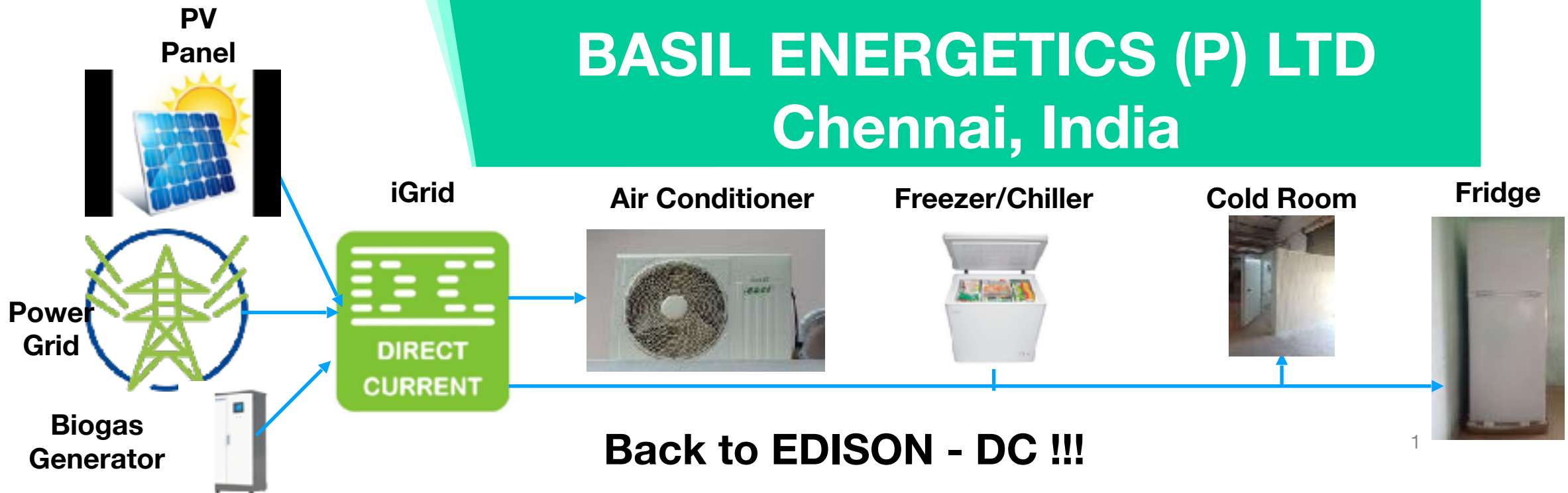


Sustainable Cooling Solutions with DC Appliances & Green Energy

BASIL ENERGETICS (P) LTD Chennai, India



Vision & Mission

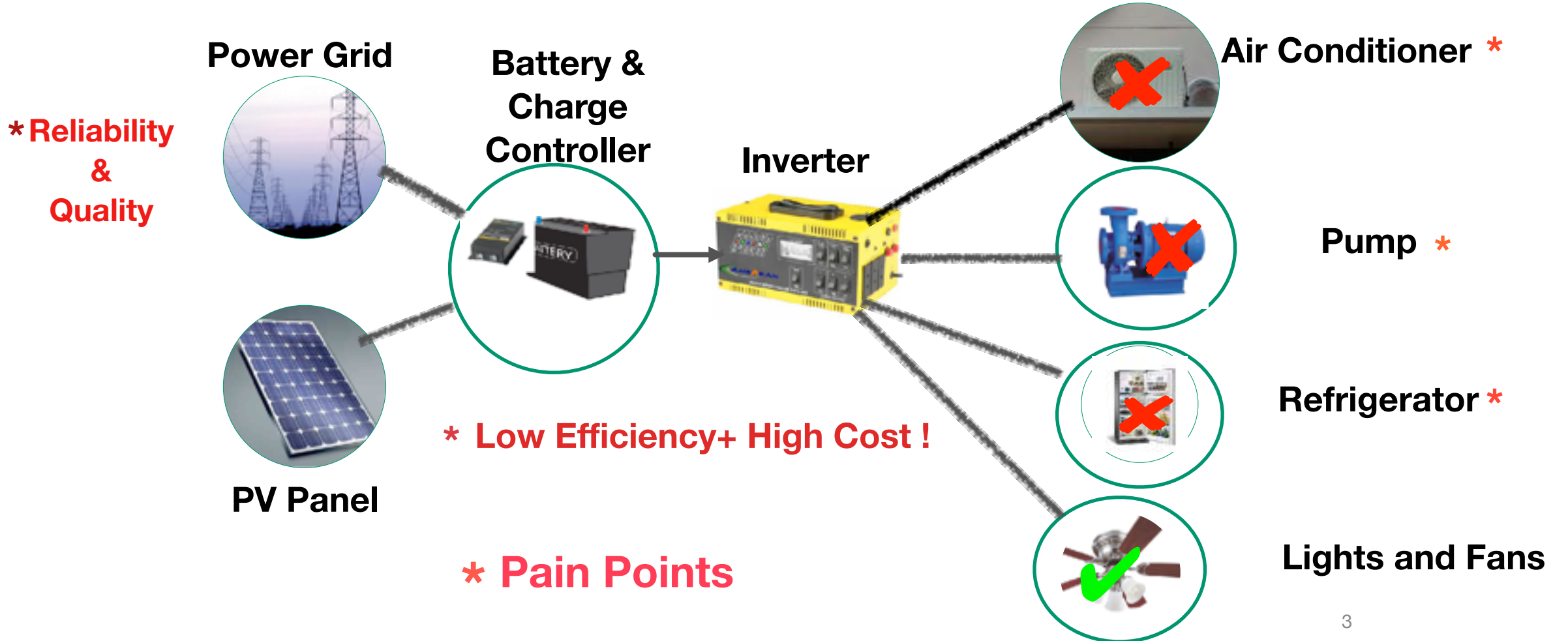


Basil's vision is to provide "Clean & Affordable Electricity for All" in line with UN SDG # 7.

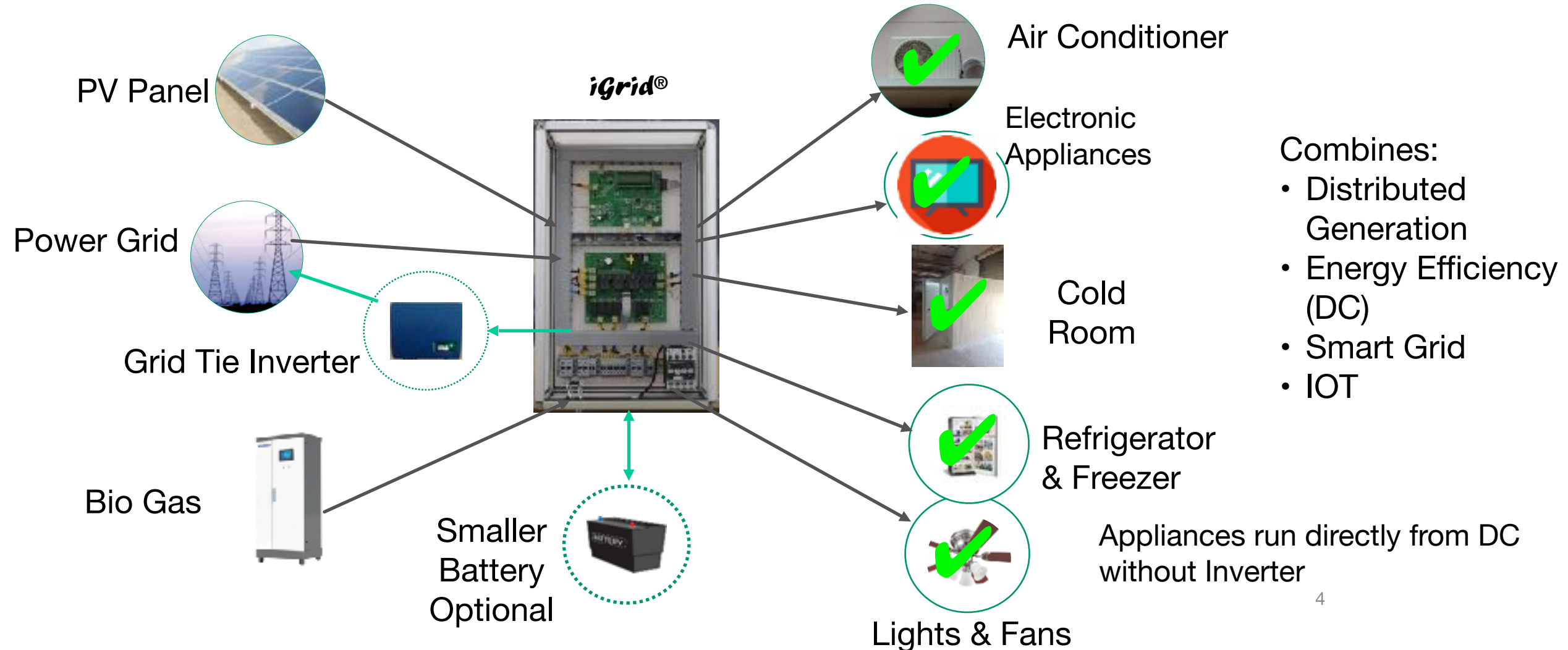


Basil's mission is to achieve its vision by continuous development of DC Micro Grid solutions along with Super Efficient DC Appliances & Equipments using cost effective & leading edge Embedded Controls Technology in Water, Energy & Green Transportation domains.

Existing Solution



Our DC Solution & iGrid



DC Solution - Features



Use of super efficient & variable speed DC appliances



Smart DC Nano grid enables

- Operation from DC in solar hours
- Automatic switchover to Biogas or Grid



Can work as Off grid or ON grid.

Excess RE power Can be stored in battery or fed to the grid



75% reduction in OPEX due to high efficiency



50% reduction in CAPEX due to

- Absence of Inverter & Battery
- Reduced RE Power plant rating
- Reduced roof top area

DC Appliances & iGrid are IOT enabled

DC vs AC Appliances Comparison



Appliance	AC 5* W	DC W	AC kWh	DC kWh
Refrigerator 300L	150	40		
Freezer 550 L	200	50		
Aircon 1.5 Ton	1500	variable	1.2/hour	0.33/hour
Milk Chiller 550 L	200	50		
Ceiling Fan 1150 mm	55	20		

HVAC - AirCon & Fan



- **Products on Offer:**
 - **Room Air Conditioners: Split Type**
 - 1, 1.5 & 2 TR ratings - Cooling Mode - Heat Pump optional
 - 3 & 5 TR packaged systems under development
 - Ceiling Fan - 1150 mm sweep



- **Target Market Segments:**
 - Homes & Educational Institutes
 - Industry, Offices & Commercial Establishments
 - Hotels & Resorts
 - Hospitals
 - Cold Rooms

Market - Cold Storage



- Dairy, Poultry, Fisheries & Animal Husbandry
- Cold rooms for Fruits, Vegetables & Flowers
- Primary Health Centres
- Vaccination Centres for Humans & Animals
- Walk-in Cold Room in Pharma Industry
- Market: (INDIA alone)



- **Present installed capacity: 28 Million MT for farm products**
- **Present Wastage in Farm products: 450 Million MT**

Solar/Biogas Hybrid Solution



- For a dairy farm with 100 cattle:
 - 3 kW biogas power (16 hours) + 3 kW solar power (8 hours) runs
 - One 1.5 TR Air Conditioner & One 500 CFT Walk-in Cold Room
 - One 550 Litre Milk Chiller & One 350 Litre Deep Freezer
 - One 300 Litre Two door refrigerator
 - 4 Fans + 12 Lights + A set of electronics appliances
 - 15 Kgs of Cooking gas per day & 200 Kgs of Organic Manure per day
 - 400 Litres of hot water per day

Demo Site operational in a Dairy Farm near Bangalore

Solar Water Pumping



Run directly from PV Panels during daytime

High Efficiency pumps with ultra high efficiency Motor

**Surface pumps for farms, homes and industry
High pressure pump for RO purification, Drip & Sprinkler
Irrigation and Booster application**

Submersible Pumps - Motor under development

Electronic Appliances



Flat Panel TV and Set Top Box

PC with flat panel monitor/Laptop and Modem

Mobile Phone/Laptop/Tablet Chargers

The appliances can be directly connected to the system

CaaS Business Model



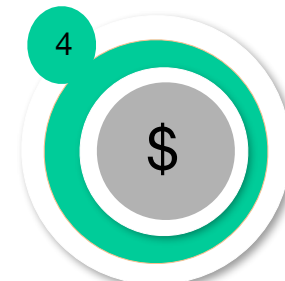
- BASIL
 - Motors
 - Controls



- In house
 - Marketing
 - Sales
 - CRM



- Outsourced:
 - Equipments
 - Logistics
 - Service



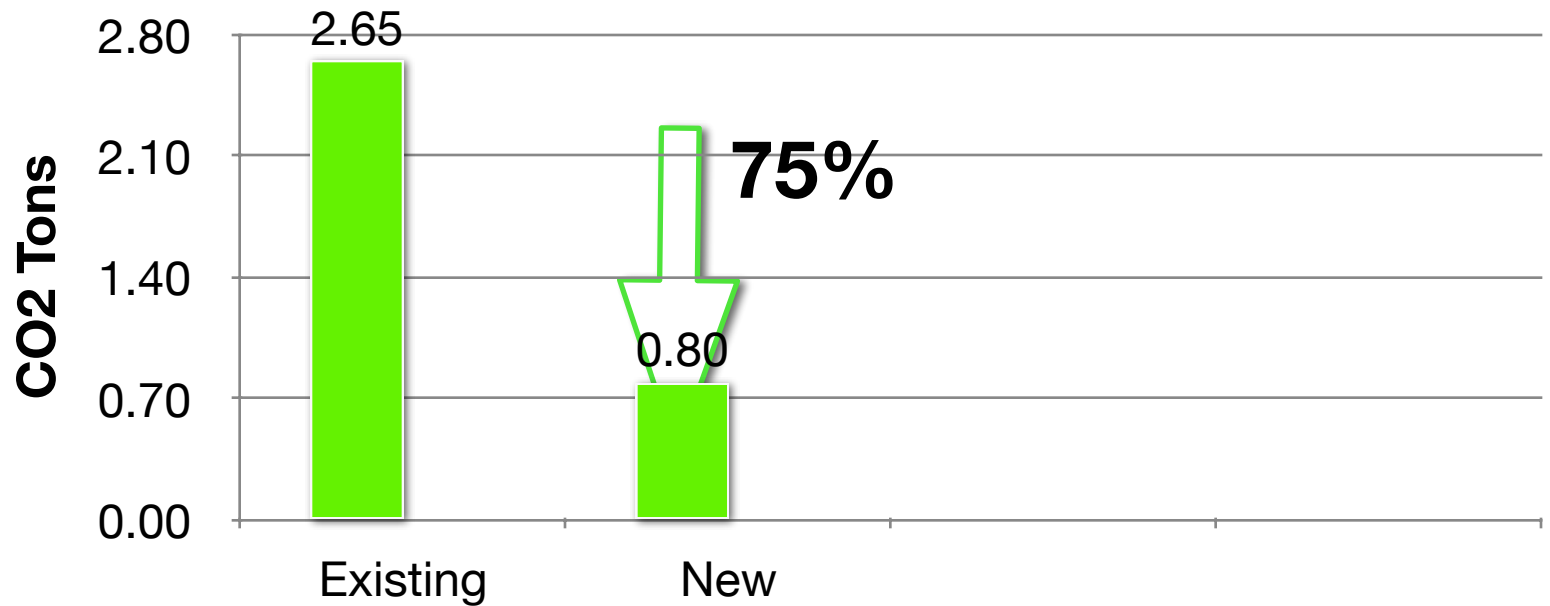
- Revenues
 - CaaS Charges for systems in CaaS model

- Online Customer Acquisition - Increasing Footfalls
- Monitoring & Control Remotely by IOT - Inbuilt in the solution
- Online Billing & Payment - Possible tie up with Big Platforms
- CaaS Charges based on Cooling capacity needed by customer
- Building up E Commerce platform, strengthen R & D, Sales & Service network₁₂

Climate Impact



GHG Emission/Year - Based on Test Results



Photos



Air Conditioner



Freezer



Ceiling Fan



iGrid



Refrigerator



iZip E Cycle



Cold Room



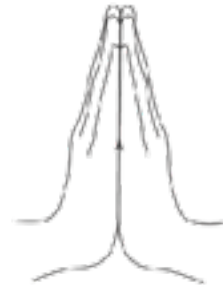
Awards & Recognitions



Member
SyC - LVDC




Member
ETD 50



THANK YOU
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