CIN No: L31909TG1988PLC008652

MIC Electronics Limited

A-4/II, Electronic Complex, Kushaiguda, Hyderabad - 500062, India
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www.mic.in www.micelectronics.com

ISO 9001:2008 ISO 14001:2004 Certified Company

Friday, December 15, 2017

To
The Secretary
National Stock Exchange of India Limited
Exchange Plaza
Bandra Kurla Complex
Bandra (E)
Mumbai - 400 051.

Dear Sir / Madam,

Sub : Business Operations – Reg.

Ref : Clause 30 of the SEBI Listing obligations and Disclosures Requirements Regulations, 2015.
Scrip Code : MIC .

With reference to the above please find attached Business Operation updates.

This is for your information and records.

Thanking you,

Yours truly,

For MIC Electronics Limited

MIC ELECTRONICS LIMITED Hyd

(Dr. M V Ramana Rao)
Managing Director

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Business Operations Update

MIC Electronics Limited – The Focused Way Forward

This note is to provide a brief on MIC's plan going forward, building on its proven technological strengths in the LED lighting and display space as well as in the smart systems markets.

In the recent past a majority of MIC's revenues were derived from orders generated via its success in winning domestic government tenders for LED lighting. While the government business has been a technical success and has contributed to the topline of the company, the terms and conditions as well as the complex logistical and procedural issues inherent in these contracts have resulted in undue cash flow constraints hindering the operations and growth of the company.

Considering this and keeping in view the large market opportunities and fast pace of the core markets that MIC plays in, management has been working at systematically steering the company away from this concentration in government and public sector tender business. It is consciously acting to even out the business between B2G, B2B and B2C segments as well as export opportunities(an area which had been one of its strengths).

MIC is now focused on the following clearly defined product sectors:

Smart LED Street Lights with Smart Communication Gateway. A smart LED street light network is the logical precursor to smart city management networks. It has successfully completed Proof of Concept projects in the Greater Hyderabad Municipal Corporation and New Delhi Municipal Corporation jurisdictions.

"The "smart" street lighting market in India is expected to grow at an annual rate of 42.2 per cent to reach USD 1,868.9 million by 2022"[1]

LED Street Lights with Centralized Control and Monitoring. MIC Electronics has been one of the pioneers in this area. More than 1.5 lakh MIC LED street lights and more than 5000 MIC built CCMS are in operation across the country. Under the new strategy, MIC is now becoming a sought-after supplier of these luminaires to industry directly.

Solar powered LED Street Lights integrated with $LiFePO_4$ Energy Storage System. MIC was one of the first manufacturers to move away from Lead Acid batteries and one of the first to move to $LiFePO_4$ batteries. It is successfully pursuing both commercial and private campus customers in addition to government customers.

"Solar Street Lighting Market size was over USD 2.9 billion in 2015 with forecast to grow over 20% from 2016 to 2024."[2]

[1] //economictimes.indiatimes.com/articleshow/53196644.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
[2] https://www.gminsights.com/industry-analysis/solar-street-lighting-market

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Networked LED Displays.MIC continues its pioneering presence in the True Color LED Display market. MIC has reorganized its Display business to enable ready response to customer requests for outright sales or for rentals of Display units.

"Berg Insight forecasts that ..., the number of connected digital signage displays in active use worldwide will grow at a CAGR of 18.3 percent from an estimated 37.6 million in 2016 to 87.2 million units in 2021."[3]

As has been previously reported, MIC has the distinction of having exclusive patents for manufacture and sale of LED TV and Digital (LED) Posters in India. Following the grant of the patents, it published a Patent Caution Notice in a National Newspaper cautioning potential sellers, resellers or users to refrain from use of LED Displays in violation of MIC's patent rights and following up accordingly - to date notices have been sent to more than two dozen private and public users and suppliers of LED Displays.

Indian Railways – Coach Lighting and Displays. The company was one of three companies awarded a contract for supply of a new LED-based coach light fixture to the Indian Railways. MIC is the L1 bidder on 70% of coach lighting retrofit contracts announced till recently. Further, Annual Maintenance Contracts for the Passenger InformationDisplays at 20 railway stations have recently been renewed.

In addition to the main focus areas described above, MIC is pursuing opportunities that naturally arise from these core business areas. Many of these have reached Proof of Concept or Product demonstration stages. These are:

Energy Storage Systems. Building on its acquired expertise in Battery Packaging, Battery Management Systems and Battery Materials selection and Charge Controllers, MIC has recently ventured into Li ion based ESS for Grid support, e Vehicle battery packs and ancillary areas.

"Energy storage deployments in emerging markets worldwide are expected to grow over 40 percent annually in the coming decade, adding approximately 80 GW of new storage capacity to the estimated 2 GW existing today."[4]

"Smart poles" and "(LED) smart posters" for smart cities. MIC's involvement derives naturally from MIC's involvement, first, with the LED street light market and subsequently from its development and deployment of "smart" street lights. It is currently engaged in a "smart pole" and "smart display/poster" Proof-of-Concept assignmentin a smart city project.

"Smart pole market size is expected to be valued at $16.65 billion by 2023 growing at a CAGR of 19.99% between 2017 and 2023 driven by the need for energy-efficient pole lighting systems fueled by increasing government initiatives for smart cities".[5]

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[3]http://www.sixteen-nine.net/2017/03/18/market-analysts-peg-digital-signage-display-annual-growth-at-16-7-through-2021/

[4]https://www.ifc.org/wps/wcm/connect/ed6f9f7f-f197-4915-8ab6-56b92d50865d/7151-IFC-EnergyStorage-report.pdf?MOD=AJPERES

[5]http://lightedmag.com/smart-pole-lighting-market-to-grow-by-20/

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Small pitch pixel display and Micro Led Display products. MIC has a patent application pending in this area. MIC has found its customers increasingly gravitating to higher resolution, higher brightness displays in general and especially in the case of specific applications as in provision of Control Room Displays.

"The revenue generated by the global fine pixel pitch LED displays market is projected to reach US$3.1 billion by 2024, rising from US$677.1 mn in 2015. The market is expected to register a 15.8% CAGR from 2014 to 2024"[6]

3D Holographic Displays/Naked Eye 3D Displays. Another area of great potential that MIC is currently pursuing and in which it had been a pioneer in India, is the one of Naked eye 3D Displays. It has deployed this commercially in the past (electioneering support).

"The 3D holographic projection technology is constructed roughly based on the age-old illusionary technique called Pepper's Ghost. The Global Holographic Display Market is valued at USD 1.2 billion in 2016 and is expected to reach a value of USD 6.63 billion by the end of 2022, growing at a projected CAGR of 27.68% during the forecast period of 2017 – 2022".[7]

MIC is now enhancing this technology and is in demonstration stage to show a 3D display with interactive features.

Leveraging Network Effects and Enhancing Sales Reach. In concert with diversifying away from the government tender business, MIC Electronics is also strengthening its capacity to gain wider distribution for its products and technology using other market participants more effectively. It expects to do this in two ways. It is aiming to license its technology to small producers and reach customers and markets beyond MIC's traditional clientele. Second it is actively building up relationships with dealer/distributor networks to again improve its product reach and penetration more effectively.

Strengthening domestic and foreign Supply Chain and sourcing activities to increase production capacity responsiveness. In keeping with the various focus strategies outlined above management is also acting to make sure that its materials and logistics supply chain will keep up with the changed priorities. Recent actions taken to strengthen supplier choice in the areas of LED Luminaire casings, $LiFePO_4$ battery supplies and LED lamp Drivers exemplify such initiatives.

About MIC Electronics Limited. MIC Electronics is a global leader in the design, development & manufacturing of LED Lighting Products and LED Video Displays. Recognized by the Department of Scientific and Industrial Research for its LED technology, MIC has been at the forefront of LED applications and technology development for more than 30 years.

MIC's LED Lighting Products are used in Commercial, Railways, Solar and rural applications. Its True Color LED Display systems are widely used in Indian Railways, Sports Stadiums, Transportation Hubs, Digital Theatres, Advertisements and Public Information Display Systems. Its products have been deployed in multiple countries spanning the globe. The company is headquartered at Hyderabad, India with presence in USA and South Korea. Further information about the company profile is available at www.mic.in

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[6]https://www.transparencymarketresearch.com/pressrelease/fine-pixel-pitch-led-displays-market.htm

[7]https://marketersmedia.com/holographic-display-industry-shows-scope-for-growth-with-emerging-interactive-media-sectors/206140