

# Empowering Energy Management:

The Criticality of SBCL's Components



In the ever-evolving world of energy management, the fundamental role of electrical components cannot be overstated. In the global wave towards electrification, SBCL's components power the transformation taking place across industries and homes. From residential distribution boards and circuit breakers to commercial power transmission and control systems, SBCL's components ensure reliable and efficient energy management.



## Smart Metering

Within the smart metering sector, SBCL's precise current sensors, shunt resistors, and silver contacts (SEPPL) play a critical role. They enable accurate monitoring and control of energy consumption in smart meters, promoting energy efficiency and data-driven decision-making.

The global smart metering market size is expected to reach USD 26.7 billion by 2026, growing at a compound annual growth rate (CAGR) of over 9% during the forecast period.



# 1.2 billion

*Projected cumulative installed  
base of Smart Meters by 2026.*

The cumulative global installed base of smart electricity meters is projected to surpass 1.2 billion units by 2026. This indicates the widespread adoption and deployment of smart metering technologies across various regions.

Asia Pacific is anticipated to witness substantial growth in the smart metering sector, driven by rising electricity demand, infrastructure development, and government initiatives promoting energy efficiency. Europe is also expected to contribute significantly to the market growth, with the replacement of traditional meters and smart grid modernization efforts. In addition, Governments and regulatory bodies across the globe are implementing policies and regulations to drive smart meter adoption. These mandates aim to improve energy efficiency, reduce carbon emissions, and empower consumers with real-time energy usage information.

The Indian smart meter market is projected to grow at a CAGR of over 9% between 2023 and 2028, due to favourable government initiatives and the deployment of 5G networks.

## Empowering Energy Management:

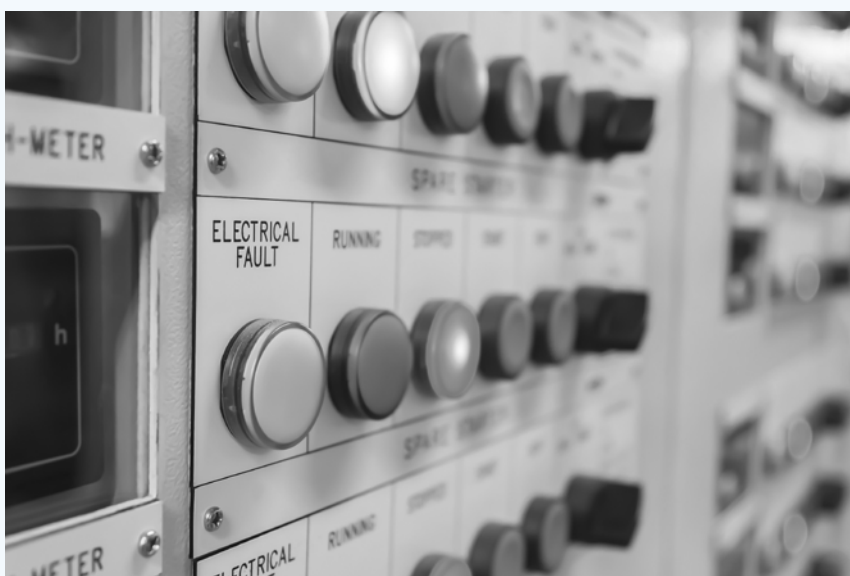
The Criticality of SBCL's Components



### Switchgear

The Company's electrical products such as thermostatic bimetal, silver contacts, thermal protectors, and current sensors play a critical role in ensuring the safe and efficient operation of switchgear systems. SBCL's products are designed to withstand high currents, offer precise measurement capabilities, and provide reliable circuit protection, making them indispensable in switchgear applications.

SBCL's growth in the switchgear industry can be attributed to its focus on customer satisfaction and building strong partnerships.



SBCL's commitment to innovation and continuous improvement has fuelled its success in the switchgear industry. The company's research and development efforts focus on developing cutting-edge solutions that address the evolving needs of the market. By incorporating the latest technologies and adhering to international standards, SBCL stays at the forefront of the switchgear industry, providing state-of-the-art components to its customers. With the increasing adoption of smart grid technologies, SBCL's products have found extensive applications in advanced switchgear systems, including smart meters, digital protection devices, and intelligent control panels. The company's products enable seamless integration, enhanced monitoring capabilities, and improved energy management, supporting the global shift towards a more connected and sustainable electrical infrastructure.

By collaborating closely with its customers, SBCL ensures that its products meet the specific requirements of different switchgear applications, providing customized solutions that drive efficiency, reliability, and safety.

# 21.7%

Compound Annual Growth Rate (CAGR) of the EV Market 2022-2030

The company has established long-term relationships with renowned switchgear manufacturers and original equipment manufacturers (OEMs), securing its position as a preferred supplier in the industry.





## Automotive Segment

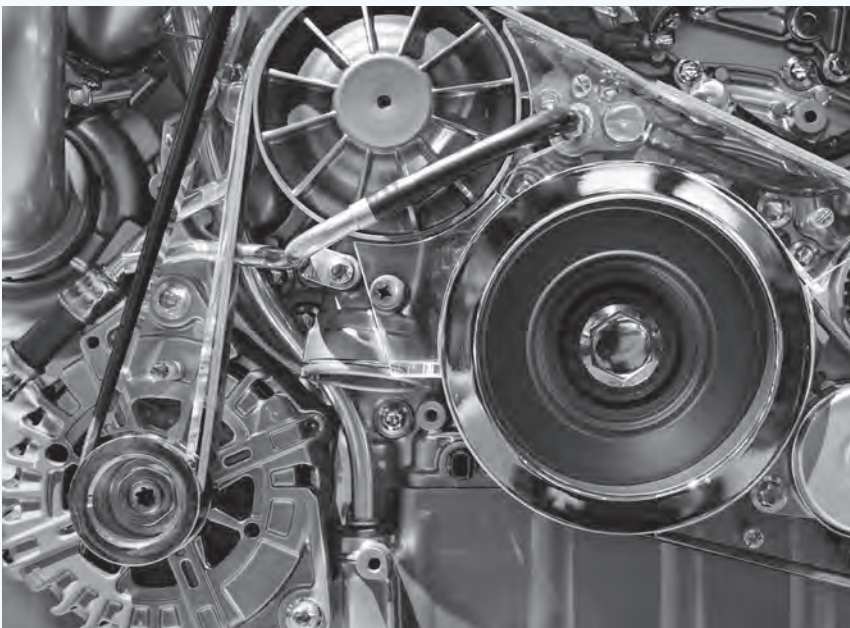
The automotive sector is undergoing significant transformation with the advent of electric vehicles (EVs) and increasing focus on advanced driver assistance systems (ADAS). As a result, the demand for various components, including shunt resistors, is expected to experience substantial growth.

Shunt resistors are commonly used in BMS for current sensing and monitoring the charging and discharging of batteries. With the increasing adoption of electric vehicles, the demand for shunt resistors in BMS applications is expected to rise significantly. Automakers worldwide are also placing a significant emphasis on improving energy efficiency and reducing carbon emissions. This drive towards energy efficiency requires precise measurement and control of electrical currents.

The increasing electrification of automotive systems, including powertrain, battery management, and charging infrastructure, creates a higher demand for shunt resistors.

In the dynamic landscape of the automotive industry, Shivalik Bimetal Controls Ltd. stands out as a beacon of innovation and excellence, particularly in the motor controls and power electronics domains within our shunt resistor segments. Our unwavering commitment to precision engineering and cutting-edge technology has positioned us as a formidable player in addressing the critical needs of current sensing, electronic control units, and power electronics. Our adeptness in manufacturing high-precision shunt resistors underscores our ability to deliver accurate current sensing solutions that are integral to the optimal functioning of motor controls.

The global Electric Vehicle Market size is projected to grow from 8,151 thousand units in 2022 to 39,208 thousand units by 2030, at a CAGR of 21.7% (2022-2030).



## Empowering Energy Management:

The Criticality of SBCL's Components

### Automotive Segment *continued*

In the realm of power electronics, we take pride in our capacity to shape the future of energy management in automobiles. Our shunt resistors serve as vital components that facilitate the efficient distribution and management of power within vehicles. This not only enhances overall performance but also contributes to the growing imperative of sustainable transportation. As we navigate the evolving landscape of electrification, Shivalik Bimetal Controls Ltd. remains dedicated to harnessing the full potential of power electronics, aligning with global efforts to reduce carbon footprints and embrace clean energy solutions.

# 58%

*of global passenger car sales are anticipated to be represented by electric vehicles by 2040, as stated in a report by BloombergNEF.*

The applications of shunt resistors in Battery management systems (BMS) are integral to electric and hybrid vehicles as they ensure the optimal performance and safety of the battery pack.



SBCL's shunt resistors are at the forefront of the electric and hybrid vehicle revolution.



## Sustainability & Renewable Energy Systems

SBCL's products are the driving force behind the transformative journey of energy management. With unwavering reliability, a commitment to innovation, and a focus on sustainability, SBCL solidifies its status as a foundational building block within the wave towards global electrification. The global transition towards renewable energy sources is driving the growth of the renewable energy systems market. Solar power, wind power, and storage of power generated through these renewable energies are becoming increasingly prevalent. SBCL's products such as current sensors & electrical contacts are critical in ensuring the efficient and safe operation of these renewable energy systems.

As the world continues to evolve, SBCL is poised for continued growth, contributing significantly to efficient energy management on a global scale.

The global transition towards renewable energy sources is driving the growth of the renewable energy systems market. Solar power, wind power, and storage of power generated systems are becoming increasingly prevalent. SBCL is prepared to meet the increasing demand for reliable and innovative electrical solutions across these industries, contributing to their growth and technological advancements.



# 65%

*is the proportion by which renewable sources are expected to contribute to India's energy mix by 2030.*