

SUBJECT CLASSIFICATIONS FOR ENERGY

1 Heat Transfer and Heat Pumps

- 1.010 Heating/cooling Systems
- 1.020 Heat Pumps
- 1.030 Heat Convection
- 1.040 Thermal Energy Storage
- 1.060 Absorption and Adsorption Machines
- 1.070 Energy Conservation

2 Energy Conversion and Efficiency

- 2.010 Gas Cycles
- 2.020 Steam Cycles
- 2.030 Energy Recovery
- 2.040 Diesel Engines
- 2.050 Combined Cycles
- 2.060 Supercritical Steam Cycles
- 2.070 Combustion
- 2.080 Emission Control
- 2.090 Energy Management

3 District Heating and Cooling and CAES

- 3.010 District Heating
- 3.020 District Cooling
- 3.030 Compressed Air Energy Storage
- 3.050 Heat Demands
- 3.060 Cooling Demands

4 Energy in Buildings

4.010 Energy Efficiency

4.020 Industrial Processes

4.030 Low-energy Buildings

4.040 Energy Savings in Buildings

4.050 Central Heating systems

4.060 Heat Losses in Buildings

5 Solar Thermal

5.020 Solar Modeling

5.030 Solar Radiation

5.040 Solar boilers

5.050 Solar Absorption

5.060 Solar Air Heating

5.070 Solar Collectors and Concentrators

5.080 Solar Ponds

6 Geothermal and Organic Rankine Cycle

6.010 Ground Thermal Applications

6.020 Resource Potentials

6.030 Organic Rankine Cycle

7 Thermodynamics

7.010 Thermodynamic Analysis

7.020 Exergy Analysis

7.030 Entropy Analysis

7.040 Second Law Analysis

7.050 Energy Analysis

7.060 Irreversible Thermodynamics

7.070 Nonequilibrium Thermodynamics

8 Fossil Fuels

8.010 Coal and Lignite

8.020 Natural Gas

8.030 Oil and Oil Shale

8.040 Demand

8.050 Industry and Refineries

8.060 Mining

8.070 Supply

8.080 Pricing and Policy

8.090 OPEC

8.100 Coal Gasification

9 Biofuels and Biomass in Engines and Turbines

9.010 Palm Oil

9.020 Biodiesel

9.030 Biogas

9.050 Biofuel

9.060 Biomass

9.080 Charcoal

9.110 Biofuels in combustion engines

9.120 Biomass in gas and steam turbine cycles

10 Biomass and waste gasification and conversion to biofuels

10.010 Gasification

10.020 Combustion/Incineration

10.030 Pyrolysis

10.040 Waste

11 Energy inputs in crop/biofuel production

11.010 Life Cycle Assessment

11.020 Industry Input/output

11.030 Energy use in crops production

12 Hydrogen, Fuel Cells, Energy Carriers and Storage

12.010 Hydrogen

12.020 Fuel Cells

12.030 Electrolysers

12.040 Battery

12.050 Pumped Hydro

12.060 Flywheel

12.070 Superconducting Magnetic

12.080 Supercapacitors

13 Electricity Demand, Smart Grid and Smart Energy Systems

13.010 Electricity Markets

13.020 Flexible Demands

13.030 Load-dispatch

13.040 Price Elasticity Surveys

13.050 Demand Forecasting

13.060 Electricity Savings

14 Wind Power

14.010 Fluctuations in Wind Speed and Production

14.020 Wind Energy Potentials

14.030 Wind Turbine Designs

14.040 Wind Farms

14.050 Planning and Project Development

15 Renewable Energy

15.010 Photovoltaic

15.020 Wave Power

15.030 Tidal Power

15.040 Thermal Solar Power

15.050 Ocean Thermal Energy Conversion

15.060 Hydro Power

16 Energy and Transportation

16.010 Transportation and Energy

16.020 Scenarios and Forecasting

16.030 Emerging Technologies

16.040 Electric Vehicles

16.050 Automobiles and Gasoline

17 Integrated Heating, Cooling and Electricity Systems

17.010 Distributed Energy Systems

17.020 Hybrid Systems

17.030 Small-scale RES Systems

- 17.040 Storage/FC/RES designs
- 17.050 Combined Heat and Power CHP
- 17.060 Trigeneration/Multigeneration
- 17.070 CCHP (Combined Cooling and heating Systems)

18 National Energy Systems

- 18.010 Renewable Energy Systems
- 18.020 Energy Scenarios
- 18.030 Large-scale Wind Integration
- 18.040 Energy System Models
- 18.050 Electricity Distribution
- 18.060 Power Supply
- 18.070 Urban Energy Use

19 Energy and Environment

- 19.010 Environmental Management
- 19.040 Energy Use in Goods Production
- 19.060 CO₂-emissions
- 19.070 Environmental Impact Assessment
- 19.080 Emission Control

20 Energy Planning Tools

- 20.010 Geographical Information System
- 20.020 Energy System Analysis Models
- 20.030 Degree Days Tools
- 20.040 Energy Project Design Models
- 20.050 Mathematical Modeling

- 20.060 Demand Forecast Models
- 20.070 Multicriteria Decision Tools
- 20.080 Optimisation Models
- 20.090 Integrated Resource Planning
- 20.100 Demand Side Management

21 Energy Policy

- 21.010 Energy Policy Design
- 21.020 Public Regulation
- 21.030 Taxation Policy
- 21.040 Security of Energy Supply
- 21.050 Pricing of Energy
- 21.060 Energy and Jobs
- 21.070 Energy Efficiency Policies
- 21.080 Policy and Structural Policies
- 21.090 Energy Access
- 21.100 Energy and Climate Change

22 Energy and Economy

- 22.010 Environmental Economy
- 22.020 Resource Economy
- 22.030 Institutional Economy
- 22.040 Political Economy
- 22.050 Finance and Investments
- 22.060 Feasibility Studies
- 22.070 Cost-Benefit Analysis
- 22.080 Cost-Effectiveness Analysis

22.090 Energy and Economic Growth

23 Carbon Capture

23.010 Carbon Capture Storage

23.020 CO2 Capturing

24 Nuclear

24.010 Uranium

24.020 Nuclear Safety

24.030 Nuclear Power