

Hydropower Acronym & Abbreviations Listing

For Hydropower Projects in Lao PDR
by Hobo Maps - Last Update June 2024

Use "Control + F" for searches in PDF Format

A = Ampere

AAGR = average annual growth rate

ac = alternating current

ACC = ASEAN Coordinating Council

ACCC = ASEAN Connectivity Coordinating Committee

ACCEPT = ASEAN Climate Change and Energy Project

ACCWG = ASEAN Coordinating Council Working Group

ACE = ASEAN Center for Energy

ACEMS = Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy

ACER = Agency for the Cooperation of Energy Regulators

ACSR = Aluminum Conductor Cable Steel Reinforced

ACSR/GA = Aluminium Conductor Steel Reinforced, using Class A galvanized steel wire

ADB = Asian Development Bank

ADCP = Acoustic Doppler Current Profilers; used to measure water velocities, direction of flow and depth

admin. = administration

ADMS = Advanced Distribution Management System

ADPC = Asian Disaster Preparedness Center

ADR = Automated Demand Response

AECOM = name of international infrastructure consulting firm (looks like acronym but not)

AEDP = Alternative Energy Development Plan

AEDS = ASEAN Energy Database System

AE Lab = Aquatic Environment Laboratory

AFCI = Arc Fault Circuit Interrupter

AFD = Agency France for Development

AFTA = ASEAN Free Trade Area

AGC = automatic generation control

AGEP = ASEAN-German Energy Program

AGVC = automatic generation voltage control

AIIB = Asian Infrastructure Investment

AIMS = ASEAN Interconnection Master Plan Study

AIMS = Aquaculture of Indigenous Mekong Fish Species Project

AIS = Air-Insulated Substation

aka = also known as

Al = aluminum

ALS = Automatic Load Shedding

AMCF = Assessment of Mekong Capture Fisheries Component

AMF = average monthly flow

AMI = Advanced Metering Infrastructure

AMS = ASEAN Member States

AMS = Application Management Services

amsl = above mean sea level

ANCOVA = analysis of covariance

ANSI = American National Standards Institute

APAEC = ASEAN Plan of Action for Energy Cooperation

APC = Automatic power controller

APG = ASEAN Power Grid

APGCC = ASEAN Power Grid Consultative Committee

APL = Adaptable Program Loan

AQI = Air Quality Index

AQIP = Aquaculture Improvement and Extension Project

A/R = Afforestation / Reforestation

ARI = average return interval

ASEAN = Association of Southeast Asian Nations

ASHDCT = Automatic System of Hydrologic Data Collection and Transmission

ASTM = American Society for Testing and Materials

ATC = available transmission capacity

ATSPT = Average Tolerance Score Per Taxon

aux. = auxiliary; supplementary

AVC = Automatic voltage controller

AvCap = Available Capacity

avg = average

AVR = Automatic voltage regulator

AWG = American Wire Gauge is the USA standard measure for the diameter of electrical conductors.

AWGCME = ASEAN Working Group on Coastal and Marine Environment

BAP = Biodiversity Action Plan

BAU = business as usual

bbbl = barrel

BCC = Backup control center

BCEL = Banque Pour Le Commerce Exterieur Lao Public

bcf = billion cubic feet

bcfd = billion cubic feet per day

bcm = billion cubic meters

BCP = Base Capacity Price

BCPG = BCPG Public Company Limited

BCR = Benefit Cost Ratio

BCS = Battery Charging Station

BDP = Basin Development Planning / Basin Development Plan / Basin Development Program

BDS = Basin Development Strategy

BESS = battery electric storage system

BFI = Bank and Finance Institutions

BFI = bilateral financial institutions

BFMS = Basin-wide Fisheries Management and Development Strategy

BIC = BCPG Indochina Co.

BIDV = Bank for Investment and Development of Vietnam

BioRA = Biological Resources Assessment

BL = base line

BLT = build, lease, transfer

BM = Build Margin

BMEC = BMEC Engineering & Consulting Co., Ltd.

BMZ = German Ministry for Economic Development

bn = billion (1000 million)

BOD = Biological Oxygen Demand

BOO = build-own-operate

BOOT = build-own-operate-transfer

BOT = build-operate-transfer

BRI = Belt and Road Initiative (China's)

BRIM = Biosphere Reserve Integrated Monitoring Program

BS = British Standard; current standard for electrical wiring in the UK

BSM = benefit sharing mechanisms

Btu = British Thermal Unit; a measure of heat energy equal to 0.000293 kilowatt hour

BUS = Binary Unit System is used to transfer data between participants in a network

C = Celsius (formerly Centigrade)

c. = circa (approximately)

ca. = circa (approximately)

CA = Concession Agreement

CACM = Capacity Allocation and Congestion Management

CAGR = compound annual growth rate

CAP = Corrective Action Plan

cap. = capitalization (such as market capitalization)

CAPE = country assistance program evaluation

CAPEX = capital expenditure

CB = Circuit Breaker

CBA = Cost Benefit Analysis

CBD = Convention on Biological Diversity

CBO = Community Based Organizations

CBRC&MCL = Chanthavone Bridge, Road Construction and Maintenance Company Ltd.

CCA = climate change adaptation

CCAI = Climate Change Adaptation Initiative (of Mekong River Commission)

CCCC = China Communications Construction Company Ltd.

CCIA = climate change impact assessment

CCILMB = Committee for Coordination of Investigations of the Lower Mekong Basin (Mekong River Commission)

CDB = China Development Bank

CDE = Center for Development and Environment

CDE = Carbon Dioxide Equivalent

CDEP = Committee for Development of Electric Power

CDM = Clean Development Mechanism (under Kyoto Protocol)

CDTO = China Datang Overseas Investment Co

CEAR = Construction & Erection All Risks (Insurance)

CEEC = China Energy Engineering Corporation

CEIEC = China National Electronics Import-Export Corporation

CEMMP = Contractor Environmental Management and Monitoring Plan

CEMP = Contractor Environmental Management Plan

CERs = certified emission reductions (under Kyoto Protocol)

CER = consumer energy resources

CES = Cryogenic Energy Storage

CEWA = Charoen Energy and Water Asia Co. Ltd. (Thailand)

CF = Capacity factor

CFD = Computational Fluid Dynamics

CFG = configuration

CFRD = concrete-faced rockfill dam

cfs = cubic feet per second

CGGC = China Gezhouba Group Company Limited

CGIAR = Consultative Group on International Agricultural Research

CGN = China General Nuclear Power Group

CH₄ = methane: one of the most potent of greenhouse gases

CHIRPS = Compressed High Intensity Radar Pulse

CHMC = China National Heavy Machinery Corporation

CIA = Cumulative Impact Assessment

CIF = Cost Insurance and Freight

CIFEC = Committee for Investment Management and Foreign Economic Cooperation

CIFOR = Center for International Forestry Research

CIPSC = Central Investment Promotion Steering Committee

CIS = Customer Information Systems

CITES = Convention on International Trade in Endangered Species

CKHX = Chiang Khong & Houay Xai

CKP = CK Power Plc. (the power generation arm of construction firm CH Karnchang Plc.)

CLMV = Cambodia, Laos, Myanmar and Vietnam

cm = centimeters

cm² = square centimeters

CMC = Coordination and Monitoring Center

CMG = crisis management group

CMHC = China National Heavy Machinery Co.

CMMS = computerized maintenance management system

CNC = Computerized Numerical Control

CNMC = Cambodia National Mekong Committee

CNR = Compagnie Nationale du Rhone (France)

CNY = Chinese yuan renminbi

CO2 = carbon dioxide

COBSE = Coordinating Body on the Seas of East Asia

COCD = Construction Obligation Commencement Date

COD = Commercial Operation Date

CPAWM = Center for Protected Areas and Watershed Management

CPP = Critical Peak Pricing

CPU = Central Processing Unit

CPUE = Catch Per Unit Effort

CRBMF = core river basin management function

CRMN = Core River Monitoring Network

CRPF = Compensation and Resettlement Policy Framework

CRVA = Climate Risk and Vulnerability Assessment

CSE = Charoen Sekong Energy Company

CSG = China Southern Power Grid

CSGR = Cemented Sand, Gravel and Rock

CSO = civil society organization

CSOs = civil society organizations

CSP = power project developer CS Power

CSPELC = commercial price of electricity

CSR = corporate social responsibility

CTA = Chief Technical Advisor

ctg = combustion turbine generator

CTG = China Three Gorges Corporation

Cu = copper

CU = Crisis Unit

CV = control valve

CVC = Conventional Mass Concrete (dam structure type)

CWE = China International Water & Electric Corp.

CWTW = Chongqing Water Turbine Works Co.

DA = Distribution Automation

DAFO = District Agriculture and Forestry Office

DAGAP = Data Acquisition and Generation Action Plan

D&B = drilling and blasting; traditional method used to excavate underground passages

DBCA = District Biodiversity Conservation Area

DBM = Drill and Blast Method (traditional method of tunnel excavation)

dc = direct current

DCA = Distribution Contingency Analysis

DCI = Dendritic Connectivity Index

DCTL = Double Circuit Transmission Line

DDF = Dry Dipterocarp Forest

DEB = Department of Energy Business

DEC = Dongfang Electric Corp. (China-based)

DEF = Dry Evergreen Forest

DEIR = Draft Environmental Impact Report

DEIS = Draft Environmental Impact Statement

DEM = Department of Energy Management,

DEM = Digital Elevation Model

DEPD = Department of Energy Promotion and Development

DEPP = Department of Energy Policy and Planning

Dept. = Department

DER = distributed energy resources; privately-owned renewable energy systems at homes or businesses

DFI = Development financial institution (Development Bank)

DGA = Dissolved Gas Analysis

DGM = Dept. of Geology and Mines

DGRC = District Grievance Redress Committee

DHO = District Health Office

DHPM = Department of Hygiene and Preventive Medicine

DHRW = Department of Hydrology and River Works, Cambodia

DIN = "Deutsche Institut fur Normung" German organization that sets standards for electrical equipment

DLE = Distribution Load Estimation

DLF = Department of Livestock and Fisheries

DLF = Distribution Load Forecasting

DMH = Department of Meteorology and Hydrology (Lao PDR)

DMM = Department of Mining Management

DMS = Degrees Minutes Seconds (coordinates)

DMS = Distribution Management System

DNA = Designated National Authorities

DO = dissolved oxygen

DOE = Department of Electricity (Laos in the past)

DOEM = District Office of Energy and Mines

DOF = Department of Forestry

DOLHM = Department of Land and Housing Management

DONRE = District Office of Natural Resources and Environment

DOPF = Department of Planning, Cooperation and Finance

DP = Development Partner

DPC = Department of Planning and Cooperation

DPF = Distribution Power Flow

DPRA = Development Project Responsible Agency

DRC = District Resettlement Committee

DRP = Demand Response Provider

DRWG = District Resettlement Working Groups

DS or D/S = downstream

DSC = Downstream Channel

DSCR = Debt Service Coverage Ratio

DSE = Distribution State Estimation

DSEG = Dam Safety Expert Group

DSEP = Dam Safety Emergency Plans

DSF = Decision Support Framework

DSH = Don Sahong

DSHPP = Don Sahong Hydropower Project

DSM = Discharge and sediment monitoring

DSM = Demand Side Management

DSM/EE = Demand Side Management and Energy Efficiency

DSMP = Discharge and Sediment Monitoring Program

DSMS = Dam Safety Management System

DSO = distribution system operator

DSP = Distributed System Platform

DSPF = Department of Statistics, Planning and Finances

DSRA = Debt Service Reserve Account

DSRP = Dam Safety Review Panel

DSS = Decision support systems

DTP = China Datang International Power Generation Co., Ltd

DWG = District Working Groups

DWR = Department of Water Resources (Thailand government)

DWRM = Department of Water Resources Management (in Vietnam)

EA = Environmental Assessment

EAMP = Environmental Assessment and Management Plan

EAP = Emergency Action Plans

EBITDA = earnings before interest, taxes, depreciation and amortization

ECA = Export Credit Agency

ECC = Environmental Compliance Certificate

ECI = Electricity Construction and Installation

ECP = Emergency Contingency Plan

ECU = Environmental Compliance Unit

ED = execution date; the date when a legal agreement is fully signed and becomes effective

EDC = Electricity du Cambodia; state-owned electricity utility enterprise

EDL = Electricity du Laos; state-owned electric utility enterprise in Lao PDR

EDL-Gen = EDL Generation Public Co. Ltd.

EDL-Gen Solar = a subsidiary of EDL-Gen focusing on solar energy projects in Lao PDR

EDLT = Electricity du Laos Transmission Company Ltd.

EDLTC = EDL Training Center

EDP = Ethnic Development Plan

EE = Excess Energy

EEC = energy efficiency and conservation

EEMP = Environment Emergency Mitigation Plan

EPP = Energy and Environment Partnership

EER = Energy Efficiency Ratio

E-flows = Environmental Flows

e.g. = such as

EGAT = Electricity Generating Authority of Thailand

EGATi = Electricity Generating Authority of Thailand International

EGCO = Electricity Generating Public Company (of Thailand)

EGDP = Ethnic Group Development Plan

EGEF = Ethnic Groups Engagement Framework

EGEM = Expert Group on Environmental Management

EGPD = Electricity Generation Planning Division

EHI = Ecological Health Index

EHM = Ecological health monitoring

EHV = Extra High Voltage

EIA = Environmental Impact Assessment

EIR = Environmental Impact Report

EIRR = Economic Internal Rate of Return

EIS = Environmental Impact Statement

El. = elevation

ELC = electronic load controller

E & M = electrical and mechanical equipment

E & S = environmental and social

EMA = Singapore's Energy Market Authority

EMCO = Environmental Management Committee Office

EMCS = Energy Management Control System

EMD = Environmental Management Division

EMDP = Ethnic Minority Development Plan

EMF = electromagnetic force

EMI = electromagnetic interference

EMMP = Environmental Management and Monitoring Plan

EMO = Environmental Management Office

EMP = electromagnetic pulse

EMP = environmental management plan

EMS = Environmental Management System

EMT = electric metal tubing

EMUs = Environmental Management Units

EOD = Explosive Ordnance Disposal

EP = Environmental Program

EPC Contract = engineering, procurement and construction contract

EPCC = engineering, procurement, construction and commissioning

EPCM = Engineering, Procurement, Construction and Management Agreement

EPD = Energy Planning Division

EPDP = Ethnic People Development Plan

EPF = Electric Power Forum

EPF = Environmental Protection Fund

EPL = Environmental Protection Law

EPP = Emergency Preparedness Plan

EPPEI = Electric Power Planning & Engineering Institute

EPPO = Energy Policy and Planning Office (in Thailand)

ERC = Energy Regulatory Committee (in Thailand)

ERP = Emergency Response Plan

ERPA = Emissions Reduction Purchase Agreement

E&S = Environmental and Social

ESAP = Environmental and Social Action Plan

esc. = enterprise standard costs; a form of indirect cost

ESCAP = Environmental and Social Corrective Action Plan

ESCAP = Economic and Social Commission for Asia and the Pacific

ESCO = Energy Service Companies

ESD = Environment and Social Division

ESDD = Environmental and Social Due Diligence

ESF = Environmental and Social Framework

ESG = Environmental, Social and Governance

ESIA = Environmental and Social Impact Assessment

ESMAP = Energy Sector Management Assistance Program (World Bank)

ESMF = Environmental and Social Management Framework

ESMMP = Environmental and Social Management and Monitoring Plans

ESMMP-CP = Environmental and Social Management and Monitoring Plans-Construction Phase

ESMP = Environmental and Social Management Plan

ESP = Environment and Social Program

ESRS = Environmental & Social Review Summary

ESSP = Environmental and Social Sustainability Policy

etc. = and so on

EV = Electric-powered Vehicle

EVALS = proprietary dimensioning software used to evaluate hydropower projects

EVN = Electricity of Viet Nam; the national energy company of Vietnam

EVN PMB = Electricity of Viet Nam Power Project Management Board

EVN NPT = Electricity of Viet Nam National Power Transmission

EVs = Electric-powered Vehicles

Ex Ante = a forecast based on estimates rather than actual results (before the event)

Ex Post = a forecast based on actual results (after the event)

EXIM = Export Import Bank

F = Fahrenheit

FA = Feeder Automation

FACTS = Flexible Alternating Current Transmission Systems

FAD = fish attraction devices

FADM = Fish Abundance and Diversity Monitoring

FAIV = Fast acting isolating valve

FAO = Food and Agriculture Organization (United Nations)

FCB = fast cut back

FCD = financial close date

FCP = Frequency Containment Process

FCZ = Fishing Control Zone

FDC = flow duration curve

FDI = foreign direct investment

FDIR = Fault Detection Isolation and Restoration

FEEG = Fisheries and Environment Expert Group

FFA = flood frequency analysis

FFC = Fixed Frequency Control

FFGS = flash floods guidance system

FFS = Final Feasibility Study

FGD = Focus group discussion

FIPC = Forest Inventory and Planning Center

FIRR = Financial Internal Rate of Return

FishMAP = Fisheries Monitoring Action Plan

FIT = feed-in tariffs

FLDM = Fish larvae drift monitoring

FMECA = Failure mode, effects and criticality analysis

FMIS = Financial Management Information System

FMOA = Force Majeure Offset Amount

FMS = Financial Management System

FMV = Fair Market Value

FOEAS = Farm-Oriented Enhancing Aquatic System

FOMACOP = Forestry Management and Conservation Project

FOMC = Fixed Operations and Maintenance Charge

FPV = floating photovoltaic

FRCD = Forest Resource Conservation Division (of Lao Department of Forestry)

FRL = full reservoir level

FS = Feasibility Study

FSL = full supply level

FSR = Feasibility Study Report

FPV = floating photo voltaic

FWL = Flood Water Level

FX = Foreign Exchange

FY = fiscal year

GA = Gap Assessment

GCB = Generator Circuit Breaker

GCRD = generator connection ready date

GDP = Gross Domestic Product

GEC = grounding electrode conductor

GED = Gulf Energy Development (Thailand based)

GEF = Global Environmental Fund

GEI = Global Environmental Institute

GFCI = Ground Fault Circuit Interruptor, a type of circuit breaker

GFL = Great Fault Line

GHG = Greenhouse Gas

GIRD = generator interconnection ready date

GIS = Geographic Information System

GIS = gas-insulated switchgear

GIZ = German Agency for International Cooperation

GMD = geomagnetic disturbance

GML = Gnommalath (town/district)

GMS = Greater Mekong Subregion

GOL (GoL) = Government of Lao PDR

GPAP = Governance and Public Administration Reform

gpd = gallons per day

gpm = gallons per minute

gps = gallons per second

GPS = Global Positioning System

GPSC = Global Power Synergy Public Co Ltd

GRC = Grievance Redress Committee

GRID = Gender Resource and Information Development

GRM = Grievance Redress Mechanism

GRP = glass reinforced plastic

GSCI = Global Sustainable Competitiveness Index

GTSEZ = Golden Triangle Special Economic Zone

GUI = graphical user interface

GW = gigawatt

GWh = gigawatt hours

GWh/y = gigawatt hours per year

GWP = Global Warming Potential

h = hour

ha = hectare

HAGL = Hoang Anh Gia Lai (Vietnam-based company)

HAPUA = Heads of ASEAN Power Utilities & Authorities

HCD = hydrokinetic conversion device

HCD = Hydraulic control device

HCFCs = halogenated fluorocarbons; a type of greenhouse gas

HCIG = Hebei Construction and Investment Group Co., Ltd.

HCP = Hourly Capacity Payment

HCS = Hydraulic control system

HCV = High Conservation Value

HCVA = High Conservation Value Area

HDPE = High-density polyethylene

HDVC = Hydro driven control valve

HEC = Hydropower Engineering Consultants

HECS = Hydrokinetic Energy Conversion Systems

HEG = Hydrology Expert Group

HFCs = hydrofluorocarbons; a type of greenhouse gas

HFO = heavy fuel oil

hh (HH) = households

HHPC = Houay Ho Power Company

HIA = Health Impact Assessment

HLG = Houay Lamphan Gnai

HLO = high-level outlet

HMS = Hydrologic Modeling System

HOL = Highest Operating Level

HP = Horsepower

HPCC = HydroPower Control Center

HPP = Hydropower Project

HRWL = highest regulated water level

HSAP = Hydropower Sustainable Assessment Protocol

HSE = Health, Safety and Environment

HSR = high-speed railway

HV = high voltage (typically all voltages over 200 kilovolts)

HVAC = heating, ventilation and air conditioning

HVAC = high-voltage alternating current

HVDC = high-voltage direct current

HVPL = High voltage power line

Hwy. = Highway

HYCOS = Hydrological Cycle Observation System

HYDRAF = Hydrologic Remote Sensing Analysis for Floods

Hz = Hertz

IBD = Interest-bearing Debt

IBFM = Integrated Basin Flow Management

IBP = Indicative Basin Plan

IBRD = International Bank for Reconstruction and Development

ICCILMB = Interim Committee for Coordination of Investigations of the Lower Mekong Basin (MRC)

ICEM = International Center for Environmental Management

ICOLD = International Commission on Large Dams

ICSID = International Center for Settlement of Investment Disputes (World Bank)

ICT = Information and Communications Technology

IDA = International Development Association

IDC = Indirect costs (overhead costs)

IDF = inflow design flood

IDLC = Integrated Direct Load Control

IDRC = International Development Research Center

IDSIM = Integrated Demand Side Management

i.e. = that is; used to introduce a word or phrase that restates what has been said previously

IEA = International Energy Agency

IEC = International Electrotechnical Commission (based in Switzerland with a global focus)

IEDs = intelligent electronic devices

IEE = Initial Environmental Examination

IEEE = Institute of Electrical and Electronics Engineers (based in USA with focus on North America)

IFAD = International Fund For Agricultural Development

IFC = International Finance Corporation

IFDP = Indigenous Fishery Development Project

IFI = International Financing Institution (such as ADB & World Bank)

IFReDI = Inland Fisheries Research and Development Institute

IFRM = Integrated Flood Risk Management

IGA = inter-governmental agreement

IHA = International Hydropower Association

IKMP = Information and Knowledge Management Platform

ILF = ILF Consulting Engineers

ILO = intermediate level outlet

IMA = Independent Monitoring Agency

IMDG = International Maritime Dangerous Goods

IMF = International Monetary Fund

IMO = International Maritime Organization

Imp/kWh = short for Impressions per kWh (unit) of electricity

IMPE = Institute of Malariology, Parasitology and Entomology

IMR = Infant mortality Rate

inc. = incorporated

INDC = Intended Nationally-Determined Contribution

INRAE = Institute for Agriculture, Food and the Environment (France)

IOD = Initial Operation Date

I/O = input/output

IPCC = International Panel on Climate Change

IPD = Investment Promotion Department

IPDP = Indigenous Peoples Development Plan

IPP = Independent Power Producer

IRD = Institute for Research and Development

IRENA = International Renewable Energy Agency

IREP = Institute of Renewable Energy Promotion

IRN = International Rivers Network

IRP = Integrated Resource Planning

IRR = Internal Rate of Return

IRRP = Integrated Resource and Resilience Planning

ISH = Initiative for Sustainable Hydropower

ISIS = Integrated Surface Irradiance Study

ISO = International Standards Organization

ISP = Information Sharing Platform

ISP = Integrated System Plan

ISRM = International Society for Rock Mechanics

ITD = Italian Thai Development Public Company Limited

ITO = Independent Transmission Operators

IUCN = International Union for Conservation of Nature

IVR = Interactive Voice Response

IVVC = Integrated Voltage/Var Control

IWED = International Water Event Database

IWMI = International Water Management Institute

IWRM = Integrated Water Resources Management

JAP = Joint Action Plan

JBIC = Japan Bank for International Cooperation

JC = Joint Committee

JCCCN = Joint Committee on Coordination of Commercial Navigation (on Lancang-Mekong River)

JCM = Joint Consultative Meeting (ASEAN)

JCWG = Joint Committee Working Group

JDB = Joint Development Bank

JEM = Joint Environmental Monitoring

JICA = Japan International Cooperation Agency

JMP = Joint Monitoring Program

JWG = Joint Working Group

k = kilo; a decimal unit prefix in the metric system denoting one thousand

KANSAI = Kansai Electric Power Co. Inc.

KBA = key biodiversity area

KCMIL or KCM = thousand circular mils (size of electricity conductor)

kg/ha/yr = kilograms per hectare per year

kg/hh/yr = kilograms per household per year

kg/m² = kilograms per square meter

KGPC = Kobe Green Power Company

KHPS = kinetic hydropower system

KHR = Khmer Riel

km = kilometer

km² = square kilometer

kN = kilo Newton

KN = Lao Kip

KOICA = Korea International Cooperation Agency

KOWEPO = Korea Western Power

KPIs = key performance indicators

Ktoe = Kilotons of oil equivalent

kV = kilovolt

kVA = Kilo Volt Ampere; in a 100% efficient system, kW = kVA

kVAR = Kilo Volt Ampere Reactive

kW = kilowatt; in a 100% efficient system, kW = kVA

kWh = kilowatt hour

LACP = Land Acquisition and Compensation Plan

LaCSA = Lao Climate Services for Agriculture

LAD = Lao Dam Association

LAK = Lao Kip

LAN = Local Area Network

Lao PDR = Lao People's Democratic Republic

LARP = Land Acquisition and Resettlement Plan

lbs. = pounds (weight)

LC = letter of credit

LCC = Luang Paseuth Construction Sole Co.

LCE = Lao National Committee for Energy

LCG = Lao Consulting Group

LCHSR = Lao-China High-Speed Railway

LCOE = Levelized Cost of Energy

LCR = Lao(s)-China Railway

LCU = local control units

LDC = Least Developed Country

LDC = load dispatch center

LDPE = Low-density polyethylene

LEAP = Long-range Energy Alternatives Planning

LECS = Lao Expenditure and Consumption Survey

LEPTS = Lao Electric Power Technical Standards

LFA = Land and Forest Allocation

LFC = Load Frequency Control

LFRC = Load Frequency Control and Reserves

LFNC = Lao Front for National Construction

L/H = length / height

LHSE = Lao Holding State Enterprise

LIRP = Livelihood and Income Restoration Plan

LL = load loss

LLC = Limited Liability Company

LLDC = Land-Locked Developing Country

LLO = low-level outlet

LMB = Lower Mekong Basin; the Lao, Thai, Cambodian & Vietnamese portions of the Mekong River Basin

LMC = Lancang-Mekong Cooperation (international trade framework)

LMCCD = Lancang-Mekong Cooperation and Conflict Database

LMCSF = Lancang-Mekong Cooperation Special Fund

LMC Water Center = Lancang-Mekong Water Resources Cooperation Center

LMDP = Lancang-Mekong Development Plan

LMI = Lower Mekong Initiative

LMR = Lancang-Mekong River

LMRB = Lancang-Mekong River Basin

LMS = Load Management System

LMWCD = Lancang Mekong Water Cooperation Database

LMWRCC = Lancang-Mekong Water Resources Cooperation Center

LNCE = Lao National Committee for Energy

LNG = Liquefied Natural Gas; natural gas (methane) in very cold storage

LNMC = Lao National Mekong Committee

LNNL = a type of electric wire for single-phase meters

LNTA = Lao National Tourism Administration

LOL = lowest operating level

LOLE = loss of load expectation

LPCL = Luang Prabang Power Company Limited

LPD = Luang Prabang (Dam) downstream

LPFL = Oji-Laos Plantation Forestry Ltd.

LPG = Liquefied Petroleum Gas

LPHPP = Luang Prabang Hydropower Project

lpm = liters per minute

LPRP = Lao People's Revolutionary Party

LPRYU = Lao People's Revolutionary Youth Union

LPU = Luang Prabang (Dam) upstream

LRC = Livelihood Restoration Committee

LRO = Law on Resettlement and Occupation

LRWL = lowest regulated water level

LSC = local stakeholder consultations

LSE = Load-Serving Entity

LSFP = Lao-Swedish Forestry Program

LSFCP = Lao-Swedish Forestry Cooperation Program

LSX = Lao Stock Exchange

Ltd. = Limited (liability)

LTESA = Lenders Technical, Environmental and Social Advisors

LTM-PIP = Laos-Thailand-Malaysia Power Integration Project

LTMS-PIP = Laos-Thailand-Malaysia-Singapore power integration project

LTSA = Long-Term Service Agreement

LU/LC = Land Use/Land Cover

LURC = Land Use Right Certificate

LWH = Length Width Height

LWU = Lao Womens Union

m = meter

M. = Muang

m² = square meters

m³ = cubic meters

m³/s = cubic meters per second

MA95 = 1995 Agreement on cooperation for sustainable development of the Mekong River Basin

MAEE = French Ministry of Foreign Affairs (French acronym)

MAF = Ministry of Agriculture and Forestry

MAR = Mean Annual Runoff

MARD = Ministry of Agriculture and Rural Development (in Vietnam)

MASAP = Mekong Adaptation Strategy Action Plan

masl (msl) = meters above sea level

MCE = Maximum Credible Earthquake

mcm = million cubic meters

mcm = old abbreviation for thousands of circular mils, an older measurement of wire gauge

MCP = Mitigation and Compensation Program

MCPP = Managed Co-Lending Portfolio Program (Vietnam)

MCs = member countries

MCTPC = Ministry of Communication, Transportation, Post and Construction

MDB = multilateral development banks

MDF = Mixed Deciduous Forest

MDGs = Millennium Development Goals

MDM = Mekong Dam Monitor; reports hydrologic indicators in the Mekong Basin in near-real time

M&E = Monitoring and Evaluation

M&E = machinery & equipment

MEM = Ministry of Environment and Mines

MFA = Ministry of Foreign Affairs

MFCB = Mega First Corporation Berhad

MFD = Mekong Fish Database

MFWL = Maximum Flood Water Level

mg/L = milligrams per liter

MHX = Mahaxay

MIH = Ministry of Industry and Handicrafts

MIH = Mekong Investment Holding JSC

MIGA = Multilateral Investment Guarantee Agency

mil. = million

min. = minute

MLC = Mekong-Lancang Cooperation

MLF = marginal loss factor

MLS = Manual Load Shedding

mm = millimeter

MOAF = Ministry of Agriculture and Forestry

MODIS = Moderate Resolution Imaging Spectroradiometer

MOE = Ministry of Energy (in Thailand)

MOEM = Ministry of Energy and Mining

MOF = Ministry of Finance

MOIC = Ministry of Industry and Commerce

MoICT = Ministry of Information, Communication and Tourism

MOL = Minimum Operating Level

MoMEL = Ministry of Mines and Energy, Lao PDR

MONRE = Ministry of Natural Resources and Environment

MORE = Ministry of Natural Resources and Environment

MoU = Memorandum of Understanding

MPa = MegaPascal or Million Pascal (pressure measurement)

MPI = Ministry of Planning and Investment

MPS = Mobile power station

MPWT = Ministry of Public Works and Transport

MRB = Mekong River Basin

MRB-IF = Mekong River Basin Indicator Framework

MRC = Mekong River Commission

MRC DSF = Mekong River Commission Decision Support Framework

MRC JC = Mekong River Commission Joint Committee

MRC PDG = Mekong River Commission Preliminary Design Guidance

MRC-SEDB = MRC Basin-Wide Socio-Economic Database

MRC SP = Mekong River Commission Strategic Plan

MRCs = Mekong River Commission Secretariat

MRC TD = MRC Technical Support Division

m/s = meters per second

MSC = management service contract

MSDS = Material Safety Data Sheet

msl = mean sea level

masl = meters above sea level

MSY = Maximum Sustainable Yield

mt = million tons

MTG = micro turbine generation/generator

MTOE = million tons of oil equivalent

MTR = Mid-Term Review

MUSD = Million US dollars

MVA = megavolt ampere

MW = megawatt

MWDI = Mekong Water Data Initiative

MWh = megawatt hours

MWL = Maximum Water Level

MWM = Mobile Workforce Management

MWp = peak megawatt

MWP = Multi-Year Work Plan

N/A = not applicable

NA = National Assembly

NAFRI = National Agricultural and Forestry Research Institute

NARO = National Agriculture and Food Research Organization (in Japan)

NARPDP = Northern Area Rural Power Distribution Project

NASC = National Assembly Standing Committee

NATM = New Austrian Tunneling Method

NAWACOP = Nam Ngum Watershed Management and Conservation Project

NBCA = National Biodiversity Conservation Area

NBPCL = Nam Bi Power Company Ltd.

NCC = National Control Center

NCC = National Consulting Company

NCEP = National Center for Environmental Prediction

NCH1HP = Nam Che 1 Hydropower

NDF = Nordic Development Fund

NE = northeast

NEAP = Nation Environmental Action Plan

NEC = National Electrical Code (USA)

NEDA = Neighboring Countries Economic Development Cooperation Agency

NEFCO = Nordic Environment Finance Corporation

NEG = Navigation Expert Group

NEM HPP = Nam Emoun Hydropower Project

NEPC = National Energy Policy Council (in Thailand)

NESMC = National Environment and Social Management Committee

NG = Natural gas (mainly methane)

NGC = National Grid Code

NGD = National Geographic Department

NGGS = National Green Growth Strategy

NGL = Natural gas liquids (ethane, propane, butane, isobutane and natural gasoline)

NGO = Non Governmental Organization

NGPES = National Growth and Poverty Eradication Strategy

NHDHP = Nam Hinboun Downstream Hydropower Project (Nam Hinboun 1 HPP)

NIP = National Indicative Plan

NL1PC = Nam Lik 1 Power Company Limited

NLDC = National Load Dispatch Center

NLMA = National Land Management Authority

NLPC = Nam Lik Power Company

NM1 = Nam Mang 1

NM3 = Nam Mang 3

NM3HP = Nam Mang 3 Hydropower Project

NM-B cable = type of Non-Metallic sheathed electric conductor

NMC = National Mekong Committee

NMC = non-metallic sheathed cable

NMCS = National Mekong Committee Secretariat

NMCs = National Mekong Committees

NMRC = National Mekong River Commission

NN1 = Nam Ngum 1

NN2PC = Nam Ngum 2 Power Company Limited

NN2HPP = Nam Ngum 2 Hydropower Project

NN3 = Nam Ngum 3 Hydropower Project

NN3PC = Nam Ngum 3 Power Company

NN4 = Nam Ngum 4 Hydropower Project

NN5 = Nam Ngum 5 Hydropower Project

NNB = Nam Ngum Basin

NNG1 HPP = Nam Ngum 1 Hydropower Plant

NNHP-1 = Nam Ngiep 1 Hydropower Project

NNHPC = Nam Nhone Hydropower Co.

NNP1 = Nam Ngiep 1

NNP1PC = Nam Ngiep 1 Hydropower Power Company

NNRB = Nam Ngum River Basin

NNT = Nakai Nam Thuen

NNT NPA = Nakai Nam Thuen National Protected Area

NOFIP = National Office for Forest Inventory and Planning

NOPC = Nam Ou River Basin Hydropower Company

NORAD = Norwegian Agency for Development

NPA = National Protected Area

NPA = Non-Profit Associations

NPAD = National Protected Area Division

NPCSAP = National Pollution Control Strategy and Action Plan

NPDP = National Power Development Plan

NPESHHS = National Policy on Environment and Social Sustainability of the Hydropower Sector

NPF = National Protected Forest

NPPC = Nam Phay Power Company Ltd.

NPPC = Nam Phoun Power Company Limited

NPSHD = National Policy on Sustainable Hydropower Development

NPV = net present value

Nr. = number

NREB = National Renewable Energy Board

NREL = National Renewable Energy Laboratory

NRESR = Natural Resources and Environment Statistics and Research Institute

NSC = National Statistics Center

NSEDP = National Socio-Economic Development Plan

NT = Nam Taep 1,2,3 Hydropower Company Ltd.

NTEC = Nam Theun 2 Electricity Company

NTFP = Non-Timber Forest Product

NTP = Nam Theun Power Company

NTPC = Nam Theun 2 Power Company

NTU = Nephelometric Turbidity Unit

NT1HPP = Nam Theun 1 Hydropower Project

NT1PC = Nam Theun 1 Power Company

NT2HPP = Nam Theun 2 Hydropower Project

NUOL = National University of Laos

N₂O = nitrous oxide; a type of greenhouse gas; also used as an inhalation anaesthetic

NW = northwest

NWH = Powerchina Northwest Engineering Corporation Limited

NWL = normal water level

O₃ = ozone

OAA = Other Aquatic Animals (other than fish - mussels, snails, turtles, frogs, shrimps, crabs, etc.)

Occ. = occasional

OCEG = Operations Coordination Expert Group

OCEO = Office of the Chief Executive Officer, Mekong River Commission Secretariat

O.D. = outside diameter

ODA = Official Development Assistance

OECD = Organization for Economic Cooperation and Development

OEM = original equipment manufacturer

OFR = Optimal Feeder Reconfiguration

OHGW = Overhead Ground Wire

OHTL = Overhead Transmission Line

OITC = Office of Information Technology and Communication

OJT = On the Job Training

OLR = Overload Relay

O & M = Operating and Maintenance

OM = Operating Margin

OMS = Operations Monitoring Scheme

OMS = Outage Management System

OP/BP = Operational Policy Bank Procedures (of World Bank)

OPEX = operating expenditures

OPGW = Optical Ground Wire

OPS = Operational Planning and Scheduling

ORP = oxidation reduction potential

OSTE = Organisation for Science, Technology and Environment (same as STENO)

O/U = over / under

OVs = Overseas Vietnamese

OWL = Operating Water Level

P2P = Power to the Poor (Lao program to help the poor connect)

p.a. = per annum; per year

PABX = Private automatic branch exchange

PAFO = Provincial Agriculture and Forestry Office

PAH = Project-Affected Households

PAP = Project-Affected People or Project-Affected Persons

PAR = population at risk

PBC = Preferential Buyers Credit

PBCA = Provincial Biodiversity Conservation Area

PBHPP = Pak Beng Hydropower Project

PBM = Phou Bia Mine

PCB = printed circuit board

PCC = Plain Cement Concrete

PCD = Public Consultations and Disclosure

PCOA = Put and call option agreement

PCP = Power control panel

PCPP = Public Consultation and Participation Process

PCR = Project Completion Report

PD = Power Density

PD = Planning Division

PDA = Project Development Agreement

PDD = Project Design Document

PDG = Preliminary Design Guidance

PDIES = Procedures for Data and Information Exchange and Sharing

PDMP = power development master plan

PDO = Project Development Objective

PDP = power development plan

PDR = People's Democratic Republic

PE = Primary Energy

PEA = Provincial Electricity Authority (in Thailand)

PEC = power electronic conversion (such as DC to AC from solar panels)

PEMO = Provincial Energy and Mines Office

p.f. = power factor

PF = Private Financing or Project Financing

PFCs = perfluorinated carbons; a type of greenhouse gas

PFMFRD = Protection Forest Management and Forest Rehabilitation Division

PFS = Pre-Feasibility Study

PGRC = Provincial Grievance Redress Committee

PHAP = Public Health Action Plan

PHO = Provincial Health Office

PHP = Pico hydropower

PIM = Participatory irrigation management

PIPSC = Provincial Investment Promotion Steering Committee

PIT = Passive Integrated Transponder

PIZ = Project Impact Zone

PIZ = peripheral impact zone

PKK Park = Phou Khao Khouay Park

PLC = programmable logic controller; used to automate electro-mechanical processes

PLHPP = Pak Lay Hydropower Project

PLL = potential loss of life

PM = Prime Minister

PMB2 = Power Project Management Board 2 (Vietnam govt.)

PMF = Probable Maximum Flood

PMFM = Procedures for Maintenance of Flows on the Mainstream (Mekong)

PMG = Permanent Magnet Generator

PMO = Prime Minister's Office

PMP = Probable Maximum Precipitation

PNC = Xe-Pian Xe-Namnoy Power Company

PNPC = Xe-Pian Xe-Namnoy Power Co., Ltd.

PNPCA = Procedures for Notification of Prior Consultation and Agreement (MRC)

PoA = Program of Activities

POD = Point of Delivery

POE = Panel of Experts

PONRE = Provincial Office of Natural Resources and Environment

Post Ante = a forecast based on actual results

PPA = Power Purchase Agreement

PPA = Provincial Protected Area

PPDP = Provincial Power Development Plan

PPE = Personal Protective Equipmen

ppm = parts per million

PPP = public-private partnership

PPS = Power Purchase Supplier

PPT = Project Preparation Team

ppt = parts per thousand

PQ = Pre-Qualification

PRA = participatory rural community assessment

PRC = Provincial Resettlement Committee

PRC = People's Republic of China

PRF = Paddy Rice Field

PRG = political risk guarantees

PRI = Political Risk Insurance

PRLRC = Provincial Resettlement and Livelihood Restoration Committee

PRMLCRC = Provincial Resettlement Management and Living Condition Restoration Committee

PRP = Preliminary Resettlement Plan

PRP = Proactive Regional Planning

P/S = power station

PSDP = Public Sector Development Program

PSG = Phongsavath Group

PSG = Phongsack Group

PSH = Pumped storage hydropower

PSHD = Policy on Sustainable Hydropower Development

PSI = pounds per square inch

PSI = Pollution Standards Index

PSOD = Private Sector Operations Department

PSP = Power supply panel

PSS = Power System Stabilizer

PSU = primary sampling unit

PTDP = Power Transmission and Distribution Project

PTS = PT Sole Co., Ltd.

PV = Photovoltaic

PVC = Polyvinyl Chloride

PVF = Photovoltaic floating (solar cells on structures floating in water)

PWF = period weighting factor

PWG = Planning Working Group

PWQ = Procedures for Water Quality

PWUM = Procedures for Water Use Monitoring

Q1 = first quarter

Q2 = second quarter

Q3 = third quarter

Q4 = fourth quarter

qty. = quantity

RAP = Resettlement Action Plan

RAT = Reservoir Assessment Tool

RC = Resettlement Committee

RCA = root cause analysis

RCC = Regional Control Center

RCC = Roller-Compacted Concrete

RCC = River Continuum Concept

RCP = Regional Cooperation Program

RCT = Rule Curve Tool

Rd. = Road

RE = Renewable Energy

RE = rural electrification

RECS = River Current Conversion System

REDD = reducing emissions from deforestation and forest degradation

REDP = resettlement and ethnic development plan

REDS = Renewable Energy Development Strategy

REMP = Rural Electrification Master Plan

REMDP = Resettlement & Ethnic Minority Development Plan

REP = Rural Electrification Program

REPELC = residential price of electricity

RETA = regional technical assistance program

REZ = renewable energy zone

RFDMC = Regional Flood and Drought Management Center (formerly named RFMMC)

RFFS = River Flood Forecasting System

RFI = radio frequency interference

RFMMC = Regional Flood Management and Mitigation Center (in 2019 renamed RFDMC)

RFP = Request for Proposal

RGC = Regional Grid Code

RGC = Royal Government of Cambodia

RHEAS = Regional Hydrological Extreme Assessment System

RIS = River Information System

RMB = Renminbi

RMU = Resettlement Management Unit

ROR (RoR) = Run of the River

ROW = Right of Way

RPCC = Regional Power Coordination Center

RPM = Riverine Plastic Monitoring

rpm = revolutions per minute

RPSU = Reserve power supply unit

RPTCC = Regional Power Trade Coordination Committee

RPTOA = Regional Power Trade Operating Agreement

RRA = Rotating Rectifier assembly (for generator)

RSAT = Rapid Basin-wide Sustainability Assessment Tool

RSF = Regional Stakeholders Forum

RSL = Residual Static Load

RTM = Round Table Meeting

RTUs = Remote Terminal Units

RTWG = Regional Technical Working Group

r/m = revolutions per minute

RWG = Resettlement Working Group

s. = second (1/60th of a minute)

SA = Substation Automation

SAMIS = Strengthening Agro-climatic Monitoring and Information Systems

SAPE = sector assistance program evaluation

SBEM = Strategy for Basin-wide Environmental Management

SBOR = State of Basin Report

SBSD = Support for Better Service Delivery

SC = steering committee

SCADA = Supervisory Control and Data Acquisition

SCC = Short Circuit Capacity

SCF = Strategic Climate Fund

SCI = SCI Electric Manufacturer Co., Ltd. Thailand

SCM = Stakeholder Consultation Meeting

SCOD = scheduled commercial operation date

SCTL = single circuit transmission line

SDC = Song Da Corporation

SDC = Swedish Organization for Development and Cooperation

SDGs = Sustainable Development Goals

SDIL = Serba Dinamik International Ltd.

SDP = Strategic Development Plan

SDPC = Spectrophotometric Determination of Chlorophyll A in the Presence of Pheophytin

SDR = special drawing right

SDR = social discount rate

SE = Secondary Energy

SE = southeast

SEA = Strategic Environmental Assessment

SEAN = SouthEast Asia Energy Limited

SEG = Sediment Expert Group

SEIA = Social and Environmental Impact Assessment

SEMFOP = Social and Environmental Management Framework and Operational Plan

SESIA = Summary Environmental and Social Impact Assessment

SESO = Standard for Environmental and Social Obligations

SFC = static frequency converter

SFE = state forest enterprise

SGs = Safety guidelines

SHC = Sinohydro Corporation

SHD = Sustainable Hydropower Development

SHDS = Sustainable Hydropower Development Strategy

SHK = Sinohydro (Hong Kong) Holding Co

SHOA = standard hydropower operation agreement

SHP = Small Hydro Power

SHS = solar home system

SIA = Social Impact Assessment

SIDA = Swedish International Development Cooperation Agency

SII = Summary of Investment Information

SIL = surge impedance loading

SIM = Social Impact Monitoring

SIMVA = Social Impact Monitoring and Vulnerability Assessment

SK = SK Engineering & Construction

SKEC = SK Engineering and Construction Co.

SLRP = Supplemental Livelihood Restoration Plan

SME = small and medium-sized enterprises

SMG = Simuong Group or Simeuang Group Company Limited

SMMP = Social Monitoring and Management Plan

SMO = Social Management Office

SNHPP = Sanakham Hydropower Project

SOBR = State of Basin Report

SOE = state-owned enterprise

SOEG = Socio-economic Expert Group

SOP = standard operating procedure

SP = Strategic Plan

SPC = Special-Purpose Company

SPC = State Planning Committee

SPD = Strategic Planning Document

SPEI = Standardized Precipitation Evapotranspiration Index

SPI = Standardized Precipitation Index

SPI = Statistical Performance Indicator

SPP = Small power producer

SPRE = Southern Provinces Rural Electrification

SPS = Safeguard Policy Statement

SPV = special-purpose vehicle

sq = square

sq km = square kilometer

SRB = Sekong River Basin

SRI = Standardized Runoff Index

S/S (SS) = substation

SSA = share sale agreement

SSC = Suspended sediment concentration

STA = short-term advisor

STEA = Science, Technology & Environment Agency (now WREA)

STENO = Science, Technology and Environment Organization

STI = short-term incentives

SW = southwest

SWAT = Soil & Water Assessment Tool

SWER = Single-wire earth return (single-wire ground return)

SWM = solid waste management

t = ton

t/km²/yr = tons per square kilometer per year

TA = Technical Assistance

TAB = Technical Advisory Body

TBC = Tie-line Bias Control

TB&CIA = Trans-Boundary & Cumulative Impact Assessment

TbEIA = Trans-Boundary Environmental Impact Assessment

TBESIA = Trans-Boundary Environmental and Social Impact Assessment

TBM = Tunnel-Boring Machine

T&D = Training and Development

T&D = transmission and distribution

TBL = Tractebel Asia Company Ltd.

TCE = Tons of CO₂ Equivalent

TC/TM = Telecontrol and Telemetry

TD = Technical Division

TDS = Total Dissolved Solids

TEP = Transmission expansion planning

TES = Total Energy Supply

TFAP = Tropical Forestry Action Plan

TFEC = total final energy consumption

TG = Technical Guideline

TG-PMFM = Technical Guidelines for Preserving Flows on the Mekong

TGS = Technical Guidelines or Technical Guidance Series

TGWQ = Technical Guidelines Water Quality

THB = Thai baht

THD = Total Harmonic Distortion

THHN = electric conductor cable that is Thermoplastic High Heat Resistant

THHP = Theun-Hinboun Hydro Power

THPC = Theun-Hinboun Power Company Limited

THWN = a code for electric conductor cable that is Thermoplastic Heat and Water Resistant

THXP = Theun-Hinboun Expansion Project

TL (T/L) = transmission line

TL = tailwater level

TNB = Tenaga Nasional Berhad (the only electric utility company in Peninsular Malaysia)

TNMC = Thailand National Mekong Committee

TO = Transmission Operator

TOR (ToR) = terms of reference

TOU = Time of Use (for electricity tariff rate)

TPD = tons per day

TPES = total primary energy supply

TPY = tons per year

TRANSCO = Transmission Company

TRG = Technical Review Group

TRR = Technical Review Report

TSC = Technical Service Centre

TSO = Transmission System Operator

TSP = total suspended particulate matter

TSS = Total Suspended Solids

TTC = transmission transfer capability

TWh = terawatt hour

TWINS = Transboundary Water Interaction Nexus

TWL = tailrace water level

UF = Underground Feeder cable

UFLS = Under Frequency Load Shedding

UHV = Ultra-high-voltage electricity transmission

UMB = Upper Mekong Basin; the Chinese and Myanmar portions of the Lancang (Mekong) River Basin

UNCITRAL = United Nations Commission on International Trade Law

UNDP = United Nations Development Program

UNEP = United Nations Environment Program

UNESCO = United Nations Educational, Scientific and Cultural Organization

UNFCCC = United Nations Framework Convention on Climate Change

URF = Upland Rice Field

URF = Upper Rule Factor

U/S = upstream

USACE = United States Army Corps of Engineers

USAID = United States Agency for International Development

USD = United States Dollar

USGS = United States Geological Survey

UTFI = Underground taming of floods for irrigation

UXO = Unexploded Ordnance; unexploded bombs, land mines, etc.

V = volt

VA = volt-ampere

VA = Vulnerability Assessment

VAC = Volts Alternating Current; a measure of the strength of an alternating electric field

VASE = Vientiane Automation and Solution Engineering

VAT = value-added tax

VDB = Vietnam Development Bank

VDC = Volts Direct Current

VDC = Vertical Deflection Circuit

VDC = Village Development Committee

VEC = valued environmental components

VFT = variable frequency transformer

VIC = Variable Infiltration Capacity

VICU = Voltage insulation control unit

VLPC = Viet Lao Power Joint Stock Company

VND = Vietnam Dong

VNMC = Vietnam National Mekong Committee

VRE = variable renewable energy (solar cells, wind power, etc.)

vs = versus (against / compared to)

VSC = voltage-source converter

VSPP = Very Small Power Producer

W2BL = wetlands and watershed biodiversity and livelihoods

WACC = weighted average cost of capital

WB = World Bank

WBG = World Bank Group

WC = water quality

WCA = Watershed Conservation Authority

WCD = World Commission on Dams

WCLC = Working Capital Letter of Credit

WCT = Water Current Turbine

WEF = Water-Energy-Food nexus

WEPA = Water Environment Partnership Asia

WES = Waterways Experiment Station

WES weir = types of weir developed and tested by Waterways Experiment Station

WGPG = Working Group on Performance Standards and Grid Code

WGPO = Working Group Planning and Operations

WGRI = Working Group on Regulatory Issues

WLA = Wetland Area

WLE = Water, Land and Ecosystems Greater Mekong

WLE CGIAR = Water, Land and Ecosystems Consultative Group on International Agricultural Research

WMO = World Meteorological Organization

WMP = Watershed Management Plan

WMPA = Watershed Management and Protection Authority

WMS = Work Management Systems

WPI = Water Pollution Index

WPTO = Water Power Technologies Office

WQMN = Water Quality Monitoring Network

WREA = Water Resources & Environment Administration

WREO = Water Resources and Environment Office

WSMP = Watershed Management Plan

WTE = waste-to-energy

WTO = World Trade Organization

WUA = Water User Association / Water Use Authority

WUP = Water Utilization Plan

WWF = World Wildlife Fund

XBR = Xayabouri

XK1 = XeKong 1 Hydropower Project

XK2 = XeKong 2 Hydropower Project

XK3 = XeKong 3 Hydropower Project

XK4 = Xekong 4 Power Company Limited

XK4A = XeKong 4A Hydropower Project

XK4B = XeKong 4B Hydropower Project

XK5 = XeKong 5 Hydropower Project

XKM1 = Xekaman 1 Power Company Limited

XKM1PC = Xekaman 1 Power Company Limited

XKM3 = Xekaman 3 Power Company

XPCL = Xayaburi Power Company Limited

XTPPL = Xekong Thermal Power Plant Company Limited

XTRR = Xayabouri Technical Review Report

XYB = Xayabouri

YoY = Year-on-Year (annual comparison)

YPUA = Yield per unit area

yr. = year