



REF:ABB:ANALYST CALL PPT:

October 30, 2018

BSE Limited
P.J. Towers
Dalal Street
Mumbai 400 001
(Attn : DCS CRD)

National Stock Exchange of India Ltd
Exchange Plaza, 5th Floor
Plot No. C/1, G Block
Bandra-Kurla Complex, Bandra (E)
Mumbai 400 051

Attn: Listing Dept.

Dear Sirs

Sub: Analyst / Institutional Investor Call

We are sending herewith a copy of presentation made to Analysts / Institutional Investors today, for the information of the Stock Exchanges.

Thanking you

Yours faithfully
For ABB India Limited

B Gururaj
General Counsel and Company Secretary
FCS 2631

Encl: as above



ANALYST CALL, OCT 30, 2018

ABB India Ltd.

Q3 2018

Important notices

This presentation includes forward-looking information and statements including statements concerning the outlook for our businesses. These statements are based on current expectations, estimates and projections about the factors that may affect our future performance, including global economic conditions, and the economic conditions of the regions and industries that are major markets for ABB Ltd. These expectations, estimates and projections are generally identifiable by statements containing words such as “expects,” “believes,” “estimates,” “targets,” “plans,” “outlook” or similar expressions.

There are numerous risks and uncertainties, many of which are beyond our control, that could cause our actual results to differ materially from the forward-looking information and statements made in this presentation and which could affect our ability to achieve any or all of our stated targets. The important factors that could cause such differences include, among others:

- business risks associated with the volatile global economic environment and political conditions
- costs associated with compliance activities
- market acceptance of new products and services
- changes in governmental regulations and currency exchange rates, and
- such other factors as may be discussed from time to time in ABB India Ltd’s filings with the Securities and Exchange Board of India (SEBI), including its Annual Report.

Although ABB Ltd believes that its expectations reflected in any such forward-looking statement are based upon reasonable assumptions, it can give no assurance that those expectations will be achieved.

Further, Information shared herein inter-alia contains some key financials pertaining to ABB India. ABB India being a listed entity is obliged by law not to share the said information to any one (other than those who are involved in the process and who are bound by Insider Trading Regulation) unless and until the financials are considered and approved by ABB India Board and thereafter announced to stock exchanges as per the listing obligations entrusted upon ABB India. Therefore, privy to this presentation should kindly ensure strict confidentiality of the information shared and discussed herein.

Agenda

Key highlights

Market overview & ABB project wins

Financials

MOVE Summit – discussions, launches

DNA @dna Follow

#GlobalMobilitySummit2018: ABB unveils fast charging system which can power a car in 8 mins for 200 km
dnai.in/fDRI



7:50 AM - 7 Sep 2018

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ABB unveils fast-charging system to power a car in 8 mins for 200 km

PRESS TRUST OF INDIA
 New Delhi, September 7

POWER MAJOR ABB ON Friday unveiled its fast-charging system, which can power batteries of a car in flat 8 minutes to run up to 200 KM at Move Global Mobility Summit in the capital.

"For the first time in India, ABB showcased the Terra HP fast-charging system, which can power up a car for 200 km in just a single charge in just 8 minutes.

"It is ideally suited for highway rest stops and petrol stations, where the highest power is required to minimise charging time," an ABB statement said.

According to the statement, ABB CEO Ulrich Spieshofer was present here at the MOVE Global Mobility Summit 2018

at Vignyan Bhavan.

He was one of the key industry leaders to deliver his views at the inaugural session in the presence of Prime Minister Narendra Modi.

In his address, Ulrich commended the Indian government for its ambitious and enlightened vision for transforming the transport system to e-mobility.

He further highlighted some of ABB's technologies with which they look forward to support India's e-mobility revolution.

He said that the ABB's presence in India dates back over a century, and the company has been manufacturing here for 60 years.

The ABB is helping India to achieve its ambitious goals of moving towards a



stronger, smarter and greener grid; advancing industrial development through the 'Make in India' initiative;

and shifting towards a low-carbon, sustainable transport system, the statement said.

"ABB is extremely proud and privileged to be partnering with the Indian government and Niti Aayog, as well as customers and technical institutes to support India's development. In India, we are working with partners, including OEMs and Niti Aayog on EV charging models," Ulrich said.

Today, ABB has the largest installed base of fast-chargers worldwide – 8,000 stations in 68 countries.

"A few months ago, at the Hanover industry fair in Germany, the ABB launched a new record-breaking, new Terra High Power EV charger, which is able to deliver enough charge in just

eight minutes to power an electric car for 200 kilometers.

"The company has brought one of these fast-chargers to this event.

"We are a technology leader in e-mobility for buses: our revolutionary flash-charging TOSA system keeps buses running all day with 20-second bursts at selected stops," he added.

In his closing remarks, Ulrich said that India can leapfrog other nations by embracing e-mobility now, and become a world leader in sustainable transport, while reducing emissions and dependence on imported fossil fuels.

At the same time, India can use e-mobility as a lever to move its industry up the value chain and to drive economic growth.

Move India Summit @MoveSummitIndia · Sep 7
 Affordable electric cars, effective charging infrastructure, and integrated power generators are essential to ensure a successful transformation to the #FutureOfMobility in India: Ulrich Spieshofer, CEO, ABB at the #GlobalMobilitySummit. #GMS2018



PMO India, Narendra Modi, Rajiv Kumar and 4 others

1 24 84

ET Auto *Powering The Economic Times*

AN INTERNATIONAL BLOG FOR THE GROWTH OF INDIAN E-VEHICLE INDUSTRY

22-23-24 SEPTEMBER 2018

Battery-swapping concept in EV will not work in India: ABB global EV chief

"Swapping concept is nice when you are driving somewhere you can swap and you continue. It looks nice for the first moment but if you look at the swapping station, the battery has to be charged, so it just adding one more level of complexity. There are various other models to reduce cost of acquisition like battery leasing."

Frank Muehlon, head of ABB's Global Business for Electric Vehicle Charging Infrastructure, says the battery-swapping concept will not be successful in India and will rather add to the complexity. In an interview to ETAuto's Nabeel A Khan, Muehlon also reveals that the company will soon start manufacturing EV chargers in India. *Edited Excerpts:*

1 Shares

What are the current developments around electric vehicles that encourage more actions from ABB in India?
 Yes, from our side, we see a lot of action in India.

You have seen the transition to EV around the world. How do you see this transition shaping in India?
 What we see in any mobility going forward is a very regional play. India is now really at an early stage when it comes to e-mobility. We have quite a good base of 8,000 DC fast chargers deployed in about 68 countries. We have a strong base in countries which started quite early on e-mobility. So, for example, Norway, the Netherlands, even California in the US are countries (or provinces) which have adopted early. India is a vast country and offers a big opportunity.

If there is one country or market which could be a role model for India's transition...
 I would not compare one country with the other. Each and every country is different in terms of e-mobility. You do not simply introduce e-mobility overnight. You transition from where you are today. So, it's disruptive but, it's not that with e-mobility you change everything immediately.

To make e-mobility successful, you need to have a few parameters in place, you need to have the right cars, right grid, charging infrastructure, right energy mix in terms of renewable. It all goes together. So, it will be a mix of a lot of market trends.

Success of EV in China, Norway and other countries are largely perceived to be because of subsidies. How do you view this? What India can learn or take back from these markets?
 China is, of course, without a doubt the largest market in e-mobility in terms of cars, infrastructure. China made this policy (subsidies) to leapfrog in technology with e-mobility beyond the combustion engines, so to put that in place, they put a lot of subsidies in place to install infrastructure and to bring the right cars on the street.

Whether this is good or bad, I don't want to judge, but this is how they did it. And now we see it quite successful in a couple of cities. Take Shenzhen for example, 100% of the buses there are electric buses, taxi fleets are electric, so a lot of ownership of electric vehicles in China is driven by fleets. It's not so much private ownership yet but it is about to come.

For sure this incentivization which the (Chinese) government did, helped to get it going. Now it needs to move autonomously. Now, whether this is a good policy for India? There is a different



Shaping technology conversations

Setting India up for a successful AI and EV future

Collaboration at every stage and the integration of multiple stakeholders to build solid ecosystems will be the basis for Indian society and its businesses to derive value from these technologies

BY SANJEEV SHARMA
PUBLISHED: 10 Jul 2018

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We live in interesting times. Clean energy-fueled electric race cars are giving their Formula 1 counterparts a run for their money. Robots no longer just take commands, they can even be taught to conduct a symphony orchestra in 14 short hours. The journey has started well in such technologies like electric mobility and artificial intelligence (AI).

But how will a country of more than a billion people reap the inclusive benefits of these tools and address relevant issues in deploying them? Collaboration at every stage and the integration of multiple stakeholders to build solid ecosystems will be the basis for Indian society and its businesses to derive value from these technologies.

More, better, together

When it comes to electric vehicles there are four key things that need to be interlinked to drive success -- the availability of cost-effective vehicles, charging stations, a strong grid and the integration of renewable energy.



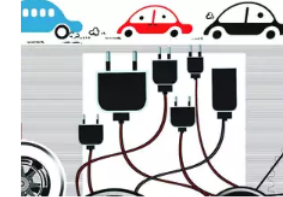
View: Smart mobility will be India's big leap into future

ET CONTRIBUTORS | Sep 07, 2018, 05:31 PM IST

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By Sanjeev Sharma



Cloud computing and the Internet of Things are a necessary prerequisite for modern transport systems.

To the millions of Indians intimately familiar with the challenges of traveling through our crowded cities and around our extensive nation, it might seem unrealistic, even idealistic, to talk about building a comprehensive, modern transport network that will deploy the latest technologies in electric mobility, clean rapid transit and cloud based digital controls. The truth of the matter is that these are leapfrog technologies, and they are now poised to change the face of

India. Just as mobile telephony revolutionized telecommunications in India and throughout the world, our country is about to experience a revolution in mobility. These sweeping changes will come to pass because these technologies are simply more efficient, more effective and more accessible than the transport systems of days gone by.

Benefits of smart mobility

The implications are vast. Given the size and huge untapped economic potential of India, the creation of an effective and sustainable transportation system has the potential to reduce the country's dependence on oil imports, generate millions of new jobs and provide virtually all Indians with access to opportunities they now lack. A recent study by NITI Aayog, and Rocky Mountain Institute estimates that India can save up to 64 percent of anticipated energy needs for road-based passenger transport and 37 percent of carbon emissions in 2030 – if it develops a shared, connected, electric-powered mobility system. Widespread adoption of EVs could potentially save the country \$57 billion in annual energy costs.

Small change can trigger a revolution

E-mobility technologies are already changing India's transport network in ways large and small. In Jabalpur, cutting-edge solar inverters are being put to good use by powering

ABB India, IIT Roorkee sign MoU: ABB India has signed an MoU with the IIT Roorkee for technical cooperation to construct an operational smart electricity distribution network and management system (SDNMS) on its campus. This will serve as a pilot project for the Centre's 'Smart Cities Mission'. The agreement also includes the creation of a smart grids resource centre and joint R&D facilities in the field of efficient power generation and distribution with a focus on clean energy over the next five years.



THE TIMES OF INDIA

Large orders from railways

ABB bags order worth ₹1.15 bn from Railways

Swiss power major ABB on Wednesday said it has won an order worth ₹1.15 billion from Indian Railways to supply traction transformers. The contract has been awarded by Diesel Locomotive Works, Varanasi, ABB said in a statement. These transformers are customised for the WAP-7 type locomotive. The power capacity is capable of hauling 24 coaches at speed of up to 140 km per hour.

ABB to enhance power quality at rail network

INDUSTRIAL TECHNOLOGY provider ABB said it will supply equipment to enhance power quality at rail line along the country's longest freight corridor, helping trains run at optimum speed. "ABB will supply a step-less Power Quality Compensator - Reactive, which helps regulate and stabilise the power supply when there are dynamic and highly-fluctuating loads," the company said.

ABB bags ₹115 cr order from Riys

PTI
NEW DELHI, 17 OCTOBER

Swiss power major ABB on Wednesday said it has won an order worth Rs 115 crore from Indian Railways to supply traction transformers. The contract has been awarded by Diesel Locomotive Works, Varanasi, ABB said in a statement. These transformers are customised for the WAP-7 type electric locomotive. The 6,000 horsepower capacity



locomotive is capable of hauling 24 coaches at speed of up to 140 km per hour.

The project is part of the 'Mission Electrification' ini-

tiative of the Indian Railways, which aims to convert an additional 24,000 km of railway network from fuel oil to electrification.

The mission also aims to enhance energy efficiency by adopting high quality equipment and facilitating the increased adoption of renewable energy in railway operations, it added.

ABB said the transformers will be manufactured at its Vadodara facility in Gujarat.

ABB claims its transformers power about half the world's electrical locomotives and train sets, and most train manufacturers and rail operators rely on them.



With an innovative power quality solution, technology firm ABB is all set to contribute to India's Dedicated Freight Corridor (DFC). The company will supply a step-less Power Quality Compensator - Reactive (PQCR), which helps to regulate and stabilize the power supply when there are dynamic and highly fluctuating loads, said a company statement.

The PQCR will help improve power quality and voltage stability and help comply with grid codes, besides supplying fixed and dynamic reactive power compensation panels at 23 traction substations.

Notably, the Dedicated Freight Corridor is an ambitious infrastructure project designed to enable the efficient movement of freight containers across the vast geography of the country. It is expected to relieve congestion on commuter routes and drive industrial growth and investments in these regions.

According to the statement, DFCCIL expects to transport up to 19,000 tons of load for long distances and will have a container capacity of 400 units per train, among the highest in the world. To cope with the volume, DFCCIL is pioneering the operation of double stack containers on electrified routes in India. The trains will be high-speed, with maximum speed varying between 75 kilometers per hour (kmph) to 100 kmph.

Such high speeds and variation of loads can affect power consumption patterns, creating significant voltage fluctuations and low power factor that cause power quality issues in the electrical railway traction systems. This could result in equipment malfunction and even downtime. Power quality issues can also spread through the supply grid, creating a domino effect of disturbances to other users. The potential risk of non-compliance to grid codes can also lead to financial penalties.

"We are pleased to support the Indian Railways with our state-of-the-art power quality technology and to contribute to a world class freight rail corridor in the country," said



Industrial technology provider ABB Friday said it will supply equipment to enhance power quality at rail line along the country's longest freight corridor, helping trains run at optimum speed. "ABB will supply a step-less Power Quality Compensator - Reactive (PQCR), which helps to regulate and stabilize the power supply when there are dynamic and highly fluctuating loads," the company said in a statement here.

In addition, ABB will also supply fixed and dynamic reactive power compensation panels at 23 traction substations, it added.

The Dedicated Freight Corridor (DFC) is an ambitious infrastructure [\(NSE 4.52%\)](#) development designed to enable the efficient movement of freight containers across the vast geography of the country. It is expected to relieve congestion on commuter routes and drive industrial growth and investments in these regions.

"ABB will play a key role by enhancing the system's reliability with an innovative power quality solution," it said.

The solution will be implemented in the western segment of the DFC between Mumbai and Dadri that covers a distance of more than 1,500 km.

The DFC will run between the four cities known as the Golden Quadrilateral - Delhi, Mumbai, Chennai and Kolkata - and will be developed by the Dedicated Freight Corridor Corporation of India Ltd (DFCCIL).



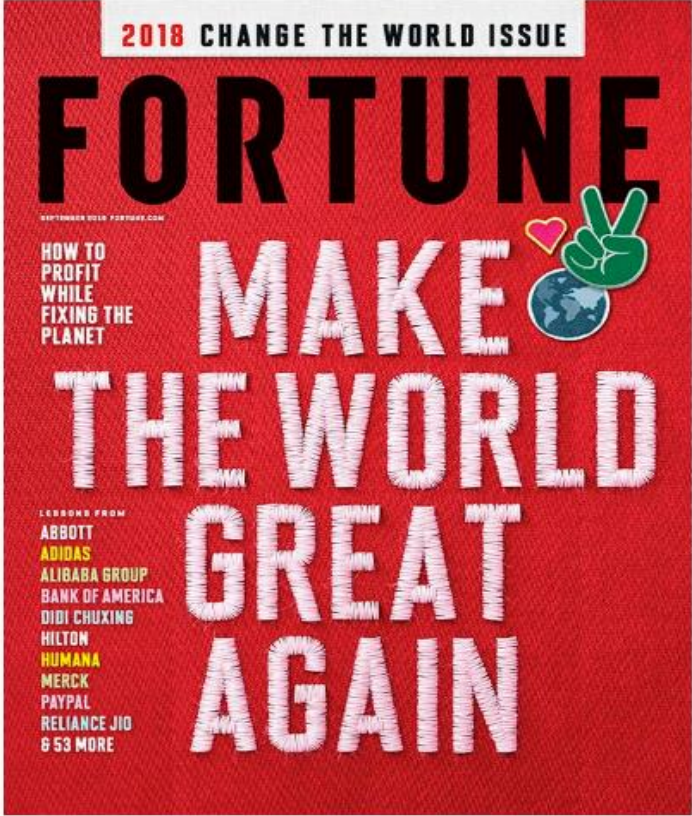
Bringing change worldwide

ABB wins major order to enable transmission of clean energy in Central Asia

ABB to supply HVDC converter stations as part of US \$330 million consortium project with Cobra, to bring hydropower to consumers in Pakistan



ABB joins select group of Nobel International Partners



Fortune Names ABB among Top 10 Companies in “Change the World” List

Performance highlights

Continuing growth momentum

July-Sept 2018 quarter

9M 2018

July-Sept 2018 quarter		9M 2018	
Orders INR 2,355 cr ↑ 22% yoy	Revenue INR 2,515 cr ↑ 31% yoy	Orders INR 7,411 cr ↑ 13% yoy	Revenue INR 7,754 cr ↑ 23% yoy
Service - orders INR 361 cr ↑ 18% yoy	Export - orders INR 623 cr ↑ 171% yoy	Service - orders INR 1,161 cr ↑ 37% yoy	Export - orders INR 1,509 cr ↑ 50% yoy

Agenda

Key highlights

Market overview & ABB project wins

Financials

Market overview - utilities

Upgrading existing infrastructure to reduce losses, integrate renewables

Sector in Jul-Sep 2018 quarter

- **Amendment to Electricity Act** will realign focus on - public sector cos, PPAs, financial and technological health of distribution cos
- Smart Cities initiatives are driving strengthening project for **electrical distribution systems**
- India to auction 40 GW **renewables** every year till 2028. But solar market remains highly competitive. Wind- Solar hybrid projects could be potential game changer for the segment
- Adoption of **digitalization** to maximize output of existing capacities

RP800 site



Mobile capacitor bank



Microgrids for remote rural application



Market overview - industries

NCLT led consolidation spending; focus on enhancing asset productivity, robotic solutions and digitalization

Sector in Jul-Sep 2018 quarter

- **Influencing factors:**
 - Next private capex cycle post 2019 elections
 - Uptick in input and output price inflation, as well as risks of credit slump
 - IE2 motor legislation
- **Cement:** Long term outlook positive; govt. infra push (such as affordable housing)
- **O&G:** Rising oil prices demand greater efficiency, less losses
- **F&B:** Investment in processing sector; est industry growth at 14% pa
- **Steel:** Industry is witnessing consolidation of assets

Upgrading technologies, improving efficiency across segments – cement, mining, oil & gas



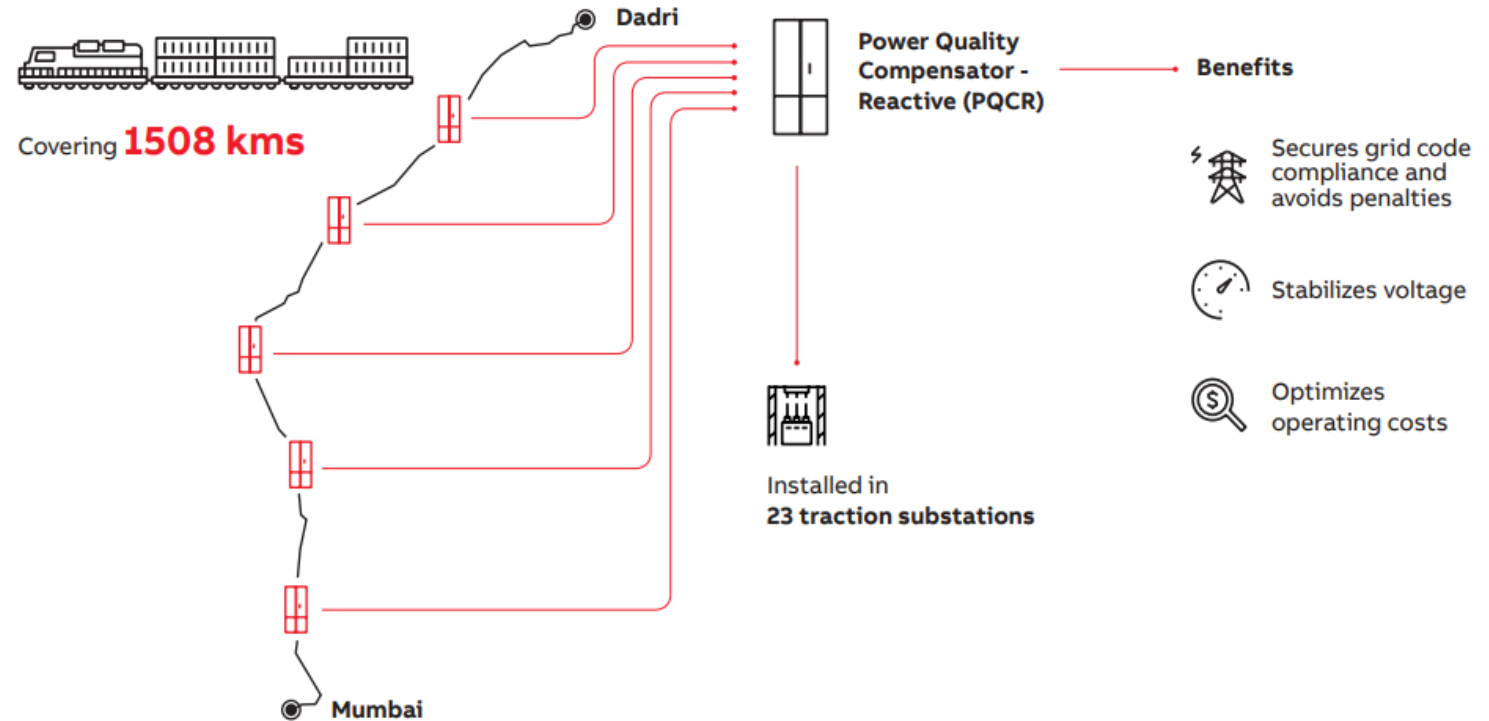
Market overview – infrastructure and transport

Modernizing the nation – from smart cities’ critical infrastructure to sustainable transportation

Sector in Jul-Sep 2018 quarter

- **Rail:** Continue to register steady growth averaging 5.1% in real terms between 2018 and 2027
- **Smart cities:** Focus on making water utilities efficient and profitable. Govt capex outlay ~ \$31.5B in 4 years
- **EV:** Expected Faster Adoption And Manufacturing of (Hybrid &) Electric Vehicles (FAME 2) will granularize road to government’s 2030 EV vision
- **Data Centers:** If govt goes ahead with new data protection law, this could drive demand for local data centers to store data for Indian consumers

Enhancing power quality for India’s longest rail freight network



Enabling Make in India using smart technologies

Continuously investing in state-of-the-art manufacturing and applications of future technologies

75% of ABB's global products manufactured in India

49 factories in 9 manufacturing locations

Global feeder factory for 9 product lines

Largest corporate research center globally

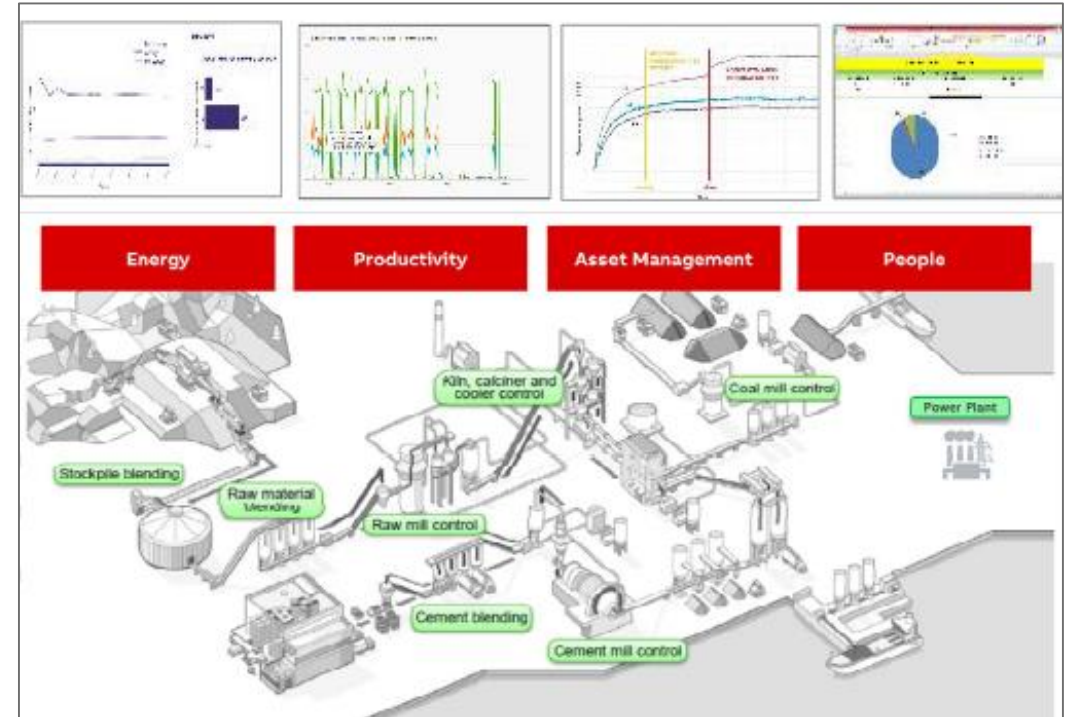
R&D for local needs – solar pump drives, motor sensor, 1200kV power equipment

800 customers, **300** students trained at PowerTEC since April 2018

Localizing offerings



Doing more, better; together with our customers through digitalization



Agenda

Key highlights

Market overview

Financials

A strong performance in a relatively tepid quarter for market

Orders
INR 2,355 cr
↑ 22% yoy

Order backlog
INR 11,368 cr
↑ 5.5% yoy*

Revenue
INR 2,515 cr
↑ 31% yoy

PBT PBT margin
INR 165 cr **6.6%**
↑ 40% yoy

PAT PAT margin
INR 108 cr **4.3%**
↑ 30% yoy

Op. EBITA Op. EBITA margin
INR 152 cr **6.0%**
↑ 68% yoy

Financial summary

30% growth in profit after tax

(INR crore)

Q2 2018	Performance indicators	Q3 2018	Q3 2017	Change	YTD 2018	YTD 2017	Change
2,474	Orders	2,355	1,936	22%	7,411	6,580	13%
10,717	Order backlog (end of period)	11,368	12,130		11,368	12,130	
2,713	Revenue	2,515	1,923	31%	7,754	6,308	23%
161	Profit Before Tax (PBT)	165	118	40%	483	370	30%
5.9	PBT %	6.6	6.1		6.2	5.9	
102	Profit After Tax (PAT)	108	83	30%	313	248	26%
3.8	PAT %	4.3	4.3		4.0	3.9	
155	Operational EBITA	152	90	68%	473	306	55%
5.7	Operational EBITA%	6.0	4.7		6.1	4.8	

P&L Statement

(INR crore)

	Quarter ended on 30.09.2018		Quarter ended on 30.09.2017		Quarter ended on 30.06.2018		Nine month ended 30.09.2018		Nine month ended 30.09.2017		Period ended 31.12.2017	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
<u>INCOME</u>												
Total Revenue from Operations	2,515	100.0	1,923	100.0	2,713	100.0	7,754	100.0	6,308	100.0	9,087	100.0
Other Income	28	1.1	38	2.0	24	0.9	79	1.0	102	1.6	121	1.3
Total Operating Income	2,544	101.1	1,961	102.0	2,736	100.9	7,833	101.0	6,410	101.6	9,208	101.3
<u>EXPENDITURE</u>												
Total Material Cost	1,592	63.3	1,219	63.4	1,803	66.5	5,118	66.0	4,017	63.7	5,891	64.8
Personnel Expenses	213	8.5	202	10.5	223	8.2	654	8.4	612	9.7	796	8.8
Other Expenses	517	20.5	368	19.2	491	18.1	1,402	18.1	1,236	19.6	1,664	18.3
Depreciation	37	1.5	39	2.0	36	1.3	108	1.4	115	1.8	158	1.7
Interest	20	0.8	15	0.8	23	0.9	66	0.9	59	0.9	77	0.9
Total Expenditure	2,379	94.6	1,843	95.8	2,576	94.9	7,349	94.8	6,040	95.7	8,587	94.5
Profit / (Loss) Before Tax	165	6.6	118	6.1	161	5.9	483	6.2	370	5.9	622	6.8
Current tax	65	2.6	17	0.9	73	2.7	182	2.3	102	1.6	190	2.1
Deferred Tax	(8)	(0.3)	18	0.9	(14)	(0.5)	(12)	(0.1)	20	0.3	12	0.1
Profit / (Loss) After Tax	108	4.3	83	4.3	102	3.8	313	4.0	248	3.9	420	4.6

Division performance

INR Crores

Divisions	For Q3, 2018			For Q3, 2017		
	Sales	PBIT	PBIT %	Sales	PBIT	PBIT %
EP	571	49	8.6	472	46	9.7
IA	345	40	11.6	291	39	13.4
PG	1,032	128	12.4	602	58	9.6
RM	592	52	8.8	446	40	9.0

Divisions	For YTD, 2018			For YTD, 2017		
	Sales	PBIT	PBIT %	Sales	PBIT	PBIT %
EP	1,868	174	9.3	1,715	189	11.0
IA	1,025	117	11.4	908	82	9.0
PG	3,062	340	11.1	1,945	196	10.1
RM	1,804	146	8.1	1,334	109	8.2

Sales is net of excise duty

©ABB

Strong cash balance while supporting 31% revenue growth

DSO in Q3

106

↓ from 115
in Q3-2017

Net Working Capital (adj) – Q3

INR 1,904 Cr

↑ 13% yoy

Net cash position – Q3

INR 821 Cr

↑ 14.9% yoy

Earnings per share in Q3

INR 5.11

↑ 30% yoy

Going forward

The environment we will operate in...

current account **GDP**
deficit consumption
ELECTIONS
monsoons commodity pricing
inflation
liquidity

ABB will continue...

- **Relentless execution** to deliver maximum value for customers from their operational expenditure
- **Collaborating** with the ecosystem to build integrated smart solutions for industries and cities of the future
- Creating a platform for future **profitable growth** with digitalization pilots



AABB