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## Business Monitor

A publication of the Government Statistical Service

## Report on the Census of Production

## Electricity



Department of Trade and Industry
Business Statistics Office

A pubtication of the Government Statistical Service

## Special Note for Purchasers

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Classification (Revised 1968).
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## Report on the Census of Production 1971

## Electricity

Presented by the Department of Trade and Industry to Parliament in pursuance of the Statistics of Trade Act 1947 ( 10 \& 11 Geo. 6 Cha. 39 sec 7 )

| PA1001 | Introductory Notes |
| :---: | :---: |
| 10101 | Coal mining |
| PA102 | Stone and slate quarrying and minin |
| $\begin{aligned} & \text { PA103 } \\ & \text { PA104 } \end{aligned}$ | Chalk, clay, sand and gravel |
| PA109.1 | Metalliferous mining and quarryi |
| PA109.3 | Salt and miscellaneous non-metalliferous mining a |
| PA211 | Grain milling |
| PA212 | Bread and flour confectionery |
| PA213 | Biscuits |
| PA214 | Bacon curing, meat and fish products |
| PA215 | Milk and milk products |
| PA216 | Sugar |
| ${ }_{\text {PA }}$ | Cocoa, chocolate and sugar confectionery |
| PA218 | Fruit and vegeta |
| PA2219 | Animal and poultry foods |
| ${ }_{\text {PA }}$ PA229. 1 | Margarine |
| PA229.2 | Starch and miscellaneous foods |
| PA231 | Brewing and malting |
| PA232 | Soft drinks |
| PA239.1 | Spirit distilling and compounding |
| PA239 | es, cider and perry |
| PA240 | Tobacco |
| PA261 | Coke ovens and manufactured fuel |
| PA262 | Mineral oil refining |
| PA263 | Lubricating oils and greases |
| PA27 | General chemicals (inorganic) |
| PA271.2 | General chemicals (organic) |
| PA2 | Miscellaneous generar chemical |
| PA212 | Pharmaceutical chemicals and prepara |
| PA223 | Toilet preparations |
| PA214 | Paint |
| ${ }_{P}^{\text {PA } 4275}$ | Soap and detergents |
| PA276 | Synthetic resins and plastics materials and |
|  | Symilumber |
| PA278 |  |
| PA279. 1 | Polishes |
| PA279.2 | Formulated adhesives, gelatine |
| PA279 | Explosives, fireworks and ma |
| PA279.4 | Formulated pesticides and disinfectants |
| PA279.5 | Printing ink |
| PA279. | Surgical bandages etc |
| PA279. | Photographic enemical materials |
| PA311 | Iron and steel (general) |
| PA312 | Steel tubes |
| PA313 | Iron castings |
| PA321 | Aluminium and aluminium alloys |
| PA322 | Copper, brass and other copper alloys |
|  | Other base non-ferrous metals |
| PA331 | Agricultural machinery (other th |
| PA332 | Metal-working machine tools |
| PA333 | Pumps, valves and compressors |
| PA335 | Textile machinery and |
| PA336 | Construction and earth mov |
| PA337 | Mechanical handling equipment |
| PA338 | Office machinery |
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| PA339.2 | Printing and bookbinding machinery |
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|  | Space heating, ventilating and air-conditioning equipment |
|  | Food and drink processing machinery |
| PA339.9 | Miscellaneous (non-electrical) ma |
| PA341 | Industrial (including process) plant and steelwork |
|  | Ordnance and small arms |
|  | Bail and roiler bearings |
|  | Precision chains and other mechanical engineerin |
| PA352 | Watches and clocks |
| PA353 | Surgical instruments and applianc |
| PA354 | Scientific and industrial instruments and systems |
| PA361 | Electrical machinery |
| PA362 | Insulated wires and cables |
| PA363 | Telegraph and telephone apparatus and equipme |
| PA364 | Radio and electronic components |
| PA365 | Broadcast receiving and sound reproducing equipment |
| PA366 | Electronic computers |
| PA367 | Radio, radar and electronic capital goods |

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A368 Electrical appliances primarily for domestic use
M
Shipbuidding and marine engin
Motor venicle manuracturing 
Manufacturing and repairing aerospace equipment
L
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Hand tols and implements
Bolts, nuts, screws, rivets etc.
Wire and wire manufact
Cans and metal boxes
    Metal furniture
    Metal hollow-ware 
    Production of man-made fibres
    Spinning and doubling on the cotton and flax system
    Weaving of cotton, linen and man-made fibres
    Woollen and worsted
    Mope, twine and net 
    l
Carpets 
Made-up household textiles
Canas goods and
I
Leather (tanning and dressing) and fellmongery
Fur Weatherproof outerwear
Men's and boys'tailored outerwear
Women's and girls' tailored outerwear
l
Hats, caps and mililinery dress industrie
    Footwear
Refractory goods 
Mlass
PA469.1 Abrasives 
T
Furniture and upholstery
Bedding and soff furnish
Wooden containers and baskets
Miscellaneous wood and cork manufactures
PA482.1 Cardboard boxes, cartons and fibre-board packing
PA482.2 cases
PA484, Malla
PA484.1 Wallcovering
Printing and publishing of newspapers and periodic
    General printing, publishing etc.
Linoleum, plastics floor covering, leathercloth etc.
Brushes and brooms corn',
    Miscellaneous stationers' goods
    Plastics products
    Musical instruments 
    Gas
lal
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Pa602 ELECTRICITY
The information in this report relates to undertakings classified to the Electricity industry, minimum list eading 602 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

The production and distribution of electricity for public supply. Construction work carried out by
employees of electricity undertakings is included. Establishments producing electricity for railway
and trolley-bus operation are also included, as are 'district heat ing' and electricity showrooms.
Establishments lother than those of railway and trolley-bus undertakings) produc ing electricity
primarily for their oun use are excluded, and are included in the industries covering the major output
primarily for their
of the parent works.
In this report separate particulars are given for the Electricity Boards and other undertakings which consisted of the generating stations of transport undertakings in Great Britain and electricity undertakings in Northern Ireland

The tables have been compiled from returns made to the Department of Trade and Industry.
The figures for 1970

In interpreting the data in the tables it is essential to bear
in mind the notes and definitions which commence on page (iii).

1 Input and output, 1970 and 1971 - Undertakings classified to the industry
2 Capital expenditure and stocks, 1970 and 1971 - Undertakings classified to the industry
3 Analysis of undertakings by size, 1971 - Undertakings classified to the industry
4 Percentage analysis of employees by full and part time employment and sex, 1971 Undertakings classified to the industry
5 Regional distribution of employment, net capital expenditure and net output by Country, 1971 - Undertakings classified to the industry
6 Work of new construction and repair and maintenance carried out by employers of to the industry

Input and output, 1970 and 1971
All United Kingdom undertakings classified to the industr

(a) Including generating stations of transport undertakings in Great Britain and electricity undertakings in Northern Ireland
(b) Including sales of electricity, by-products and waste products, charges for work done, meter rent received and work of new construction
(c) Amounts charged for hiring out plant, machinery or for any technical or other services rendered
(d) Payments for transport inwards are included in the cost of purchased materials and fuel used and excluded from payments for transport to other organisations
(e) Average number of persons employed during the year
(f) Administrative, technical and clerical employees.

Capital expenditure and stocks, 1970 and 1971
is of under by size, 1971 - Undertakings classified to the industry


|  | Unit | Electricity Boards |  | Other undertakings |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1970 | 1971 | 1970 | 1971 | 1970 | 1971 |
| Capital expenditure (a) | $£^{\prime} 000$ |  |  |  |  |  |  |
| New building work | " | 70,696 | 74,639 | 2,389 | 1,940 | 73,085 | 76,579 |
| Land and existing buildings |  |  |  |  |  |  |  |
| Acquisitions | " | 2,651 | 5,270 | 44 | 59 | 2,695 | 5,329 |
| Disposals | " | 2,884 | 3,204 | 60 | 50 | 2,944 | 3,254 |
| Plant and machinery |  |  |  |  |  |  |  |
| Acquisitions (b) | " | 375,980 | 365,339 | 16,316 | 19,838 | 392,296 | 385,177 |
| Disposals | " | 3,710 | 3,268 | 371 | 135 | 4,081 | 3,403 |
| Vehicles |  |  |  |  |  |  |  |
| Acquisitions | 11 | 6,216 | 6,974 | 287 | 306 | 6,503 | 7,280 |
| Disposals | " | 648 | 1,060 | 30 | 66 | 678 | 1,126 |
| Appl iances for hire (c) |  |  |  |  |  |  |  |
| Acquisitions | 11 | 618 | 665 | 205 | 211 | 823 | 876 |
| Disposals (d) | 11 | 53 | 75 | 1 | - | 54 | 75 |
| Vessels |  |  |  |  |  |  |  |
| Acquisitions | 11 | - | - | - | - | - | - |
| Disposals | 11 | 38 | 22 | - | - | 38 | 22 |
| Nuclear fuel |  |  |  |  |  |  |  |
| Acquisitions | " | 19,714 | 21,044 | - | - | 19,714 | 21,044 |
| Disposals | " | 505 | 21 | - | - | 505 | 21 |
| Total net capital expenditure (e) | " | 468,037 | 466,281 | 18,779 | 22,103 | 486,816 | 488,384 |
| Stocks and work in progress at end of year (f) |  |  |  |  |  |  |  |
| Materials, stores and fuel | 11 | 140,396 | 159,549 | 4,027 | 4,149 | 144,423 | 163,698 |
| Work in progress | " | 6,976 | 7,462 | 545 | 728 | 7,521 | 8,190 |
| Goods on hand for sale | " | 20,162 | 20,199 | 292 | 309 | 20,454 | 20,508 |
| Total stocks | " | 167.534 | 187,210 | 4,864 | 5,186 | 172,398 | 192,396 |

(a) Capital expenditure in respect of units where production had not commenced before the end of the year, is included.
(b) Including meters, mains and services, and railway sidings owned by electricity undertakings.
(c) Issued during year
(d) Proceeds from disposals of appliances formerly on hire which were sold or scrapped during the year
(e) Acquisitions less disposals
(f) The stock changes in table 1, based on opening and closing values returned by firms, may be differen from those obtained from end-year values The differences are attributable to variation in val uation by firms between the years and to differences in respondents, and in total employment.

Percentage analysis of employees, by full and part time employment and sex, 1971 (a)
All United Kingdom undertakings classified to the industry

| Sex | Full time | Part time | All employees |
| :---: | :---: | :---: | :---: |
| Male | per cent | per cent | per cent |
|  | 84 | - | 84 |
|  | 13 | 3 | 16 |
|  | 97 | 3 | 100 |

Source : Department of Employment
(a) The percentages relate to the numbers employed (excluding working proprietors) at mid-June, 1971.

Regional distribution of employment, net capital expenditure and net output, by country, 1971
All United Kingdom undertakings classified to the industry

| Country | Average number <br> employed |  | Net capital <br> expenditure (a) |  | Net output |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

(a) New building work plus acquisitions less disposals of land and existing buildings, plant and machinery New vehicles: including capital expenditure at units not yet in production.
table 6
Hork of new construction and repair and maintenance carried out by employees of electricity undertakings, 1970 and 1971 (a)

|  | Electricity Boards |  | 0 ther undertakings |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1970 | 1971 | 1970 | 1971 | 1970 | 1971 |
| New construction | £'000 | £ 000 | $£^{\prime} 000$ | $£^{\prime} 000$ | £'000 | £'000 |
| On depots, workshops, offices and other buildings | 5,138 | 5,210 |  |  |  |  |
| On plant and machinery | 29,046 | 29,396 |  |  |  |  |
| On mains and services | 62,708 | 65,051 | 5,957 | 5,050 | 103,812 | 105,513 |
| Work charged to other divisions and Area Boards | 963 | 806 |  |  |  |  |
| Repair and maintenance |  |  |  |  |  |  |
| On depots, workshops, offices and other buildings | 11,023 | 12,225 |  |  |  |  |
| On plant and machinery | 68,814 | 80,099 |  |  |  |  |
| On mains and services | 17,509 | 17,899 | 3,687 | 4,194 | 104,957 | 118,501 |
| Work charged to other divisions and Area Boards | 3,924 | 4,084 |  |  |  |  |
| Total work of new construction and repair and maintenance | 199,125 | 214,770 | 9,644 | 9,244 | 208,769 | 224,014 |
| Less work of repair and maintenance | 101,270 | 114,307 | 3,687 | 4,194 | 104,957 | 118,501 |
| Total new construction | 97,855 | 100,463 | 5,957 | 5,050 | 103,812 | 105,513 |

(a) The amount shown for work of new construction represents the sum chargeable to capital account. Repairs and maintenance are valued at the cost of labour and materials. Work done for other Divisions and Area
Boards is valued at the amount charged.

These notes give the main information needed for inte preting the figures in the industry reports, (more detailed information about the census is given in a
parate booklet - "Introductory Notes", Part PA100 the Report on the Census of Production for 1971)
general information
Changes compared with 1970
The questions asked in the 1971 census were the same as those in the 1970 census with one main excepti
for 1971 establi ishments were asked to include in capital expendi ture, expenditure on units that were not in production in the year of return; for 1970 this
expenditure was collected in a separate inquiry. Thi expenditure was collected in a separate inquiry.
change of method of collection does not affect the change of method of collection does not affect the
results for 1970 and 1971 because capital expenditure
for units not yot in production is included in the for units not yet in production is included in the
Industrial classification
The Annual Censuses of Production are conducted on the Business Statistics Office's Production Register.
Normally establishments on the Register are classified to industries on the basis of major activity in conformity with the third edition of the Standard Industrial Classification (revised 1968). Normally
an establi ishment was classified to an industry if it an es of the principal products of that industry accounted for a greater proportion of its total sales
an in its sales of the principal products of any than in its sales of the principal products of any
other industry; classification is generally based on an establishment's returns to the quarterly production inquiry. Where this was not possible - for example introduced - the classification of an establishment reflects its return to the Census of Production, 1968. Estaber from the quarterly inquiries on the 1968 Census
either either from the quarterly inquir
were classified on the basis of the description of the business given by the establishments to the Business
Statistics office, for instance, in the course of egistratio

Detailed census returns were generally sought only from establishments employing on average 25 or more persons, in in some industries where firms employing less th 25 persons account for a relatively high proportion
of total employment and output the exemption 1 imit was 1 lowered to 11 . Census returns. were also sent to establishments whose employment was not known to the
Business Statistics office at the $t i m e$ of despatch.
TERMS USED IN THE CENSUS REPORT
Average number employed
Undertakings were required to state the number of perUndertakings were required to state the number of per
sons on the payroll (i.e. whose national insurance
cards were held by them) on the average during the ye cards were held by them) on the average during the year
of return, whether full time or part time employees. of return, whether full time or part time employees.
Separate figures were required for (a) administrativ Separate figures were required for and administrat
technical and clerical employees and (b) all other employees (operatives). Averages could be calculated rom figures relating to the last week of each calendar onth
he figures include persons engaged on merchanting or factoring and canteen workers where particulars in respect of these activities could not be excluded from the turn.
Employees
Administrative, technical and clerical employees helude managing and other directors in receipt of a tendents and warary or commission, managers, super levelopment, technical and design employees (other than operatives); draughtsmen and tracers; editorial employees
Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They works, operatives employed in power houses, transport
work (including roundsmen), stores, warehouses shop and canteens; inspectors, viewers and similar workers, maintenance workers, and cleaners. Operators engaged n outside work of erecting fitting, etc. are also included
Capital expenditure
Capital expend iture during the year in respect of before the end of the year is included in the figures for both 1970 and 1971
a) New building

This represents the cost incurred during the year of new building and other constructional work (including nection with the business covered by the return, but not dwelling houses for employeess). The value is that
charged to capital account during the year of return; charged to capital account during the year of retur
it includes expenditure on new buildings or on the extension or reconstruction of old buildings, the valu of works of a capital nature carried out by the under-
taking's own staff and the cost of any newly constructed taking's own staff and the cost of any newly constructed
build ings purchased. Figures. shown include any legal charges, stamp duties, agents' commissions, et (b) Land and existing buildings
The items shown are the capital
purchased and the capital cost cost of freeholds leaseholds acquired (excluding the value of any asset acquired in taking over an existing business), and the acquired in taking over an existing business), and the
amounts receivable for any freeholds or leaseholds disposed of. The value is that charged to capital accoonh during the year of return.
(c) Plant, machinery and vehicles
The items shown are the value of plant and machinery The items shown are the value of plant and machinery
and of vehicles acquired, both new and second-hand, and the amount received for items disposed of during year. The value of plant and machinery acquired
includes plant, etc., which firms produced for the includes plant, etc., which firms produced for the ir
own use in connection with the business covered by the return. The value of plant, etc., acquired is the expenditure charged to capital account during the yea of return less any discounts received, but including
the cost of transport and installation. No deduction the cost of transport and amortization or obsolescence The proceeds of items disposed of dur ing the yea

Gross output
Gross output measures the total value of production (including work done) by und
Plus/Less: Value of sales and work done
Plu/a
Plus/Less: $\begin{aligned} & \text { goods oas hand forease in value of work in }\end{aligned}$ progress
Gross output
Net output
Net output represents the value added $t \sigma$ materials by Net output represents the value added to materials the process of production (including the margin on
selling any merchanted or factored goods). It is calculated as follows
Less: Purchases adjusted for change in value of stacks of fuel and raw materials
Less: Payments for work given to other establishments
Less: Payments for transport
Net output.
Net output per person employed
The figures of net output per person employed are derived by dividing the net output by the average number of persons employed (full time and part time) on all activities covered by the returns, including operatives
employees.
Purchases
Purchases bought for use in production; of fuel and electricity bought for use in production, of fuel and electricity
cost of returnable cases and containers when first pur chased; of workshop materials, off ice materials and materials for repairs to undertaking's own buildings,
plants and vehicles when carried out by the ir own work people included in the returns; of consumable tools; pand of parts for machinery purchased dur ing the year
as replacements. Water charges are also included. as replacements. Water charges are also ncluded. In
general, purchases of goods for merchanting or factoring general, purchases of goods for merchant ing or factoring
and canteen supplies are included. Materials suppliied by customers for processing are excluded, as are all purchases charged to capital account
The values shown include any duty paid
etc.) but exclude trade discounts allowed. The cost of
transport is included only if included in the cost of transport is included only if int included in the cost of
materials as invoiced; amounts paid to transport of materials as invoiced; amounts paid to transport organ-
isations, including an undertaking's own separate tranisations, including an undertaking's own separate tran-
sport organisations for del ivery of mater ials and fuel are, therefore, excluded. Maserials purchased overseas are included at the c.i.f. cost plus any duty payable
if the cost of transport from the docks was not included in the invoiced price, but at their full del ivery cost if invoiced "carriage paid home". Materials and fuel transferred from another department of the undertaking selling value recorded by the other department.
Sales
Sales are in respect of goods made by the business
Sales are in respect of goods made by the business
covered by the return, or by other undertakings from materials given out to them (somet imes described as goods made on commission) and waste products. Any machinery or other capital items produced for use in
the business covered by the return are included, the the business covered by the return are included, the accounts. Goos
manufacturing process (i.e. merchanted or factored) and canteen takings are included.
The value shown for sales is the net selling value, defined as the amount charged to customers whether an ex-works or delivered basis excluding any trade discounts, agents' commissions, allowances for returnfor packaging materials is included. Goods charged on for packaging materials is included. Goods charged on
a del ivered basis to customers overseas are included at the f.o.b. value.
Goods produced in one establ ishment and transferred ta
another establ ishment of the same firm not another establishment of the same firm not covered by he return were treated as sales by the producing estab-
lisment and valued as far as possible as if they had been sold to an independent purchaser. Goods transferre to wholesale or retail sell ing organisations for which separat
basis.
To the extent that sales of finished products of one undertaking constitute the materials purchased by materials and fuel purchased) include an element of duplication. In some industries, e.g. motor vehicle manufacturing, and woollen and worsted, this duplicfor a number of industries contain significantly reater amounts of duplication. For work done commission, sub-contract work, etc., the value shown is the total amount charged for the work, including
the value of any materials bought and used in such work.
Services rendered
This represents the amounts charged for hiring out plant
This represents the amounts charged for hiring out plant
machinery and other goods, providing transport, or for
any technical or other services rendered to other rganisations.
tandard Industrial Classification
Industry classification is based on the Standard ndustrial Classification (revised 1968). It is form of al alphabetical lis industries.
Stocks and work in progress
Values are given of stocks of goods on hand for sale, and of materials and fuel, at the end of the year of return, including any stocks of goods held for merchan ing or factoring. Values of the change during the $y$ are also shown.
change dur ing, the year are also usually shown the excludes any progress payments made to sub-contracto and no deduction is made on account of progress pay ments received.

Transport payments
These represent the total amount paid or credited duri the year for both outwards transport of finished goods sold and inwards transport of materials and fuel pur-
chased. They include payment to other undertakings to any separate transport organisat ion of the same undertaking not covered by the return, but exclude th value of transport services provided by the business
covered by the return. The items included are paymen for hired cartage and for inwards and outwards carriage by all forms of inland transport, i.e. railways, road made for sea and air freight on goods sold to custome overseas and on materials and fuel purchased from ov seas suppliers are excluded.

## Wages and salaries

These are amounts paid during the year to operatives and administrative, technical and clerical employe The values shown include all overtime payments, bonuse and commissions, whether paid regularly or not, and no
deduction is made for income tax, insurances, utory pensions, etc. The value of any payments in travelling expenses, lodging allowance payments employers' contributions to national insurances and pension schemes is excluded.
Work given out
The figures shown represent the total amount paid for work done by other undertakings on materials supplied other services.

SYMBOLS USED
The following symbols are used throughout the report
not available
nil or less than half the final digit shown.
R revised.
ROUNDING OF FIGURES
Figures is the tables have, where necessary, been round to the nearest final digit; where necessary, been rount slight discrepancy between the sum of the constituent items and the total shown.
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