RENEWABLE ENERGY

VOLUME IV

RENEWABLE ENERGY IN SOCIETY

EDITED BY
BENT SØRENSEN

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Renewable Energy

Volume IV Renewable Energy in Society

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Renewable Energy

Volume IV

List of Abbreviations

AC alternating current

APS aerodynamic particle sizer

a-Si amorphous silicon

BiPV building-integrated photovoltaic

CAISO California Independent System Operator

CCN cloud condensation nuclei
CDM Clean Development Mechanism
CFD computational fluid dynamics

CGS copper gallium selenide
CHP combined heat and power
CIS copper indium selenide
COP coefficient of performance

CPBT cost payback time

c-PVT concentrator-type photovoltaic/thermal hybrid solar system

c-Si monocrystalline silicon

DC direct current dm dry matter

DOE Department of Energy

ECC equivalent conventional capacity

ECU European currency unit (replaced by Euro in 1999)

EFC equivalent firm capacity

EHS environmental, health and safety
EIA environmental impact assessment
ELCC effective load carrying capability

EPBT energy payback time ESP electrostatic precipitator

FAO Food and Agricultural Organization of the United Nations

FERC Federal Energy Regulatory Commission (US)

FIT feed-in tariff
FOR forced outage rate
GDP gross domestic product

GHG greenhouse gas
GNP gross national product
GPBT greenhouse gas payback time

HFF Huka Falls Formation

hh household

HVAC heating, ventilation and air-conditioning

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IAQ indoor air quality

IEA International Energy Agency

IIASA International Institute for Applied Systems Analysis

IPCC Intergovernmental Panel on Climate Change

ISO independent system operator

ITC investment tax credits LCA life-cycle analysis

LOLE loss of load expectation
LOLP loss of load probability
LPG liquefied petroleum gas
LSE load-serving entity

mil one thousandth of an inch (25.4µm) mRL metres with respect to sea level

MSFD Marine Strategy Framework Directive (of the EU)

MVAr megavolt-ampere reactive NGO non-governmental organization

OPEC Organization of Petroleum Exporting Countries
OVE Danish Organisation for Sustainable Energy

PCB polychlorinated biphenyl pc-Si polycrystalline silicon

PEM personal environmental monitor

ppm parts per million PTC production tax credit

pu per unit PV photovoltaic

PVT photovoltaic/thermal hybrid solar system

PVT/a air-type PVT PVT/w water-type PVT

R&D research and development
REPP renewable energy policy package
RET renewable energy technology
rpm revolutions per minute

RPS renewable portfolio standard SAHP solar-assisted heat pump

SMUD Sacramento Municipal Utility District

SVC static VAR compensator

SWOT strengths-weaknesses-opportunities-threats

tce tons coal equivalent $(2.93 \times 10^{10} \text{ J})$

TEP tidal electric plant

TSO transmission system operator

UFP ultrafine particles UV ultraviolet

VAR volt-ampere reactive

WTOA Wind Turbine Owner's Association

x-Si crystalline silicon

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