
Acronyms and abbreviations

& – and
£ – British pound
€ – euro
\$ – dollar
3BL – triple bottom line
ABCD process – backcasting methodology
ABEC – Australian Building Energy Council
ABI – Association of British Insurers
ACF – Australian Conservation Foundation
ACIRRT – Australian Centre for Industrial Relations Research and Training
ACT – Australian Capital Territory
AD – Anno Domini (used before dates after the supposed year Christ was born)
ADB – Asian Development Bank
ADF – augmented Dicky-Fuller test
AEGIS – Australian Expert Group in Industry Studies
AGO – Australian Greenhouse Office
AMM – abandoned mine methane
ANC – African National Congress
ARC – Australian Research Council
ARCH – autoregressive conditional heteroskedasticity
B&C – building and construction
BASIX – Building Sustainability Index
BAT – best available technology
BC – before Christ
BC – British Columbia, Canada
3BL – triple bottom line
bcm – billion cubic metres
BEES – Building for Environmental and Economic Sustainability (software)
BEP – best environmental practice
bn – billion
BP – British Petroleum
BS – British standard
BSc – Bachelor of Science
BSR – Business for Social Responsibility
BTX – benzene/toluene/xylene
C – carbon
CAFE – Corporate Average Fuel Economy
CAS – Chemical Abstracts Service
CBA – cost-benefit analysis
CCA – chromated copper arsenate
CCGT – combined cycle gas turbine

CCX – Chicago Climate Exchange
Cd – cadmium
CD – construction and demolition
CECP – Centre of Excellence in Cleaner Production
CEO – chief executive officer
CFB – circulating fluidized beds
CFC – chlorofluorocarbon
CH₄ – methane
CHP – combined heat and power
CICA – Canadian Institute of Chartered Accountants
Cl – chlorine
CMA – Chemical Manufacturers Association
CMI – Cockerill Mechanical Industries
CMM – coal mine methane
CO₂ – carbon dioxide
CSD – Commission on Sustainable Development
CSIRO – Commonwealth Scientific and Industrial Research Organisation
CSR – corporate social responsibility
CTA – constructive technology assessment
CUB – Carlton & United Breweries
DALY – disability-adjusted life years
DBSA – Development Bank of Southern Africa
DEFRA – Department for Environment, Food and Rural Affairs, UK
DESA – Department of Economic and Social Affairs
DfE – Design for Environment
DMC – domestic material consumption
DMI – direct material input
DNR – Department of Natural Resources
DPO – domestic processed output
DRAFT – Direction Régionale de l’Agriculture et de la Forêt, France
DRIRE – Directions Régionales de l’Industrie, de la Recherche et de l’Environnement, France
DTI – Department of Trade and Industry, UK
DTIE – Division of Technology, Industry and Economics
DTO – Sustainable Technology Development Programme
EC – European Commission
ECCE – European Council of Civil Engineers
ECE – Economic Commission for Europe
EDF – Electricité de France
EDR – Earth Day Resources
EEA – external environmental accounting
EEVA – environmental economic value added
EGARCH – exponential generalized autoregressive conditional heteroskedasticity
EIA – environmental impact assessment
EMA – environmental management accounting
EMAS – Eco-Management and Audit Scheme

EMS – Environmental Management System
EPA – Environmental Protection Agency
EPR – Extended Producer Responsibility
ERFA – environmentally related financial accounting
ESD – ecologically sustainable development
ESM – environmental systems modelling
EST – environmentally sound technology
ETIS – Environmental Technology Innovation Scheme
ETM – environmental technology management
EU – European Union
EUETS – European Union’s Emissions Trading Scheme
EVA – economic value added
FASB – Financial Accounting Standards Board
FICA – Federal Insurance Contributions Act
GAAP – generally accepted accounting principles
GARCH – generalized autoregressive conditional heteroskedasticity
GCC – gasification combined cycle
GDP – Gross Domestic Product
GE – General Electric
GEO – Global Environment Outlook
GERD – general expenditure on research and development
GHG – greenhouse gas
GIS – geographical information system
GJR – Glosten, Jagannathan and Runkle
GNP – Gross National Product
GPI – Genuine Progress Indicator
GRI – Global Reporting Initiative
GSP – Gross State Product
GST – Gross State Product
GTL – gas to liquid
GWP – global warming potential
ha – hectare
HIA – Housing Industry Association
HR – human resources
HRM – human resource management
HRSG – heat recovery steam generator
IAS – International Accounting Standards
IASB – International Accounting Standards Board
ICC – International Chamber of Commerce
IEA – International Energy Agency
IGCC – integrated gasification combined cycle
IGO – intergovernmental organization
IISD – International Institute for Sustainable Development
IMP – intelligent materials pooling
IPCC – Inter-governmental Panel on Climate Change
IPPC – Integrated Pollution Prevention and Control

IR – industrial relations
ISO – International Organization for Standardization
IT – information technology
IWM – integrated waste management
kg – kilogram
km – kilometre
kWh – kilowatt-hour
LBIO – literature-based innovation output
LCA – lifecycle assessment
LCD – lifecycle development
LCI – lifecycle inventory
LCIA – lifecycle impact assessment
LEED – Leadership in Energy and Environmental Design (rating system)
LIBS – laser-induced breakdown spectroscopy
LIFE – the Financial Instrument for the Environment programme
LM – Lagrange multiplier
LOHAS – lifestyles of health and sustainability
LPG – liquid petroleum gas
m² – square metre
MAC – marginal abatement cost
MAS – Mongolian Academy of Sciences
MBDC – McDonough Braungart Design Chemistry
MD – marginal damage
MEA – monoethanolamine
MEEA – monetary external environmental accounting and reporting
MEMA – monetary environmental management accounting
MFP – multifactor productivity
MJ – megajoule
MRF – material reclamation facility
Mt – million tonnes
MW – megawatt
MWhr – megawatt-hour
N/A – not applicable
NatHERS – Housing Industry Association’s Partnership Advancing the Housing Environment
NBEET – National Board of Employment, Education and Training, Australia
NCAT – National Center for Appropriate Technology, Australia
NDA – National Department of Agriculture, South Africa
NEPA – National Environmental Policy Act, USA
NESEA – Northeast Sustainable Energy Association
NETTLAP – Network for Environmental Training at the Tertiary Level in Asia and the Pacific
NGO – non-governmental organization
NHS – National Health Service
NHTZ – New High Technology Zone
Ni – nickel

NIP – National Insulation Programme
NO_x – nitrogen oxides
NPD – New Product Design
NRDC – National Research and Development Corporation, India
NSED – National Strategy for Ecologically Sustainable Development
NSW – New South Wales, Australia
OECD – Organisation for Economic Co-operation and Development
OH&S – occupational health and safety
OPEC – Organization of the Petroleum Exporting Countries
OTA – Office of Technology Assessment, USA
P – phosphorous
PACE – pollution abatement costs and expenditures
PATHE – Partnership Advancing the Housing Environment
Pb – lead
PBEP – Performance Bretagne Environnement Plus
PCB – polychlorinated biphenyl
PDCA model – plan-do-check-act model
PEEA – physical external environmental accounting and reporting
PEMA – physical environmental management accounting
PET – polyethylene terephthalate
PFBC – pressurized fluidized bed combustion
PLA – polylactic acid
PP – Phillips-Perron
ppm – parts per million
PR – public relations
PSI – Product Stewardship Institute
PSRC – Photovoltaics Special Research Centre
PTO – Patent and Trademark Office
PV – photovoltaics
PVC – photovoltaic cells
PVC – polyvinyl chloride
QMLE – quasi-maximum likelihood estimator
R&D – research and development
REACH – registration, evaluation and authorization of chemicals
REPA – resource and environmental profile analysis
RFCD – research fields, courses and disciplines
RMI – Rocky Mountain Institute
RoHS – restrictions on hazardous substances
ROS – Raster Output Scanner
RSA – Royal Society for the Arts
RSMS – Restricted Substance Management Standard
S&T – science and technology
SABRC – State Agency Buy Recycled Campaign, California
SEAAAR – social and ethical accounting, auditing and reporting
SEC – US Securities and Exchange Commission
SEDA – Sustainable Energy Development Authority

SEO – socio-economic objective
SME – small and medium-sized enterprise
SNM – strategic niche management
SO₂ – sulphur dioxide
SoEAC – State of the Environment Advisory Council
SOx – sulphur oxides
SRI – socially responsible investment
SSCD – Stationary Source Compliance Division
ST – STMicroelectronics
SUV – sport utility vehicle
t – tonne or ton
TBL – triple bottom line
TDO – total domestic output
TIFAC – Technology Information, Forecasting and Assessment Council, India
TMC – total material consumption
TMR – total material requirement
TNEP – The Natural Edge Project
TORs – terms of reference
TQM – total quality management
TsKTI – Central Boiler and Turbine Institute, Russia
TUD – Technical University of Delft
TWh – Tera Watts/hours. 1 TWh = 10¹² Wh
UK – United Kingdom
UN – United Nations
UNCED – United Nations Conference on Environment and Development
UNDESA – United Nations Department of Economic and Social Affairs
UNDP – United Nations Development Programme
UNDTIE – United Nations Environment Programme, Division of Technology,
Industry, and Economics
UNEP – United Nations Environment Programme
UNEP FI – United Nations Environment Programme Finance Initiative
UNESCO – United Nations Educational, Scientific and Cultural Organization
UNFCCC – United Nations Framework Convention on Climate Change
UNGA – United Nations General Assembly
UoB – University of Bonn
UPT – Technical Service Unit
US/USA – United States of America
US\$ – United States dollar
USEPA – US Environmental Protection Agency
UTS – University of Technology Sydney
USSR – Union of Soviet Socialist Republics
VCBM – virgin coalbed methane
VISs – voluntary initiatives for sustainability
VISITs – voluntary initiatives for sustainability in tourism
VISTs – voluntary initiatives for sustainable tourism
VOC – volatile organic compound

VSM – voluntary simplicity movement
WA – Western Australia
WASIG – Western Australian Sustainable Industry Group
WB – World Bank
WBCSD – World Business Council for Sustainable Development
WEEE – waste electrical and electronic equipment
WHC – Westside Health Center, USA
WIR – Wet Investeringsregeling
WRI – World Resources Institute
WSSD – World Summit on Sustainable Development
WTO – World Tourism Organization
WW – wastewater
WWF – Worldwide Fund for Nature, formerly World Wildlife Fund
YLL – years of life lost
ZERI – Zero Emissions Research and Initiatives
ZEW – Zentrum für Europäische Wirtschaftsforschung/Center for European Economic Research