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Price Indexes of Electric Utility Construction

Distribution Systems

Transmission Lines

Transformation and Switching Stations

1961=100

The base-weighted price indexes of the cost of constructing electric utility distribution systems, transmission lines and transformation and switching stations in Canada express prices for materials, labour and equipment in a given year, as a percentage of prices for the same components of cost in the base year 1961. Annual commodity, group and total indexes are presented herein for distribution systems, transmission lines and transformation and switching stations. Unless noted on the tables, indexes from 1956 to 1966 remain unchanged, the 1967 preliminary indexes, published in the July 1968 issue of "Prices and Price Indexes" have been reviewed and revised; the 1968 indexes are provided as preliminary estimates.

Users are asked to note that the transformation and switching station indexes have been defined to relate to stations "at generating plants". Appropriately adjusted indexes for transformation and switching stations at other locations will be published following the clarification of the appropriate federal sales tax rates for transformers at other locations.

Characteristics of Recent Price Movement

To place recent index movements in their larger context a brief review of changes in the supply and demand characteristics relating to electric utility construction is provided.

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Capital expenditures in Canada underwent a modest increase of about 4 percent in 1968, recovering somewhat from 1967 wherein expenditures held close to 1966 levels. The 1968 increase was smaller than the sharp increases of about 17 percent achieved in both 1966 and 1965.

Capital expenditures by electric utilities, increasing somewhat less than 3 percent over 1967 levels, showed sharply lower increases in 1968 than those recorded in the previous three years. The electric utilities share of the capital expenditure dollar has continued to show fractional changes and has, for the last four years stood at about 8 percent of the total. The continuing growth of utility capital expenditures has been accompanied by continued year to year increase in real output and net generating capability by electric utilities.

On the supply side, employment in construction and in the industry manufacturing heavy electrical equipment declined in 1968 as it had in 1967. The decline in employment accompanied a smaller decline in real output of the industry manufacturing heavy electric equipment. Imports of a selected list of important elements of electrical equipment declined in 1968 unlike 1967 which was a year of sharp increases. Most of the decline was attributable to declines in imports of turbo generators, components of switchgear and transmission towers.

Average bond yields for utilities underwent another sharp increase in 1968, an increase one point less than the increase of 13.2 percent which occurred in 1966.

The index behaviour accompanying these changes in aggregative supply and demand showed either declines or smaller increases: the transmission lines index rose 2.4 per cent in 1968 compared to the previous years increase of 5.1 per cent; the transformation and switching stations index declined 4.2 per cent, a larger decrease than occurred in 1967, none of which was attributable to changes which occurred in that year in Federal Sales Tax; the distribution systems index stands fractionally lower than its 1967 level.

This general pattern is reflected in the behaviour of item indexes. The exceptions to this pattern were items of small weight in the index.

Price indexes of electric utility construction	$\frac{1965}{1964}$	$\frac{1966}{1965}$	$\frac{1967}{1966}$	$\frac{1968}{1967}$
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Per cent change

Related Economic Indicators*

Capital expenditures in Canada(1)	+ 17.6	+ 17.3	+ 0.6	+ 4.1
Capital expenditure in electric utilities(1)	+ 24.9	+ 21.6	+ 13.6	+ 2.6
Expenditures in electric utilities as a proportion of capital expenditures in Canada	7.3	7.6	8.6	8.4
Indexes of employment in construction(2)	+ 13.1	+ 10.4	- 7.0 ^r	- 4.2
Index of real domestic product for electric power(3)	+ 8.0	+ 11.4	+ 8.8 ^r	+ 6.9
Net generating capability(4)	+ 8.9	+ 3.9	+ 8.4	+ 9.2
Average bond yield for 10 public utilities(5)	+ 3.5	+ 13.2	+ 8.6 ^r	+ 12.0
Indexes of employment by industry for electrical industrial equipment(6)	+ 7.4	+ 9.0	- 3.4	- 5.4
Index of real domestic product by manufactur- ers of electrical industrial equipment(7) ..	+ 14.5	+ 13.3	- 8.1	- 5.0
Indexes of value of selected imported electrical equipment(8)	+ 33.5	+ 11.6	+ 25.2	- 17.5

(1) Public and Private Investment in Canada, DBS Catalogue 61-205 Annual.

(2) Canadian Statistical Review, DBS Catalogue 11-003, Monthly.

(3) Indexes of Real Domestic Product, by Industry, DBS Catalogue 61-506.

(4) Annual Electric Power Survey of Capability and Load, DBS Catalogue 57-204, Annual.

(5) McLeod, Young, Weir and Company, 50 King Street West, Toronto.

(6) Employment and Average Weekly Wages and Salaries, DBS Catalogue 72-002.

(7) Table I of Indexes of Real Domestic Product by Industry, DBS Catalogue 61-506, Annual, and Table II of Index of Industrial Production, without seasonal adjustment, DBS Catalogue 61-005, Monthly.

(8) Imports of Commodities, DBS Catalogue 65-007, Monthly.

* In some instances 1968 data include estimates made by Prices Division staff relating to the concluding months of the year. Ratios published relating to earlier years have been revised to incorporate final figures published by the relevant divisions.

^r Revised figures.

Price indexes of electric utility construction	<u>1965</u> <u>1964</u>	<u>1966</u> <u>1965</u>	<u>1967</u> <u>1966</u>	<u>1968</u> <u>1967</u>
Per cent change				
<u>Recent price index percentage changes</u>				
Distribution systems	+ 2.4	+ 4.9	+ 4.4	- 0.1
Construction	+ 4.3	+ 5.4	+ 5.8	+ 0.6
Materials	+ 4.6	+ 6.2	+ 1.9	- 4.5
Poles	+ 12.9	+ 8.0	- 4.1	- 4.9
Conductors	+ 4.2	+ 8.9	+ 4.0	- 7.0
Labour	+ 4.4	+ 4.7	+ 11.9	+ 7.7
Construction equipment	+ 1.0	+ 2.2	+ 5.2	+ 2.4
Distribution systems equipment	- 2.3	+ 3.6	+ 0.9	- 2.0
Transmission lines	+ 5.6	+ 4.1	+ 5.1	+ 2.4
Materials	+ 6.1	+ 3.5 ^r	+ 2.5	+ 0.4
Poles, western cedar	+ 13.2	+ 13.5	+ 6.2	- 1.9
Hardware	+ 0.1	+ 2.2 ^r	+ 5.7	+ 0.2
Towers	+ 2.3	0.0	- 4.9	+ 0.4
Conductors, ACSR	+ 7.9	+ 1.5	+ 3.3	+ 0.2
Insulators	+ 4.5	+ 5.5	+ 5.4	+ 4.2
Labour	+ 5.4	+ 6.4	+ 12.3	+ 7.5
Construction equipment	+ 1.6	+ 2.7	+ 4.7	+ 2.7
Transformation and switching stations at generating plants	+ 6.3	+ 4.2	- 2.7	- 4.2
Structures and improvements	+ 10.0	+ 5.6	- 4.7	- 1.8
Materials	+ 7.8	+ 4.3	- 5.2	- 2.5
Buswork and conductors	+ 9.9	+ 8.0	- 2.8	- 4.1
In-place prices	+ 17.1	+ 10.0	- 3.3	0.0
Earth excavation	+ 16.2	+ 11.6	- 3.5	0.0
Crushed gravels	+ 18.8	+ 6.8	- 2.8	0.0
Labour	+ 4.5	+ 5.2	+ 12.7	+ 7.5
Station equipment	+ 5.7	+ 3.6	- 6.6	- 8.8
Power transformers	+ 4.9	+ 1.2	- 7.1	- 9.4
Switchgear and protective equipment	+ 9.7	+ 6.5	- 4.3	- 7.1
Power circuit breakers	+ 2.7	+ 4.7	- 8.3	- 9.4

The following commodity indexes are of interest:

Poles

As can be seen, distribution poles prices have been considerably weaker than prices for transmission poles. Declines in the distribution pole index are attributed to inventory over-supplies in certain sizes and to declining demand. The decline in transmission poles is attributed to lower demand.

Poles	<u>1965</u> <u>1964</u>	<u>1966</u> <u>1965</u>	<u>1967</u> <u>1966</u>	<u>1968</u> <u>1967</u>
Distribution	+ 12.9	+ 8.0	- 4.1	- 4.9
Transmission	+ 13.2	+ 13.5	+ 6.2	- 1.9

Conductors

Sheathed Copper conductor and ACSR have exhibited sharply different price movement from the sheathed aluminum distribution conductors. A variety of reasons were put forward to explain the differential price behaviour but the major reasons cited for the price movement of the four types of conductor shown below related to declines in demand at a time when the industry has excess capacity.

Conductors	1965 1966	1966 1965	1967 1966	1968 1967
<hr/>				
<u>Distribution</u>				
Triplex	+ 2.3	+ 4.0	+ 2.4	- 9.8
Polyethylene insulated - Aluminum	+ 2.4	+ 3.9	+ 2.1	- 9.7
Copper	+ 8.9	+ 20.2	+ 7.5	- 1.6
<u>Transmission</u>				
ACSR	+ 7.9	+ 1.5	+ 3.3	+ 0.2

Equipment

As can be seen from the table below all elements of equipment showed price declines in 1968 except meters. Distribution transformer prices moved lower in response to a strengthening of competition in the domestic market. Station equipment price declines were attributed to such factors as declines in the volume of new orders and the volume of new orders going to off-share producers, as well as declines in the prices of some material inputs.

Equipment	<u>1965</u> 1964	<u>1966</u> 1965	<u>1967</u> 1966	<u>1968</u> 1967
Distribution systems equipment	- 2.3	+ 3.6	+ 0.9	- 2.0
Meters	0.0	0.0	+ 2.3	+ 1.0
Transformers	- 3.7	+ 6.1	0.0	- 4.0
Station equipment (at generating plants)	+ 5.7	+ 3.6	- 6.6	- 8.8
Power transformers	+ 4.9	+ 1.2	- 7.1	- 9.4
Circuit breakers	+ 2.7	+ 4.7	- 8.3	- 9.4
Switchgear and protective equipment ...	+ 9.7	+ 6.5	- 4.3	- 7.1

Wage rates

Wage rates continued to advance in 1968 but less sharply than shown in the previous year. In addition rates of increase in all trades and in all provinces were comparable, most increases being of the order of 7.5 per cent, as can be seen from the table following:

Wage rates	<u>1966</u> 1965	<u>1967</u> 1966	<u>1968</u> 1967	Pre- liminary
<u>Distribution systems</u>				
Linemen	+ 4.6	+ 13.1	+ 7.5	
Groundmen	+ 4.8	+ 10.2	+ 8.1	
Mechanics	+ 4.5	+ 12.5	+ 7.9	
<u>Transmission lines</u>				
Linemen	+ 5.7	+ 14.3	+ 7.6	
Groundmen	+ 7.0	+ 10.9	+ 7.4	
Mechanics	+ 5.3	+ 13.3	+ 7.7	
<u>Transformation and switching stations</u>				
Electricians	+ 4.5	+ 13.5	+ 7.2	
Labourers	+ 6.1	+ 11.1	+ 8.0	

TABLE I. Price Indexes of Electric Utility Distribution Systems, Major Components and Items, Canada, Annually, 1956-67

(1961=100)

Total, major components and items	Indexes												Pre- limi- nary 1968	1969
	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	Final 1967		
Distribution systems	95.1	96.5	93.2	96.8	100.3	100.0	101.9	102.5	104.6	107.1	112.4	117.4	117.3	
Construction	92.7	91.9	93.5	96.3	98.5	100.0	102.5	105.2	107.8	112.4	118.5	125.4	126.2	
Materials(1)	103.8	100.4	98.7	100.6	100.3	100.0	101.8	103.9	105.2	110.0	116.8	119.0	113.6	
Poles	99.1	97.5	99.1	104.8	99.3	100.0	104.0	108.4	107.3	121.1	130.8	125.4(2)	119.3	
Eastern cedar	120.8	101.9	101.3	116.2	100.2	100.0	109.0	112.1	109.1	109.8	121.4	-	-	
Western cedar	97.7	97.2	99.0	104.1	99.2	100.0	103.6	108.1	107.2	121.8	131.4	-	-	
Crossarms	113.1	97.4	94.9	110.2	105.7	100.0	111.9	116.6	128.0	128.2	129.9	133.2	138.3	
Hardware	96.5	97.4	99.5	99.7	100.0	100.0	101.3	103.5	103.5	102.0	101.3 ^F	106.8	107.5	
Secondary racks	95.9	96.7	98.8	99.6	99.9	100.0	102.6	104.4	104.4	98.6	90.1 ^F	94.4	96.4	
Other hardware	96.8	97.7	99.8	99.7	100.0	100.0	100.9	103.2	103.2	103.3	105.6 ^F	111.6	111.8	
Conductors	107.9	103.4	99.1	98.1	100.2	100.0	99.7	100.6	102.3	106.6	116.1	120.8	112.3	
Triplex	102.9	105.5	102.3	97.8	100.0	100.0	98.1	97.4	97.2	99.4	103.4	105.9	95.5	
Polyethylene insu- lated - Aluminum	102.9	105.5	102.3	97.8	100.0	100.0	98.1	97.4	97.3	99.6	103.5	105.7	95.4	
Copper	123.0	96.9	89.3	99.0	100.7	100.0	104.6	110.3	117.5	128.0	153.9	165.5	162.9	
Insulators	94.9	95.2	95.9	98.7	102.0	100.0	100.6	101.4	101.4	106.0	111.8	117.8	122.7	
Luminaires	96.1	97.1	97.0	99.2	100.1	100.0	101.2	102.7	103.0	98.5	95.2	95.7	90.2	
Labour	75.7	78.5	84.9	89.3	95.3	100.0	104.3	108.3	112.8	117.8	123.3	138.0	148.6	
Groundmen	75.0	78.1	84.6	88.8	95.0	100.0	104.3	108.5	113.0	118.0	123.7	136.3	147.3	
Linemen	76.1	78.8	85.1	89.6	95.5	100.0	104.2	108.2	112.8	117.6	123.0	139.1	149.5	
Construction equipment	85.2	90.1	93.8	96.2	98.9	100.0	99.4	100.0	101.3	102.3	104.5	109.9	112.5	
Equipment - Trucks	82.6	90.5	95.7	97.8	99.6	100.0	102.3	103.5	103.7	103.6	104.8	108.3	109.4	
Operating expenses	87.7	89.7	91.9	94.5	98.2	100.0	96.4	96.6	99.0	101.0	104.1	111.4	115.7	
Mechanics(3)	75.7	78.5	84.9	89.3	95.3	100.0	104.3	108.3	112.8	118.1	123.4	138.8	149.7	
Other Operating Expenses(4) ...	94.9	96.3	96.2	97.7	99.9	100.0	91.7	89.6	90.7	90.7	92.5	95.0	95.2	
Distribution systems equipment(1) ...	100.4	106.6	92.5	97.9	104.3	100.0	100.4	96.4	97.6	95.4	98.8	99.7	97.7	
Meters	89.4	96.7	98.3	99.1	100.0	100.0	100.0	99.1	98.6	98.6	98.6	100.9	101.9	
Transformers	107.3	112.9	88.9	97.1	107.1	100.0	100.6	94.7	96.9	93.3	99.0	99.0	95.0	

(1) Combined materials and distribution

systems equipment index 102.3 103.1 96.0 99.4 102.1 100.0 101.2 100.6 101.9 103.6 109.0 110.7 106.7

(2) Price movement for the pole index is derived from price reports for western cedar only, from 1967 forward.

(3) In 1965, Federal Department of Labour Fair Wage Rates were replaced by wage rates reported by a sample of electric utilities and contractors. See also footnote 1, Table 4.

(4) The component indexes of Other Operating Expenses are shown in Table 2.

^F Revised figures.

TABLE II. Price Indexes of Electric Utility Transmission Lines, Major Components and Items, Canada, Annually, 1956-67

(1961=100)

Total, major components and items	Indexes													1969
	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	Final 1967	Pre- limi- nary 1968	
Transmission lines	92.1	94.4	95.7	97.0	98.9	100.0	100.9	102.3	102.7	108.5	113.0	118.8	121.7	
Materials	98.5	100.3	99.8	100.0	100.3	100.0	99.9	100.5	99.6	105.7	109.4 ^F	112.1	112.5	
Poles, towers and fixtures	95.8	97.3	98.8	102.0	100.3	100.0	101.3	103.1	103.5	108.7	114.0 ^F	115.5	115.4	
Poles, western cedar	97.7	97.2	99.0	104.1	99.2	100.0	100.4	103.8	101.8	115.2	130.7	138.8	136.2	
Crossarms	113.1	97.4	94.9	110.2	105.7	100.0	111.9	116.6	128.0	128.2	129.9	133.2	138.3	
Hardware	96.8	97.7	99.8	99.7	100.0	100.0	100.9	103.2	103.2	103.3	105.6 ^F	111.6	111.8	
Towers	90.8	97.1	99.0	99.8	100.0	100.0	100.0	100.0	100.0	102.3	102.3	97.3	97.7	
Conductors and insulators	101.2	103.5	100.9	97.9	100.3	100.0	98.5	97.9	95.5	102.6	104.7	108.5	109.5	
Conductors, ACSR	102.4	105.0	101.9	97.7	100.0	100.0	98.1	97.3	94.4	101.9	103.4	106.8	107.0	
Insulators	94.9	95.2	95.9	98.7	102.0	100.0	100.6	101.4	101.4	106.0	111.8	117.8	122.7	
Labour	75.2	78.3	84.5	88.7	94.9	100.0	104.6	108.6	112.8	118.9	126.5	142.0	152.7	
Groundmen	74.7	78.0	84.2	88.3	94.6	100.0	104.7	108.8	113.0	119.2	127.5	141.4	151.9	
Linemen	76.0	78.7	85.0	89.3	95.4	100.0	104.5	108.2	112.5	118.4	125.1	143.0	153.9	
Construction equipment	84.2	88.2	91.5	94.3	97.5	100.0	99.2	99.4	101.4	103.0	105.8	110.8	113.8	
Equipment	78.2	84.3	89.9	93.2	96.1	100.0	104.1	104.9	107.2	109.0	111.6	115.7	118.8	
Bulldozers	76.9	82.6	87.9	92.0	95.3	100.0	104.2	106.2	111.0	112.3	112.5	116.3	119.7	
Compressors	75.1	79.9	86.0	89.8	93.5	100.0	105.6	105.0	106.8	111.2	117.6	122.3	127.2	
Trucks	82.6	90.5	95.7	97.8	99.6	100.0	102.3	103.5	103.7	103.6	104.8	108.3	109.4	
Operating expenses	90.2	92.1 ^F	93.1	95.4	98.8	100.0	94.3	93.8	95.7	97.0	100.0	105.9	108.9	
Mechanics(1)	75.2	78.3 ^F	84.5	88.7	94.9	100.0	104.6	108.6	112.8	118.1	124.4	141.0	151.8	
Other Operating Expenses	95.2	96.7	96.0	97.7	100.1	100.0	90.8	88.9	90.0	89.9	91.8	94.2	94.5	
Diesel fuel	99.1	103.2	97.9	99.6	100.0	100.0	101.7	103.1	101.3	98.1	97.7	98.6	102.7	
Gasoline	96.5	99.6	99.8	99.9	99.5	100.0	98.3	90.7	91.5	88.4	88.8	89.7	90.0	
Lubricating oils	91.0	94.1	94.5	96.0	98.4	100.0	100.0	99.8	99.2	99.5	102.9	107.6	112.4	
Tires	94.4	94.1	92.8	96.2	101.7	100.0	79.1	79.6	81.9	84.6	88.7	92.1	90.9	
Tubes	93.1	92.5	89.7	88.9	88.9	100.0	100.8	100.8	100.8	102.5	99.7	101.3	103.7	
Repair parts	93.4	95.3	96.6	97.3	98.7	100.0	101.0	103.7	103.5	103.9	104.4	108.0	110.0	

(1) In 1965, Federal Department of Labour Fair Wage Rates were replaced by wage rates reported by a sample of electric utilities and contractors. See also footnote Table 5.

^r Revised figures.

TABLE III. Price Indexes of Electric Utility Transformation and Switching Stations, Major Components and Items, Canada, Annually, 1956-67

(1961=100)

Total, major components and items	Indexes												Pre-liminary 1968	1969
	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	Final 1967		
Transformation and switching stations	115.2	118.1	109.0	113.5	109.8	100.0	104.5	107.2	111.7	118.7	123.7	122.5	117.3	
Structures and improvements	110.1	105.6	101.3	102.6 ^F	103.3	100.0	102.6	109.0	113.1	124.4	131.4	125.2	122.9	
Materials	100.0	99.8	99.0	99.6	100.5	100.0	100.4	103.5	109.1	117.6	122.6	116.2	113.3	
Ready-mix concrete(1)	99.8	100.0	100.0	100.0	100.0	100.0	100.3	104.2	107.3	112.0	118.3	121.7	123.0	
Steel structures	92.3	97.4	99.0	99.8	100.6	100.0	100.1	102.4	107.1	114.7	115.7	104.2	101.7	
Wooden structures	102.2	97.1	97.1	103.9	102.5	100.0	104.2	108.9	116.0	125.0	129.8	125.2	123.2	
Buswork and conductors	109.6	103.5	99.0	98.3	100.2	100.0	100.0	103.5	110.8	121.8	131.6	127.9	122.7	
In-place prices	149.9	128.5	110.6	114.3	114.1	100.0	111.2	130.4	129.0	151.0	166.1	160.6	160.6	
Earth excavation	161.4	132.4	113.6	116.7	121.9	100.0	118.8	145.0	139.1	161.7	180.4	174.0	174.0	
Crushed gravels	131.0	122.1	105.6	110.3	101.4	100.0	98.8	106.7	112.5	133.7	142.8	138.8	138.8	
Labour(2)	74.3	77.6	82.5	88.6	94.7	100.0	104.3	107.6	111.5	116.5	122.5	138.0	148.3	
Common labourer	71.2	75.4	81.3	87.3	93.9	100.0	105.6	109.3	114.2	119.2	126.5	140.6	151.8	
Electrician	76.0	78.8	83.1	89.3	95.1	100.0	103.6	106.8	110.0	115.1	120.3	136.6	146.4	
Station equipment	127.9	132.6	118.4	123.2	115.7	100.0	105.1	106.7	111.5	117.9	122.1	117.4	107.2	
Power transformers	142.5	154.3	130.6	136.3	121.5	100.0	108.3	105.8	109.8	115.2	116.6	115.1	104.3	
Circuit breakers	95.2	97.3	96.7	101.1	104.4	100.0	100.9	106.4	112.8	115.8	121.3	111.2	100.7	
Switchgear and protective equipment	128.9	122.9	114.4	117.9	114.6	100.0	102.7	108.4	113.3	124.3	132.4	126.7	117.7	

(1) Additional prices were incorporated into the index beginning in 1962. The present sample is sufficiently extensive that regional indexes are available monthly from mid 1967 onward.

(2) See footnote(1) Table 6.

TABLE IV. Wage Rate Indexes for Distribution Systems Construction, Canada and Nine Provinces, 1956-67(1)
(1961=100)

	Indexes													
	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	Final 1967	Pre- limi- nary 1968	1969
<u>Linemen</u>														
Newfoundland	74.2	76.6	87.9	90.6	96.9	100.0	104.3	105.5	107.4	110.7	115.5	118.9	130.3	
Nova Scotia	74.2	76.6	87.9	90.6	96.9	100.0	104.3	105.5	107.4	113.6	119.3	126.4	142.6	
New Brunswick	74.2	76.6	87.9	90.6	96.9	100.0	104.3	105.5	107.4	112.2	117.4	129.4	140.2	
Quebec	73.9	75.0	81.8	86.9	93.7	100.0	109.7	113.6	118.7	123.5	128.7	160.6	168.7	
Ontario	78.2	81.2	83.9	85.6	94.6	100.0	103.4	106.7	110.4	114.9	119.8	130.1	140.7	
Manitoba	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	113.9	117.3	126.8	137.6	
Saskatchewan	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	116.8	122.7	133.3	141.2	
Alberta	77.4	82.2	86.3	91.1	94.5	100.0	102.4	104.1	108.2	112.6	122.6	130.4	144.4	
British Columbia	74.2	78.2	87.7	95.4	98.2	100.0	101.8	107.4	112.3	119.2	126.5	138.4	151.7	
Canada	76.1	78.8	85.1	89.6	95.5	100.0	104.2	108.2	112.8	117.6	123.0	139.1	149.5	
<u>Groundmen</u>														
Newfoundland	81.0	86.4	90.5	92.5	96.6	100.0	106.1	110.9	115.6	117.0	121.4	125.8	139.0	
Nova Scotia	81.0	86.4	90.5	92.5	96.6	100.0	106.1	110.9	115.6	120.9	125.6	133.6	149.6	
New Brunswick	81.0	86.4	90.5	92.5	96.6	100.0	106.1	110.9	115.6	120.0	126.7	135.6	146.9	
Quebec	73.9	75.0	81.8	86.9	93.7	100.0	109.7	113.6	118.7	124.0	129.8	146.9	154.5	
Ontario	74.0	78.2	84.4	86.0	94.8	100.0	102.9	106.2	109.4	114.4	119.8	130.8	143.5	
Manitoba	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	116.5	120.7	136.1	149.3	
Saskatchewan	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	113.9	118.7	124.7	131.9	
Alberta	71.8	73.9	79.8	85.6	91.0	100.0	103.2	107.4	109.0	113.5	123.0	130.5	144.4	
British Columbia	73.1	78.1	83.6	89.5	95.0	100.0	102.3	107.3	111.9	118.4	125.7	137.8	150.8	
Canada	75.0	78.1	84.6	88.8	95.0	100.0	104.3	108.5	113.0	118.0	123.7	136.3	147.3	

(1) For the period 1956 to 1964 wage rate indexes were derived for nine major cities from data supplied by the Labour Standards Branch of the Department of Labour. In January 1965, Union wage rate data for basic wage rates reported by major utilities and some contractors were incorporated into the index. The sample selected provides an estimate of wage rate change for each province and represents urban own-account and contract electric utility construction.

TABLE V. Wage Rate Indexes for Transmission Lines Construction, Canada and Nine Provinces, 1956-67(1)
(1961=100)

	Indexes												
	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	Final 1967	Pre- limi- nary 1968
<u>Linemen</u>													
Newfoundland	74.2	76.6	87.9	90.6	96.9	100.0	104.3	105.5	107.4	110.7	115.5	118.9	128.2
Nova Scotia	74.2	76.6	87.9	90.6	96.9	100.0	104.3	105.5	107.4	113.6	119.3	126.4	142.6
New Brunswick	74.2	76.6	87.9	90.6	96.9	100.0	104.3	105.5	107.4	112.2	117.4	129.4	140.2
Quebec	73.9	75.0	81.8	86.9	93.7	100.0	109.7	113.6	118.7	126.8	133.9	171.0	179.6
Ontario	78.2	81.2	83.9	85.6	94.6	100.0	103.4	106.7	110.4	114.5	120.2	130.0	140.8
Manitoba	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	113.9	117.3	126.8	136.6
Saskatchewan	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	116.8	122.7	133.3	141.2
Alberta	77.4	82.2	86.3	91.1	94.5	100.0	102.4	104.1	108.2	112.6	122.6	130.4	144.4
British Columbia	74.2	78.2	87.7	95.4	98.2	100.0	101.8	107.4	112.3	119.4	126.9	141.1	156.3
Canada	76.0	78.7	85.0	89.3	95.4	100.0	104.5	108.2	112.5	118.4	125.1	143.0	153.9
<u>Groundmen</u>													
Newfoundland	81.0	86.4	90.5	92.5	96.6	100.0	106.1	110.9	115.6	117.0	121.4	125.8	137.4
Nova Scotia	81.0	86.4	90.5	92.5	96.6	100.0	106.1	110.9	115.6	120.9	125.6	133.6	149.6
New Brunswick	81.0	86.4	90.5	92.5	96.6	100.0	106.1	110.9	115.6	120.0	126.7	135.6	146.9
Quebec	73.9	75.0	81.8	86.9	93.7	100.0	109.7	113.6	118.7	127.5	136.4	157.8	166.0
Ontario	74.0	78.2	84.4	86.0	94.8	100.0	102.9	106.2	109.4	115.6	122.9	132.2	142.7
Manitoba	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	116.5	120.7	136.1	148.8
Saskatchewan	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	113.9	118.7	124.7	131.9
Alberta	71.8	73.9	79.8	85.6	91.0	100.0	103.2	107.4	109.0	113.5	123.0	130.5	144.4
British Columbia	73.1	78.1	83.6	89.5	95.0	100.0	102.3	107.3	111.9	117.4	130.7	152.8	166.1
Canada	74.7	78.0	84.2	88.3	94.6	100.0	104.7	108.8	113.0	119.2	127.5	141.4	151.9

(1) For the period 1956 to 1964, wage rate indexes were derived for nine major cities from data supplied by the Labour Standards Branch of the Department of Labour. In January 1965, union wage rate data for basic wage rates reported by major utilities and some contractors were incorporated in the index. The sample selected provides an estimate of wage rate change for each province and represents urban own-account and contract electric utility construction.

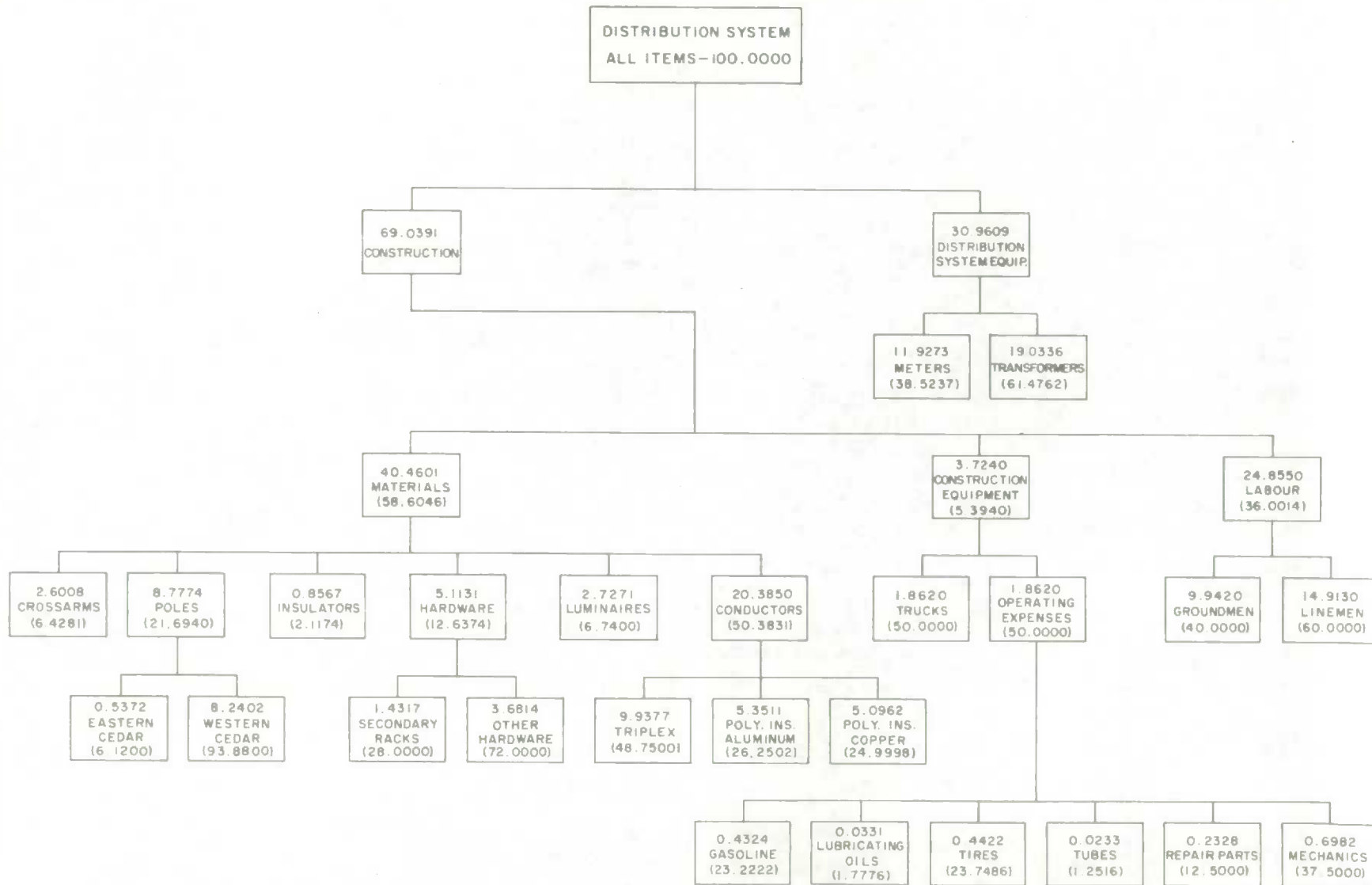
TABLE VI. Wage Rate Indexes for Transformation and Switching Stations Construction(1)
Canada and Nine Provinces, 1956-67,
(1961=100)

	Indexes													
	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	Final 1967	Pre- limi- nary 1968	1969
<u>Common labourer(2)</u>														
Nova Scotia	81.0	86.4	90.5	92.5	96.6	100.0	106.1	110.9	115.6	126.7	135.1	146.2	161.9	
New Brunswick	82.9	91.0	94.6	94.6	96.4	100.0	103.6	103.6	106.3	111.1	117.3	125.5	134.4	
Quebec	73.9	75.0	81.8	86.9	93.7	100.0	109.7	113.6	118.7	125.5	132.3	148.3	155.7	
Ontario	66.8	72.8	78.2	85.1	93.1	100.0	105.0	108.6	114.6	119.5	125.5	138.2	152.0	
Manitoba	67.3	74.5	80.0	89.7	95.2	100.0	100.0	100.0	100.0	104.4	108.1	116.9	126.5	
Saskatchewan	77.6	80.8	88.5	94.2	97.4	100.0	100.0	105.1	110.9	114.1	117.8	124.1	131.7	
Alberta	71.8	73.9	79.8	85.6	91.0	100.0	103.2	107.4	109.0	113.1	123.4	129.0	137.3	
British Columbia	73.1	78.1	83.6	89.5	95.0	100.0	102.3	107.3	111.9	111.9	128.2	153.0	169.6	
Canada	71.2	75.4	81.3	87.3	93.9	100.0	105.6	109.3	114.2	119.2	126.5	140.6	151.8	
<u>Electrician(2)</u>														
Nova Scotia	78.3	81.7	85.2	88.3	92.6	100.0	102.2	104.3	108.7	114.4	119.1	126.7	142.2	
New Brunswick	79.0	82.0	86.0	89.5	96.0	100.0	100.0	106.5	110.0	122.0	129.8	143.4	153.3	
Quebec	80.0	80.0	83.2	90.0	95.2	100.0	106.0	108.8	112.0	117.4	122.1	151.4	159.0	
Ontario	71.6	75.6	79.5	85.7	93.5	100.0	102.5	105.3	108.1	112.2	116.7	127.0	137.8	
Manitoba	73.6	80.4	85.0	91.1	96.8	100.0	101.4	103.5	106.1	111.0	115.9	128.0	139.4	
Saskatchewan	88.0	89.3	92.7	96.6	98.7	100.0	106.8	111.1	114.5	117.7	122.2	133.6	141.7	
Alberta	77.4	82.2	86.3	91.1	94.5	100.0	102.4	104.1	108.2	112.9	122.9	130.8	141.6	
British Columbia	74.2	78.2	87.7	95.4	98.2	100.0	101.8	107.4	112.3	119.6	126.9	136.6	146.9	
Canada	76.0	78.8	83.1	89.3	95.1	100.0	103.6	106.8	110.0	115.1	120.3	136.6	146.4	

(1) For the period 1956 to 1964, wage rate indexes were derived for eight major cities from data supplied by the Labour Standards Branch of the Department of Labour. In January 1965, union wage rate data for the basic wage rates reported by major utilities and some contractors were incorporated in the index. The sample selected provides an estimate of wage rate change for each province - and represents urban own-account and contract electric utility construction. Wage rate data for Newfoundland have been collected and are available on request.

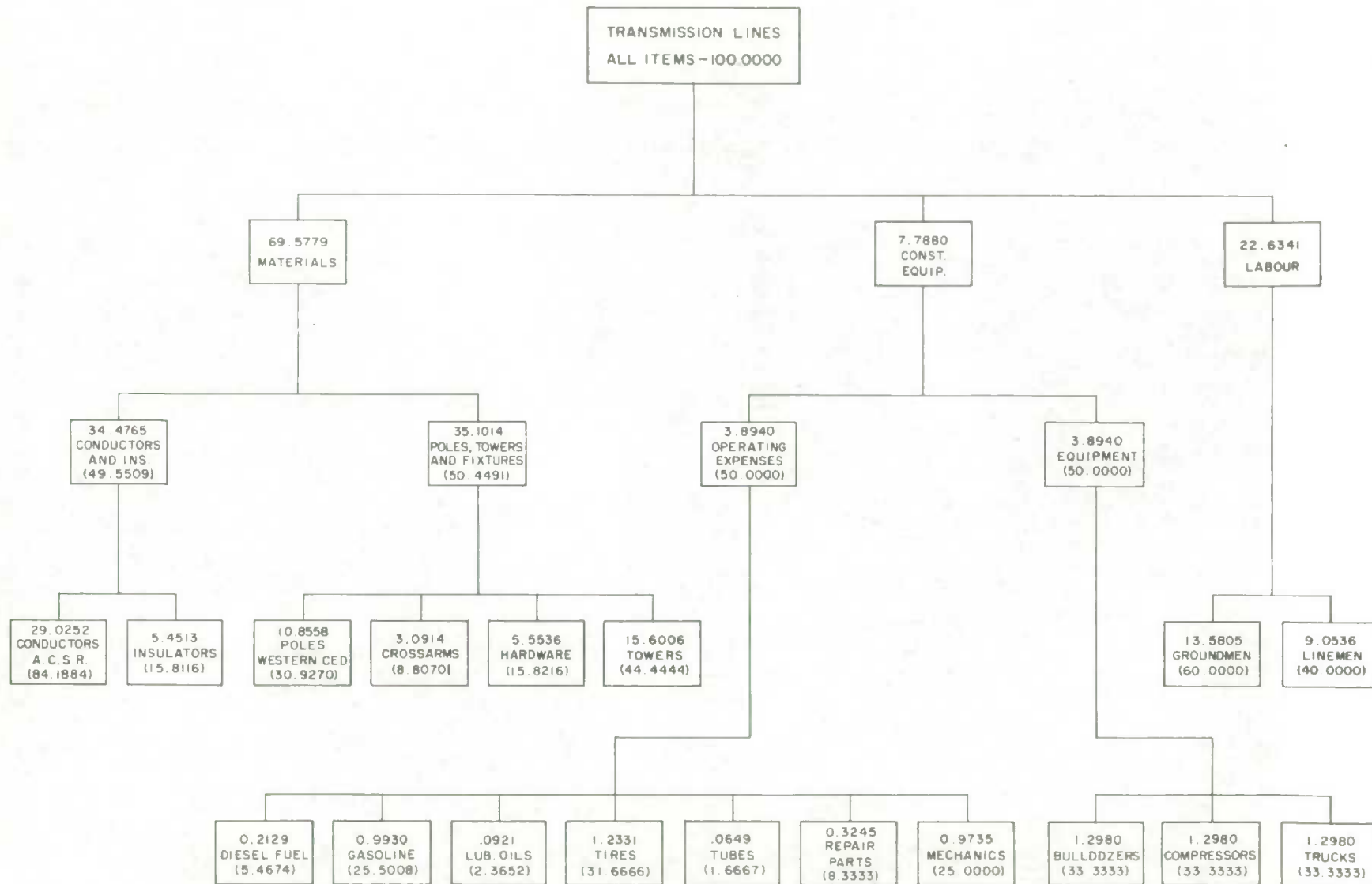
(2) Expenditures for Newfoundland during the base-weight period were small and for this reason wage rates for Newfoundland are not included in the published indexes. Rates have been collected from Newfoundland utilities since 1964 and indexes are available upon request.

WEIGHTING DIAGRAM



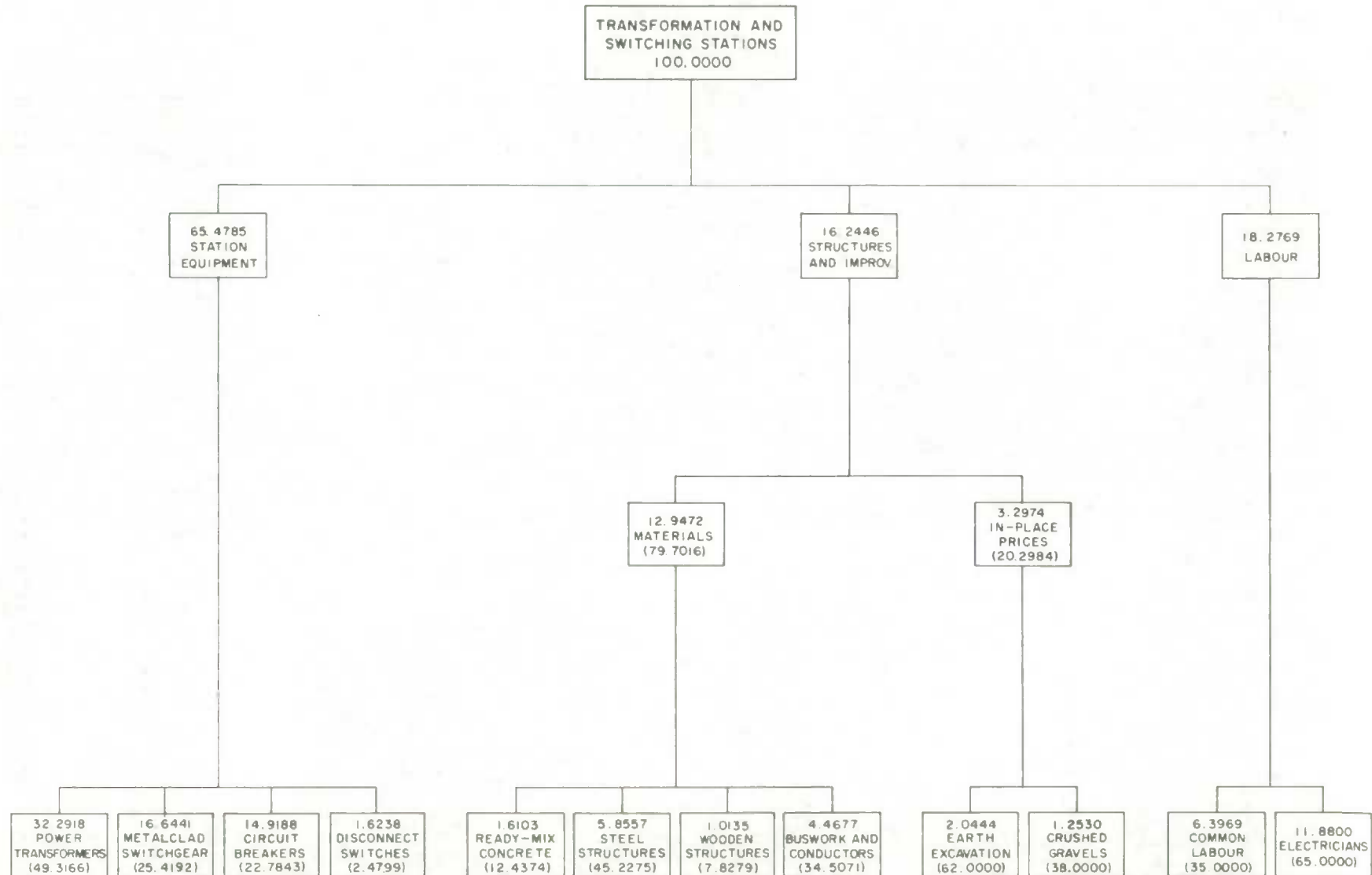
NOTE: WEIGHTS TO FOUR DECIMALS ARE PROVIDED TO ASSIST IN INDEX CALCULATIONS BUT THEY SHOULD NOT BE REGARDED AS SIGNIFICANT BEYOND ONE DECIMAL PLACE

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