

Appendix 1

Acronyms

AAAS	American Association for the Advancement of Science	BEA	U.S. Bureau of Economic Analysis
AC	alternating current	BHC	Bradford Hill Criteria
ACC	American Chemistry Council <i>also</i> anthropogenic climate change	BLM	U.S. Bureau of Land Management
ACE	accumulated cyclone energy	BOD	biological oxygen demand
ACRIM	Active Cavity Radiometer Irradiance Monitor satellite	BP	before present
ACS	American Cancer Society	BR	brassinosteroid
AD	<i>anno Domini</i>	BTU	British thermal unit
AEMO	Australian Energy Market Operator	C	carbon; also Celsius
AGW	anthropogenic global warming	C₃	C ₃ carbon fixation pathway for photosynthesis
AMI	acute myocardial infarction	C₄	C ₄ carbon fixation pathway for photosynthesis
AMO	Atlantic Multidecadal Oscillation	C4MIP	Coupled Carbon Cycle Climate Model Intercomparison Project
AMOC	Atlantic Meridional Overturning Circulation	Ca	CO ₂ concentration in the air
AMS	American Meteorological Society	CAFE	corporate average fuel economy
ANN	artificial neural network	CAM	crassulacean acid metabolism
ANPP	aboveground net primary production	CARB	California Air Resources Board
AO/NAO	Arctic Oscillation/North Atlantic Oscillation	CBA	cost-benefit analysis
APS	atmospheric pollen season	CBD	cerebrovascular disease
AR5	Fifth Assessment Report	CC	combined cycle (natural gas)
aSAH	aneurysmal subarachnoid hemorrhage	CCS	carbon capture and sequestration (storage)
BA	burned area	CDC	U.S. Centers for Disease Control and Prevention
BAI	basal area index	CE	Common Era
BC	before Christ <i>also</i> black carbon	CER	cumulative excess [mortality] risk
BCA	benefit-cost analysis	CERN	European Institute for Nuclear Research
BCE	before Common Era	CF	capacity factor

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Climate Change Reconsidered II: Fossil Fuels

CFC	chlorofluorcarbon	EKC	Environmental Kuznets Curve
CGCM	coupled general circulation model	EM	electromagnetic
CGE	computable general equilibrium	ENSO	El Niño-Southern Oscillation
CH₄	methane	EPA	U.S. Environmental Protection Agency
CHD	coronary heart disease	EROI	energy return on investment
CLOUD	Cosmics Leaving Outdoor Droplets experiment	ESA	Endangered Species Act
CME	coronal mass ejection	ETS	extratropical storm
CMIP	Coupled Model Intercomparison Project	EU	European Union
CNRS	National Center for Scientific Research (France)	EVI	Enhanced Vegetation Index
CO	carbon monoxide	F	Fahrenheit
CO₂	carbon dioxide	FACE	free-air CO ₂ enrichment
CO_{2e}	carbon dioxide equivalent	FAOCE	free-air ozone and CO ₂ enrichment
CONUS	continental United States	FAO	Food and Agriculture Organization of the United Nations
COP	Conference of the Parties	Fe	iron
COPD	chronic obstructive pulmonary disease	FERC	U.S. Federal Energy Regulatory Commission
C_{org}	organic carbon	FJC	Federal Judicial Center
CPP	Clean Power Plan	FME	free-market environmentalism
CRF	cosmic ray flux	FOIA	Freedom of Information Act
CRU	Climatic Research Unit at the University of East Anglia	FUND	Climate Framework for Uncertainty, Negotiation, and Distribution
CT	combustion turbine (natural gas)	FWS	U.S. Fish and Wildlife Service
CVD	cardiovascular disease	FY	fiscal year
CWP	crop water productivity	GAM	generalized additive model
DBD	dry bulk density	GAO	U.S. Government Accountability Office
DC	direct current	GCM	General Circulation Models
DIC	dissolved organic carbon	GCR	galactic cosmic ray
DM	dry matter	GCSC	General Crisis of the Seventeenth Century
DMS	dimethyl sulfide	GDP	Gross Domestic Product
DNA	deoxyribonucleic acid	GDP_{pc}	Gross Domestic Product per capita
DOC	dissolved organic carbon	GHG	greenhouse gas
DoD	U.S. Department of Defense	GIGO	garbage in, garbage out
DICE	Dynamic Integrated Climate-Economy	GIMMS	Global Inventory Modeling and Mapping Studies
DOI	U.S. Department of Interior	GIS	geographic information system
DTR	diurnal temperature range	GISP	Greenland Ice Sheet Project
ECE	extreme climate event	GISS	Goddard Institute for Space Studies
ECS	equilibrium climate sensitivity	GJ	gigajoule
EDF	Environmental Defense Fund	GMCO₂	global mean carbon dioxide
EIA	U.S. Energy Information Administration	GMST	global mean surface temperature
EJ	exajoule		

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gNDVI	Normalized Difference Vegetation Index over the Growing Season	IPCC 2007-II	Intergovernmental Panel on Climate Change – Group II Contribution
GNP	Gross National Product	IPCC 2007-III	Intergovernmental Panel on Climate Change – Group III Contribution
GPP	gross primary production	IPCC-FAR	Intergovernmental Panel on Climate Change – First Assessment Report
gr	gram(s)	IPCC-SAR	Intergovernmental Panel on Climate Change – Second Assessment Report
GRACE	Gravity Recovery and Climate Experiment	IPCC-TAR	Intergovernmental Panel on Climate Change – Third Assessment Report
GREB	Globally Resolved Energy Balance model	IPCC-AR4	Intergovernmental Panel on Climate Change – Fourth Assessment Report
GrIS	Greenland Ice Sheet	IPCC-AR5	Intergovernmental Panel on Climate Change – Fifth Assessment Report
GSM	grand solar minimum	IR	infrared
GSP	gross state product	IRR	incidence rate ratio
GtC	gigatons of carbon	IS	ischemic stroke
GW	gigawatt	ISEE	International Society for Ecological Economics
H₂O₂	hydrogen peroxide	ITS	Investment Tax Credit
H₂SO₄	sulfuric acid	IWG	Interagency Working Group on the Social Cost of Carbon
H₂S	hydrogen sulfide	IWUE (iWUE)	intrinsic water use efficiency
HadCRUT	Hadley Center/Climatic Research Unit dataset of monthly instrumental temperature records	JAMA	Journal of the American Medical Association
HAMOCC	Hamburg Ocean Carbon Cycle model	K	Kelvin
HCFC	hydrochlorofluorocarbon	ka	thousand years
HEI	Health Effects Institute	kcal	kilocalorie
HEM	Heritage Energy Model	kPa	kilopascal, a measure of pressure
HFC	hydrofluorocarbon	kWh	kilowatt hour
HNO₃	nitric acid	kWhe	kilowatt hour of electricity
HU	hydrologic unit	kWht	thermal kilowatt hour
HURdat	hurricane database	J	joule
IAC	InterAcademy Council	JI	joint implementation
IAM	integrated assessment model	LAI	leaf area index
IEA	International Energy Agency	LCOE	levelized cost of electricity
IER	Institute for Energy Research	LED	light-emitting diode
IHD	ischaemic heart disease	LGM	Last Glacial Maximum
INM-CM4	Institute for Numerical Mathematics (Russian Academy of Sciences) climate model	LIA	Little Ice Age
IPAT	equation where I is environmental impact, P is human population, A is per-capita affluence, and T is technological innovation	LIG	last interglacial
IPCC	United Nations' Intergovernmental Panel on Climate Change	LIM	linear inverse model
IPCC 2007-I	Intergovernmental Panel on Climate Change – Group 1 Contribution	LNT	linear-no threshold
		LOAEL	lowest observed adverse effect level
		LOI	loss on ignition

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LST	land surface temperature	NMMAPS	National Morbidity, Mortality and Air Pollution Study
LWIR	longwave infrared	NOAA	U.S. National Oceanic and Atmospheric Administration
m	meter	NOAEL	no observed adverse effect level
Ma	million years	NO	nitric oxide
Ma BP	million years before present	NO_x	nitrogen oxides
MAAT	mean annual air temperature	NPP	net primary productivity (production)
MBtu	million British thermal units	NRDC	Natural Resources Defense Council
MCA	Medieval Climate Anomaly	NSPS	New Source Performance Standards
MeHg	methylmercury	NUE	nitrogen use efficiency
MMT	minimum mortality temperature; also million metric tons	NWS	U.S. National Weather Service
MMTS	maximum-minimum temperature sensor	O₃	ozone
MODIS	MODerate resolution Imaging Spectroradiometer	OECD	Organisation for Economic Co-operation and Development
MS	magnetic susceptibility	OHCA	out-of-hospital cardiac arrest
MSL	mean sea level	OIRA	U.S. Office of Information and Regulatory Affairs
MTCE	million tons of carbon equivalent	OMB	U.S. Office of Management and Budget
MW	megawatt	OTC	open-top chamber
MWP	Medieval Warm Period	PAGE	Policy Analysis of the Greenhouse Effect
N	nitrogen	PAR	populations at risk
N₂O	nitrous oxide	Pb	lead
NAAQS	National Ambient Air Quality Standards	PCT	potential compensation test
NaCl	sodium chloride	PDI	power dissipation index
NAE	National Academy of Engineering	PDO	Pacific Decadal Oscillation
NAO	North Atlantic Oscillation	PET	physiologically equivalent temperature
NAPAP	National Acid Precipitation Assessment Program	PETM	Palaeocene-Eocene Thermal Maximum
NARR	North American Regional Reanalysis	Pg	petagram (one billion metric tonnes)
NAS	National Academy of Sciences (USA)	PGD	Plant Growth Database
NASA	National Aeronautics and Space Administration (USA)	PGR	post-glacial rebound
NCDC	National Climatic Data Center	pH	a measure of acidity or basicity
NDVI	Normalized Difference Vegetation Index	PM	particulate matter
NEMS	National Energy Modeling System	PM_{2.5}	particles less than or equal to 2.5 μm (micrometer)
NETL	National Energy Technology Laboratory	PM₁₀	particles less than or equal to 10 μm in diameter (about one-seventh the diameter of a human hair)
NFI	National Forest Inventory	PPA	power purchase agreement
NH₄	ammonium	ppb	parts per billion
NH	Northern Hemisphere	ppm	parts per million
NHL	northern high latitudes	ppmv	parts per million by volume
NIPCC	Nongovernmental International Panel on Climate Change		

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PPP	purchasing power parity	TLT	temperature lower troposphere
PRIO	Peace Research Institute of Oslo	Tmax	maximum temperature
PSMSL	Permanent Service for Mean Sea Level	Tmin	minimum temperature
PTC	Production Tax Credit	TOA	top of atmosphere
PV	photovoltaic	Topt	optimum temperature
PVC	polyvinyl chloride	TRCS	The Right Climate Stuff
rBC	refractory black carbon	TRW	tree-ring width
RCP	representative concentration pathway	TSI	total solar irradiance
RD	respiratory disease	TW	terawatt
RF	radiative forcing	TWh	terawatt hour
RIA	regulatory impact analysis	UAH	University of Alabama Huntsville
RPM	revolutions per minute	UCD	unusually cold day
RR	relative risk	UN	United Nations
RSV	respiratory syncytial virus	UNCED	United Nations Conference on Environment and Development
RTI	respiratory tract infection	UNEP	United Nations Environment Program
RWP	Roman Warm Period	UNFCCC	United Nations Framework Convention on Climate Change
SARS	sudden acute respiratory disease	USDM	U.S. Drought Monitor
SCC	social cost of carbon	USDOE	U.S. Department of Energy
SCD	sudden cardiac death	USHCN	U.S. Historical Climatology Network
SEPP	Science and Environmental Policy Project	UV	ultraviolet
SLR	sea-level rise	VOC	volatile organic compound
SNEP	Sierra Nevada Ecosystem Project	VWC	virtual water content
SO₂	sulfur dioxide	W	watt
SO₃	sulfur trioxide	WCED	World Commission on Economic Development
SOC	soil organic carbon	WGI	Working Group I of IPC
SOM	soil organic matter	WGII	Working Group II of IPCC
SPM	Summary for Policymakers	WGIII	Working Group III of IPCC
SRES	Special Report on Emission Scenarios	WHO	World Health Organization
SST	sea surface temperature	WMO	World Meteorological Organization
STPR	social time preference rate	WNP	Western North Pacific
TAR	Third Assessment Report	WTA	willingness to accept
TBE	tick-borne encephalitis	WTP	willingness to pay
TBEV	tick-borne encephalitis virus	WUE	water use efficiency
TC	tropical cyclone	YLL	years of life lost
Tcf	trillion cubic feet	Zn	zinc
tCO_{2e}	ton of CO ₂ equivalent		
TCPI	Tropical Cycle Potential Impact index		
TCS	transient climate sensitivity		
TFR	total fertility rate		
Tg	teragram		