

Global Low (Zero) Emission Vehicle Market – by Degree of Hybridization & Type of Traction Battery used, Forecast, Market Trends & Analysis (2012 – 2017

https://marketpublishers.com/r/G105CCC4ADEEN.html

Date: May 2012 Pages: 272 Price: US\$ 5,650.00 (Single User License) ID: G105CCC4ADEEN

Abstracts

Global Low (Zero) Emission Vehicle Market - By Degree of Hybridization (Mild Hybrid Electric Vehicle (MHEV), Full Hybrid Electric Vehicle (FHEV), Plug-In Hybrid Electric Vehicle (PHEV) and Pure Electric Vehicle (EV or BEV)) and By Type of Traction Battery Used (Lead Acid Battery, Nickel Cadmium Battery (NiCad), Metal Hydride Battery (NimH) and Lithium Ion Battery, Global Forecast, Trends and Analysis 2012 - 2017

Low emission vehicles are expected to witness good growth as they are being accepted across the globe. Currently, low emission market is dominated by Full Hybrid Electric Vehicles (FHEVs) and expected to remain as market leader during the forecasted period. The market of North America is expected to be the biggest one for FHEVs. However, our research says that market for PHEVs and BEVs will develop at a faster rate due to governments' initiatives to develop charging infrastructure in battery technology. The governments of Europe and China are promoting BEVs due to presence of competitive advantages over the other countries. China can shift to electric vehicle propulsion technology faster than its counterparts due to its ability to heavily invest in its development. Europe is already well equipped when it comes to charging infrastructure for EVs.

The most widely used batteries for low emission vehicle market are lead-acid batteries, Nickel-Cadmium batteries (NiCad), metal hydride batteries (NimH), and lithium ion batteries. Till date, the mass produced FHEV cars have been powered by nickel metalhydride (NiMH) batteries. However, there are certain noticeable rapid shifts in consumption pattern of batteries used for HEVs. Due to high energy density of lithium



ion battery, loads of FHEV manufacturers such as Honda Motors (Japan) and Ford Motors (Germany) will be switching over to the lithium ion battery for FHEV. As an outcome, lithium ion battery is expected to capture the lion's share in automotive battery market by 2017.

The global low emission vehicle market was valued \$21.13 billion in 2011 and is expected to grow from \$27.45 billion in 2012 to \$103.13 billion by 2017 at an estimated CAGR of 30.3% from 2012 to 2017. 826.8 thousand low emission vehicle were shipped on a global level for 2011 and the number is expected to reach 3532.1 thousand by 2017, at an estimated CAGR of 27.8% from 2012 to 2017.

For the low emission vehicle market, increase in the global price of petroleum-based fuel; rise in the number of initiatives taken by different governments, ever-increasing availability of different HEV models, and continuous development in battery technology are acting as drivers. Lack of support infrastructure, power, performance, and higher cost as compared to ICE-vehicle end-user segments are acting as restraints. Charging infrastructure market and vehicle-to-grid (V2G) technology are the future opportunities for low emission vehicle market.

Scope of the report

The low emission vehicle market research report categorizes the global market on the basis of degree of hybridization, different types of batteries used in the vehicle, and geographical analysis. Market segmentation also includes forecasting revenue and analyzing trends in the global low emission vehicle market.

On the basis of degree of hybridization

In this section, global alternative fuel market or HEV market is divided as per the degree of hybridization. Full Hybrid Electric Vehicle (FHEV), Mild Hybrid Electric Vehicle (MHEV), Plug-in Hybrid Electric Vehicle (PHEV), and Pure Electric Vehicle (BEV or EV) are the prominent types of hybrid vehicle. The other hybrid vehicle, i.e. fuel cell vehicle (FCV) is yet to be commercialized.

On the basis of type of battery used

In this section, global alternative fuel market or HEV market is divided as per the different types of traction batteries used in the vehicle. Lead acid batteries, Nickel-Cadmium batteries (NiCad), metal hydride batteries; especially nickel metal hydride



(NimH) and lithium ion batteries are the prominent ones used in HEV market.

On the basis of geography

North America, Europe, Asia-Pacific, and ROW are covered in the report.

North America is subdivided into U.S and Canada.

Europe is further divided into U.K., France, Germany, The Netherlands, Spain, and rest of Europe.

Asia-Pacific is divided into China, Japan, South Korea, and rest of APAC.

ROW is segmented into Middle East countries, Australia, and South African countries.

Each section will provide market data, market drivers, trends and opportunities, key players, and competitive outlook. This report will provide market tables for covering the sub-segments and micro-markets. In addition, the report makes ways for more than 20 company profiles; covering all the sub-segments such as "company overview", "products & services", "financials", "strategy", and "developments".



Contents

1 INTRODUCTION

1.1 KEY TAKE-AWAYS
1.2 REPORT DESCRIPTION
1.3 MARKETS COVERED
1.4 STAKEHOLDERS
1.5 RESEARCH METHODOLOGY
1.5.1 MARKET CRACKDOWN
1.5.2 KEY DATA POINTS FROM SECONDARY SOURCES
1.5.3 KEY DATA POINTS FROM PRIMARY SOURCES
1.5.4 ASSUMPTIONS MADE FOR THIS REPORT
1.5.5 LIST OF COMPANIES COVERED DURING PRIMARIES

2 EXECUTIVE SUMMARY

3 MARKET OVERVIEW

- 3.1 INTRODUCTION
- 3.2 MARKET SEGMENTATION

3.3 MARKET DYNAMICS

- 3.3.1 DRIVERS
 - 3.3.1.1 Significant increase in the global price of petroleum based fuel
 - 3.3.1.2 Increasing Government support
 - 3.3.1.3 Increasing availability of different HEV models
 - 3.3.1.4 Development in battery technology
- 3.3.2 RESTRAINTS
 - 3.3.2.1 Lack of support infrastructure
 - 3.3.2.2 Lack of power and performance
 - 3.3.2.3 Higher cost as compared to ICE-vehicle
- **3.3.3 OPPORTUNITIES**
 - 3.3.3.1 Charging infrastructure market
 - 3.3.3.2 Vehicle to grid (V2G) technology
- 3.4 WINNING IMPERATIVE

3.4.1 LARGER BATTERY LIFE WITH LIMITED INITIAL AND REPLACEMENT COST 3.5 BURNING ISSUES

3.5.1 OVERALL COST OF OWNERSHIP



3.6 VALUE CHAIN ANALYSIS

3.7 PORTER'S FIVE FORCES ANALYSIS

3.7.1 THREAT OF NEW ENTRANTS

3.7.2 THREAT OF PRODUCT SUBSTITUTES

3.7.3 BARGAINING POWER OF SUPPLIERS

3.7.4 BARGAINING POWER OF BUYERS

3.7.5 RIVALRY AMONG EXISTING PLAYERS

4 LOW EMISSION VEHICLE TECHNOLOGY OVERVIEW

4.1 EVOLUTION OF HEV
4.2 FUNCTIONAL CHARACTERISTICS OF HYBRID VEHICLE
4.2.1 PARALLEL HYBRID VEHICLE
4.2.2 SERIES HYBRID CAR
4.2.3 SERIES/PARALLEL HYBRID VEHICLE
4.3 BASIC COMPONENTS OF LOW EMISSION VEHICLE
4.4 LOW EMISSION VEHICLE: ADVANTAGES AND DISADVANTAGES
4.5 INTRODUCTION TO FUEL CELL VEHICLE TECHNOLOGY
4.6 SOLAR POWERED VEHICLE – A FUTURISTIC VIEW

5 GLOBAL LOW EMISSION VEHICLE MARKET, BY THE DEGREE OF HYBRIDIZATION

5.1 INTRODUCTION

5.2 FULL HYBRID ELECTRIC VEHICLE (FHEV)

5.2.1 FULL HYBRID ELECTRIC VEHICLE (FHEV) MARKET ESTIMATION & FORECAST, BY GEOGRAPHY

5.2.2 FULL HYBRID ELECTRIC VEHICLE (FHEV) MARKET ESTIMATION & FORECAST, BY BATTERY TYPE

5.3 MILD HYBRID ELECTRIC VEHICLE (MHEV)

5.3.1 MILD HYBRID ELECTRIC VEHICLE (MHEV) MARKET ESTIMATION & FORECAST, BY GEOGRAPHY

5.3.2 MILD HYBRID ELECTRIC VEHICLE (MHEV) MARKET ESTIMATION & FORECAST, BY BATTERY TYPES

5.4 PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

5.4.1 PLUG-IN HYBRID ELECTRIC VEHICLE(PHEV)MARKET ESTIMATION & FORECAST, BY GEOGRAPHY

5.4.2 PLUG-IN HYBRID ELECTRIC VEHICLE(PHEV) MARKET ESTIMATION & FORECAST, BY BATTERY TYPE



5.5 PURE ELECTRIC VEHICLE (BEV OR EV)

5.5.1 PURE ELECTRIC VEHICLE MARKET ESTIMATION & FORECAST, BY GEOGRAPHY

5.5.2 PURE ELECTRIC VEHICLE MARKET ESTIMATION & FORECAST, BY BATTERY TYPES

6 GLOBAL LOW EMISSION VEHICLE MARKET, BY BATTERY TYPE

6.1 INTRODUCTION

6.2 GLOBAL LEAD ACID BATTERY MARKET USED FOR THE LOW EMISSION VEHICLES

6.2.1 GLOBAL LEAD ACID BATTERY MARKET USED FOR THE LOW EMISSION VEHICLE, ESTIMATION & FORECAST, BY GEOGRAPHY

6.2.2 GLOBAL LEAD ACID BATTERY MARKET USED FOR THE LOW EMISSION VEHICLE, ESTIMATION & FORECAST, BY VEHICLE TYPES

6.3 GLOBAL NICKEL CADMIUM BATTERY MARKET FOR THE LOW EMISSION VEHICLES

6.3.1 NICKEL-CADMIUM BATTERY MARKET FOR LOW EMISSION VEHICLE, ESTIMATION & FORECAST, BY GEOGRAPHY

6.3.2 GLOBAL NICKEL-CADMIUM BATTERY MARKET FOR THE LOW EMISSION VEHICLE ESTIMATION & FORECAST, BY VEHICLE TYPES

6.4 GLOBAL METAL HYDRIDE BATTERY MARKET USED FOR THE LOW EMISSION VEHICLES

6.4.1 METAL HYDRIDE BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, MARKET ESTIMATION & FORECAST, BY GEOGRAPHY

6.4.2 GLOBAL METAL HYDRIDE BATTERY MARKET USED FOR THE LOW EMISSION VEHICLE, MARKET ESTIMATION & FORECAST, BY VEHICLE TYPES 6.5 GLOBAL LITHIUM ION BATTERY MARKET USED FOR THE LOW EMISSION VEHICLES

6.5.1 LITHIUM ION BATTERY MARKET FOR LOW EMISSION VEHICLE, MARKET ESTIMATION & FORECAST, BY GEOGRAPHY

6.5.2 GLOBAL LITHIUM ION BATTERY MARKET USED FOR THE LOW EMISSION VEHICLE, MARKET ESTIMATION & FORECAST, BY VEHICLE TYPES

7 GEOGRAPHIC ANALYSIS

7.1 NORTH AMERICA

7.1.1 MARKET FORECAST, BY GEOGRAPHY

7.1.2 MARKET FORECAST, BY DEGREE OF HYBRIDIZATION



7.1.3 FORECAST, BY TYPE OF BATTERY USED
7.2 EUROPE
7.2.1 FORECAST, BY GEOGRAPHY
7.2.2 FORECAST, BY DEGREE OF HYBRIDIZATION
7.2.3 FORECAST, BY TYPE OF BATTERY USED
7.3 APAC
7.3.1 FORECAST, BY GEOGRAPHY
7.3.2 MARKET FORECAST, BY DEGREE OF HYBRIDIZATION
7.3.3 MARKET FORECAST, BY TYPE OF BATTERY USED
7.4 ROW
7.4.1 FORECAST, BY DEGREE OF HYBRIDIZATION
7.4.2 FORECAST, BY TYPE OF BATTERY USED

8 COMPETITIVE LANDSCAPE

8.1 OVERVIEW

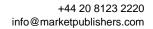
8.2 COMPARISON OF MAJOR PLAYERS IN HEV MARKET REVENUE WISE
8.3 COMPARISON OF MAJOR PLAYERS IN EV MARKET REVENUE WISE
8.4 COMPETITIVE PROFILES OF THE TOP HEV MANUFACTURER
8.4.1 TOYOTA MOTORS (JAPAN)
8.4.2 HONDA MOTORS (JAPAN)
8.4.3 FORD MOTOR COMPANY (U.S.)
8.5 ANALYST PERSPECTIVES
8.6 RECENT DEVELOPMENTS
8.6.1 NEW PRODUCT DEVELOPMENT
8.6.2 PARTNERSHIP/AGREEMENT/JOINT VENTURE
8.6.3 OTHERS

9 COMPANY PROFILES

9.1 A123 SYSTEMS, INC.
9.1.1 OVERVIEW
9.1.2 PRODUCTS & SERVICES
9.1.3 FINANCIALS
9.1.4 STRATEGY
9.1.5 DEVELOPMENTS
9.2 BYD COMPANY LTD
9.2.1 OVERVIEW
9.2.2 PRODUCTS & SERVICES



9.2.3 FINANCIALS 9.2.4 STRATEGY 9.2.5 DEVELOPMENTS 9.3 COBASYS LLC 9.3.1 OVERVIEW 9.3.2 PRODUCTS & SERVICES 9.3.3 FINANCIALS 9.3.4 STRATEGY 9.3.5 DEVELOPMENTS 9.4 DAIMLER AG 9.4.1 OVERVIEW 9.4.2 PRODUCTS & SERVICES 9.4.3 FINANCIALS 9.4.4 STRATEGY 9.4.5 DEVELOPMENTS 9.5 DELPHI AUTOMOTIVE LLP 9.5.1 OVERVIEW 9.5.2 PRODUCTS & SERVICES 9.5.3 FINANCIALS 9.5.4 STRATEGY 9.5.5 DEVELOPMENTS 9.6 DENSO CORPORATION 9.6.1 OVERVIEW 9.6.2 PRODUCTS & SERVICES 9.6.3 FINANCIALS 9.6.4 STRATEGY 9.6.5 DEVELOPMENTS 9.7 FORD MOTOR COMPANY 9.7.1 OVERVIEW 9.7.2 PRODUCTS & SERVICES 9.7.3 FINANCIALS 9.7.4 STRATEGY 9.7.5 DEVELOPMENTS 9.8 GENERAL MOTORS CO. 9.8.1 OVERVIEW 9.8.2 PRODUCTS & SERVICES 9.8.3 FINANCIALS 9.8.4 STRATEGY 9.8.5 DEVELOPMENTS





9.9 HONDA MOTOR CO. LTD. 9.9.1 OVERVIEW 9.9.2 PRODUCTS & SERVICES 9.9.3 FINANCIALS 9.9.4 STRATEGY 9.9.5 DEVELOPMENTS 9.10 HONEYWELL INTERNATIONAL INC. **9.10.1 OVERVIEW** 9.10.2 PRODUCTS & SERVICES 9.10.3 FINANCIALS 9.10.4 STRATEGY 9.10.5 DEVELOPMENTS 9.11 HYUNDAI MOTOR CO. LTD. 9.11.1 OVERVIEW 9.11.2 PRODUCTS & SERVICES 9.11.3 FINANCIALS 9.11.4 STRATEGY 9.11.5 DEVELOPMENTS 9.12 ISUZU MOTORS LTD. 9.12.1 OVERVIEW 9.12.2 PRODUCTS & SERVICES 9.12.3 FINANCIALS 9.12.4 STRATEGY 9.12.5 DEVELOPMENTS 9.13 KIA MOTORS CORPORATION 9.13.1 OVERVIEW 9.13.2 PRODUCTS & SERVICES 9.13.3 FINANCIALS 9.13.4 STRATEGY 9.13.5 DEVELOPMENTS 9.14 MERCEDES-BENZ 9.14.1 OVERVIEW 9.14.2 PRODUCTS & SERVICES 9.14.3 FINANCIALS 9.14.4 STRATEGY 9.14.5 DEVELOPMENTS 9.15 MITSUBISHI MOTORS CORPORATION **9.15.1 OVERVIEW** 9.15.2 PRODUCTS & SERVICES



9.15.3 FINANCIALS 9.15.4 STRATEGY 9.15.5 DEVELOPMENTS 9.16 NISSAN MOTOR CO. LTD **9.16.1 OVERVIEW** 9.16.2 PRODUCTS & SERVICES 9.16.3 FINANCIALS 9.16.4 STRATEGY 9.16.5 DEVELOPMENTS 9.17 PRIMEARTH EV ENERGY CO. LTD (PANASONIC EV) **9.17.1 OVERVIEW** 9.17.2 PRODUCTS & SERVICES 9.17.3 FINANCIALS 9.17.4 STRATEGY 9.17.5 DEVELOPMENTS 9.18 RENAULT S.A **9.18.1 OVERVIEW** 9.18.2 PRODUCTS & SERVICES 9.18.3 FINANCIALS 9.18.4 STRATEGY 9.18.5 DEVELOPMENTS 9.19 ROBERT BOSCH GMBH 9.19.1 OVERVIEW 9.19.2 PRODUCTS & SERVICES 9.19.3 FINANCIALS 9.19.4 STRATEGY 9.19.5 DEVELOPMENTS 9.20 SUZUKI MOTOR CORPORATION 9.20.1 OVERVIEW 9.20.2 PRODUCTS & SERVICES 9.20.3 FINANCIALS 9.20.4 STRATEGY 9.20.5 DEVELOPMENTS 9.21 TOYOTA MOTOR CORPORATION 9.21.1 OVERVIEW 9.21.2 PRODUCTS & SERVICES 9.21.3 FINANCIALS 9.21.4 STRATEGY 9.21.5 DEVELOPMENTS





List Of Tables

LIST OF TABLES

TABLE 1 LOW EMISSION VEHICLE MARKET REVENUE, BY GEOGRAPHY, 2011 – 2016 (\$BILLION)

TABLE 2 LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2016 (THOUSAND)

TABLE 3 GLOBAL LOW EMISSION VEHICLE MARKET REVENUE, BY THE DEGREE OF HYBRIDIZATION, 2011 – 2016 (\$BILLION)

TABLE 4 GLOBAL LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY THE DEGREE OF HYBRIDIZATION, 2011 – 2016 (THOUSAND)

TABLE 5 GLOBAL LOW EMISSION VEHICLE MARKET REVENUE, BY BATTERY TYPE, 2011 – 2016 (\$BILLION)

TABLE 6 GLOBAL LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY BATTERY TYPE, 2011 – 2016 (THOUSAND)

TABLE 7 COMPARISON TABLE OF DIFFERENT TYPES OF LOW EMISSION VEHICLE

TABLE 8 MAKES AND MODELS OF FULL HYBRID ELECTRIC VEHICLE TABLE 9 FULL HYBRID ELECTRIC VEHICLE (FHEV) MARKET REVENUE, BY GEOGRAPHY, 2011 – 2017 (\$BILLION)

TABLE 10 FULL HYBRID ELECTRIC VEHICLE (FHEV) MARKET, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND)

TABLE 11 FULL HYBRID ELECTRIC VEHICLE (FHEV) MARKET REVENUE, BY BATTERY TYPE, 2011 – 2017 (\$BILLION)

TABLE 12 FULL HYBRID ELECTRIC VEHICLE (FHEV) MARKET, UNIT SHIPMENTS, BY BATTERY TYPE, 2011 – 2017 (THOUSAND)

TABLE 13 MAKES AND MODELS OF MILD HYBRID ELECTRIC VEHICLE TABLE 14 MILD HYBRID ELECTRIC VEHICLE (MHEV) MARKET REVENUE, BY GEOGRAPHY, 2011 – 2017 (\$BILLION)

TABLE 15 MILD HYBRID ELECTRIC VEHICLE (MHEV) MARKET, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND)

TABLE 16 MILD HYBRID ELECTRIC VEHICLE (MHEV) MARKET REVENUE, BY BATTERY TYPES, 2011 – 2017 (\$MILLION)

TABLE 17 MILD HYBRID ELECTRIC VEHICLE (MHEV) MARKET, UNIT SHIPMENTS, BY BATTERY TYPES, 2011 – 2017 (THOUSAND)

TABLE 18 MAKES AND MODELS OF PLUG-IN HYBRID ELECTRIC VEHICLE TABLE 19 PLUG-IN HYBRID ELECTRIC VEHICLE(PHEV) MARKET REVENUE, BY GEOGRAPHY, 2011 – 2017 (\$BILLION)



TABLE 20 PLUG-IN HYBRID ELECTRIC VEHICLE(PHEV) MARKET, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND UNITS) TABLE 21 PLUG-IN HYBRID ELECTRIC VEHICLE(PHEV) MARKET REVENUE, BY BATTERY TYPE, 2011 – 2017 (\$MILLION) TABLE 22 PLUG-IN HYBRID ELECTRIC VEHICLE(PHEV) MARKET, UNIT SHIPMENTS, BY BATTERY TYPE, 2011 – 2017 (THOUSAND UNITS) TABLE 23 MAKES AND MODELS OF EVS TABLE 24 PURE ELECTRIC VEHICLE MARKET REVENUE, BY GEOGRAPHY, 2011 - 2017 (\$BILLION) TABLE 25 PURE ELECTRIC VEHICLE MARKET, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND) TABLE 26 PURE ELECTRIC VEHICLE MARKET REVENUE, BY BATTERY TYPES, 2011 – 2017 (\$MILLION) TABLE 27 PURE ELECTRIC VEHICLE MARKET, UNIT SHIPMENTS, BY BATTERY TYPES, 2011 – 2017 (THOUSAND) TABLE 28 LEAD ACID BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY GEOGRAPHY, 2011 – 2017 (\$MILLION) TABLE 29 LEAD ACID BATTERY MARKET FOR LOW EMISSION VEHICLE, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND) TABLE 30 GLOBAL LEAD ACID BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 – 2017 (\$MILLION) TABLE 31 GLOBAL LEAD ACID BATTERY MARKET FOR LOW EMISSION VEHICLE, UNIT SHIPMENTS, BY VEHICLE TYPES, 2011 - 2017 (THOUSAND UNITS) TABLE 32 NICKEL-CADMIUM BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY GEOGRAPHY, 2011 – 2016 (\$MILLION) TABLE 33 NICKEL CADMIUM BATTERY MARKET FOR LOW EMISSION VEHICLE. UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND) TABLE 34 GLOBAL NICKEL CADMIUM BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 – 2017 (\$MILLION) TABLE 35 GLOBAL NICKEL CADMIUM BATTERY MARKET FOR THE LOW EMISSION VEHICLE, UNIT SHIPMENTS, BY VEHICLE TYPES, 2011 - 2017 (THOUSAND) TABLE 36 METAL HYDRIDE BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY GEOGRAPHY, 2011 – 2017 (\$BILLION) TABLE 37 METAL HYDRIDE BATTERY MARKET FOR LOW EMISSION VEHICLE, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND) TABLE 38 GLOBAL METAL HYDRIDE BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 - 2017 (\$BILLION) TABLE 39 GLOBAL METAL HYDRIDE BATTERY MARKET FOR LOW EMISSION



VEHICLE, UNIT SHIPMENTS, BY VEHICLE TYPES, 2011 – 2017 (THOUSAND) TABLE 40 LITHIUM ION BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY GEOGRAPHY, 2011 – 2017 (\$BILLION)

TABLE 41 LITHIUM ION BATTERY MARKET FOR THE LOW EMISSION VEHICLE, UNIT SHIPMENTS, BY GEOGRAPHY, 2011 – 2017 (THOUSAND)

TABLE 42 GLOBAL LITHIUM ION BATTERY MARKET REVENUE FOR LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 – 2017 (\$BILLION)

TABLE 43 GLOBAL LITHIUM ION BATTERY MARKET USED FOR THE LOW EMISSION VEHICLE, UNIT SHIPMENTS, BY VEHICLE TYPES, 2011 – 2017 (THOUSAND)

TABLE 44 FEDERAL CREDITS FOR VARIOUS TYPES OF ALTERNATIVE-ENERGY PASSENGER VEHICLES, 2011

TABLE 45 NORTH AMERICA: LOW EMISSION VEHICLE MARKET REVENUE, BY COUNTRY, 2011 – 2017 (\$BILLION)

TABLE 46 NORTH AMERICA: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY COUNTRY, 2011 – 2017 (THOUSAND)

TABLE 47 U.S.: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION)

TABLE 48 U.S. LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND)

TABLE 49 NORTH AMERICA: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION)

TABLE 50 NORTH AMERICA: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND) TABLE 51 NORTH AMERICA: LOW EMISSION VEHICLE MARKET REVENUE, BY

TYPES OF BATTERIES USED, 2011 – 2017 (\$BILLION)

TABLE 52 NORTH AMERICA: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY TYPES OF BATTERIES USED, 2011 – 2017 (THOUSAND) TABLE 53 EUROPE: LOW EMISSION VEHICLE MARKET REVENUE, BY COUNTRY, 2011 – 2017 (\$BILLION)

TABLE 54 EUROPE: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY COUNTRY, 2011 – 2017 (THOUSAND)

TABLE 55 U.K.: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION)

TABLE 56 U.K.: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND)

TABLE 57 GERMANY: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$MILLION)

TABLE 58 GERMANY: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY



DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND) TABLE 59 EUROPE: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION) TABLE 60 EUROPE: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND) TABLE 61 EUROPE: LOW EMISSION VEHICLE MARKET REVENUE, BY TYPES OF BATTERIES USED, 2011 - 2017 (\$MILLION) TABLE 62 EUROPE: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY TYPES OF BATTERIES USED, 2011 – 2017 (THOUSAND) TABLE 63 APAC: LOW EMISSION VEHICLE MARKET REVENUE, BY COUNTRY, 2011 - 2017 (\$BILLION) TABLE 64 APAC: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY COUNTRY, 2011 – 2017 (THOUSAND) TABLE 65 JAPAN: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION) TABLE 66 JAPAN: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND) TABLE 67 CHINA: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION) TABLE 68 CHINA: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND) TABLE 69 APAC: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION) TABLE 70 APAC: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND) TABLE 71 APAC: LOW EMISSION VEHICLE MARKET REVENUE, BY TYPES OF BATTERY USED, 2011 – 2017 (\$BILLION) TABLE 72 APAC: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY TYPES OF BATTERIES USED, 2011 – 2017 (THOUSAND) TABLE 73 ROW: LOW EMISSION VEHICLE MARKET REVENUE, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$MILLION) TABLE 74 ROW: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (THOUSAND) TABLE 75 ROW: LOW EMISSION VEHICLE MARKET REVENUE, BY TYPES OF BATTERY USED, 2011 – 2017 (\$MILLION) TABLE 76 ROW: LOW EMISSION VEHICLE MARKET, UNIT SHIPMENTS, BY TYPES OF BATTERY USED, 2011 – 2017 (THOUSAND) TABLE 77 COMPARISON OF TOP HEV MANUFACTURES, HEV SEGMENT

REVENUE (\$BILLION)



TABLE 78 COMPARISON OF TOP EV MANUFACTURERS, EV SEGMENT REVENUE (\$BILLION) TABLE 79 NEW PRODUCT DEVELOPMENT TABLE 80 PARTNERSHIP/AGREEMENT/JOINT VENTURE TABLE 81 OTHERS TABLE 82 IMPORTANT FINANCIALS (REVENUE) OF 123 SYSTEMS, 2007 - 2011 (\$MILLION) TABLE 83 IMPORTANT FINANCIALS (R&D EXPENSES) OF 123 SYSTEMS, 2006 -2010 (\$MILLION) TABLE 84 BYD CO. LTD.: OVERALL REVENUE, BY PRODUCT SEGMENTS, 2010 -2011 (\$MILLION) TABLE 85 BYD CO. LTD.: MARKET REVENUE, BY GEOGRAPHY, 2010 - 2011 (\$MILLION) TABLE 86 IMPORTANT FINANCIALS OF COBASYS, 2011 (\$MILLION) TABLE 87 DAIMLER AG: OVERALL REVENUE, 2009 – 2011 (\$MILLION) TABLE 88 REVENUE BY BUSINESS SEGMENT (\$MILLION) TABLE 89 DENSO CORP : OVERALL REVENUE, 2009 – 2011 (\$MILLION) TABLE 90 FORD MOTOR COMPANY: MARKET REVENUE AND NET INCOME, 2010 - 2011 (\$MILLION) TABLE 91 GM: MARKET REVENUE AND NET INCOME, BY BUSINESS SEGMENTS, 2010 - 2011 (\$MILLION) TABLE 92 HONDO MOTOR CO. LTD.: OVERALL REVENUE, BY SEGMENTS, 2010 -2011 (\$BILLION) TABLE 93 HONDA MOTORS CO. LTD.: MARKET REVENUE, BY GEOGRAPHY, 2010 - 2011 (\$BILLION) TABLE 94 HONEYWELL INTERNATIONAL: OVERALL REVENUE, 2010 – 2011 (\$MILLION) TABLE 95 HYUNDAI: MARKET REVENUE AND NET INCOME, 2010 - 2011 (\$MILLION) TABLE 96 ISUZU MOTORS LTD.: OVERALL REVENUE, BY PRODUCT SEGMENTS, 2010 - 2011 (\$BILLION) TABLE 97 KIA MOTORS CORP : OVERALL REVENUE, 2010 – 2011 (\$BILLION) TABLE 98 MERCEDES BENZ: MARKET REVENUE, BY BUSINESS SEGMENTS, 2010 - 2011 (\$BILLION) TABLE 99 MITSUBISHI MOTORS CORP : OVERALL REVENUE, BY SEGMENTS, 2010 – 2011 (\$BILLION) TABLE 100 MITSUBISHI MOTORS CORP: OVERALL REVENUE, BY GEOGRAPHY, 2010 - 2011(\$BILLION) TABLE 101 NISSAN MOTOR CO. LTD: OVERALL REVENUE, 2010 - 2011



(\$BILLION)

TABLE 102 RENAULT S.A: OVERALL REVENUE, 2009 – 2011 (\$BILLION) TABLE 103 SUZUKI MOTOR CORP : OVERALL REVENUE, 2009 – 2011(\$BILLION) TABLE 104 TOYOTA MOTOR CORP.: OVERALL REVENUE, 2010 – 2011 (\$BILLION) TABLE 105 TOYOTA MOTOR CORP.: MARKET REVENUE, BY BUSINESS SEGMENTS, 2010 – 2011 (\$BILLION)



List Of Figures

LIST OF FIGURES

FIGURE 1 STAGES IN RESEARCH METHODOLOGY AND THEIR IMPORTANCE FIGURE 2 HEV MARKET RESEARCH STRATEGY FIGURE 3 HEV MARKET CRACKDOWN STRATEGY FIGURE 4 HEV MARKET SEGMENTATION FIGURE 5 IMPACT ANALYSIS OF DRIVERS FIGURE 6 IMPACT ANALYSIS FOR RESTRAINT FIGURE 7 IMPACT ANALYSIS FOR OPPORTUNITIES FIGURE 8 VALUE CHAIN FOR HEV MARKET FIGURE 9 PORTER'S FIVE FORCES MODEL FOR LOW EMISSION VEHICLE MARKET FIGURE 10 PARALLEL HYBRID VEHICLE-BASIC ARRANGEMENT FIGURE 11 SERIES HYBRID VEHICLE-BASIC ARRANGEMENT FIGURE 12 POWER-SPLIT HYBRIDS VEHICLE-BASIC ARRANGEMENT FIGURE 13 HYBRID VEHICLE-BASIC ARRANGEMENT FIGURE 14 EXPECTED UNITS SALE OF FCEVS (2011 – 2017) FIGURE 15 FULL HYBRID ELECTRIC VEHICLE (FHEV) REVENUE DISTRIBUTION, BY GEOGRAPHY, 2011 & 2017 FIGURE 16 FULL HYBRID ELECTRIC VEHICLE (FHEV) REVENUE DISTRIBUTION, BY BATTERY TYPE, 2011 & 2017 FIGURE 17 MILD HYBRID ELECTRIC VEHICLE (MHEV) REVENUE DISTRIBUTION, BY GEOGRAPHY, 2011 & 2017 FIGURE 18 MILD HYBRID ELECTRIC VEHICLE (MHEV) REVENUE DISTRIBUTION, BY BATTERY TYPES. 2011 & 2017 FIGURE 19 PLUG IN HYBRID ELECTRIC VEHICLE (PHEV) REVENUE DISTRIBUTION, BY GEOGRAPHY, 2011 & 2017 FIGURE 20 PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV) REVENUE DISTRIBUTION, BY BATTERY TYPE, 2011 & 2017 FIGURE 21 PURE ELECTRIC VEHICLE REVENUE DISTRIBUTION, BY GEOGRAPHY, 2011 & 2017 FIGURE 22 PURE ELECTRIC VEHICLE REVENUE DISTRIBUTION, BY BATTERY TYPES. 2011 & 2017 FIGURE 23 GLOBAL LEAD ACID BATTERY MARKET USED FOR LOW EMISSION VEHICLE, REVENUE DISTRIBUTION, BY GEOGRAPHY, 2011 & 2017 FIGURE 24 GLOBAL LEAD ACID BATTERY MARKET REVENUE DISTRIBUTION FOR LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 & 2017



FIGURE 25 NICKEL-CADMIUM BATTERY MARKET REVENUE DISTRIBUTION FOR LOW EMISSION VEHICLE, BY GEOGRAPHY, 2011 & 2017 FIGURE 26 GLOBAL NICKEL CADMIUM BATTERY MARKET REVENUE DISTRIBUTION FOR LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 & 2017 FIGURE 27 LEAD ACID BATTERY MARKET REVENUE DISTRIBUTION FOR LOW EMISSION VEHICLE, BY GEOGRAPHY, 2011 & 2017 FIGURE 28 GLOBAL METAL HYDRIDE BATTERY MARKET REVENUE DISTRIBUTION FOR LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 & 2017 FIGURE 29 LITHIUM ION BATTERY MARKET REVENUE DISTRIBUTION FOR LOW EMISSION VEHICLE, BY GEOGRAPHY, 2011 & 2017 FIGURE 30 GLOBAL LITHIUM ION BATTERY MARKET REVENUE DISTRIBUTION FOR THE LOW EMISSION VEHICLE, BY VEHICLE TYPES, 2011 & 2017 FIGURE 31 NORTH AMERICA: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY COUNTRY, 2011 – 2017 (\$BILLION) FIGURE 32 NORTH AMERICA: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY DEGREE OF HYBRIDIZATION, 2011 & 2017 (\$BILLION) FIGURE 33 NORTH AMERICA: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY TYPES OF BATTERIES USED, 2011 & 2017 (\$BILLION) FIGURE 34 EUROPE: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY COUNTRY, 2011 – 2017 (\$BILLION) FIGURE 35 EUROPE: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION) FIGURE 36 EUROPE: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY TYPE OF BATTERY USED, 2011 – 2017 (\$BILLION) FIGURE 37 APAC: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY COUNTRY, 2011 – 2017 (\$BILLION) FIGURE 38 APAC: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION) FIGURE 39 APAC: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY TYPE OF BATTERY USED, 2011 – 2017 (\$BILLION) FIGURE 40 ROW : LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY DEGREE OF HYBRIDIZATION, 2011 – 2017 (\$BILLION) FIGURE 41 EUROPE: LOW EMISSION VEHICLE MARKET REVENUE DISTRIBUTION, BY COUNTRY, 2011 – 2017 (\$BILLION) FIGURE 42 MARKET SHARE OF MAJOR HEV MANUFACTURERS, 2010 & 2011 FIGURE 43 BYD COMPANY LIMITED: PRODUCT SEGMENTS FIGURE 44 HONDA MOTOR COMPANY LIMITED: PRODUCT SEGMENT FIGURE 45 ISUZU MOTORS LTD. PRODUCT SEGMENT FIGURE 46 KIA MOTORS CORPORATION PRODUCT SEGMENT



FIGURE 47 KEY BRANDS, KIA MOTORS, 2011 FIGURE 48 MERCEDES BENZ PRODUCT SEGMENT FIGURE 49 MITSUBISHI MOTORS CORPORATION PRODUCT SEGMENT FIGURE 50 MITSUBISHI MOTORS CORPORATION: BRANDS FIGURE 51 TOYOTA MOTOR CORPORATION: PRODUCT SEGMENT



I would like to order

 Product name: Global Low (Zero) Emission Vehicle Market – by Degree of Hybridization & Type of Traction Battery used, Forecast, Market Trends & Analysis (2012 – 2017
 Product link: <u>https://marketpublishers.com/r/G105CCC4ADEEN.html</u>
 Price: US\$ 5,650.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/G105CCC4ADEEN.html</u>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

**All fields are required

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

