

1. Record Nr.	UNINA9910823669503321
Autore	Serra Joao Vitor Fernandes.
Titolo	Electric vehicles : technology, policy and commercial development // Joao Vitor Fernandes Serra
Pubbl/distr/stampa	London ; ; Sterling, Va. : , : Earthscan, , 2012
ISBN	1-136-45207-9 1-136-45208-7 0-203-12575-4
Edizione	[1st ed.]
Descrizione fisica	1 online resource (215 p.)
Disciplina	629.22/93
Soggetti	Electric vehicles Motor vehicles
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Electric Vehicles; Copyright Page; Contents; Foreword; Introduction: A Contemporary Crisis; Acknowledgements; Part I - Private Transport: Seizing the Opportunity; 1. How Combustion Beat Electric; The rise of the automobile; A century of automobile industry; Looking ahead; Where to now?; 2. Global Sustainability in Check; Energy consumption and resource constraints; Impacts on the environment; The alternatives; Seizing the opportunity; Part II - Technological Feasibility; 3. Vehicle Propulsion; A few basic concepts; The internal combustion engine vehicle; The electric vehicle Hybrids: The electrification spectrum Approaching a verdict 1: Better at the core; Appendix: Vehicle classifications; 4. Energy Storage; Energy storage performance parameters; Combustion-based energy storage systems; Electrochemical battery energy storage systems; Fuel cell energy storage systems; Ultracapacitor energy storage systems; Approaching a verdict 2: Closing the gap; 5. The Electric Vehicle Recharging Infrastructure; Energy services; Impact on the power grid; Approaching a verdict 3: A ripe whole-product solution; Part III - Electric Vehicle Roadmap 6. Electric Vehicle Cost-Effectiveness Capital costs; Operating costs; Social costs; Cost-effectiveness of electric mobility; A convenient truth; 7. Electric Vehicle Adoption Trajectory; Market forecast review; The

nascent market (2010-2020); Crossing the chasm (2015-2025); A silver bullet?; 8. Electric Vehicle Policy Support; Rationale for government action; The road ahead; In conclusion; Index

Sommario/riassunto

Modern electric vehicles (EVs) are well suited to most people's general transport needs. Despite this, their adoption at a large scale has been grindingly slow. What are the reasons for this? Unlike most books which focus on the technical aspects of EV performance, this guide sets out the commercial and political barriers to their increased use and lays out the ways in which these barriers can be overcome. It begins by charting the rise of the internal combustion engine, and detailing the problems associated with it which are driving efforts to electrify transportation. It goes on to
