

# **Husk Power Systems**

Presented by Gaurav





### Vision

We aim to provide electricity to 10 million energy deprived people across the world in over 10,000 villages by installing 3000 plants by 2018.

WHPS will create 2,500 small entrepreneurs and over 11,000 direct jobs within the communities it serves.



# Company Background

#### Globally recognized leader in off-grid biomass based power systems

- ❖ In August 2007, first 100% Producer Gas based 32KW plant was set up in Tamkuha(Bihar)
- ❖ Five years of operational experience in directly running decentralized 80 power plants in remote areas of Bihar
- Global company with footprint in Nepal, Uganda and Tanzania
- Established strategic partnership with Shell Foundation and IFC for capacity building, establishing heath and safety procedures and training infrastructure.
- ❖ HPS currently manages over 90 plants that provide electricity to over 300,000 people spread across 350 villages.













# Easy to operate model

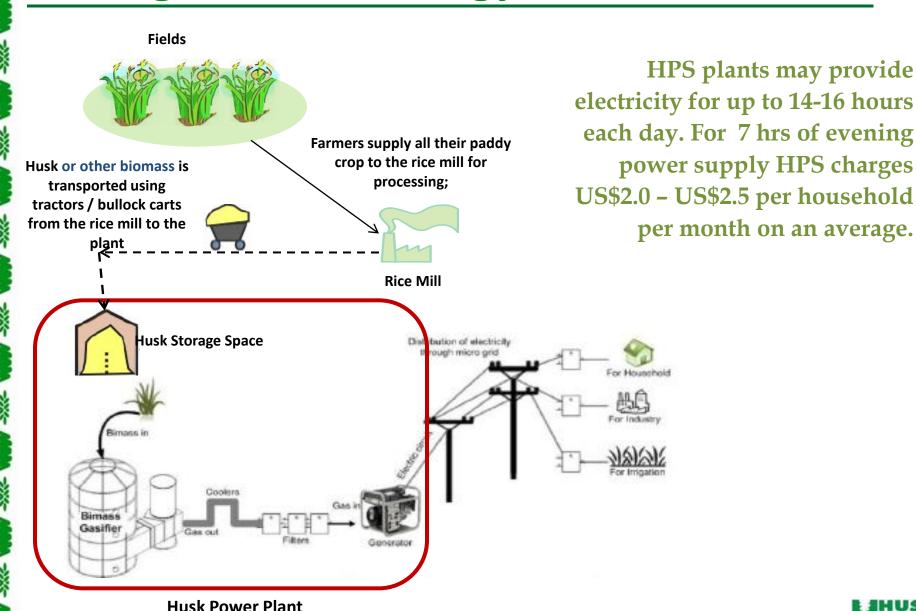
- HPS uses a biomass gasification based proprietary electricity generation process, that generates electricity using 100% producer gas ("single fuel mode").
- HPS distributes electricity directly to households and small businesses while keeping costs low by running insulated wires along bamboo poles to subscribing households, businesses and farms.

HPS Landed Cost of Installation of Biomass System < Rs. 60,00 per kW \*

"Due to HPS's extensive R&D efforts, the company today is one of the world's lowest cost providers of biomass based renewable energy equipment"



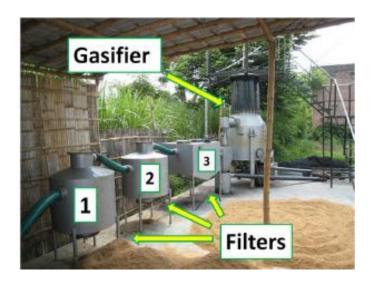
## **Solving Access to Energy Problem**





## **Technology and HPS's Proprietary Solutions**

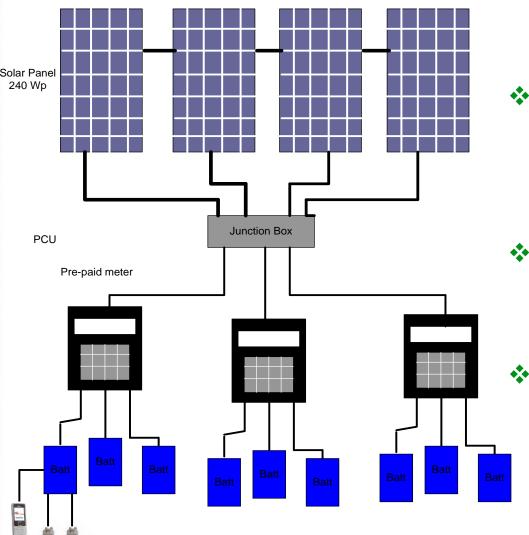
- Multi-fuel gasifiers: Gasifiers can use multiple types of feedstock such as rice husk, wheat husk, mustard stems, corn cobs, wood chips etc.
- Unique gasifier design: allows for easy disposal of biomass char, lack of which results in tar formation;
- Remote Plant Monitoring System: low cost system to monitor plant performance via internet;
- Pre-paid meters: Cheapest pre-paid meter at Rs. 700 per consumer. Enables electricity to be sold like mobile phone talk-times where consumers get their meter charged with the amount of money they have and the meter automatically disconnects supply after the credit is exhausted;







### **Solar PV Micro Grid**



- 50 Households Solar Micro Grid: At a total cost of Rs. 2.5 lakhs, 50 households can light two LEDs and charge cell phone(s)
- Pay-as-you-Go System: Allows households to pay on a monthly basis
- Pre-paid meters: Code based prepaid smart meter prevents theft





#### **Husk Power University (HPU) – Training and recruiting local people**

#### Already training rural people and recruiting them to support HPS expansion

#### **Husk Power University**









#### **Husk Power Systems**













### **CONCLUSIONS**

#### A leader in De-centralized Renewable Energy for rural sector

- Demonstrated a scalable business model through 5 yrs of operations
  - Served 350 villages with 90 operating mini power plants
  - Ensured a 92%+ uptime for all operating power plants
- Partnered with Shell Foundation and IFC for training program
- Electrified 33 villages with Solar PV Micro-grid in 3 months
- Working with BREDA on deploying 28 systems for DDG projects in Bihar



### Husk Power Awards & News



"2008 Social Enterprise of the Year"



"Most compelling idea to change the world."





"2010: Power to People"







"2011 International Winner"



The New Hork Times





# Join the revolution



## **THANK YOU**

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