

APPENDIX 2

Acronyms and Abbreviations

21 st CTP	21 st Century Truck Partnership
A/C	air conditioning
AAR	average annual rate
ACC	Automotive Composites Consortium
ACEM	aberration-corrected electron microscope
ADVISOR	Advanced Vehicle Simulator
AEMD	automotive electric motor drive
AFM	atomic force microscopy
AFV	alternative fuel vehicles
AHHPS	Advanced Heavy Hybrid Propulsion Systems
AIPM	automotive integrated power module
ALM	Automotive Lightweighting Materials
AOP	Annual Operating Plan
APBF	Advanced Petroleum-Based Fuels
APM	Automotive Propulsion Materials
APRF	Advanced Powertrain Research Facility
APU	auxiliary power unit
ASTM	American Society for Testing and Materials
ATD	Advanced Technology Development
ATRIS	attenuated total reflectance infrared spectroscopy
BA	Office of Business Administration
BATT	Batteries for Advanced Transportation Technologies
BES	Basic Energy Sciences
BTL	Biomass-to-Liquid
CAFE	Corporate Average Fuel Economy
CARB	California Air Resources Board
CEO	chief executive officer
CFD	computational fluid dynamics
CHAIN	a computer modeling tool
CIDI	combustion-ignition direct-injection
COGNOS	computer application for reporting and analysis
COP	coefficient of performance
CPS	Corporate Planning System
CRADA	Cooperative Research and Development Agreement
CRB	Corporate Review Budget
CRC	Combustion Research Council
CSAFM	current-sensing atomic force microscopy
Cu	copper

DARPA	Defense Advanced Research Projects Agency
DAS-TD	Deputy Assistant Secretary for Technology Development
DEER	Deisel Engine Emissions Reduction
DOE	U.S. Department of Energy
DOT	Department of Transportation
E85	ethanol blended with 15% gasoline
EERE	Office of Energy Efficiency and Renewable Energy
EGR	exhaust gas recirculation
EIA	Energy Information Administration
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
EPS	essential power systems
ERDA	Energy Research and Development Administration
ESR	equivalent series resistance
EU	European Union
EV	electric vehicle
FAST	Federal Automotive Statistical Tool
FCVT	FreedomCAR and Vehicle Technologies
FFV	flexible fuel vehicles
FLC	Federal Laboratory Consortium
FTIR	Fourier transform infrared spectroscopy
GATE	Graduate Automotive Technology Education
GDP	gross domestic product
GHG	greenhouse gas
GPRA	Government Performance Results Act
GREET	Greenhouse Gas, Regulated Emissions, and Energy use in Transportation model
GVWR	Gross Vehicle Weight Rating
HCCI	homogeneous-charge compression-ignition
HEI	Health Effects Institute
HEV	hybrid electric vehicle
HFCIT	Hydrogen, Fuel Cells, and Infrastructure Technologies
HIFR	High Flux Isotope Reactor
HIL	hardware-in-the-loop
HSWR	High-Strength Weight Reduction
HTML	High Temperature Materials Laboratory
HVAC	Heating, Ventilating and Air Conditioning
HVPM	Heavy Vehicle Propulsion Materials
IA	Interagency Agreement
ICE	internal combustion engine
IDW	I-MANAGE Data Warehouse
IEA	International Energy Agency
IGBT	insulated gate bipolar transistors
I-MAC-CRP	Improved Mobile Air Conditioning Cooperative Research Project

ISO	International Standards Organization
LDRD	Laboratory Director's Research and Development
LDV	light-duty vehicle
Li	lithium
Li/S	lithium/sulfur
Li-ion	lithium ion
LTC	low-temperature combustion
MARKAL	a computer modeling tool
mbpd	million barrels per day
Mg	magnesium
MHEV	medium-HEV
MIT	Massachusetts Institute of Technology
MMBD	million barrels per day
MMC	metal-matrix composite
MMTCE	million metric tons of carbon equivalent
Mn	Manganese
mpg	miles per gallon
MTBE	methyl tert-butyl ether
MYPP	Multi-Year Program Plan
NAS	National Academy of Science
NASA	National Aeronautics and Space Administration
NEMS	National Energy Modeling System
NEP	National Energy Policy
NEPA	National Environmental Protection Act
NiMH	nickel metal hydride
NIST	National Institute of Standards and Technology
NMR	nuclear magnetic resonance
NOx	nitrogen oxides
NPBF	Non-Petroleum-Based Fuels
NREL	National Renewable Energy Laboratory
NSF	National Science Foundation
NVH	noise, vibration, and harshness
NYSERDA	New York State Energy Research and Development Agency
OCO	Office of Communication and Outreach
OEM	original equipment manufacturer
OFCVT	Office of FreedomCAR and Vehicle Technologies
OHFCIT	Office of Hydrogen, Fuel Cells, and Infrastructure Technologies
OMB	Office of Management and Budget
ORNL	Oak Ridge National Laboratory
PAN	Polyscrylonitrile
PART	Program Assessment Rating Tool
PEEM	Power Electronics and Electric Machines
PHEV	power-assist HEV

PM	particulate matter
PMC	Project Management Center
PNGV	Partnership for a New Generation of Vehicles
PP	polypropylene
PPAF	Program Performance and Accountability Framework
ProMIS	Project Management Information System
PSAT	Powertrain Systems Analysis Toolkit
PSAT-PRO	PSAT Prototyping software
PTW	pump to wheel
R&D	research and development
ReFUEL	Renewable Fuels and Lubricants Facility
RFI	radio-frequency interference
SAE	Society of Automotive Engineers
Sb	antimony
SBIR	Small Business Innovative Research
SCAQMD	Sacramento California Air Quality Management District
SCR	selective catalytic reduction
Si	silicon
SI	spark-ignited
SiC	silicon carbide
SMS	Strategic Management System
SNS	Spallation Neutron Source
STARS	Standard Accounting and Reporting System
SUV	sport-utility vehicle
USABC	U.S. Advanced Battery Consortium
USCAR	U.S. Council for Automotive Research
VCR	variable compression ratio
VISION	a computer modeling tool
WTP	well to pump
XPS	X-ray photoelectron spectroscopy
XRD	X-ray diffraction