CENSUS OF ELECTRICAL INDUSTRIES
1932;
CENTRAL ELECTRIC LIGHT
AND POWER STATIONS,

Bureau of the Census
Library
UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1934
FOREWORD

The following report on the Census of Central Electric Light and Power Stations for 1932 is one of the series of the Census of Electrical Industries, which also includes reports on Electric Railways, Telephones, and Telegraphs.

The Census of Electrical Industries has been taken quinquennially, beginning with the inquiry for the year 1902, under provisions of acts of Congress approved March 6, 1902, and June 7, 1906.

The collection of the data, the compilation of the statistics, and the preparation of the text of this report were under the supervision of Z. R. Pettet, chief statistician in charge of electrical industries, and S. S. Slick, assistant chief statistician, assisted by Katrina C. Morse, and William W. Sawyer, consulting expert.

II
CONTENTS

THE ELECTRICAL INDUSTRIES

INTRODUCTION AND GENERAL EXPLANATIONS

Page
Scope of the census.................................. 1
Capitalization........................................ 1
Light and power departments operated by electric railways.......... 1
Operating and lessor electric-railway companies...................... 1

GENERAL SUMMARY

Development since 1902................................ 1
Decreased in numbers of companies, establishment, systems......... 2
Rate of increase in numbers of employees and in salaries and wages.. 2
Rate of increase in value of plant and equipment and in revenue... 2
Rates of increase in income and expenses........................ 2
Rate of increase in other industries................................ 2
Comparison of prime movers in light and power plants and in electric-railway plants.. 2
Comparison of generator capacity and generated output in electric light and power plants and in electric-railway plants... 3

TABLES

1. Summary, by industries: 1922 to 1932.......................... 4
2. Prime movers—number and horsepower, by type, for central electric light and power establishments and for electric railways: 1912 to 1932........ 8
3. Generators, kilowatt capacity, and current generated, kilowatt-hours, electric light and power establishments and electric railways, by geographic divisions: 1932, 1927, and 1922... 9

CENTRAL ELECTRIC LIGHT AND POWER STATIONS

GENERAL EXPLANATIONS

Definition of establishment................................ 10
Character of establishments canvassed............................. 10
Classification of establishments................................ 10
(1) Commercial and municipal.................................. 10
(2) Purely electric and composite............................... 10
(3) Generating and purchasing.................................. 10
(4) Hydroelectric and other..................................... 10
State statistics............................................. 11
Area and period covered....................................... 11
Earlier censuses............................................. 11
Light, heat, and power........................................ 11
Free service.................................................. 11

Chapter I.—THE INDUSTRY AS A WHOLE

Summarization of the industry.................................. 12
Establishments classified as purely electric and composite......... 12
Commercial establishments classified according to character of ownership.. 12
Prime movers................................................. 12
Prime movers directly connected................................ 12
Fuel consumption per kilowatt-hour................................ 12
Current generated and current obtained from other sources outside the industry.. 13
Transmission systems........................................ 13
Consumption of fuel, by kind, with coal equivalent, all establishments: 1932 13
Generators—Number, kilowatt capacity, average capacity, with percent distribution, by type of prime mover, all establishments: 1932............... 14
Output—Current generated by electric light and power establishments, by type of prime mover, and current consumed by the industry, all establishments: 1932..... 14
Sales to ultimate consumers—Number of customers, current sold, and revenue from electric service, by class of service, all establishments: 1932........ 14
Sales for resale—Number of customers, current sold, and revenue from electric service, by class of service, all establishments: 1932........ 14
The balance sheet......................................... 14
Consolidated income, operating-revenue, and expense statement...... 14
Energy crossing State lines................................... 14

TABLES

4. Summary for electric light and power stations, all establishments: 1932, 1927, and 1922........ 15
5. Summary, by purely electric and composite establishments, commercial and municipal: 1932, 1927, and 1922.......................... 15
6. Summary, by character of ownership, commercial and municipal establishments: 1932, 1927, and 1922.......................... 15
7. Prime movers—Number and horsepower, by type and by horsepower groups, all establishments: 1932 and 1927........ 18
8. Consumption of fuel, by kind, with coal equivalent, all establishments: 1932........ 18
9. Generators—Number, kilowatt capacity, average capacity, with percent distribution, by type of prime mover, all establishments: 1932........ 20
10. Output—Current generated by electric light and power establishments, by type of prime mover, and current consumed by the industry, all establishments: 1932..... 20
11. Sales to ultimate consumers—Number of customers, current sold, and revenue from electric service, by class of service, all establishments: 1932........ 20
12. Sales for resale—Number of customers, current sold, and revenue from electric service, by class of service, all establishments: 1932........ 20
13. Total output; current sold to ultimate consumers and for resale; balance not sold, according to disposal; percent distribution; all establishments: 1932........ 20
14. Consolidated balance sheet for all establishments reporting for the census of electric light and power stations, including assets and liabilities of allied nonelectric industries, December 31, 1932........ 20
15. Consolidated income, operating-revenue, and expense statement, all establishments: 1932........ 20
16. Current generated and energy received from other sources, all establishments, 1932........ 20
17. Transmission systems—Miles of circuits, by individual voltage, commercial establishments: 1932.. 20
Chapter II.—THE GEOGRAPHICAL DISTRIBUTION OF THE INDUSTRY

Prime movers.......................................................... 26
Regional increase...................................................... 26
Consumption of fuel.................................................... 26
Relative hydro and other output................................. 27
Voltage of transmission lines........................................ 27
Sales to ultimate consumers........................................ 27

TABLES
18. Prime movers—Number and horsepower, by type, and horsepower per capita, all establishments, by divisions and States: 1932.................................................. 28
19. Generators—Capacity, output, and number of consumers, with percent of increase, all establishments, by divisions and States: 1932 and 1927.......................... 30
20. Generators—Number and kilowatt capacity by type of prime mover, all establishments, by divisions and States: 1932.................................................. 32
21. Number of establishments by character of ownership, reporting for the first time: 1932.................................................. 32
22. Consumption of fuel, by kind, all establishments, by divisions and States: 1932.................................................. 35
23. Current generated, by type of prime mover, all establishments, by divisions and States: 1932.................................................. 36
24. Sales to ultimate consumers—Number of customers, current sold, and revenue from electric service, by class of service, all establishments, by divisions and States: 1932.................................................. 37
25. Transmission systems—Establishments reporting, miles of circuit, by individual voltage, commercial establishments, by geographic divisions: 1932.......................... 43

Chapter III.—FUEL-BURNING AND HYDROELECTRIC GENERATING STATIONS
Comparison with census for 1927...................................... 44
Combination of hydroelectric and fuel-burning plants.............. 44
Comparison with earlier census years.................................. 44
Comparison by regions................................................ 44

TABLES
26. Generator capacity of fuel-burning and of hydroelectric equipment, all establishments: 1917 to 1932.................................................. 45
27. Generator capacity of fuel-burning and of hydroelectric equipment, all establishments, by divisions and States: 1932.................................................. 46
28. Current generated by fuel-burning and by hydroelectric equipment, all establishments, by divisions and States: 1932.................................................. 47
29. Summary, all establishments and hydroelectric establishments: 1932.................................................. 48

Chapter IV.—COMMERCIAL AND MUNICIPAL ESTABLISHMENTS

TABLES
30. Number of establishments and horsepower of prime movers, commercial and municipal establishments: 1902 to 1932.................................................. 49
31. Number of establishments generating and distributing only, commercial and municipal establishments, by divisions and States: 1932.................................................. 50
32. Number of establishments reporting generating equipment, and horsepower of prime movers, commercial and municipal establishments, by divisions and States: 1932.................................................. 51
33. Generators—Number and kilowatt capacity by type of prime mover, commercial establishments, by divisions and States: 1932.................................................. 52
34. Generators—Number and kilowatt capacity by type of prime mover, municipal establishments, by divisions and States: 1932.................................................. 54
35. Consumption of fuel, by kind, with coal equivalent, commercial and municipal establishments: 1932.................................................. 56
36. Current generated, commercial and municipal establishments, 1902 to 1932; with type of prime mover: 1932 and 1927.................................................. 56
37. Current generated, commercial and municipal establishments, by divisions and States: 1932.................................................. 57
38. Current generated, by type of prime mover, commercial establishments, by divisions and States: 1932.................................................. 58
39. Current generated, by type of prime mover, municipal establishments, by divisions and States: 1932.................................................. 58
40. Number of customers, current sold, and revenue from electric service, ultimate consumers only, by class of service, commercial establishments, by geographic divisions: 1932.................................................. 60
41. Number of customers, current sold, and revenue from electric service, ultimate consumers only, by class of service, municipal establishments, by geographic divisions: 1932.................................................. 61
42. Number of customers, current sold, and revenue from electric service, ultimate consumers only, with averages per customer and per kilowatt-hour, by class of service, commercial and municipal establishments: 1932.................................................. 62
43. Total sales—Number of customers, current sold, and revenue from electric service, commercial and municipal establishments, by divisions and States: 1932.................................................. 63
44. Domestic service and commercial service—Small light and power (retail), commercial and municipal establishments, by divisions and States: 1932.................................................. 64
45. Domestic service and commercial service—Small light and power (retail), commercial and municipal establishments, by geographic divisions: 1932.................................................. 66
46. Current generated and energy received from other sources, all establishments, commercial and municipal establishments, by divisions and States: 1932.................................................. 70
47. Total sales—Number of customers, current sold, and revenue from electric service, commercial and municipal establishments: 1917 to 1932.................................................. 70
48. Consolidated income, operating-revenue, and expense statement, for commercial establishments: 1932.................................................. 71
49. Consolidated income, operating-revenue, and expense statement, for municipal establishments: 1932.................................................. 71
50. Consolidated balance sheet for commercial establishments reporting for the census, and power stations, including assets and liabilities of allied nonelectric industries: Dec. 31, 1932.................................................. 72
51. Consolidated balance sheet for municipal establishments reporting for the census of electric light and power stations, including assets and liabilities of allied nonelectric industries: Dec. 31, 1932.................................................. 72
Appendix................................................................. 73