

Global Automotive Thermoelectric Generator Market: Focus on Materials, Components, Vehicle Type, and Region - Analysis and Forecast (2022 – 2028)

https://marketpublishers.com/r/GFB1C91D86B4EN.html

Date: January 2019

Pages: 129

Price: US\$ 3,000.00 (Single User License)

ID: GFB1C91D86B4EN

Abstracts

Hard copy option is available on any of the options above at an additional charge of \$500. Please email us at order@marketpublishers.com with your request.

Rapid growth in technological advancements and development of a wide variety of thermoelectric materials which can harness energy from waste heat at higher temperatures are the factors propelling the development of the automotive thermoelectric generator. Various companies across the globe are actively investing in the development of prototypes which are efficient and reliable. The usage of thermoelectric generator in the automotive industry is expected to improve the overall efficiency of the engine, as it helps in utilizing waste heat from the engine to generate energy, which can be utilized for running auxiliaries and systems, such as air conditioning system, infotainment system, and lightings. Furthermore, the use of thermoelectric generator can help in reducing the weight of the alternator and onboard battery, thereby reducing the overall weight of the vehicle and further increasing the efficiency of the vehicle. Although the automotive thermoelectric generator market is in the development stage, it is expected that there will be a gradual increase in the market due to rising regulations on greenhouse gas emission.

The growth in the automotive thermoelectric generator market is expected to vary according to various geographical regions. The automotive thermoelectric generator is expected to hold a prominent share in various countries of North America, Europe, Asia-Pacific (APAC), and Rest-of-the-World (RoW). Geographically, North America is expected to lead the global automotive thermoelectric generator in 2022 both in terms of value and volume. Additionally, Europe is expected to witness the highest growth during the forecast period (2022-2028). Increasing regulations on greenhouse gas emissions



and adoption of thermoelectric generator in the commercial vehicles are some of the factors expected to contribute to the market growth in the Europe region.

The key market players in the global automotive thermoelectric generator market are Gentherm Incorporated, Tenneco Inc., Faurecia, Valeo, Laird PLC, Yamaha Corporation, Alphabet Energy, Inc., II-VI Marlow, KELK Ltd., SANGO Co., Ltd., European Thermodynamics, and Thermonamic Electronics (Jiangxi) Corp., Ltd.

The report is a compilation of different segments of the global automotive thermoelectric generator market, including market breakdown by material-type, components, vehicle-type, and region. The report further takes into consideration the market dynamics. The report also discusses in detail about the key participants involved in the industry.

Key questions answered in the report

What is Thermoelectric Energy Harvesting?

What is Automotive Thermoelectric Generator and why is it needed?

What are the key technologies used in the automotive industry to recover waste heat?

What are the trends in the global automotive thermoelectric generator market?

What are the major forces that are expected to drive the demand for global automotive thermoelectric generator Market?

What are the major factors inhibiting the growth of the global automotive thermoelectric generator market?

What are the opportunities for the global automotive thermoelectric generator market?

What will be the revenue generated by the Automotive Thermoelectric Generator Market in 2022, and what will be the estimates by 2028?

Which material type (Bismuth Telluride, Lead Telluride, Skutterudite, and Magnesium Silicide) of the global Automotive Thermoelectric Generator will dominate the market between 2022 and 2028?



What are the key components used for Automotive Thermoelectric Generator and what will be its market size during forecast period 2022-2028?

What is the revenue generated by each vehicle type (Commercial and Passenger)?

What is the expected market size for Automotive Thermoelectric Generator in each region i.e. North America, Europe, Asia-Pacific and Rest-of-the -World?

Who are the key players in the global Automotive Thermoelectric Generator Market?

What is the future of Thermoelectric Generator in Automotive Industry?



Contents

EXECUTIVE SUMMARY

1 MARKET OVERVIEW

- 1.1 Introduction
- 1.2 Market Definition
 - 1.2.1 Thermoelectric Energy Harvesting
 - 1.2.2 Automotive Thermoelectric Generator

2 ADVANCEMENTS IN AUTOMOTIVE WASTE HEAT RECOVERY TECHNOLOGY

- 2.1 Roadmap of Automotive Waste Heat Recovery System
- 2.2 Comparative Analysis of different Automotive Waste Heat Recovery System
 - 2.2.1 Regenerative Braking System
 - 2.2.2 Turbo-Compounding
 - 2.2.3 Exhaust Heat Recovery System
 - 2.2.4 Thermoelectric Generator
- 2.3 Patent Analysis
 - 2.3.1 Patent Analysis: Regenerative Braking System
 - 2.3.2 Patent Analysis: Turbo Compounding
 - 2.3.3 Patent Analysis: Exhaust Gas Recovery System
 - 2.3.4 Patent Analysis: Thermoelectric Generator

3 MARKET DYNAMICS

- 3.1 Drivers
 - 3.1.1 Rising Greenhouse Gas Emission
 - 3.1.2 Increasing Fuel Efficiency Requirements
- 3.2 Restraints
 - 3.2.1 High Production Cost of Thermoelectric Material
 - 3.2.2 Inability to Produce High Power Electricity Output
 - 3.2.3 Increasing Demand for Electric Vehicles
- 3.3 Opportunity:
 - 3.3.1 Rapid Commercialization in the Automotive Industry

4 GLOBAL AUTOMOTIVE THERMOELECTRIC GENERATOR MARKET (BY MATERIAL TYPE), 2022-2028



- 4.1 Assumptions
- 4.2 Limitations
- 4.3 Market Overview
- 4.3.1 Bismuth Telluride (Bi2Te3)
- 4.3.2 Lead Telluride (PbTe)
- 4.3.3 Skutterudite
- 4.3.4 Magnesium Silicide

5 GLOBAL AUTOMOTIVE THERMOELECTRIC GENERATOR MARKET (BY COMPONENTS)

- 5.1 Thermoelectric Module
- 5.2 Cooling Plates
- 5.3 Heat Exchangers
- 5.4 Others

6 GLOBAL AUTOMOTIVE THERMOELECTRIC GENERATOR MARKET (BY VEHICLE TYPE), 2022-2028

- 6.1 Passenger Vehicles
- 6.2 Commercial Vehicles

7 AUTOMOTIVE THERMOELECTRIC GENERATOR MARKET (BY REGION), \$THOUSAND AND UNITS, 2022-2028

- 7.1 Asia-Pacific
 - 7.1.1 China
 - 7.1.2 Japan
 - 7.1.3 South Korea
 - 7.1.4 Rest-of-Asia-Pacific
- 7.2 North America
 - 7.2.1 The U.S.
 - 7.2.2 Canada
- 7.3 Europe
 - 7.3.1 Germany
 - 7.3.2 France
 - 7.3.3 The U.K.
 - 7.3.4 The Netherlands



- 7.3.5 Finland
- 7.3.6 Rest-of-Europe
- 7.4 Rest-of-the-World

8 COMPANY PROFILES

- 8.1 Overview
- 8.2 II-VI Marlow
 - 8.2.1 Company Overview
 - 8.2.2 Corporate Summary
 - 8.2.3 SWOT Analysis
- 8.3 Alphabet Energy, Inc.
 - 8.3.1 Company Overview
 - 8.3.2 Corporate Summary
 - 8.3.3 SWOT Analysis
- 8.4 European Thermodynamics
 - 8.4.1 Company Overview
 - 8.4.2 Corporate Summary
 - 8.4.3 SWOT Analysis
- 8.5 Faurecia
 - 8.5.1 Company Overview
 - 8.5.2 Financials
 - 8.5.3 Financial Summary
 - 8.5.4 SWOT Analysis
- 8.6 Gentherm Incorporated
- 8.6.1 Company Overview
- 8.6.2 Financials
- 8.6.3 Financial Summary
- 8.6.4 SWOT Analysis
- 8.7 KELK Ltd.
 - 8.7.1 Company Overview
 - 8.7.2 Corporate Summary
 - 8.7.3 SWOT Analysis
- 8.8 Laird PLC
 - 8.8.1 Company Overview
 - 8.8.2 Financials
 - 8.8.3 Financial Summary
 - 8.8.4 SWOT Analysis
- 8.9 SANGO Co., Ltd.



- 8.9.1 Company Overview
- 8.9.2 Corporate Summary
- 8.9.3 SWOT Analysis
- 8.10 Tenneco Inc.
 - 8.10.1 Company Overview
 - 8.10.2 Financials
 - 8.10.3 Financial Summary
 - 8.10.4 SWOT Analysis
- 8.11 Thermonamic Electronics (Jiangxi) Corp., Ltd.
 - 8.11.1 Company Overview
 - 8.11.2 Corporate Summary
 - 8.11.3 SWOT Analysis
- 8.12 Valeo
 - 8.12.1 Company Overview
 - 8.12.2 Financials
 - 8.12.3 Financial Summary
 - 8.12.4 SWOT Analysis
- 8.13 Yamaha Corporation
 - 8.13.1 Company Overview
 - 8.13.2 Financials
 - 8.13.3 Financial Summary
 - 8.13.4 SWOT Analysis

9 VIEWS OF PRIMARY RESPONDENTS

10 RESEARCH SCOPE & METHODOLOGY

- 10.1 Report Scope
- 10.2 Global Automotive Thermoelectric Generator Research Methodology
 - 10.2.1 Assumptions
 - 10.2.2 Limitations
 - 10.2.3 Primary Data Sources
 - 10.2.4 Secondary Data Sources
 - 10.2.5 Data Triangulation
 - 10.2.6 Market Estimation and Forecast



List Of Tables

LIST OF TABLES

- Table 1: Global Automotive Thermoelectric Generator Market Snapshot, 2022 and 2028
- Table 2.1: Comparison of Energy Harvesting Technologies on the basis of Basic Parameters
- Table 3.1: Average Prices of Thermoelectric Materials
- Table 4.1: Global Automotive Thermoelectric Generator Market (by Material Type), 2022 and 2028 (\$Million)
- Table 5.1: Global Automotive Thermoelectric Generator Market (by Components), 2022 and 2028 (\$Million)
- Table 6.1: Global Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)
- Table 6.2: Global Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (\$Million)
- Table 6.3: Global Automotive Thermoelectric Generator Market (by Passenger Vehicles), 2022–2028(Units)
- Table 6.4: Global Automotive Thermoelectric Generator Market (by Passenger Vehicles), 2022–2028(\$Million)
- Table 6.5: Global Automotive Thermoelectric Generator Market (by Commercial Vehicles), 2025–2028(Units)
- Table 6.6: Global Automotive Thermoelectric Generator Market (by Commercial Vehicles), 2025–2028(\$Million)
- Table 7.1: Global Automotive Thermoelectric Generator Market (by Region), 2022–2028(Units)
- Table 7.2: Global Automotive Thermoelectric Generator Market (by Region), 2022–2028(\$Million)
- Table 7.3: Asia-Pacific Automotive Thermoelectric Generator Market (by Country), 2022–2028 (Units)
- Table 7.4: Asia-Pacific Automotive Thermoelectric Generator Market (by Country), 2022–2028(\$Million)
- Table 7.5: Asia-Pacific Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)
- Table 7.6: Asia-Pacific Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.7: China Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)
- Table 7.8: China Automotive Thermoelectric Generator Market (by Vehicle Type),



- 2022-2028(\$Million)
- Table 7.9: Japan Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)
- Table 7.10: Japan Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.11: South Korea Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)
- Table 7.12: South Korea Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.13: Rest-of-Asia-Pacific Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)
- Table 7.14: Rest-of-Asia-Pacific Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.15: North America Automotive Thermoelectric Generator Market (by Country), 2022–2028(Units)
- Table 7.16: North America Automotive Thermoelectric Generator Market (by Country), 2022–2028(\$Million)
- Table 7.17: North America Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)
- Table 7.18: North America Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.19: The U.S. Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)
- Table 7.20: The U.S. Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.21: Canada Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)
- Table 7.22: Canada Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.23: Europe Automotive Thermoelectric Generator Market (by Country), 2022–2028(Units)
- Table 7.24: Europe Automotive Thermoelectric Generator Market (by Country), 2022–2028(\$Million)
- Table 7.25: Europe Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)
- Table 7.26: Europe Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)
- Table 7.27: Germany Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)



Table 7.28: Germany Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)

Table 7.29: France Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)

Table 7.30: France Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)

Table 7.31: The U.K. Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)

Table 7.32: The U.K. Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)

Table 7.33: The Netherlands Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)

Table 7.34: The Netherlands Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)

Table 7.35: Finland Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)

Table 7.36: Finland Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)

Table 7.37: Rest-of-Europe Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028 (Units)

Table 7.38: Rest-of-Europe Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)

Table 7.39: Rest-of-the-World Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(Units)

Table 7.40: Rest-of-the-World Automotive Thermoelectric Generator Market (by Vehicle Type), 2022–2028(\$Million)

Table 8.1: II-VI Marlow Company Snapshot

Table 8.2: Alphabet Energy, Inc. Company Snapshot

Table 8.3: European Thermodynamics Company Snapshot

Table 8.4: Faurecia Company Snapshot

Table 8.5: Gentherm Incorporated Company Snapshot

Table 8.6: KELK Ltd. Company Snapshot

Table 8.7: Laird PLC Company Snapshot

Table 8.8: SANGO Co., Ltd. Company Snapshot

Table 8.9: Tenneco Inc. Company Snapshot

Table 8.10: Thermonamic Electronics (Jiangxi) Corp., Ltd. Company Snapshot

Table 8.11: Valeo Company Snapshot

Table 8.12: Yamaha Corporation Company Snapshot



List Of Figures

LIST OF FIGURES

Figure 1: Global Automotive Thermoelectric Generator Market Snapshot

Figure 2: Global Automotive Thermoelectric Generator Market (by Material Type), 2022

and 2028

Figure 3: Global Automotive Thermoelectric Generator Market (by Vehicle Type), 2022

and 2028

Figure 4: Global Thermoelectric Generator Market (by Region), 2022

Figure 1.1: Sources for Thermoelectric Energy Harvesting

Figure 1.2: Global Automotive Thermoelectric Generator Market Segmentation

Figure 2.1: Patent Landscape: Regenerative Braking System

Figure 2.2: Patent Landscape: Turbo Compounding

Figure 2.3: Patent Landscape: Exhaust Heat Recovery System

Figure 2.4: Patent Landscape: Thermoelectric Generator

Figure 3.1: Market Dynamics

Figure 7.1: Global Automotive Thermoelectric Generator Market (by Region)

Figure 7.2: Global Automotive Thermoelectric Generator Market Overview (by Region)

Figure 8.1: Company Profiles by Ownership Type, 2018

Figure 8.2: II-VI Marlow: SWOT Analysis

Figure 8.3: Alphabet Energy, Inc.: SWOT Analysis

Figure 8.4: European Thermodynamics: SWOT Analysis

Figure 8.5: Faurecia: Overall Financials, \$Billion, 2015-2017

Figure 8.6: Faurecia: Net Revenue (by Business Segment), \$Billion, 2015-2017

Figure 8.7: Faurecia: Net Revenue (by Region), \$Billion, 2015-2017

Figure 8.8: Faurecia: SWOT Analysis

Figure 8.9: Gentherm Incorporated: Overall Financials, \$Million, 2015-2017

Figure 8.10: Gentherm Incorporated: Net Revenue (by Business Segment), \$Million,

2015-2017

Figure 8.11: Gentherm Incorporated: Net Revenue (by Country), \$Million, 2015-2017

Figure 8.12: Gentherm Incorporated: SWOT Analysis

Figure 8.13: KELK Ltd.: SWOT Analysis

Figure 8.14: Laird PLC: Overall Financials, \$Million, 2015-2017

Figure 8.15: Laird PLC: Net Revenue (by Business Segment), \$Million, 2015-2017

Figure 8.16: Laird PLC: Net Revenue (by Region), \$Million, 2015-2017

Figure 8.17: Laird PLC: SWOT Analysis

Figure 8.18: SANGO Co., Ltd.: SWOT Analysis

Figure 8.19: Tenneco Inc.: Overall Financials, \$Million, 2015-2017



Figure 8.20: Tenneco Inc.: Net Revenue (by Business Segment), \$Million, 2015-2017

Figure 8.21: Tenneco Inc.: Net Revenue (by Region), \$Million, 2015-2017

Figure 8.22: Tenneco Inc.: SWOT Analysis

Figure 8.23: Thermonamic Electronics (Jiangxi) Corp., Ltd.: SWOT Analysis

Figure 8.24: Valeo: Overall Financials, \$Billion, 2015-2017

Figure 8.25: Valeo: Net Revenue (by Business Segment), \$Billion, 2015-2017

Figure 8.26: Valeo: Net Revenue (by Region), \$Billion, 2015-2017

Figure 8.27: Valeo: SWOT Analysis

Figure 8.28: Yamaha Corporation: Overall Financials, \$Billion, 2015-2017

Figure 8.29: Yamaha Corporation: Net Revenue (by Business Segment), \$Billion,

2015-2017

Figure 8.30: Yamaha Corporation: Net Revenue (by Region), \$Billion, 2015-2017

Figure 8.31: Yamaha Corporation: SWOT Analysis

Figure 10.1: Global Automotive Thermoelectric Generator Scope

Figure 10.2: Report Design

Figure 10.3 Primary Interviews Breakdown (by Player, Designation, and Region)

Figure 10.4: Sources of Secondary Research

Figure 10.5: Data Triangulation

Figure 10.6: Top-down and Bottom-up Approach



I would like to order

Product name: Global Automotive Thermoelectric Generator Market: Focus on Materials, Components,

Vehicle Type, and Region - Analysis and Forecast (2022 – 2028)

Product link: https://marketpublishers.com/r/GFB1C91D86B4EN.html

Price: US\$ 3,000.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/GFB1C91D86B4EN.html

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

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 https://marketpublishers.com/docs/terms.html

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

