Micro Combined Heat & Power (Micro CHP) Market by Type, Technology, Application, & Region - Global Forecast to 2020

Description:


The energy scenario is changing throughout the world and governments, globally, are making an attempt to make cost-effective use of existing resources along with, enabling the emergence of a low carbon economy. The global micro CHP market is projected to reach USD 4.44 Billion by 2020, and is expected to grow at a CAGR of 14.2% from 2015 to 2020. The major factors driving the micro CHP market include the need for low carbon emission technologies, easy installation, and cost-effective performance over other low carbon emission technologies, and reducing electricity expenses along with being an ideal product for boiler replacement. The demand is mainly driven in the Asia-Pacific region, owing to energy demand and the depletion of conventional sources of energy. Governments are allocating funds to various leading micro CHP companies to incentivize the development of new technologies. Fuel cell-based micro CHPs account for more than 70% of the Asia-Pacific micro CHP market, mainly due to the Eni-Farm scheme.

The Micro CHP market is segmented on the basis of type, technology, application, and region. The years considered for the study are:

- Base Year - 2014
- Estimated Year - 2015
- Projected Year - 2020
- Forecast Period - 2015 to 2020

For company profiles in the report, 2014 has been considered as the base year. However, where information is unavailable for base year, the previous year has been considered.

Research Methodology:

Extensive secondary sources, directories, and databases, such as IEA papers, COSPP (Cogeneration & On-Site Power Production), EIA websites, Ene.field, Callux, Ene-farm, other regional micro CHP projects, micro CHP associations, company annual reports, Bloomberg BusinessWeek, and Factiva, have been used to identify and collect information for this technical, market-oriented, and commercial study of the global micro CHP market.

The research methodology has been explained below:

- Key players in micro CHP market were identified.
- The percentage shares, splits, current market size and sales per company, have been estimated using annual sales data taken from press releases of micro CHP companies and associations, and subsequently confirmed with primary respondents.
- Selling prices were taken for representative products of Honda Power, BDR Thermea Group, Vaillant Group, and other micro CHP companies.
- Historic data has been collected from different energy associations and company websites.
- Estimation of total micro CHP units sold, based on specific technology (Internal combustion engine, Stirling engine, Organic rankine cycle engine, SOFC and PEMFC) on regional level.
- This fraction was multiplied with regional average cost of specific micro CHP technology.
- Total micro CHP market size was arrived at by summing up the total units sold as per the cost obtained, at regional level using market engineering process.
- Analyzing market trends in various regions/countries supported by the field projects on micro CHP in respective regions/countries.

- Overall market size values are finalized by triangulation with the supply side data, which include product developments, supply chain, and annual contracts for micro CHP across the globe.

Market Ecosystem:

The micro CHP ecosystem starts with the component manufacturer. There could be a single manufacturer who produces both micro CHP unit and components (such as Hexis AG) or two manufacturers, which collaborate to manufacture together (such as components from Plug Power and Valliant micro CHP assembly).

Taking the ecosystem ahead, it is comprised of micro CHP unit distributors, installers/ assemblers, fuel suppliers, and after sales service providers. This segment provides the micro CHP unit from manufacturer to the end consumer. The entities involved post production of micro CHP, plays a key role in ecosystem, as installation of micro CHP requires specialized training. Micro CHP being a niche market product, poses significant effect on how these services are being provided to the end consumer.

Stakeholders:

The stakeholders of the report include:

- Raw material suppliers - manufacturers of a number of integral parts such as an exhaust heat exchanger, insulated exhaust collector, engine, air filter, water cooled alternator, coolant, thermal and acoustic insulation, vibration absorbers, primary circuit pump, exhaust silencer, and chassis.

- Manufacturers - these include Honda Power (Japan), Vaillant Group (Germany), and BDR Thermea (Netherlands) among others.

- Distributor/Marketer - utilities distributing residential systems such as British Gas (U.K.), E.ON (Germany), Tokyo Gas (Japan) among others, and marketers such as iPower Ltd. (U.K.) for BlueGen micro CHP, and ENER -G for Japan-based micro CHP unit manufacturer, Yanmar Co. Ltd., for the distribution of micro CHP units in Europe.

Scope of the Report:

This study estimates the global market of micro CHP, in terms of dollar value, till 2020

- On the basis of Type
  Engine-based
  Fuel Cell-based

- On the basis of Technology
  Internal Combustion Engine
  Rankine Cycle Engine
  Stirling Engine
  PEMFC (Proton Exchange Membrane Fuel Cell)
  SOFC (Solid Oxide Fuel Cell)

- On the basis of Application
  Residential
  Commercial
  Region
  Asia-Pacific
  North America
  Europe

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