

Keyword index

Symbols

4E..... 571

A

abatement..... 525, 715, 1539
action plan..... 425, 473
activity patterns..... 1739
actors..... 1133, 1365
additionality..... 1725
adoption..... 1031
advanced metering..... 1849
advertising..... 973
advice..... 385, 2079
agency..... 1031
agent based modeling..... 1919
agreements..... 619
air conditioning..... 1423, 1471, 1707,
1963
air pollutants..... 715
air to air heat pump..... 1807
allocation..... 109
alternative energy systems (AES) ... 479,
1849
alternative fuels..... 851, 911, 929, 1939
alternative vehicles..... 851
ancillary effects..... 1725
appliances..... 305, 315, 377, 571,
1521, 1707, 1733, 1781
architects..... 1133
architectural competition..... 1267
assessments..... 629, 1173, 1887
asset management..... 1061
asset rating..... 1061, 1335
audit..... 629, 663
Australia..... 1539, 1707
awareness..... 1815, 1983

B

barriers..... 595, 701, 1095, 1157,
1255, 2069
baseline..... 249, 1697
batteries..... 1005, 1439
behaviour..... 171, 1739, 2057, 2079,
2095, 2103

behavioural change..... 325, 473,
795, 807, 821, 827, 861, 1335, 1831, 1843,
1861, 1899, 1919, 1931, 1951
behavioural indicators..... 1843
benchmarking..... 385, 571, 1631
benefits..... 1631
best available technologies
(BATs)..... 1453, 1461
best practice..... 15
binding target..... 1637
bottom-up..... 331, 701, 1149
bottom-up analysis..... 413, 1119, 1241,
1697
bottom-up approach..... 1249, 1717
breaks and levers..... 1125
broader social context..... 1365
building codes..... 1233
building design..... 1309, 1569
building energy certification..... 595,
1355, 1569
building professionals..... 1203
building refurbishment..... 675, 1197,
1365
building regulations..... 479, 1043, 1149,
1197, 1621, 1769
building retrofitting..... 1149, 1185, 1213
building shell..... 1413
building simulation..... 1559
building stock..... 551, 1043, 1149
building technology..... 1447
buildings..... 137, 525, 595, 1073, 1303,
1315, 1321, 1343, 1431, 1631
built environment..... 479, 1149
Bulgaria..... 1329
burden sharing..... 1637
bus rapid transit..... 867
business case..... 171, 281, 685
business strategy..... 305

C

capacity building..... 393
car industry..... 873
car transportation..... 873
car-free living..... 963

carbon allowances..... 503
carbon dioxide..... 973
carbon emissions..... 425, 685, 901, 951,
1649
carbon footprint..... 1439, 1951
carbon revenue recycling..... 503
carbon-neutral housing..... 963
cars..... 59, 885, 911
case studies..... 1083, 1233, 1569, 1861
cement..... 701
change of behaviour..... 963, 1939, 2021
China..... 109, 331, 619, 1815
choice model..... 1867
cities..... 15, 243
climate adaptive..... 1413
climate policy..... 37, 503, 911
climate targets 2020..... 1149
co-benefits..... 821, 1213
CO₂ abatement..... 619, 891
CO₂ emissions..... 331, 657
CO₂ reduction..... 821, 861, 1241, 1951
CO₂ savings..... 447, 1149, 1401
coal..... 685
combined heat and power
(CHP)..... 1439, 1503
comfort norm..... 1963
commerce..... 839
commercial..... 473
commercial buildings..... 675, 1061,
1073, 1233, 1593
commercialization..... 325
community action..... 1931
community energy systems..... 479, 1241
competence..... 565
competitiveness..... 767
compliance..... 529
conservation..... 485
construction industry..... 675, 1133,
1185
consumer behaviour..... 525, 973, 1335,
1843, 1939, 1951, 1993, 2047
consumer preferences..... 1015
consumers..... 67, 205, 503, 517, 1815,
1849, 2001, 2079

consumption 1861
 consumption dynamics 97, 2037
 control 1531
 control and monitoring devices 119, 1431
 cooling 1423, 1431
 coordination 145
 corporate investment decisions 171
 cost benefit 353, 1173, 1685, 1707
 cost effectiveness 5, 79, 137, 249, 1005, 1685
 cost efficiency 1073
 cost recovery 447
 cost-effective measures 1593
 culture 1867
 customer advice 1585
 customer feedback 1983

D

data collection 1717
 data monitoring 1697
 database 1717
 daylight availability 1493
 decision making process 1083
 decision tree 1125
 decision-making process 15, 1031, 1233, 1267
 demand 1739
 demand analysis 479
 demand patterns 2037
 demand response 119, 1471, 1559
 demand-side conservation 343, 393, 1119, 1233
 demand-side management 79, 183, 413, 473, 485, 1585
 demolition 1173
 density 873
 deployment 2069
 design 1899
 design process 1073, 1267
 developing countries 221, 377, 551, 917
 diffusion 983
 direct display 2001
 dissemination 1843
 domestic appliances 1787
 domestic energy 1547, 2037
 domestic energy efficiency 243
 domestication 205
 domestication theory 995
 driving behaviour 839
 dryers 1461
 dwellings 1401
 dynamic pricing 517
 dynamic simulation 929

E

eco-buildings 1083
 eco-city 243
 econometric evaluation 473, 1621
 economic analysis 37
 economic assessment 861, 1005, 1073, 1119, 1279
 economic model 89, 243
 education 565, 1365
 EE resource standard 49
 EES Directive (ESD) 79
 effectiveness 1837
 efficiency 15, 243, 461, 557, 767, 1141, 1291, 1423, 1649, 1739
 efficiency gap 1249
 efficiency standards 243, 571, 1707
 efficiency trends 1707
 elasticity 1249
 electric motors 787
 electric vehicles 873, 885, 929, 995, 1015, 1939
 electricity 343, 485, 787, 2047
 electricity bill 503
 electricity conservation 525
 electricity consumption 413, 441, 1513, 1837, 1873
 electricity consumption
 benchmark 1983
 electricity market 205
 electricity savings 49, 413, 473
 electricity use 557, 1781, 1963, 2037
 electrification 1391
 electronic loads 1759
 emission reduction 479, 1343, 1843
 emission reduction policy analysis 911
 emissions 331
 emissions trading system 431
 employment 159, 1213
 empowerment 1861
 empty consensus 229
 EN 16001 759, 767
 end use 331
 end-use consumption 1781, 2037
 end-use efficiency 485, 525
 end-users 385
 energy analysis 807
 energy assessment 629, 759, 795
 energy audit 759, 787
 energy awareness 2079
 energy balance 1377
 energy behaviour 1831, 1867, 2037, 2047, 2085
 energy certification 1267
 energy conservation 1335
 energy consumers 1931
 energy consumption 441, 1849, 2021, 2079, 2109

energy cultures 2109
 energy demand 331, 441, 1241, 1391
 energy demand side 583
 energy efficiency action plans 325
 energy efficiency agreements 619, 745
 energy efficiency assessment 629, 735, 1521, 1605, 1733
 energy efficiency financing 455
 energy efficiency improvements 159, 675, 715, 917, 1043, 1303, 1391, 1963
 energy efficiency indicator 1637, 1795
 energy efficiency investments 171, 725, 1279
 energy efficiency policies 325
 energy efficiency policy 125, 249, 261, 331, 447, 503, 565, 583, 649, 657, 1233, 1751
 energy efficiency programmes 377, 491, 663, 745, 787, 1233, 1685
 energy efficiency research 1931
 energy efficiency services (EES) 281
 energy efficient products 221, 385, 441
 energy efficient technologies 37, 701, 861, 1073, 1119
 energy end-use efficiency 59, 281, 325, 901, 1309, 1343
 energy intensity 109
 energy label 529
 energy labelling 1303, 1661, 1815
 energy labelling consultants 1303
 energy management system 609, 745, 759, 767, 787
 energy monitoring 1759
 energy performance certificates 595, 759, 1107, 1163, 1225
 energy performance contracting (EPC) 1049, 1061, 1291
 Energy Performance of Buildings Directive (EPBD) 5, 67, 479, 525, 1225, 1233, 1355, 1621
 energy policy 15, 37, 97, 205, 891, 1675, 1779
 energy poverty 461
 energy practitioners 1931
 energy price 537
 energy saving methodology 675
 energy saving potential 447, 701
 energy saving potential 1173, 1453, 1531, 1539, 1807, 1843, 1423, 1849
 energy savings 401, 441, 807, 1157, 1309, 1315, 1355, 1413, 1513
 energy savings calculation 1697
 energy savings certificates 249, 447
 energy savings potential 393, 675, 1355
 energy services 649

- Energy Services Directive
(ESD/EEES Directive) 49, 281, 525,
1637, 1697, 1717
- energy supply and demand 479
- energy supply contracting 183
- energy systems 1909
- energy tax 787
- energy use 1975
- energy-intensive industry 701, 787
- energy-neutral 873
- energy-using products 1521
- envelope optimization 1233
- ESCO market development 325
- ESCOs 183, 649
- EU climate strategy 159, 1637
- EU Emission Trading Scheme
(EU ETS) 503
- EU policy 79, 229
- EU-27 1255
- evaluation 215, 353, 663, 1107,
1585, 1605, 1707, 1779, 1807, 1843, 2079
- evaluation methods 215, 1061
- everyday life 1849
- existing buildings 1203, 1255
- existing housing stock 1107
- existing residential buildings 1335
- experience feedback 491
- expertise 565
- F**
- facilitation 491
- factor 4 1125
- feedback 1185, 1667, 1837, 2001, 2085
- financial appraisal 5
- financial incentives 293, 473, 583,
1233
- financial indicators 1061
- financial mechanism 401
- financing 195
- find a tradesman 1315
- food and drink 735
- forecasting 1675
- framework 145, 273
- free riders 1725
- freight 901
- fuel cell 1503
- fuel consumption 873
- fuel intensity 851
- fuel poverty 461, 491, 537, 2057
- funding 503
- future outlook 331
- G**
- geothermal 479
- Germany 261, 1795
- glass 685
- good housekeeping 1513
- good practice 1321
- goods movement 839
- governance 145
- government initiatives 787
- green investments 195, 1061
- green jobs 159
- green lease 293
- greenhouse gas emission
reduction 839, 917, 941
- greenhouse gas emissions 365
- greenhouse gas mitigation 365
- grips 2021
- guide for construction clients 1309
- guidebook 15
- H**
- habits 2021
- heat controls 1431
- heat energy 1861
- heat pumps 365, 735, 1547, 1649,
1685, 1963
- heat recovery 1401
- heating 537, 1531, 1963
- heating systems 1391
- home energy audits 1329
- home energy check 1303
- homes 261, 1849
- hospitals 1513
- household appliances 529, 1453, 1461
- household consumption 97, 473
- household electricity 1733
- household electricity
consumption 1667
- household sector 353, 455
- households 67, 1837, 2037, 2047
- houses 59
- housing 537, 1061, 1225, 1843
- housing energy consumption 1621,
2103
- housing refurbishment 67, 353, 1909
- HVAC 715
- I**
- impact assessment 413, 657
- incentive mechanisms 49, 249, 377,
1951
- India 377
- indoor environment 1303, 1315
- industrial energy saving 619, 629,
641, 649, 657, 675, 745, 759, 777, 795
- industrial processes 759
- industrial SME 759
- industry 473, 609, 725, 735
- information 973
- information and communication
technologies 119, 839, 973, 1849
- initiatives and solutions 441
- innovation 305, 983, 1031, 1133,
1185, 2095
- innovation diffusion 1031
- innovative technologies 1899
- insulation 1329
- integrated energy-contracting 183
- integrated resource planning 79
- integration 867
- intelligent metering 807
- intelligent windows 1493
- interaction 2037
- interdisciplinary approaches 183
- interface 1431
- international harmonisation 1453
- international negotiations 1521
- Internet 385, 1225
- intervention strategies 1951
- IPMVP 473
- iron and steel 701
- irrevocability 5
- ISO 50001 759, 767
- K**
- knowledge extraction 1355
- knowledge transfer 2079
- L**
- labelling 385, 973, 1781
- land use 873
- landscape report 2001
- Latvia 609, 1329
- lean manufacturing 745
- learning rate 2069
- least-cost planning 79
- lessons learnt 1585
- life cycle analysis 1267
- life cycle cost (LCC) 183, 787, 1073,
1279
- lifestyle 963, 1951, 2009
- lighting 59
- load management 557
- load shifting 1559
- local and regional energy planning 479
- local authorities 917, 1631
- local energy policies 15
- local or regional energy efficiency
measures 293, 807, 1241
- lock-in effect 1343
- long-term agreements 787
- long-term policy 873
- long-term scenarios 125, 1141, 1241
- long-term strategies 125
- low carbon buildings 1119, 1233, 1391,
1975
- low carbon cars 973
- low carbon city 1141
- low carbon development 15

low carbon lifestyle 27, 37, 125, 821
 low carbon society plans 125
 low energy buildings 1095, 1157, 1233,
 1309, 1615
 low income 461
 low income families 2057
 low/zero carbon homes 1661
 low/zero energy buildings 1569

M

managing energy costs 807
 mandatory requirements 353
 market barriers 649, 1163
 market demand 243, 1061
 market development 293, 649, 1095
 market evaluation 1759
 market implementation 1157
 market introduction 281
 market overview on best available
 technology 385
 market penetration 929, 1031, 1043,
 1157
 market transformation 365, 385, 891,
 1031, 1185, 1225, 1453, 1461, 1759
 marketing 973, 1843
 maturity roadmaps 745
 measurement and evaluation 759,
 1593, 1795, 1831
 measurement and verification 1769
 measurement methods 1453
 measurements 1453
 mental model 2103
 metering 1787, 1909
 methodology 109, 609, 745, 1787
 microgeneration 27
 microgrids 1439, 1481
 middle-out 1203
 minimum energy efficiency
 standards 1521
 mobility 827, 861
 mobility consultation 827
 mobility management 891
 modal choice 827, 917, 941
 model 331
 modelling 109, 735, 929
 Mongolian energy sector 393
 monitoring 807, 1585, 1717, 1725,
 1781, 1787
 motors 641
 movement pattern 1005
 multi-criteria assessment 1321
 multi-modal transport 867
 multicriteria analysis 1631
 multipliers 385

N

national energy efficiency action plans
 (NEEAPs) 995
 national energy efficiency plans 249
 natural gas 685
 negotiations 315
 net present value (NPV) 5, 171
 networking 2079
 networks 725, 1031
 new dogmas 2095
 new energy efficiency policy 2095
 new tools 745
 niches 1887
 non-energy benefits (NEBs) 685, 1315
 non-residential buildings 1241
 norms 1993

O

obstacles 725
 occupants interaction 1975
 off mode 1759
 on-site survey 1539
 online survey 663
 open the market 1315
 operational cost differences 1279
 operational tools 1481
 opportunities for international
 co-operation 1461
 optimisation 1005, 1481
 organisational behaviour 171, 305
 overcoming barriers 1157, 1315

P

passenger car transport 851
 passenger vehicles 929
 passive cooling 1493
 passive houses 1031, 1197
 patterns of energy use 1951
 peak demand reduction 1481
 pension funds 195
 perception 1061, 1133, 1751
 performance 1649
 performance guarantee 1049, 1061
 personal carbon allowance 431
 PHEV 1005
 photovoltaics 479, 1503
 pilot projects 455, 2079
 policies and measures 15, 353, 1043,
 1083, 1321
 policy 137, 261, 401, 551, 901, 973,
 1547, 1899
 policy design 273, 385, 551
 policy evaluation 413, 447, 551, 571,
 595, 911
 policy implementation 249, 565, 595
 policy instruments 49, 619, 701, 787,
 917, 1107, 1197, 1725, 1951

policy interventions 1899
 policy measures 393, 1255
 policy packages 1321
 policy programme 629
 policy recommendations 171, 215,
 595, 691, 983, 1461, 2095
 policy-induced savings 1769
 policy-making 137, 315, 461, 795,
 1631
 policy-mix 795
 population density 873
 post occupancy evaluation 1975
 power markets 503
 power sector 393
 practice theory 67, 2021, 2037
 practices 67, 1849, 2009, 2037
 primary energy 479, 1423
 process evaluation 657
 product performance 571
 productivity 745
 professions 1365
 programme impact 249
 property transaction 1163
 property valuation 1061, 1279
 public buildings 1631, 1831
 public engagement 1831
 public policy 1521
 public procurement 1513
 public sector 441, 525
 pulp and paper industry 767, 787
 pumps 1531
 purchasing guidelines 441
 purchasing tools 441

Q

qualitative study 1615, 2057
 qualitative survey 67, 1083, 1329,
 1631
 quality 685
 quantitative study 1621
 quantitative survey 609, 1751
 quotas 343

R

railways 941
 rationalisations 2109
 real-time pricing 1873
 rebound effects 27, 89, 1725
 recommendations 1255
 refurbishment 195, 1049, 1083, 1125,
 1149, 1163, 1203, 1329, 1675
 regulation 517, 2001
 rehabilitation 1083
 reliability 1807
 renewable energy 27, 37, 137, 159,
 183, 343, 873, 995
 Renewable Energy Directive (RES) 79

- renovation schedule 1197
rental market 455
replacement 59
residential buildings 89, 401, 461,
1031, 1163, 1173, 1185, 1621, 1661, 1751,
1769, 1867, 1909, 1975, 2085
residential customers 1881, 2085
residential sector 1083, 1141, 1539,
1675, 1873, 2085
retailer 529
retrofit 401, 1173, 1255, 1401, 1975
rickshaws 867
roadmap 1197
robust 273
role model 1631
Russian technology 393
- S**
- SaaS 1481
saving targets 1881
savings 1083, 2001, 2047
savings potential 5, 1241, 1255, 1849
scenario study 1149
scenarios 109, 125, 331, 951, 1343
sectoral 109
sectoral analysis 1795
segmentation 1015
service quality 1185
simulation 479, 1401, 1503
smart customers 517
smart grids 119, 517, 557, 873
smart metering 759, 1471, 1667,
1779, 1787, 1831, 1837, 1843, 1849, 1873,
1919, 2001, 2085
SmartRegions 2001
SME 609, 663, 807, 1031
social capital 97
social experiments 1931
social housing 1049, 1615
social innovation 1031, 1887, 2009
social learning 1831, 1881, 1909, 1919
social media 1931
social milieu 1951
social networks 1031, 1329
socio-economic 1867
socio-technical 995, 1779, 1909, 2037
sociology 1867
software 759
solar heating 365
solar thermal 455, 1439
solutions 1315
space heating 1249, 1661
spillover 1725
- stakeholder 273, 1083
standardisation 1697
standards 315, 385, 1471, 1759
standby 1513
standby power 1759
standby stoppers 1539
stock 59
strategic niche management 1887
strategic product development 281
strategy 229, 745
subsidies 293
success factors 663
successes 2047
sufficiency 89, 1141
summer comfort 1493
supplier obligation 431
survey 221, 1255
sustainability 995, 1267, 1899
sustainable communities 1241, 1423
sustainable development 221, 827,
1849
sustainable mobility 885
Sweden 1249, 1751, 1837
SWOT-analysis 1157
symbolic qualities 1899
system analysis 425, 759, 1365
system design 1649
system simulation 1919
- T**
- tap water 331
target 109, 777, 1637
tariffs 1873
taxes 1163
technical innovation 1493, 1975
techno-economic potential 1249
technological innovation system 885
technology 1993
technology transfer 393
tenants 525
terrace heaters 1993
the Philippines 97
thermal comfort 2103
thermal comfort assessment 1569
thermal storage 1481
third party financing 293
tool 1267
top-down 2095
top-down methodology 1249
tradable green and white
certificates 343
tradable white certificates 249
training 565
- transaction costs 649, 725
transition 1547, 1887
transition management 125
transport policies and measures 425,
821, 839, 911, 917, 951
transportation 839, 891, 901, 995
travel 941
trends 901
- U**
- UK 261
urban interactions 425
urban model 873
urban neighbourhood 1377
urban planning 425, 917
urban transport 917, 963
usability 1431
user behaviour 89, 205, 995, 1649,
1881, 1975, 2057
user perspective 221, 963, 983, 1005,
1431, 1615
utilities 49, 1585, 1779
- V**
- values 1867
variable speed pumps 1531
vehicle taxation 951
vehicles 873, 917, 929, 951, 983, 995
ventilation 1401
verification 1725
visualisation 229
VOC removal 715
voluntary agreements 641, 745, 787,
973, 1717
- W**
- washing machines 1461
waste heat 479, 691
water heating 365, 1661, 1843
web portal 1335
web tools 1303, 1881
white certificates 353, 431, 447, 1685
wind power 479
window replacement 1329
windows 1447
windows of opportunities 1493
- Z**
- zero energy buildings 1377
zero-carbon houses 1043, 1503
zero-carbon technologies 159, 873,
1439
zero-emission houses 1149