minutes of Evidence are not printed.*]

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