CORPORATE ADOPTION OF ELECTRIC VEHICLES IN INDIA

November 20, 2019
3:00 PM - 4:00 PM (IST)
WRI India Delhi

Speaker:
Mr Nittan Bhalla,
General Manager & Head - Facilities Management & Operations at Wipro Digital Operations and Platforms

Moderators:
Miss Shravani Sharma
WRI India
Agenda for Today

1. Wipro Sustainability Initiatives

2. Corporate adoption of EV - Three Phase Approach to Adoption
   A. Diagnostic – Business Case, Market Landscape, Stakeholder Alignment
   B. Design – Operational Planning, Infrastructure Roll Out, Resourcing
   C. Deploy – Productivity, Measure impact, Feedback mechanism

3. Learnings from EV deployment campus

4. Q&A
Outperform.

With Wipro.

Sustainable Mobility

November 2019
Our Values

The Spirit of Wipro is the core of Wipro. These are our Values. It is about who we are. It is our character. It is reflected consistently in all our behavior.

- Be passionate about clients’ success
- Treat each person with respect
- Be global and responsible
- Unyielding integrity in everything we do
Sustainability Highlights

BIODIVERSITY, WASTE AND WATER

- 4% reduction in water consumption intensity
- 42% of water recycled in FY 2019
- 97% of waste diverted from landfill
- 3 biodiversity projects completed
- Bengaluru Sustainability Forum

ENERGY & EMISSION

- 29% reduction in emissions intensity
- 40% Energy from Renewables
- First to receive Greenco Silver Rating award
- 44% YoY increase in energy saving
- 21% YoY reduction in air travel footprint

REWARDS & RECOGNITION

- Dow Jones Sustainability Index (DJSI)
- 2019 World’s Most Ethical Company
- Silver Class Sustainability Yearbook Award 2019
- A- in Carbon Disclosure Project (CDP)
- Ecovadis-CSR rating of Gold
- Golden Peacock HR Excellence Award, 2018
- United Nations - Women at Workplace Awards 2019
- Nipman-Microsoft Equal Opportunity Awards 2018
- Top 20 Companies in DivHERsity
Diagnostic - Business Case, Market Landscape, Stakeholder alignment

- Develop Business Case for “Why Electric Vehicle should be implemented”
  - Mega trends in the Future of Mobility – Shared, Connected and Electric
  - Assess current carbon footprint and impact on carbon abatement by switch to EV
  - Evaluate savings potential from reduced trip cost and abatement from fuel cost increase

- Understand the market landscape for Electric Mobility in India
  - What are the current electric vehicles available to deploy – sedan, SUV, bus etc.
  - Who are the current electric fleet operators
  - What are the charging infrastructure requirements – fast charging, slow charging

- Align internal stakeholder with the vision to transform the mobility system
  - Identify stakeholders to engage – Procurement, Transport, Real Estate, CXO
  - Create individual value proposition for each stakeholders about the paradigm shift
  - Introduce selected vendors with the wider stakeholder early in the process
Design - Operational Planning, Infrastructure roll out, Resourcing

- Detail Operational Planning to be developed once the decision is made to switch to electric
  - Route/Trip allocation – Maximise productivity to derive value from lower electricity fuel cost
  - Each EV should complete 250+ km in 6-8 trips per day to it should get preferential allocation
  - Transition plan to switch to EV in phase wise approach should be ready for seamless transition

- Plan Infrastructure Roll out at the company premise
  - Identify locations where charging station can be deployed based on convenience of pick up and drop as well as closer to electric connection available
  - Clarify roles and responsibilities between service provider and company
  - Right mix of fast and slow charging to be deployed to ensure utilization as well as availability

- Identify resourcing needs and hire right skillsets
  - Integration with the existing automation routing system
  - Manpower to manage charging infrastructure requirements with right skill sets
  - Assign clear roles and responsibilities between Service Provider team and Company resources
Deploy - Productivity, Measure Impact, Feedback Mechanism

- Ensure Productivity of Electric Vehicles
  - Maximise productivity by ensuring right mix of long, medium and short routes
  - Each EV is capable to do 300+ km in single day if managed properly
  - Charging schedule to be planned accordingly

- Measure Impact to capture benefits from this switch to EV
  - Assess carbon emissions abatement from the distance covered on regular basis
  - Evaluate transport cost reductions and how can this be further reduced
  - Develop survey mechanisms to take feedback from people experience

- Develop objective feedback review mechanism
  - Design score card to understand the EV deployment performance
  - Regular review meetings between service provider and company
  - Identify gaps that can be closed on jointly basis
Why Electric?

- Abatement of Fuel Price Escalation
- Future Proofed Against Emission
- ESG Norms for Listed Fortune 500 Companies
- Safety Through Connected Car
- Productivity Drives Cost Reduction

Impact of BS VI, CAFE norms, IMO, Indian Motor Vehicle Act 2019  
Diesel prices to increase @5% CAGR = Rs 3-4 per litre per year
Safety & Security

- **FACTORY FITTED GPS & Telematics Device**
  - Location
  - 4G connected
  - SOC
  - DTE
  - HVAC
  - Energy Efficiency

- **SLEEP ALERT SYSTEM**
  - Fixed time alert
  - Warning modes

- **CAMERA**
  - Two-Way; Event based
  - Continuous Internal Storage

- **AIS 140 GPS PANIC BUTTON**

- **TURNING CHAIR**
  - Special transportation needs for PWD, pregnant women

- **Electronic Speed Governed Car**
  - 140 kms range/charge
Transparency in Operations

- **Dedicated & Connected fleet** provides better control
- **Unlimited travel** distance ensures Transparency
- **Analytics** drives **High Fleet Productivity**
- **EV Fleet = Flat Budgets** with zero fuel price escalations
- **100% regulatory Compliance**
- **Real-time monitoring** with an Off-Site Vehicle NOC
- **Future proofed** against Emission Regulations
Employee Experience

Air-conditioned commute year round
New vehicles
Noise and vibration less commute
Security and Safety through connected car + camera and AIS 140
Driving behavior monitoring and management through ADAS
App based convenience
Our Pilot

- **40 EVs** powered by FAST CHARGERS at HYDERABAD
- **2 DRIVERS** per car in shifts
- **24x7** availability
- **4,500,000+** cumulative green kms by December 2019
- **Avg 275-300 KMS** per vehicle per day
- **~200,000+ PASSENGERS** transported till date

Electric Mobility powered by renewables is the killer app in mobility

Zero carbon footprint + low and stable fuel cost
Effectiveness and Impact

Impact of Pilot (60 EVs)

~$100k saved in trip costs/annum
~$50k saved from abatement of fuel price escalations
~4.5m green kms per annum
= ~900 MT of CO$_2$e abated/annum
+ ~3 KBR Parks to HYD/annum

Next 4-6 months

~300+ EVs
~$5m savings per annum
~$2.5m savings from abatement of fuel price escalations
~22.5m green kms per annum
= ~5,000 MT of CO$_2$e abated/annum across Hyderabad, Delhi/NCR, Pune, Bengaluru

By 2021 (1000+ EVs)

35-40% fleet with zero Co2 footprint
~100 mil km per annum
~15,000 MT of CO$_2$e abated/annum

SERVING THE NATION
SAVING OUR PLANET
Our Journey: Sustainability in Mobility

Next 4-6 Months

- 300+ EV Sedans for Employee Commute:
  - Hyderabad
  - Delhi
  - Gurgaon
  - Noida
  - Pune
  - Bengaluru
- Introduce EV Buses for employee commute
- Long range EVs for day rentals, inter-city commute

Next 12-24 months

- 30-35% of total fleet as electric
- Electric mobility across all locations in India across different form factors applicable duty cycles

100,000,000+ GREEN KILOMETERS PER ANNUM BY 2021
thank you