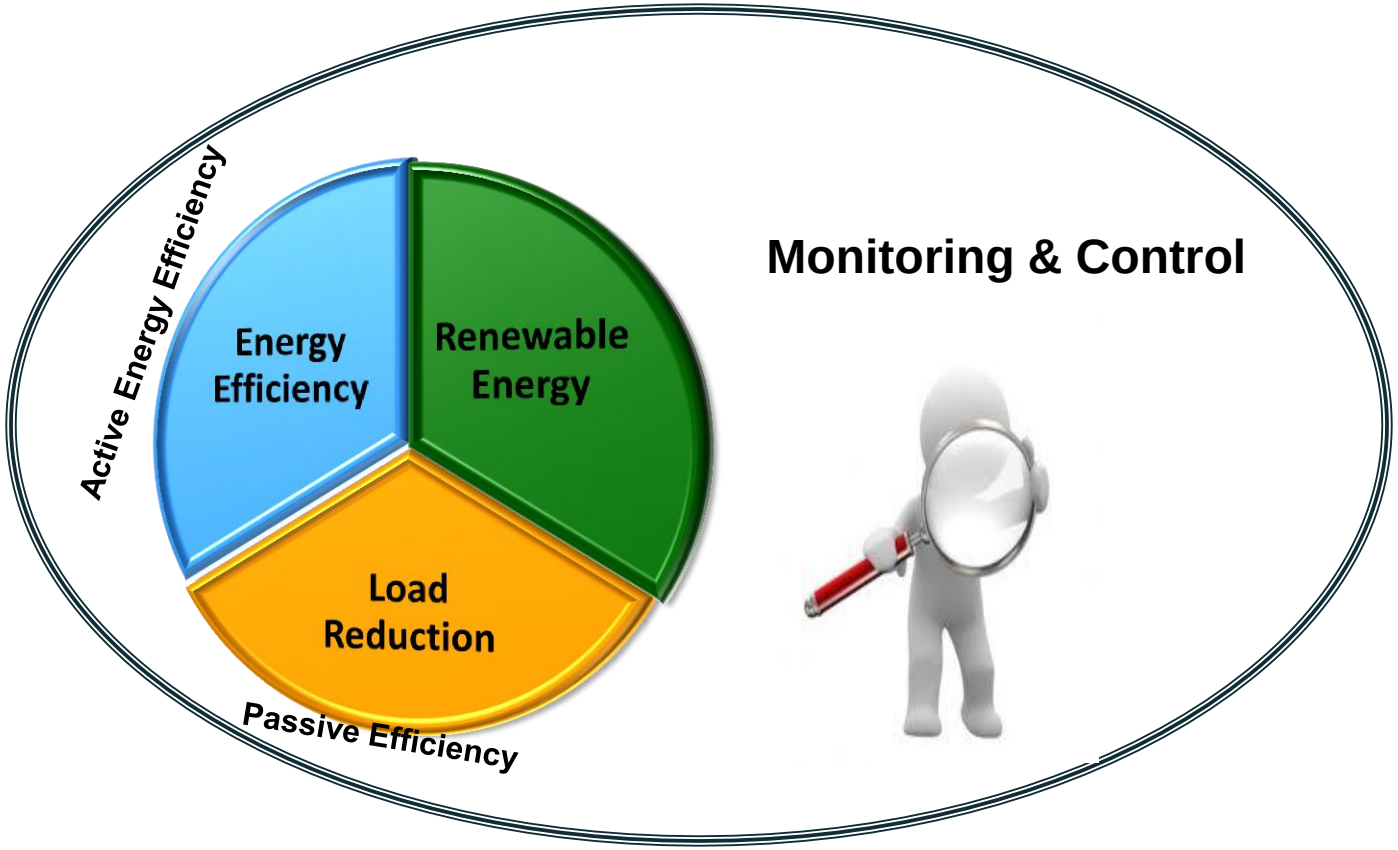
Idea’s strategy:
How to bring green success

Energy Management



Energy Management is a combination of these three aspects coupled with effective Monitoring & Control

Major initiatives in Renewable Energy Technology

- Solar Hybrid Model
- DG Battery Hybrid Model
- Fuel Cell

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Solar Hybrid

Introduced Solar Hybrid Model for Non Grid Outdoor Sites on Opex Model at Bihar Circle:

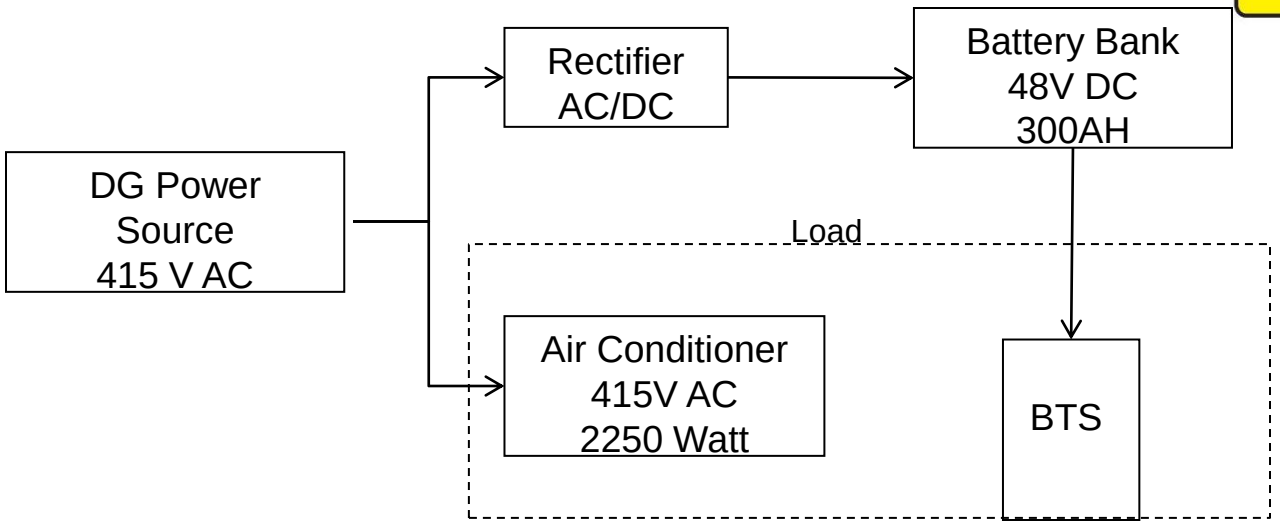
- ✓Fixed Cost Opex Model & Less than existing Operational Cost
- ✓Opex savings of without deploying Capex
- ✓Max. cap of DG run is freezed at 8 hrs per day
- ✓About 750 Sites are running on Solar Hybrid
- ✓ Reduction of of 15 Tonnes of CO_2 Emissions/Site pa
- ✓ DG Replacement by Vendor for incremental Opex
- ✓End to end Infra Management by Vendor
- ✓Diesel filling and EB administration by Vendor



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Conventional Power Management

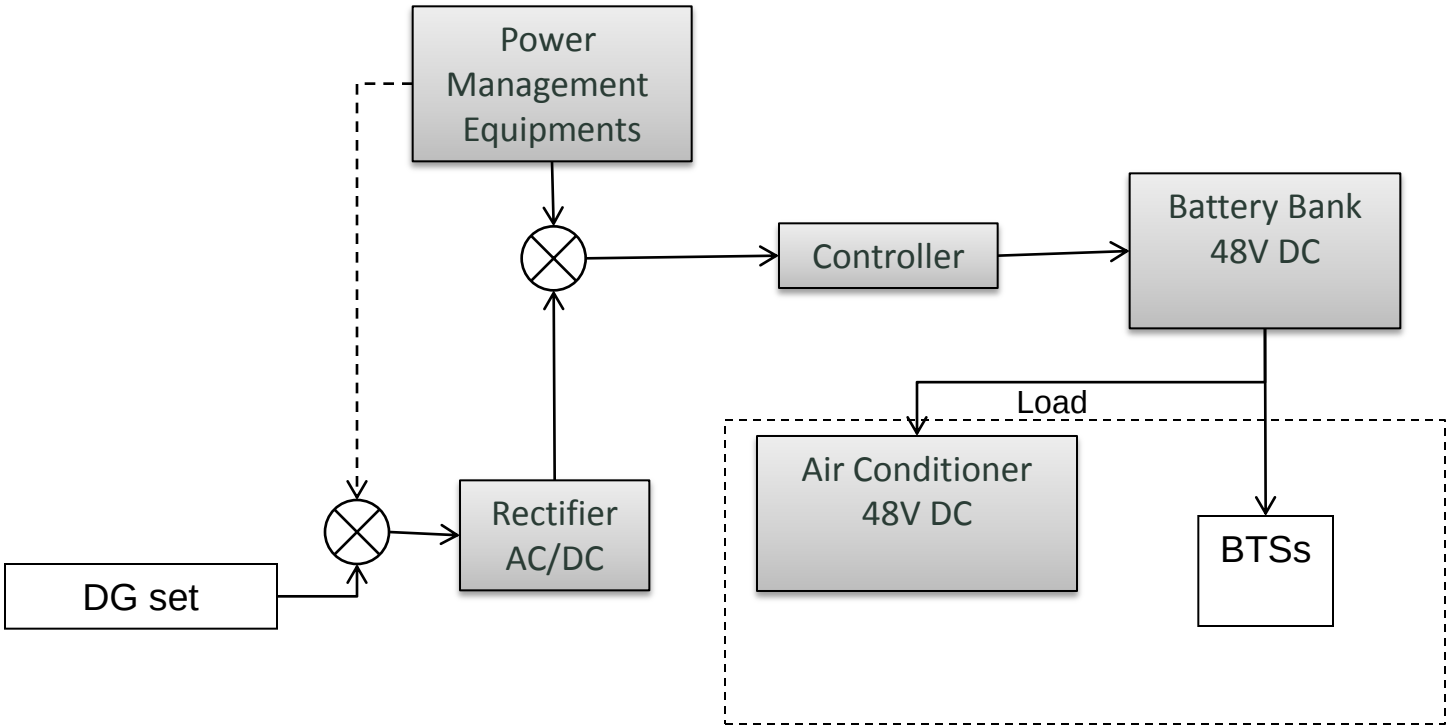


- ✓ Conventionally 15KVA or 25KVA DG sets are used on different load configurations/Tenancies .
- ✓ Diesel consumption per Hour is 2.0 ltrs to 4.2 ltrs depending upon Tenancy / DG Rating.
- ✓ Battery backup is not properly utilized as DG set has to start forcefully to maintain shelter temperature in case of Indoor site.
- ✓ Frequent opposition from public against continuous DG Running creating noise and pollution.
- ✓ High Carbon emission.

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Renewal Source of Energy : Solar-DG Hybrid model



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Snaps from Sites….





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Snaps from Sites….



Cell on Wheel (CoW) site in Delhi

Issues In Solar Implementation..

- ✓ Landowner and guard issues throughout circle.
- ✓ Landowner association/ union issues.
- ✓ Slow work/non starting of work by Vendors
- ✓ Non conversion of sites in to solar due to technical feasibility.
  - Area require for solar conversion is less for few sites.
  - Sites coming under shadow.

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DG-Battery Hybrid Model

Introduced DG-Battery Hybrid Model for Non Grid Outdoor Sites in Bihar Circle:

- ✓Fixed Cost Opex Model & less than existing Operational Cost
- ✓Opex savings without deploying Capex
- ✓ Max. cap of DG run is freezed at 8 hrs per day
- ✓ End to end Infra Management by Vendor
- ✓Sites selected where Solar implementation is not feasible
- ✓ Implemented at 20 Sites

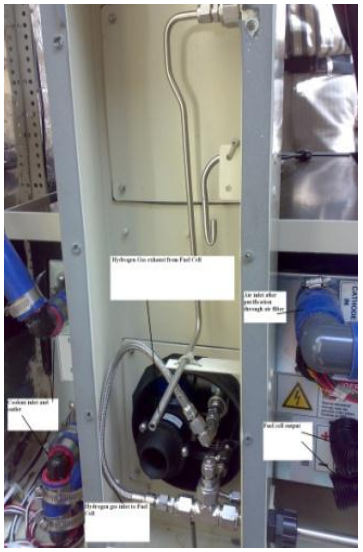
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Hydrogen Fuel Cell

Introduced Hydrogen Fuel Cell near Nagda, MP on Opex Model,

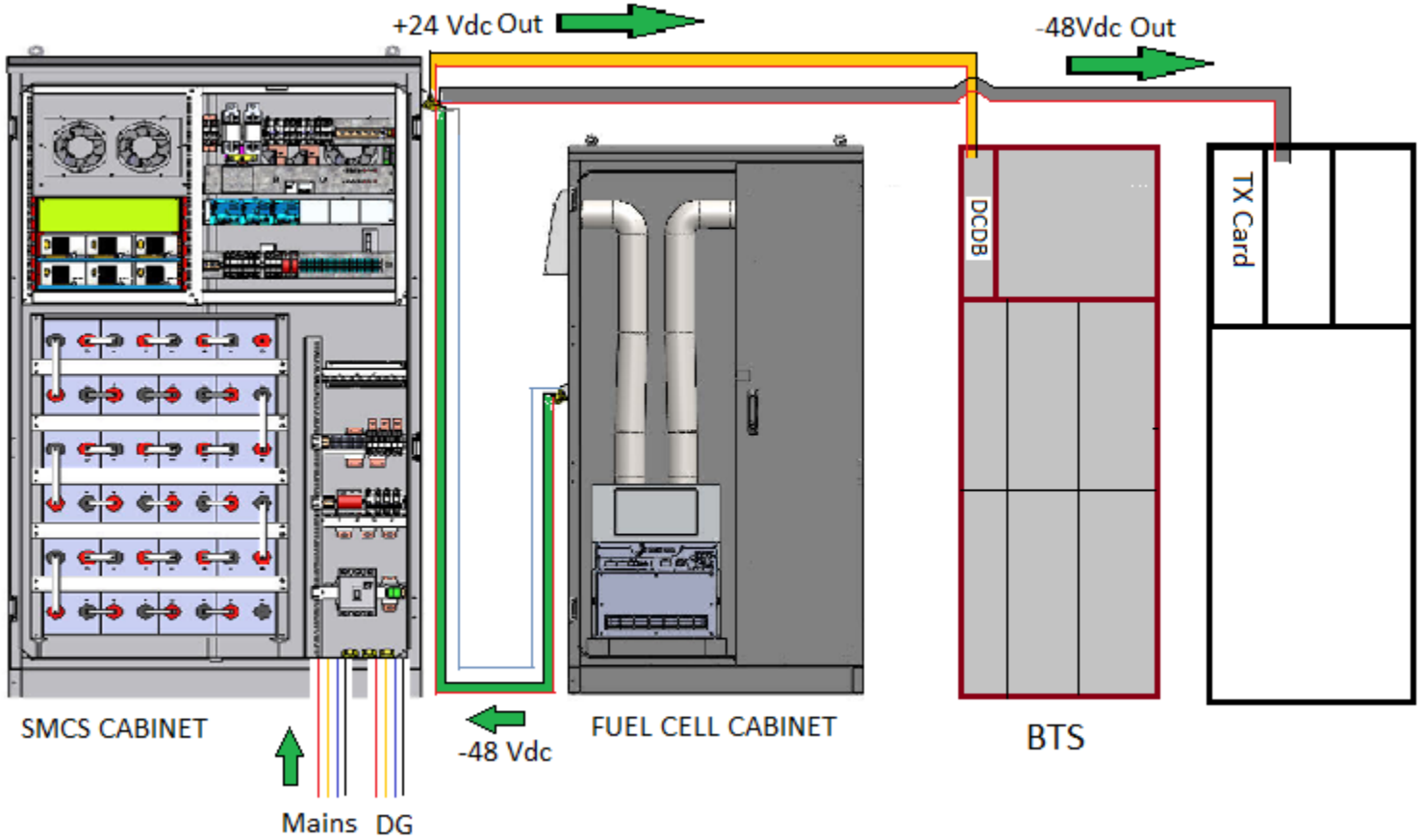
- ✓Partnered with Delta & Dantherm
- ✓ Hydrogen sourcing from Nagda ABG Plant, thus reducing logistics constraints
- ✓End to end Infra Management by Vendor
- ✓Implemented at 25 Sites
- ✓Reduction of Appx. 15 Tonnes of CO_2 Emissions/Site pa
- ✓Unique installation, attracted lot of media attention
- ✓First Commercial deployment in India



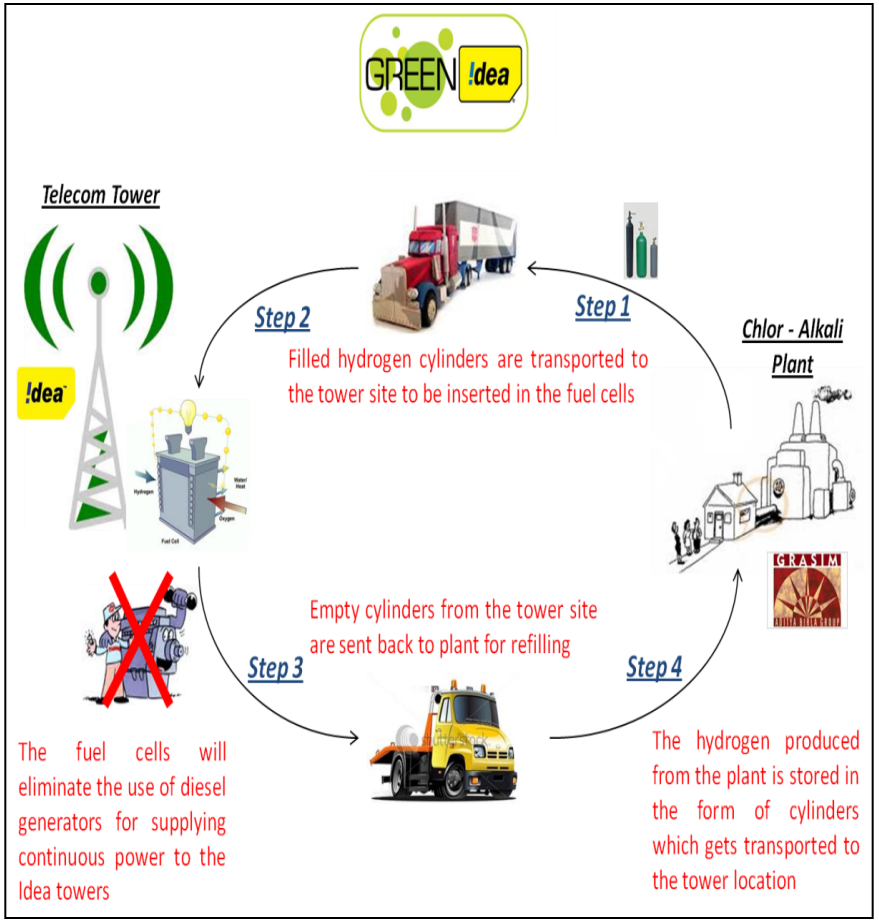


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Site Interface with System



Objective and initiative

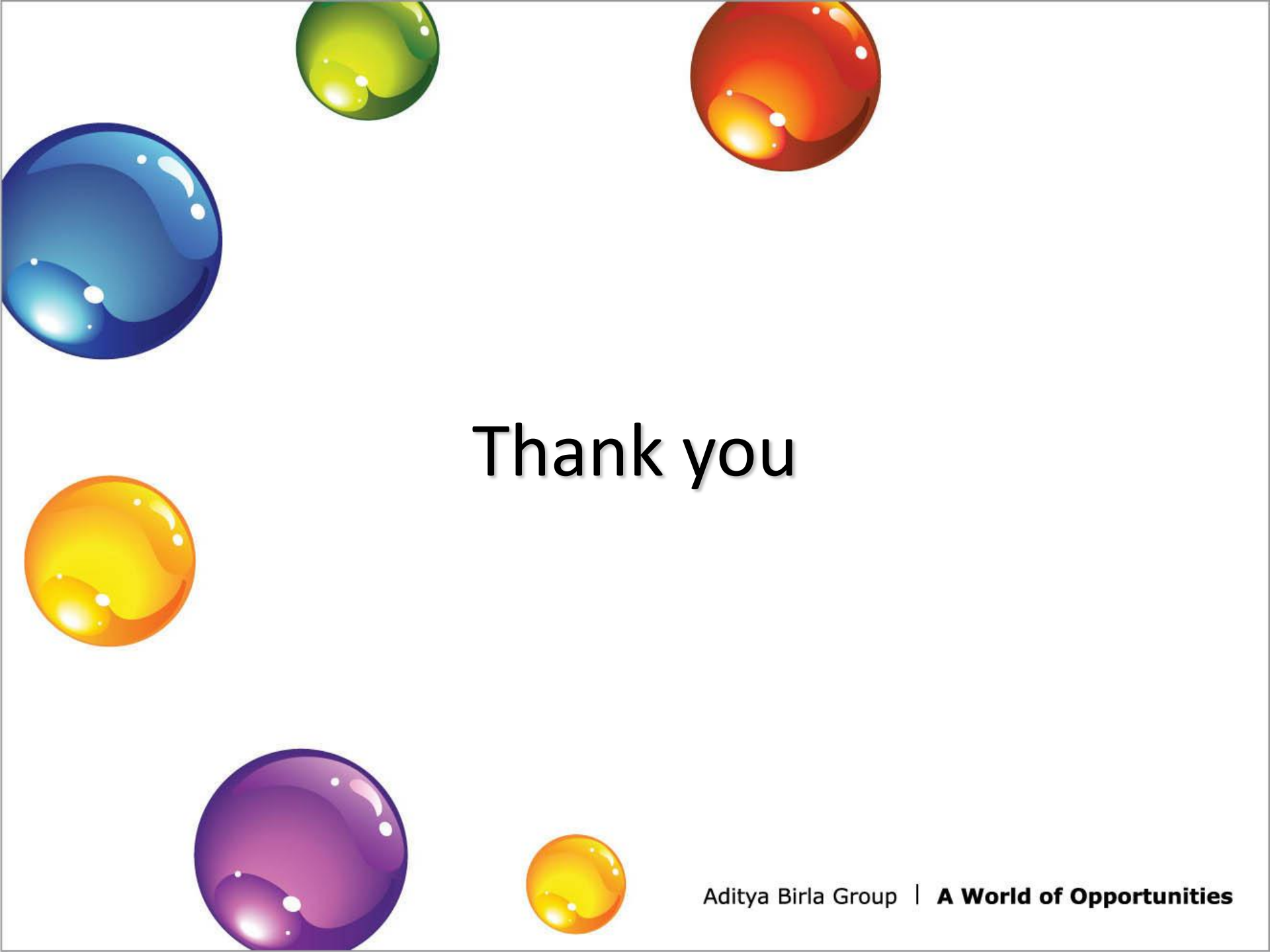
Objective	Initiative
• **Green Idea** is the use of Renewable Energy Technology (RET) in place of Fossil Fuel to power Telecom Towers. • Utilize the Synergies that exist between different companies of Aditya Birla Group (ABG). • Use the by-product of one business (Grasim, chlor-alkali) to meet the electricity demands of telecom towers (Idea Cellular). • Commercial deployment of Hydrogen based fuel cell technology to power telecom towers at prices comparable with the existing costs • Create an Operational Model for Fuel Cell Hybrid Solutions	

Way ahead -Solar Setup at MSC locations

- ✓ Site Survey completed at two MSCs in Noida
- ✓ Space available for installation of 25 KW and 50 KW peak systems at these locations.
- ✓ Based on OPEX Model, no CAPEX required
- ✓ Unit Cost equivalent to existing cost
- ✓ No increase in Unit rate for 5 years
- ✓ Reduction of approx 288 Ton Carbon/pa

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Thank you