Abbreviations

ADNOC Abu Dhabi National Oil Company

AI artificial intelligence

ALAM Association of Licensed Automobile Manufacturers

AVs autonomous vehicles

b/d barrels per day
BCM billion cubic meters

BECCS bioenergy with carbon capture and storage

CAFE corporate average fuel economy
CCS carbon capture and storage

CCUS carbon capture utilization and sequestration

CNPC China National Petroleum Corporation

CO₂ carbon dioxide

DARPA Defense Advanced Research Project Agency

EBA European Battery Alliance EOR enhanced oil recovery

ESPO East Siberia-Pacific Ocean

EVs electric vehicles

eVTOLs electric vertical takeoff and landing aircraft

F & D finding and development FDI final decision investment 4DS four degrees scenario

5G fifth-generation mobile wireless technologies

G20 Group of Twenty

GDP gross domestic product

GHz gigahertz

xiv Abbreviations

GPS Global Positioning System
IAMs integrated assessment models
ICE internal combustion engines
IEA International Energy Agency
IMF International Monetary Fund

IPO initial public offering IRR internal rate of return

ISO independent system operator

ITU International Telecommunications Union

IWG Interagency Working Group

LTE long-term evolution

MIT Massachusetts Institute of Technology

MoMo mobility model

NPC National People's Congress

OAS Organization of American States
OEMs original equipment manufacturers

OPEC Organization of the Petroleum Exporting Countries

P2P peer-to-peer communication PHEV plug-in hybrid electric vehicles

PIF public investment fund
R & D research and development
SCC social cost of carbon

SDS sustainable development scenario SRM solar radiation management

SWIPT Simultaneous Wireless Information and Power Transfer

3D three-dimensional TOE tons of oil equivalent UPS United Parcel Services

V2G vehicle to grid
V2H vehicle to home
VMT vehicle miles traveled
WTI West Texas Intermediate