KOCHI - THE COMMERCIAL CITY

• One of the most vibrant tier II cities in India: population 2.1 million.

• Placed among the emerging global cities that will contribute 50% of global GDP by 2025. *(Source: McKinsey)*

• Large investments in IT expected, being the landing point of the South East Asia - Middle East - Western Europe Cable network (SEA)

• Major gas based investments based on Petronet’s 2nd LNG terminal in the Country.

• One among the six cities to host the 17th FIFA U-17 World cup
KOCHI METRO RAIL PROJECT

- A 25km elevated metro line from north to south axis
- 22 metro stations & one depot
- Three coach train
- Most modern signalling system (CBTC)
- Automatic Train Operation compatible to UTO
- Capital cost of 51817.9 M INR
KOCHI METRO RAIL LIMITED

• A Company jointly owned (50:50) by the Govt. of India and Govt. of Kerala.

• Structured as a Special Purpose Vehicle for the implementation of the Kochi Metro Rail Project.

• Present strength of the Company is 500.

• Positioning as the ‘Urban Transport Solutions Provider’ for Kerala.
2016 ENERGY GRANT-PROPOSAL APPROACH

ENERGY FROM WHERE?

- Construction
- Operation
- Maintenance

SUSTAINABLE WAY???????
2016 ENERGY GRANT- PROPOSAL APPROACH

RENEWABLE RESOURCES

- Solar Roof tops- All buildings
- Ground mounted solar projects

- Short term goal- 30% of reduction in conventional power

KOCHI AIRPORT RUN BY SOLAR ......

Long term goal-

A METRO RUN BY SOLAR POWER ??
ORGANISATION APPROACH

IT'S NOT THE ENERGY ALONE MATTERS!

INPUT (energy) → PROJECT "INPUT (energy) → OUTCOMES (Efficient Infra)" "OUTPUT (waste)" → HUMAN RESOURCE

OUTPUT (waste)
ORGANISATION APPROACH

ALIGN WITH SDG 1, 5 & 8

- **KUDUMBASHREE- ANTI POVERTY PROGRAMME OF THE STATE GRAFTED TO THE URBAN INFRASTRUCTURE PROJECT**
- More than 1000 women force
- Face of Metro

Today, the bank officer calls me ‘madam’!
ORGANISATION APPROACH

ALIGN WITH SDG 5 & 8

• TRANSGENDERS-LGBT Community
• Presently 22 TG’s working

Familiarization to Metro system
ORGANISATION APPROACH

ALIGN WITH SDG 12

• Waste to Bio compost
• Vertical gardens using bio compost
• Medians of Metro using bio compost
• Revenue from waste
ORGANISATION APPROACH

ALIGN WITH SDG 11

• Water Transport Project
• Livelihood project
• Connecting islands to main land
• 38 Jetties & 78 boats
# Achievements

<table>
<thead>
<tr>
<th>Achievements</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women employment</td>
<td>Women empowerment</td>
</tr>
<tr>
<td>Transgender employment</td>
<td>Set path to various organisation</td>
</tr>
<tr>
<td>Vertical garden from waste</td>
<td>Alternate revenue-waste</td>
</tr>
<tr>
<td>Plastic bottle recycling</td>
<td>Responsible citizen</td>
</tr>
<tr>
<td>Green Building (Platinum rated)</td>
<td>Less energy less wastage</td>
</tr>
<tr>
<td>Cycle paths &amp; Walkways (LMC)</td>
<td>More than 1000 cycles in the city</td>
</tr>
</tbody>
</table>
ACHIEVEMENTS

• Water Transport project
• Solar
• E-Rickshaws
• Multi modal transport integration

IMPACT

• Livelihood project
• 6.2 MW project being installed
• Sustainable mobility
• UMTA Bill - Accessibility

KMRL’S METAMORPHISM TO A SUSTAINABLE URBAN TRANSPORT PROVIDER
OBSTACLES AND BARRIERS

TECHNICAL
- Inadequate Project Reports
- Focus on outputs than outcomes

MANAGERIAL
- Various stakeholders
- Knowledge product

FINANCIAL
- Financial commitment/ Limited budgetary allocation
- Supplementary options
- Reluctance of Private players

GOVERNMENTAL
- Procedures & Policies
- Political uncertainty

CULTURAL
- Public Transport by the Poor
- NMT usage-climatic conditions
FUTURE PLANS

• Rain water harvesting – Align to SDG 6
• Scale up Clean Energy- Align to SDG 7
• Sustainable waste management- Align to SDG 12

➢ Collaboration and partnerships needed for implementation and monitoring and of various SDG’s.
➢ Lack of technical support and know how.
GROWTH IS NEVER BY MERE CHANCE; IT IS THE RESULT OF FORCES WORKING TOGETHER.

- JAMES CASH PENNEY

THANK YOU