



## HELLA INDIA AUTOMOTIVE: EMISSION CONTROL SYSTEMS TO MEET REGULATIONS

**September 2016:** Globally, emission norms compliance is a key issue for the automotive industry. As policy makers advocate ever-tightening norms, vehicle makers are not only looking at reducing emissions, but are also finding ways to improve efficiency and lower fuel consumption of their vehicles. Similarly, Tier I manufacturers too are developing solutions that will help control emissions by making more efficient use of fuel.

We spoke with **Rajesh Kulkarni, Vice President, Sales and Marketing, HELLA India Automotive**, about the company's product offerings in emission control, its approach to improving efficiency and its local strategy for the Indian market.

### ADDRESSING EMISSIONS

An internal combustion (IC) engine typically uses about 15 % of energy available in fuel towards actually moving the vehicle, with the rest being lost to various factors like powertrain inefficiencies, mechanical losses, and friction-related losses and idling, explained Kulkarni. HELLA's product development philosophy is focused on this 85 %, which has large potential to reduce and recover the power losses. The company's focus is on reducing these losses and achieving maximum efficiency, noted Kulkarni.

This approach has helped the company develop products that increase efficiency, which also reduces emissions. Additionally, HELLA manufactures products for turbochargers, which help boost volumetric efficiency of engines and keep emissions under control. The company manufactures products for vehicles with IC engines, hybrid vehicles and electric vehicles across five main products categories – fuel pump control module (FCM), intelligent battery sensor (IBS), DC/DC convertor, voltage stabiliser and battery management system (BMS).

### ADOPTION IN INDIA

While most of the above mentioned products are currently not being used in India, Kulkarni said that IBS does have usage in India and is being supplied in the country from HELLA's international plants. However, he said that in the first step towards localisation, the company will begin manufacturing its DC/DC convertor in India in about a year. The DC/DC convertor that will be produced in India will be a 24-12 V convertor and not the 48-12 V convertor, Kulkarni added.

With regards to the adoption of BS VI norms in 2020, Kulkarni said HELLA is ready to offer its global automotive solutions in India. The company is already developing solutions for customers in the country, which will help reduce emissions and ensure regulatory compliance.

However, he said there are two critical factors that affect HELLA's development activities locally. Firstly, it involves building local design and development capability, since customers demand quicker solutions and faster response



times. The second factor is in localising production after considering the business case and volumes. These factors pertain to products that are globally available in the HELLA portfolio and need to be adapted to local requirements.

When it comes to development of completely new products for India, HELLA tries to bring in its expertise with similar products that it already has in its global portfolio. The company also focuses on understanding market expectations and end consumer challenges, and then works closely with customers to co-develop solutions. The company is also looking at entering the two and three-wheeler segments in India, since this could be a fast-growing segment in the near future.

## MARKET DRIVERS

Kulkarni said that one of the biggest drivers of growth in the Indian automotive industry is the change in regulations, and skipping of the BS V standards is a bold move made by the Government. He said the repercussions to the four major stakeholders of the industry, namely OEMs, component manufacturers, consumers and the Government, are different. Automotive OEMs are the most-affected as they are at the end of the supply chain. While various levels of technologies exist for meeting emission requirements, the challenge lies in choosing the right technology and ensuring timely integration. While a major portion of the cost can be passed on to the consumers, there is still a need to be cost-effective to compete in each vehicle segment, said Kulkarni.

Kulkarni said Tier I and Tier II suppliers will continue to innovate and develop technologies, and in some cases also bring in technologies from global locations and customise them to local requirements. Consumers form the next set of stakeholders, who will enjoy the benefits of cleaner environment, while paying higher prices for the new technologies that they will be using. The Government is taking a holistic approach towards the environment and emission standards, Kulkarni said. However, he noted that it is important that all the safety concerns arising out of these upcoming technologies are scrutinised by Government authorities, due to the shorter validation timelines. Kulkarni also said that stringent emission regulations and the adoption of more electric mobility solutions demonstrate that the Government is not only taking bold steps, but also has a multi-faceted approach to address the problem of reducing harmful emissions.

## CONCLUSION

HELLA has global solutions for emission control in many markets, and is looking at building resources for the development of similar technologies in India as well. The company is looking at expanding the entire energy management product line, under which its emission control systems are positioned. The company in India has received good order intake over the past few years and has managed respectable growth, said Kulkarni. He pointed out that this growth has predominantly come from acquisitions, as well as components like accelerator pedal sensors, body control modules and lighting systems. HELLA expects this momentum to continue, especially in area of electronics for energy management, where it has added new customers and pro