







Modison Electrical Contacts One stop Solution for LV, MV and HV globally



Contents

Introduction **Executive Summary Business Overview Product Portfolio** Manufacturing Facility Financial Performance 2013-14 Management Overview **Industry Overview Financial Overview** Way Forward





A leading global player in the electrical contacts industry

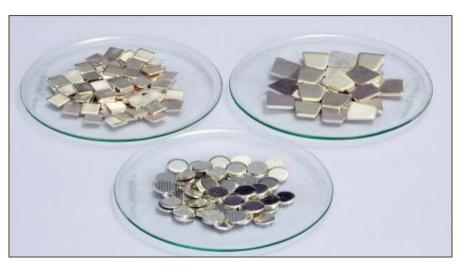


- Product range covering contacts for entire range of switchgears upto 800kV
- Market leadership in India, with near monopoly in HV segment
- Modern, integrated & global-scale manufacturing facilities
- Long-term supply relation with most leading global switchgear players
- Sound technology base with history of successful product development
- Strong financial track record
- Attractive growth prospects backed by new product launches

Modison is one of the 3 global players with access to HV technology



Modison Metals limited





Founder Mr G L Modi



Revenue

200 Crore

Number of Employees

235

Corporate Office

Nariman Point , Mumbai

Manufacturing Facility

Vapi

180 Km from Mumbai

Ownership

Public

Listed in BSE

Who We Are...



Leader in LV ,MV and HV electrical contacts

The only company in India and one of two in the world with presence in all three segments

Doduco (German) Technology



Introduction

- Modison Metals Limited ("Company" or MML or Modison) is a leading manufacturer and provider of electrical contacts for low, medium and high voltage switchgears in India and internationally
- ► The Company was incorporated in 1965 and ventured into electrical contacts in 1978
- Headquartered in Mumbai, Modison Metals has an integrated manufacturing plant located in Vapi, Gujarat in western India
- Current installed capacity of 200 thousand arcing contacts for HV as well as 30 tonnes per annum of LV contacts at its Vapi plant
- Modison has strong technical capabilities backed by historical technical alliance with renowned global electrical contacts manufacturer, Doduco, Germany
- Has strong and established customer base including leading global and Indian switchgear manufacturers like Alstom, ABB, Siemens, L&T and CG

MML Products HV and MV Contacts LV Contacts

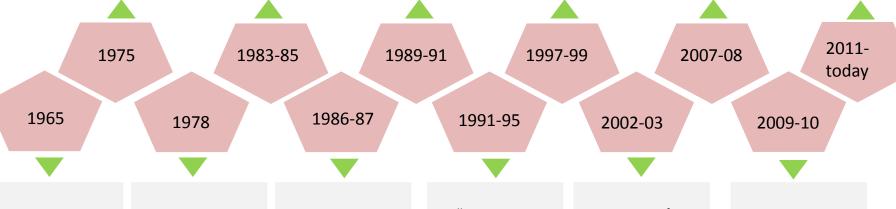
- ►80% market share in India for its product range
- Supplies to MNCs in India as well as other geographies
- ► Technology through earstwhile tie-up with Doduco
- ▶34% of total revenue in FY14

- Largest supplier in India
- Strong MNC
 and Indian client
 base L&T is
 the largest
 customer
- ►66% of total revenue in FY14



The Journey

- Established silver refining facility in Mumbai
- ► Technical collaboration with Doduco for AgCdo (ZH) contacts
- Supplied ZH contacts to L&T
- ► Technology transfer for complete HV contacts from Doduco
- Developed own copper chrome alloy for HV contacts
- ► License agreement with Doduco ended
- Commenced exports of HV contacts to Europe and Japan
- ► Shifted HV plant to a new building
- Started steel backed button contacts; imported plant from Italy
- ► Developed high performance current carrying contacts
- CuCr contacts for vacuum interrupters (final stage of production)



- ► Founded as a trading unit for export of engineering and general merchandise
- Started manufacturing electrical contacts and contact materials at Vapi
- Collaboration with Doduco for AgW and CuW contact tips for ACBs and MCCBs
- ► All HV contacts type tested and approved
- ► Acquired 100% market share of HV contacts in India
- Major capex for increase in HV capacity: EB welding, vacuum induction furnace, CNC and extrusion press
- Installed automatic contact welding and forming line



Customer Profile





















Microelettrica Scientifica













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Salient Features

Attractive Product Portfolio

- One of the 3 players globally and the only Indian company with capability to supply contacts for the entire range of LV, MV and HV switchgears
- Product range includes
 - LV contacts contacts based on silver cad-oxide, bimetals, silver nickel etc. for various current ratings for control gears and switchgears
 - ► MV contacts supplies contacts for SF6 based switchgears; currently in advanced stages of developing contacts for vacuum switchgears
 - ► HV contacts arcing and non-arcing contacts. Company has developed and supplied contacts for up to 800kV rating switchgears
- ▶ The Company has a strong track record of developing / indigenizing products for its customers
- ➤ Strong technical know-how one of the only facilities which has Doduco technology to manufacture electrical contacts through the Z/H process
- ► The Company is developing a range of new products across LV and HV which is expected to drive growth in the medium term going forward
- ► Key new products developed include (a) High performance current carrying contacts in the form of crowns, pins and contact bands (b) copper chromium contacts for vacuum interrupters (final stage of production) (c) silver alloy semis
- ► MML has received approvals for product samples from customers for most of the new products revenues expected to kick-in starting last quarter of FY15



Salient Features (cont'd.)

Market leadership position

- ▶ Modison is the largest electrical contacts manufacturing company in India
- ► Only player in the HV contacts market In the high voltage switchgear contacts segment, the Company enjoys ~80% market share
- ▶ Largest player in the LV contacts space Modison has the largest market share of ~30%
- ▶ It enjoys strong market leadership position among all the products offered by the Company

State-of-the-art and integrated manufacturing facility with capacity in place

- ► Integrated operations all key processes in-house silver refining to producing electrical contact materials and finished contacts for low, medium and high voltage switchgear
- ► Strategic location in Gujarat, well connected with roads and ports
- Facility well positioned with capacities in place
 - ► HV contacts facility has global scale; has capacity to manufacture ~200,000 arcing contacts
 - Company adding new equipment (Electron Beam Welding machines and automated machining centres) to expand capability and capacity in the HV facility
 - ▶ LV plant has capacity to manufacture up to ~40 tonnes per annum of contacts
 - ▶ Plans to add an extrusion press which will help the Company add capacity as well as develop silver tungsten based LV contacts
- ► Testing modern testing facility for raw material as well as finished products for both LV and HV contacts



Salient Features (cont'd.)

Longstanding relationship with major switchgear OEs

➤ Supply relation with all key switchgear manufacturers with relationship spanning ~20-25 years













- ▶ #1 in most of its supplies to the customers with a significant leadership positions
- Introduction of MV range of contacts to help broaden customer base to new geographies like Eastern Europe, Russia, USA etc.

India amongst the most attractive switchgear markets

- ► Large switchgear market in India estimated at ~USD 1.8 billion with the market expected to grow at 12-15% in the medium term
- ► Growth driven by visibility on planned T&D equipment spend USD 140-150 bn over the next 5 years (12th Five Year Plan)
- Most global switchgear manufacturers already present in India or evaluating opportunities in the market
- ▶ India emerging as a manufacturing and sourcing base for switchgear MNCs
- ► Key drivers for growth include addition of generation capacity, development of the transmission network in India, government initiatives in rural electrification, replacement demand, growth in exports



Salient Features (cont'd.)

The Company has sustained robust financial performance

- Consistent growth decent CAGR growth from FY09; driven by market performance as well as new product introduction track record
- Sustained profitability good EBITDA margins past many years; backed by the strong market leading position in LV and virtual monopoly in HV
- ► Low leverage strong balance sheet position
- ► Not exposed to metal price risk existing contracts with all key customers ensure that Modison is not taking risk on account of metal price volatility
- ► Expected to grow at ~15-20 % in the medium term with sustained EBITDA margins; growth driven by a combination of market growth as well as new product introductions

Strong visibility on growth

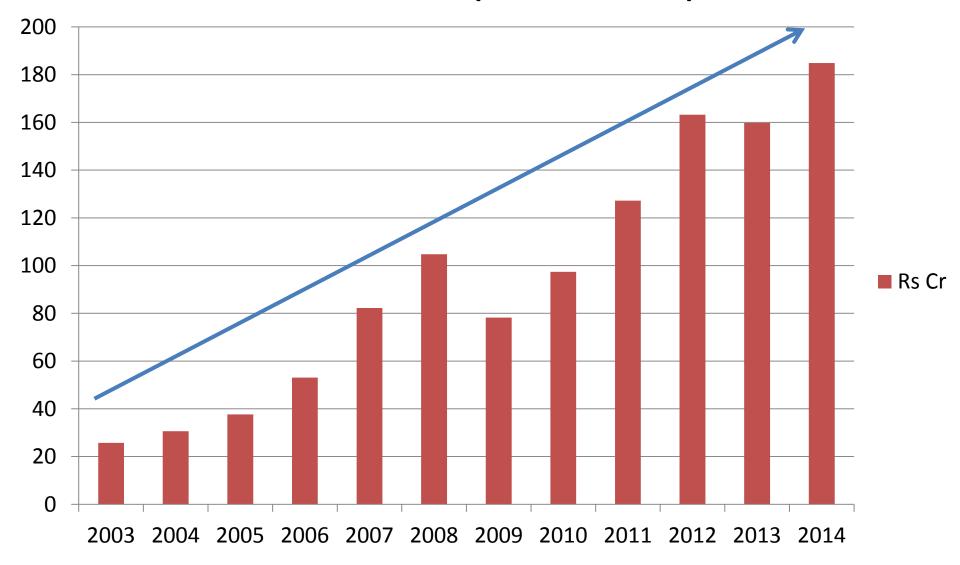
- Company has a pipeline of new products with strong visibility on commercial supplies commencing to customers over the next 3 to 6 months
- ► The new products are expected to drive incremental growth for the business with a revenue potential of ~USD 80 million expected over the next 5 years
- ► In addition to revenue visibility, the new products developed by the Company like vacuum interrupters for MV switchgears and silver alloy semis will help create footprint in new geographies like East Europe, Russia and USA
- ▶ Looking to expand export revenue; addressing new geographies

Experienced professional management

- Professionally managed Company with an experienced team in place to take care of key aspects of the business including new product development, plant operations, finance, admin functions etc.
- ▶ Key management team has experience of over two decades of working with the Company



Revenues(Net Sales)



Consistent and sustainable growth



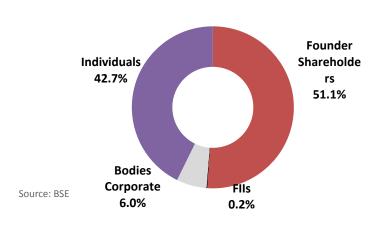
Financial Summary

Rs CR	FY11	FY12	FY13	FY14
Net sales	127	163	160	185
	11.0	14.3	19.9	10.5
Mfg and other expenses	1.6	2.4	2.8	1.3
Personnel cost	1.0	1.1	1.2	0.7
EBITDA	29.50	31.62	19.49	28.0
margin (%)	23%	19.5%	12.18%	15.0%
PAT	15.8	15.98	6.56	12.18
margin (%)	12%	9.80%	4.11%	6.59%
Net Fixed Assets	46.6	54.7	62.0	60.65
Net worth	73.6	85.786	88.4	95.8
Total Debt	8.3	21.5	23.8	25.62



Source: Capitaline

Shareholding pattern





Contents

Introduction

Executive Summary

Business Overview

Product Portfolio

Manufacturing Facility

Financial Performance 2013-14

Management Overview

Industry Overview

Financial Overview

Way Forward



Manufacturing Facilities







Self sufficient state of the art Refinery

100% Backward integrated set up

R&D approved by dept of science & tech. GOI



Located at NH8 ,Vapi ,
Gujarat

Excellent IR

Area- 16,791sq mt

Built up - 11,783 sq mt



Certifications

Quality



Environment



Health & Safety





Integrated manufacturing facility

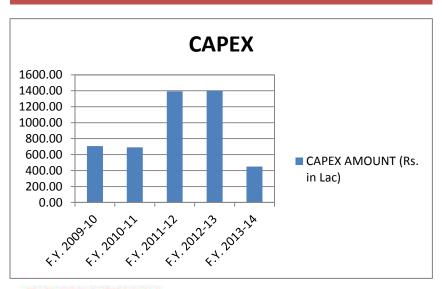
Overview of manufacturing facility

- ▶ Integrated operations from silver refining to producing electrical contact materials and finished contacts for low, medium and high tension switchgear all under one roof
- ► The manufacturing facility is spread across 16,791 sq mtr of land with a built up area of 11,783 sq mtr
- ► The land is owned by Gujarat Industrial Development Corporation (GIDC) leased out to the Company for 99 years
- ► Certified by DET NORSKE VERITAS for ISO 9001, ISO 14001 and OHSAS 18001

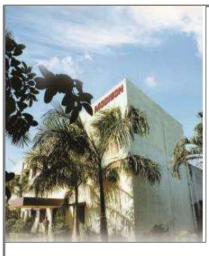
Current capacity

- ▶ The LV and the HV plants are located in separate buildings
- ▶ Currently, the HV plant has a capacity to manufacture ~200 thousand arching contacts per annum. Post completion of the ongoing expansion plan, the plant will be able to manufacture ~400 thousand arching contacts
- ► The LV plant can process upto 30 tones of alloys pa which can be expanded to 40 tones without any capex
- ► The plant undergoes stringent audit procedures by its global customers like Siemens and Alstom

Significant capacity additions over years



Vapi factory, Gujarat







LV Manufacturing Facility







Key Equipments

Silver and copper refining

Air induction melting, vacuum induction melting, gas fired furnaces for Ag/ Ag alloy melting

WERTLI's Continuous Casting for AgCd

Ag powder production: Atomizer, Chemical, Cementation

Powder mixing & blending, Isostatic pressing, Sintering & Extrusion presses

Power Compacting Presses and Conveyor Sintering Furnaces

Rolling, Bonding mills & Oxidation / Annealing Furnaces with Atmosphere Control

Fully Equipped Press Shop

Automatic Cold / Hot Bonding Contact Rivet making machines

Automatic wire welding, Forming machines

Automatic Cutting & Slicing Machine for AgC

Cold coining presses

Fully equipped in-house Tool Room with Wire Cut, spark erosion

Silver plating facility

Plant is equipped with the latest technology & equipments to manufacture a wide range of products

Source: Management



^{*} New press 1,000 MT with superior control under finalisation

MV Manufacturing Facility

- ► State of the art CuCr disc manufacturing facility with end to end capabilities
- ► Whole facility in clean room
- ► Eutectic brazing alloy for vacuum interrupter
- ▶applications in the form of foils, washers & shims
- ► Eutectic brazing alloys can be offered based on customised solution as well

Machine/Process	Make
Powder mixing & blending	Lodige ,Germany
400T compacting press	
Vacuum sintering Furnace	ALD Dynatech
Vacuum Induction melting furnace	ALD Germany
Ultrasonic Cleaning equipment	
Vacuum packing facility	







HV Manufacturing Facility

- ▶HV plant was shifted to a new building in 2007-08
- ► Modern facility equipped with machinery providing endto-end capabilities
- ► HV facility is spread across 4,300 sq mtr of land with a built up area of 2,660 sq mtr
- ► With the addition of the new electron beam welding and CNC machine, the plant to become one of the largest HV contact facilities globally, capable of manufacturing 400 thousand arching contacts from the current capacity of 200 thousand arching contacts



Machine/Process	Make
Electron beam welding machines*	CVE, UK
High temperature sintering cum melton furnaces	Kremer, Germany (1)
State-of-art CNC machining centres**	Mori Seiki, Fanuc, Ace, AMS etc.
Powder mixing & blending and powder compacting presses upto 4,000 KN	Lodige, Elecro-pneumatics
Fully equipped in-house Tool Room with Wire Cut, Spark Erosion machines	
Silver plating plant for Full / Selective Plating	
Fully equipped inspection facility for load, surface roughness, CMM etc	Mitutoyo, Zeiss



New investments to add capacity and capability

Invested 15 % of total revenue in 36 months for capacity & capability building

Electron beam welding

- In process of installing its 3rd electron beam welding machine from PTR PRÄZISIONSTECHNIK GMBH, Germany
- It is a Seam Tracking System offline with EBO Deflect
- Has 2 step process: scanning the surface of the work-piece near the joint by the beam, measuring the real position and welding along the joint by beam deflection



CNC Chucker

- Modison installed a state of the art twin spindle CNC chucker from Muratec, Japan
- The machine has gantry loader with turnaround unit with tool monitor software
- ► The part will be fully finished machine in two set-ups without operator intervention and the expected cycle time reduction is ~30%

Percussion Welding

- Recently, the Company installed Percussion Welding facility to manufacture HV contacts
- The maximum weld current can be 106kAmps and can butt-weld upto 22 mmΦ
- Commissioned in Q2FY14







New Investments

Invested 15 % of total revenue in 36 months for capacity & capability building

1000T Extrusion press

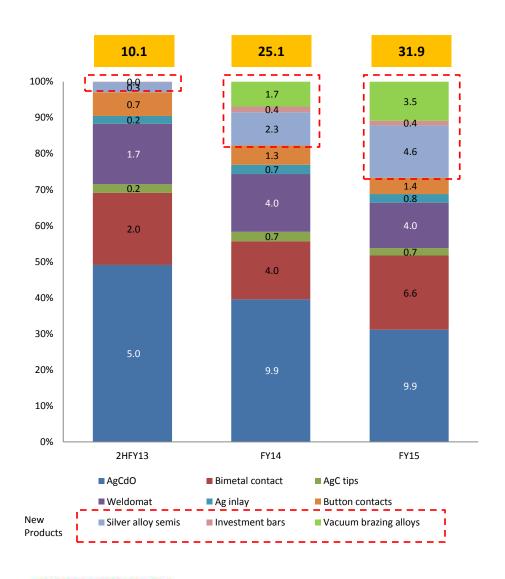
- Direct and indirect silver alloy extrusion preswith PLC control panel
- Capacity 1000 MT
- Constant speed extrusion facility by close loop control
- Adjustable extrusion speed with pre -set control
- Automatic extrusion cycle



Plant utilisation at 65% .Fully equipped to address strategic plan Goal 2017



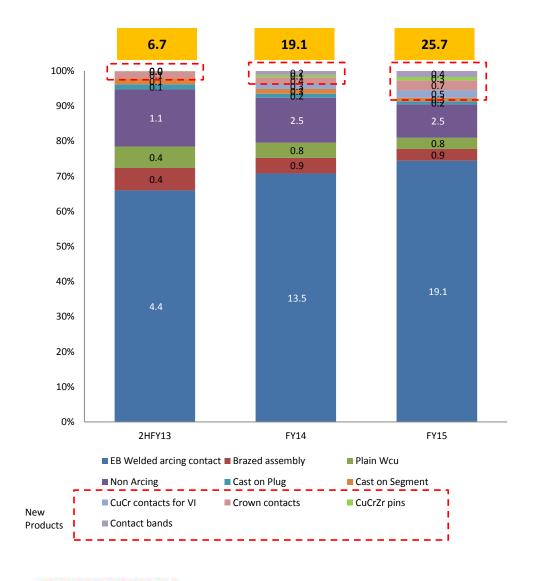
LV Product profile



- Company expanding its product portfolio in LV
- ► AgCdO based contacts continue to remain the largest chuck of LV revenues
 - ► Looking to enter markets like Eastern Europe and Russia
 - ► These markets continue to provide visibility to AgCdO sales
- New products contribute USD 13 million of revenue over the business plan period
- ► Key new products are Ag alloy semis and vacuum brazing alloys
- Company has already created infrastructure for the new products



HV Product profile



- ► EB welded contacts continue to be the largest product segment for HV contacts
- ► Investment already in place to sustain revenue growth
- ► New products in MV- contacts for vacuum switchgears and high performance current carrying contacts - to help the Company expand footprint in new geographies



Contents

Introduction

Executive Summary

Business Overview

Product Portfolio

Manufacturing Facility

Financial Performance 2013-14

Management Overview

Industry Overview

Financial Overview

Way Forward



2013-14 – Year of Milestones

- All time high Sales in Value
- All time high sales in Volume
- All time high LV business
- All time high HV business
- All time high Export
- All time high domestic



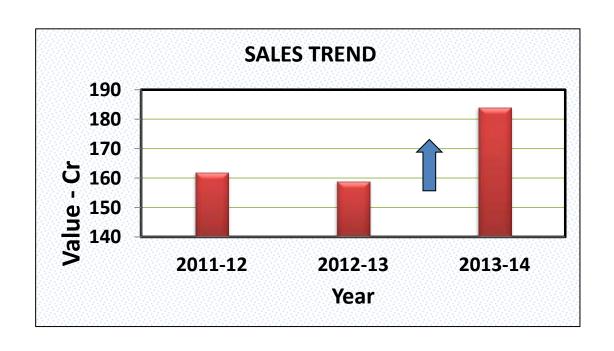
16% Value growth & 27% Volume Growth

Achieved during one of the steepest drop in silver prices & Decade low economy

Modison becomes 200 Cr company



Performance 2013-14



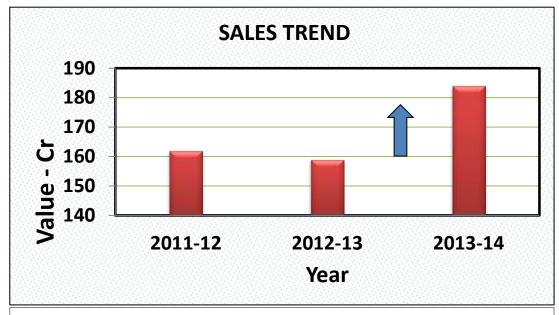
Overall 16% Value Growth

7% Value growth in LV

25% Value growth in HV



Performance 2013-14



4.00/1

20% drop in Ag prices

16% increase in turnover





2013-14 Performance - Export



Increase in both LV & HV

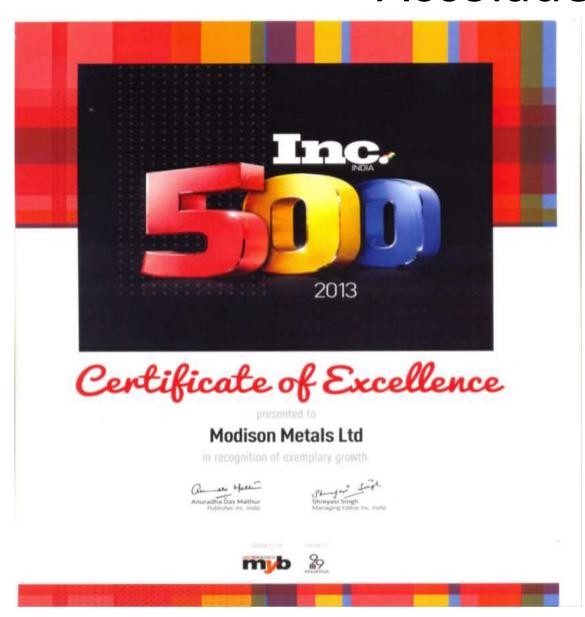
75 Cr by 2016

UPSIDE	CHALLENGES
New customers added	Europe Market continue to be sluggish
Some movement in East Europe	Turmoil in Russia ,CIS & negative sentiment in Turkey
Improved performance	
Visible in North America	

Semis & other new products to provide impetus in 2014-15



Accolades



Awarded for consistent & exemplary growth 2013



Customer Profile





















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Major growth expected from new products going forward

Products	Comments
Crown contacts (HV)	 In the domestic market, started supplying to an Indian T&D equipment manufacturer and is in discussion with Indian electrical equipment manufacturer Developing products for Chinese and European markets; samples being approved for an European customer for its plant in China Major growth is expected from the export market
CuCr zirconium pins (HV)	 Majority of the demand is from a global European major Started supplying to its Indian plant and samples have been sent for testing to its European plant
CuCr with vacuum silver brazing alloy (MV)	 Developed CuCr products Samples are being sent to an Indian electrical equipment manufacturer and developing samples for an Indian plant of a global European company
Contacts by top lay brazing (MV)	 Samples have been approved by the German unit of global European company and an Indian diversified engineering company ► Expected to book small portion of revenue in FY13
Silver alloy semis (LV)	► Already started supplies in small orders in Indian market ► Major demand expected from East Europe, Turkey and USA
Investment bars	► Machinery for investment bars have been installed and key customers would be small Investors in India

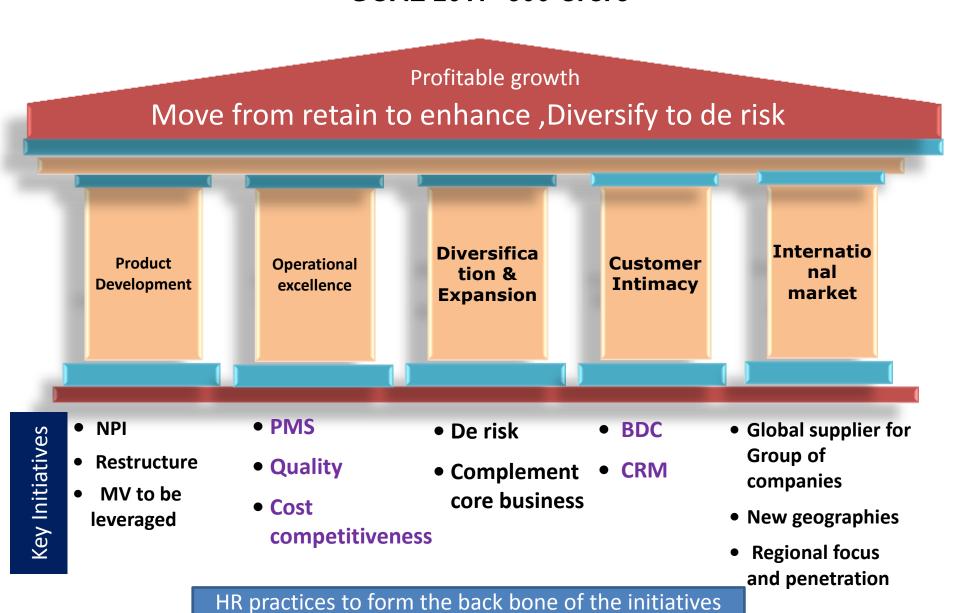
- ► Modison is developing new products as per customer's needs
- ► Additional products under development are:
 - ▶550kV contact
 - ► silver cad-oxide contacts for East European markets
 - ► Tin-oxide contacts for Europe

New products are expected to contribute ~30%-35% of revenues by FY17

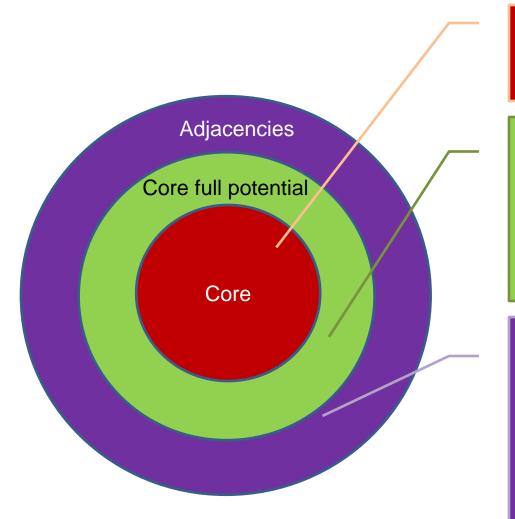


Differentiated strategy is well grounded, aims to profit from greater focus on core and internal efficiencies

"GOAL 2017 500 Crore"



Leverage & Compliment the core



PRODUCT: LV, MV and HV

GEOG: To focus on specific

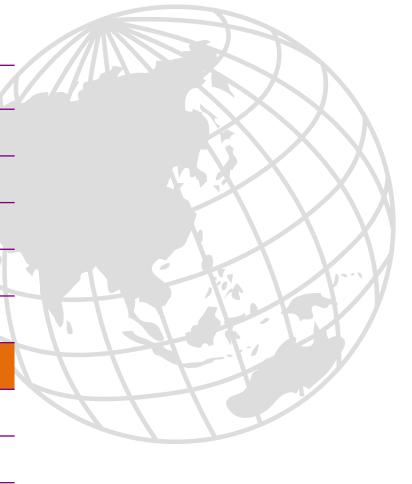
- Leadership in Existing markets/ geographies
- Improved Customer intimacy
- Improved marketing
- Conversion customer focus
- · Improve share of wallet

- Focus on New Products (MV contacts, Brazing alloys, AgNi wire)
- New geographies /Maximise existing ones
- expansion



Contents

Introduction **Executive Summary Business Overview Product Portfolio** Manufacturing Facility Financial Performance 2013-14 Management Overview **Industry Overview Financial Overview** Way Forward



Indian Power Sector

Poised for growth...

Key Highlights

Current installed capacity: 200GW

~USD 230 bn investment plan for power sector in the 12th Five Year Plan (from 1-Apr-12 to 31-Mar-17)

Power generation: US\$ 130 bn

Power transmission: US\$ 37 bn

Inter State: US\$ 25 bn

Intra State: US\$ 12 bn

Power distribution: US\$ 65 bn

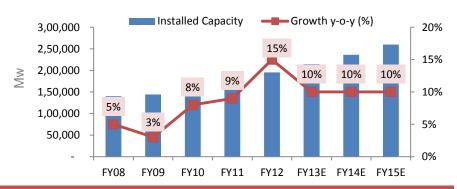
- Expected to add ~100 GW of power capacity in the 12th plan as compared to 50 GW additions during the 11th plan
- ► Increasing private sector participation with the private sector expected to add ~45 GW of power over then next 5 years
- ▶ With envisioned capacity additions, India is expected to reach an installed capacity of >350 GW by 2022
- China and India together expected to account for over half of the incremental growth in power demand by 2030

Improving performance of the 5 year plans



Note: 8th Plan: 1992-97, 9th Plan: 1997-02, 10th Plan: 2002-07, 11th Plan 2007-12, above 11th plan information available up to Mar 10

Consistent Growth in Capacity Additions Y-o-Y...



The Government has introduced various reforms and policies and recognised the importance of private participation to address the issues facing the power sector

Source: CEA, IEEMA, Analyst Reports

Transmission & Distribution (T&D) - India

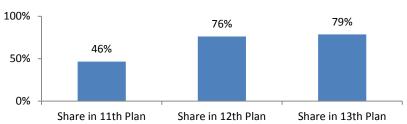
Positive regulatory impetus has led to encouraging investment trend...

Overview

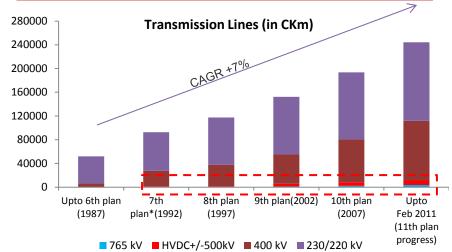
- ► For every Re. 1 spent on power generation, India spends Re. 0.50 on T&D, as compared to the world where this ratio is 1:1, signifying huge untapped potential
- Substantial capacity addition in transmission lines in last two decades
 - Currently cumulative transmission lines length is 240,000 Ckms, CAGR of 7%
- ▶ US\$ 100 bn expenditure envisaged in T&D in 12th Five Year Plan with 25-30% private sector participation
- ➤ **Transmission** line network set to grow to >275,000 Ckm in 2012 with inter-regional transmission capacity planned to increase by >20GW
- For **Distribution**, the government has targeted to spend US\$ 8 bn for the reduction of T&D losses and another US\$ 8 bn for the electrification of rural areas

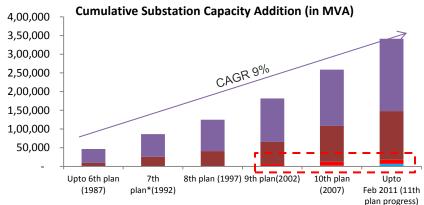
Clear thrust on T&D segment of the power sector...

T&D as % of Generation Capex



Steady growth with increasing capacity addition





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Note: 10th Plan: 2002-07, 11th Plan 2007-12, 12th Plan: 2012-17

Thrust on T&D capex with a specific focus on HV transmission lines

India is an attractive destination for global players



- · Expects high growth from Indian markets
- Schneider acquired the distribution business of Areva T&D in 2010



- Acquired the transmission business of Areva T&D in 2010
- Manufactures MV and HV switchgears for the utility, industrial and infrastructure sectors



- ▶ Plans to invest ~USD 45 million for new facilities in India to manufacture high voltage power products and transformers
- ▶ In 2004, established a technology centre in Nasik, Maharashtra to develop medium voltage products catering to power distribution sector for the global market



- "India is a strategic market for Legrand"- Gilles Schnepp, Chairman and CEO
- ▶ Making India a manufacturing base for certain switches and sockets for exports
- ▶ In 2010, acquired Indo Asian, one the largest switchgear manufacturers in the country



- ▶ In 2007, Panasonic acquired Anchor Electricals to enter the Indian switchgear industry
- "India is a key growth potential market for Panasonic, and therefore an area of strong commitment"-Daizo Ito, President, Panasonic India
- ▶ Set up a green field manufacturing unit in Daman, India to manufacture wiring devices



- Expanded capacity at its switchgear manufacturing facilities in Kalwa (near Mumbai) and Hyderabad; new MV switchgears facility in Goa in Jan-12 to manufacture GIS for up to 36kV
- ► "India is a central point of our global growth strategy" Peter Löscher, President and CEO of Siemens AG

Source: Research reports, annual reports, website and news articles



Modison well positioned to capture upside in a growing market

Total investment of US\$ 100 billion in 12th five year plan for Transmission and Distribution Cumulative demand for T&D equipment based on planned capacity addition to be USD 140-150 billion in 12th five year plan

Overall market opportunities for switchgear market is USD 14-15 billion over the next 5 years

▶10% of T&D equipment spend going towards switchgears

- ► Company has a product portfolio across LV, MV and HV contacts
- ► Supplies to all the key players in the Indian switchgear market
- ► Looking to actively grow customer base in areas like north India



Summary



► Attractive product portfolio – Only Player with capability to supply LV, MV and HV switchgears in India



► Modern and integrated manufacturing facility – . Capacity available to maximise the upside from day one



- ▶ Leading market position virtual monopoly in HV; largest share in LV market,
- ► Major thrust on international sales with new geographies



► Longstanding relationship with major switchgear OEMs



▶ Product development capabilities & Experienced management team



► Low financial leverage gives financial flexibility

Ready to tread the journey of stat. Plan 500 Cr



