

#### BUILDING A SMART + SUSTAINABLE FUTURE.



WE ARE A TECHNOLOGY FOCUSSED COMPANY THAT IS DETERMINDED TO DISRUPT
THE WAY THE WORLD USES COLD-STORAGE AND COOLING TECHNOLOGIES,
PUMPING TECHNOLOGIES, BATTERY MONITORING AND ELECTRIC VEHICLE
TECHNOLOGIES IN ORDER TO CREATE A CLEANER AND MORE SUSTAINABLE FUTURE
FOR THE PLANET.

WITH A LARGE IN-HOUSE R&D TEAM, PATENDED TECHNOLOGIES, DEDICATED
FACTORIES AND A CUSTOMER -CENTRIC APPROACH, WE SERVE OUR VALUED
CLIENTS AROUND THE WORLD WITH THE BEST PRODUCTS AND AFTER-SALES
SERVICE.



700

PEOPLE

2\*50,000

SQFT STATE-OF-THE ART FACILITIES

3

Continents



300,000+

ECOTRON (Solar Pumps)

~30%

MARKET SHARE (in solar pumps)

1200+

ECOFROST (World's Leading Solar Cold Room)



# PRODUCTS & TECH

#### ecotron





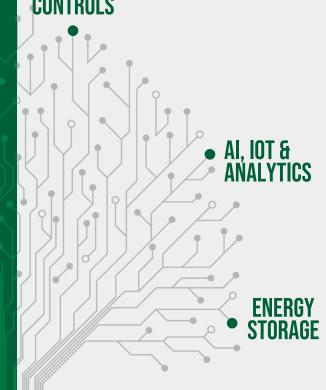
#### ecofrost



Solar-powered Cold Room



Solar freezers and refrigerators



**MOTOR** 

We are a technology company.





Smart IoT enabled solar cold room ensures reduction in food waste, increase in shelf life, market reach expansion and higher earnings.





















SOLAR POWERED WITH HYBRID OPTION

TEMPERATURE CONTROL 4°C ~ 15°C

HUMIDITY CONTROL 65% ~ 95%

UP TO 30HRS
BATTERYLESS
BACKUP

CAPACITY
RANGING FROM
2MT TO 10MT

TRULY
PORTABLE
COLD ROOM

REMOTE SENSING & CONTROL

PREDICTIVE ANALYTICS & DIAGNOSTICS

#### ecofrost



Solar-powered Cold Room



- AWARD WINNING PATENTED TECHNOLOGY
- FULLY SOLAR POWERED 24 HOUR STORAGE WITHOUT BATTERIES\*
- AVAILABLE IN POSITIVE AND NEGATIVE TEMPERATURE
- AVAILABLE IN A WIDE VARIETY OF SIZES AND CONFIGURATIONS
- CAN BE RETROFITTED INTO EXISTING COLD ROOMS
- BUSINESS MODELS INCLUDE CROP STORAGE, MEAT&FISH STORAGE, FLORAL STORAGE, MEDICINAL STORAGE ETC IN BOTH STORAGE & LEASE MODELS
- IN-BUILT IOT & ANALYTICS

<sup>\*</sup> Positive temperature version only

# National ecotron



Solar – pump controllers



- INDIA'S LARGEST SELLING PUMP CONTROLLER
- COMES WITH A WIDE VARIETY OF CUSTOMISATIONS
- IN-BUILT MONITORING AND IOT ANALYTICS
- CAN WORK WITH AND WITHOUT GRID
- CAN BE USED FOR A WIDE VARIETY OF APPLICATIONS INCLUDING IRRIGATION, DRINKING WATER ETC.
- DEDICATED EPC TEAM TO HANDLE LARGE INSTALLATIONS

# 3001

#### ecofrost CHILL





Solar-powered refrigerators, icemakers and freezers



- AWARD WINNING PATENTED TECHNOLOGY
- AVAILABLE IN POSITIVE AND NEGATIVE TEMPERATURE
- AVAILABLE IN A WIDE VARIETY OF SIZES AND CONFIGURATIONS
- CAN BE USED IN RETAIL ESTABLISHMENTS, PHARMACIES, MEAT-SHOPS, BARS, ETC

#### **MULTIPURPOSE SOLAR DRYER DRY ANYTHING**

 Meat Fish

Sea Food

- Fresh Fruit
- Flowers
- Vegetables
- Spices
- Sprouts
- Herbs
- Millets Pulses
  - Roots Etc

#### Range Available

2.5KG | 5KG | 10KG | 20KG | 30KG | 50KG





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#### ecozen



- PROPRIETARY TECHNOLOGY FOR ELECTRIC VEHICLES, BATTERY SERVICE PROVIDERS, ELECTRIC FORKLIFTS, ELECTRIC MARINE VEHICLES ETC
- IMPROVES BATTERY LIFE
- INCREASES SECOND LIFE OF THE BATTERY
- PREDICTIVE MAINTENANCE FOR IMPROVED PERFORMANCE AND SAFETY.

# AND MOTOR







- BETTER EFFICIENCY
- IOT BASED ADVANCED FEATURES
- EASY TROUBLESHOOTING AND FIRMWARE UPDATE
- IMPROVED RELIABILITY AT REDUCED COST
- SUITABLE FOR CONCRETE, ASPHALT, GRAVEL AND TRAILS
- ABILITY TO START ON STEEP SLOPES.
- HELICAL GEAR FOR LOW BACKLASH, LOW NOISE AND VIBRATION.
- CUSTOMIZABLE COLOR COATING AND BRANDING



# SUCCESS CASES

## WITH ECOFROST, PRAGATI FPO HELPED INCREASE FARMER EARNINGS BY 2X.

ecazen

The FPO has over 1000 member farmers, of which 200 grow flowers. They provide Ecofost on CaaS basis to their member farmers.

Andhra Pradesh, India

#### PROBLEMS FACED







No funds to invest in growth



and increasing earnings for both the FPO and its farmers.



Maintained lowest price at INR 5K as compared INR 2K without Ecofrost.

Increased earnings to INR 60 per kg against INR 30 without Ecofrost. **2.0X** 



Service fees for FPO at 5% of gross revenue of farmers used in creation of corpus.

**SOLUTION** 

Purchased Ecofrost in 2017, to mitigate price fluctuations, reduce waste



### WITH ECOFROST, TEKULUDU FPO PRESERVED BEANS AND PREVENTED LOSSES CAUSED BY PEST ATTACKS.

ecazen

With Ecofrost the, the FPO stored their bean produce and sold it to market at the right time and with higher profit margin.

#### TIME OF HARVEST

4

**Tonnes** 

\$40/KG
Average Market Rate

Beans are vulnerable to pest attacks if kept open, hence there is a risk of it getting sold at a lower price due to quality degradation. They should be pre-cooled and kept in a cold room after harvesting.

#### STORAGE



The produce was stored in Ecofrost and pre-cooled before transportation. As per the Ecofrost dashboard on ecozen.ai, the system ran only on solar power, and no grid power was used.

#### TIME OF SALE



\$51/KG
Average Selling Price

The market readily accepted the produce and the good quality was maintained by Ecofrost.



## WITH ECOFROST, SOKOFRESH HELPED A KENYAN FARMER INCREASE HIS EARNINGS BY 30%.

Ambrose Mukira is a smallholder in Murang'a county is one of the 1,000 farmers on-boarded by SokoFresh a venture built by FoodFlow. With Ecofrost, he earned 24,000 Shillings more per season.

#### FARM LAND & PRODUCE

8.0

Acres

65%

Used to grow Avocados

#### STORAGE



He stores and pre-cools and stores his produce in the Ecofrost units located at the nearest SokoFresh cooling center. SokoFresh provides the Ecofrost units on a CaaS model and moves them around Kenya wherever they are needed.

70,000 Increase in earnings

He had an income increase of 70,000 shillings the last year from the avocadoes.

#### ecazen

Kenya, Africa



"I had bleak hopes of sending my son to school. Since I began working with SokoFresh (Ecozen's Partner in Kenya), I have been earning more income which has enabled me enroll my son at a technical institution and comfortably pay the fees and cater to other needs around my home."

# ERIA







• Irawo Farming Community in Ijebu-Ode, Ogun, Nigeria

#### ecazen





#### **After Ecotron**

No. of Commodities = 2 (100% increase)
Yield Per Acre = 10 (3x increase)
Earnings Per Acre = USD 1,400 (4.7x increase)



## Before Ecotron No. of Commodities = 1 Yield Per Acre = 3.4 Earnings Per Acre = USD 300

**t USD 1,100** 

Incremental value in 1 season

#### **AWARDS AND ACCOLADES**



20



**INDUCTED IN 2022** 



WINNER IN 2022



WINNER OF ZERO FOOD WASTE CHALLENGE 2020



WINNER OF FAIR COOLING AWARD 203 & WINNER OF ASHDEN AWARD 2018



SECURED SECOND POSITION 2019



WINNER AT FEDEX SMALL BUSINESS GRANT 2018



SELECTED IN THE LIST OF 50 TO WATCH LIST 2021



**FINALIST IN WE4F 2022 IN SC AFRICA** 



International Finance Corporation

WINNER OF TECHEMERGE NIGERIA CHALLANEGE 2021



SELECTED IN TOP 100 SOUTH ASIA CLIMATE TECH STARTUP 2021











#### **OUR INVESTORS**



































And are building a

#### SMART + SUSTAINABLE FUTURE

through climate-smart deeptech innovations.

# EC®ZEN LET'S BUILD A SMART AND SUSTAINABLE FUTURE TOGETHER.