Bangladesh Clean Energy Summit:
Organized by IDCOL,
Dhaka, Bangladesh (10 - 11 March 2019)
SOLAR POWERED WATER PUMPING SOLUTIONS
* SOLAR IRRIGATION SYSTEMS * SOLAR ROOFTOP SYSTEMS * SOLAR DRIVE & CONTROLLERS

A PRESENTATION BY- CHETAN KANOJIA

SHAKTI PUMPS (BANGLADESH) LTD
DHAKA - BANGLADESH

SHAKTI PUMPS (INDIA) LTD
MADHYA PRADESH - INDIA
INDIA - BANGLADESH
PARTNERS IN PROGRESS
BANGLADESH SCENARIO

World Bank Study Says……..

• Around 45 percent of Bangladesh’s work force is employed in agriculture, which represents an important sector in the country’s economy.
• Farmers use irrigation pumps to ensure adequate and consistent water supply for their crops but incur substantial costs to purchase diesel fuel. Bangladesh spends $900 million per year for 1 million tons of diesel to power its irrigation systems.
• Solar-powered pumps are a reliable irrigation alternative for farmers as solar technology helps reduce costs, protect the environment, and lower expensive diesel fuel imports.
Current Scenario of Diesel and Electric Pump for Irrigation in Bangladesh

Total Number of Diesel Pump Running : 1.34 Million approx
Total Number of Electric Pump Running : 0.27 Million approx
Diesel Consumption : 1 million tons of diesel worth $900 million.

Challenges:
• Transportation of diesel to crop fields is difficult and the supply can be inconsistent.
• Government subsidizes on another agricultural innovations
• Farmers are often dependent on middle-men, who charge higher diesel prices during peak irrigation and cropping season and drive farmers further into financial difficulty.
• High maintenance costs
• Pollute the environment.

Options Available –
• Irrigate More and More and More by Solar Water Irrigation System
Shakti Success Story

1. Bangladesh

• Shakti Pumps is aggressively working for Food Sufficiency through Solar Power Water Irrigation System in Bangladesh with IDCOL.

• IDCOL is dedicated to goal of 50000 irrigation pump by 2025.

• First pump installed by Shakti in IDCOL SIP program in 2012.

• Shakti supplied 20 MW approx pumping system in IDCOL program.

• Pump capacity is mainly 7.5KW, 13KW, 15KW & 18.5KW

• Pump installed in Dinajpur, Rongpur, Thakurgaon, Panchgarh, Bogra & Gaibandaha, Kushtia, Meharpur, Chodanga & Jhenaidah
Shakti Pumps supplied detail in IDCOL SIP Programme

<table>
<thead>
<tr>
<th>Manufacturer Name</th>
<th>Product Detail</th>
<th>Total PV Capacity</th>
<th>Total Land Coverage (Bigha)</th>
<th>Total No of Farmer (Nos)</th>
<th>Total Production of Paddy (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shakti Pumps India Ltd</td>
<td>SIPS</td>
<td>20 MW</td>
<td>57595</td>
<td>31191</td>
<td>69114</td>
</tr>
</tbody>
</table>
Prosperity and Happiness at Bangladesh after Installation of Shakti Solar Pumps Since Nov.2012
OUR ESTEEMED CUSTOMERS IN BANGLADESH

1. Infrastructure Development Company Limited (IDCOL)
2. Barind Multipurpose Development Authority (BMDA)
4. Bangladesh Agriculture Development Corporation (BADC)
5. Water Supply and Sewerage Authority (WASA)
PRESTIGIOUS INSTALLATIONS IN THE STATE OF CHHATTISGARH - INDIA

Shakti Solar Pump distribution to farmers by Hon. Prime Minister of INDIA in Raipur, CG.
2. INDIA

A SUCCESS STORY : Solar Water Pumping System in India
• Manufacturing capacity of 1 million pumps / Annum.
• Shakti Pumps first Pump company listed on Bombay Stock Exchange (BSE) & National Stock Exchange (NSE).
JOURNEY OVER THE YEARS

1982 → Started as SSI unit by Patidar Family.

1985 → Mr Dinesh Patidar (MD) joined the company with a vision to manufacture world class Energy efficient pumps

1989 → Received BIS Certificate (Bureau of Indian Standard)


1997 → Commencement of export operations.


2003 → Received quality marking system ‘CE mark (Statement of Conformity)’
Exports extended to 20 countries

2006 → Granted Star-Export House Status by GOI

2007 → SAP Implementation Started across all verticals, Geographical reach upto 50 Countries.

2008 → Put Up a Separate SEZ Unit, expansion of main DTA UNIT, total capacity of 450K Pumps
JOURNEY OVER THE YEARS

2009  ➔ First company to received 5 Star Rating from BEE (Bureau of Energy Efficiency) in pumping segment

2012  ➔ First to Introduce Solar Pumping Systems in INDIA.

2013  ➔ Awarded as "Best SEZ Exporter" - Export Credit Guarantee Corporation of India (ECGC) & "Outstanding Pump Company" - EPC Award

2013  ➔ Mr Amitabh Bachchan, super star of the millennium becomes the face of brand SHAKTI.

2014  ➔ Corporate Excellence Award at National Conclave ‘Make In India’, for Excellence in Industry


2016  ➔ Emerges as one of the largest solar pumping systems within span of 4 years in INDIA.

2017  ➔ Initiated ZERO LIQUID DISCHARGE & ZERO CARBON FOOT PRINT vision

2018  ➔ Received R&D Recognition from GOVT. OF INDIA, Ministry of Science & Technology (DSIR)
About Company

VISION
To become a company that constantly strives for quality and customer satisfaction by providing best pumping solutions with global benchmarks and to be a company which integrates Health, Safety and Environmental considerations into all its business decisions and activities, such there will be Zero accident • Zero liquid discharge • Zero carbon foot print. • To excel with an emphasis on best business and ethical practice with strong organizational values justifying the interest of all stakeholders.

MISSION
To work relentlessly towards coming closer to our vision statement by offering best working environment and training focusing on integrity and ethics. To empower the workforce to offer products and services that exceeds customer expectations by providing value for money and ensure handsome return to our employees and shareholders. To create a safe workplace by reducing injuries, accidents and environmental impact for current and future generations.
UN SUSTAINABLE DEVELOPMENT GOALS

Shakti has 14 Sustainable Development Goals
Common with UNITED NATIONS

INFRASTRUCTURE

Arial View of Plants

Special Economic Zone (SEZ Unit)
WORLD CLASS MACHINERY & TECHNOLOGY
WORLD CLASS MACHINERY & TECHNOLOGY
STATE OF THE ART E&C FACILITY

SIMHA UNIVERSAL DRIVE
Power Range
1 HP - 10 HP

ELITE SOFT STARTER
Power Range
15 HP - 30 HP

HYBRID INVERTOR
Power Range
1 kVA - 6 kVA

KALPAVRIKSHA STARTER
Power Range
3 HP - 5 HP

DIGITAL STARTER
Power Range
0.5 HP - 15 HP
 1 Phase & 3 Phase

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PRODUCT SEGMENTS

Water Pump Segment
- Submersible Pumps & Motors
- Monoblock Pumps, Openwell Pumps, Domestic Pumps

Industrial & Commercial Building Services Segment
- Multistage Pumps, HYPN System, Monoblock Pumps
- Sewage Pumps, Immersible Pumps
- All range of Water Pump Segment

Solar Segment
- Solar Water Pumps
- Solar Roof Top systems

Drip & Pipe Segment
- Drip & Sprinkler System
- Micro Irrigation Systems
- uPVC Pipes & Fittings

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GLOBAL PRESENCE

100% Overseas

Subsidiaries -
- USA
- Dubai - UAE
- Australia
- Bangladesh
- China
SHAKTI PUMPS PRESENCE IN AFRICA

• Ghana
• Nigeria
• Mauritania
• Kenya
• Tanzania
• Malawi
• Mali

AN OPPORTUNITY TO DEVELOP AND PROMOTE SOLAR ENERGY SOURCE

• Morocco
• Libya
• Chad
• Tunisia
• Algeria
• Egypt
• Sudan
• Zambia
• Zimbabwe
• Botswana
• South Africa
• Madagascar
• Rwanda
• Ethiopia
• Uganda
• Djibouti
• Senegal
OUR NATIONAL NETWORK -

Shakti Pumps enjoy a strong presence in major Indian cities.

Head Office - Pithampur, Dhar (MP)

Manufacturing Units -

• Head Office - Sector III
• Export oriented unit at Special Economic Zone (SEZ)

20 Branch Offices across India

Overseas Offices -

• USA
• Dubai - UAE
• Australia
• Bangladesh

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WORLD’S NO. 1
SOLAR PUMPS
WITH 40% MORE DISCHARGE

Pump Range : 250 W upto 250 KW
Flow range  : 5 to 6'000 LPM
Pump Installed : More than 100'000(India)
               : More than 15'000(Overseas)
ABOUT SHAKTI SOLAR PUMPS

The Solar water pumping system includes
- Shakti High Efficient PMS Submersible motor
- Shakti Submersible pump /Surface Pump /Helical pump
- Solar Panel and its mounting structure
- Solar controller • Cable • Pipes

Applications
- Ground water lowering • Irrigation systems • Industrial Application
- Drip irrigation & sprinkler • Tank / Cistern filling • Wildlife refuge
- Rural water supply for ranches, cabins, and cottages • Fountains

Protection Features
- Dry run Protection. • Overload Protection • Over Heat
- Open Circuit Protection • Short Circuit Protection

Features
- High flow system for faster tank fill and significant water output.
- Proven motor and pump technology for long-term reliability
- Clean and pollution free energy, Eco-friendly.
- Ideal for remote areas, where electricity is not available or availability is capital intensive.
- Suitable for day time irrigation, Continuous supply for 6-8 hours in a day.
- Simple installation and maintenance free.
- Variety of flow rates available in: 5 to 6000 lpm. (18 to 22680 US GPM)
- Motor and drive ratings available in: 0.5 to 50.0 HP (0.37 to 37 kW) & upto 100 HP upon request.
SOLAR ROOFTOP INSTALLATIONS

SOLAR CAR PARKING
60 KW POWER GENERATION

SOLAR ROOFTOP
75 KW POWER GENERATION
SHAKTI REMOTE MONITORING SYSTEM

- Web

- Mobile

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INTERNATIONAL CLIMATE CONFERENCE (PARLIAMENTARY) ABIDJAN (IVORY COAST) ATTENDED- APRIL 2017

Our CMD Mr. Dinesh Patidar submitting Commitment letter for Installation of Solar Pumps to Mr. Upendra Tripathi (ISA Director General)

Commitment letter for Installation of 1000 Solar Pumps in each ISA listed countries
“A brief interaction with Honorable Prime Minister of India, His Excellency Akinwumi Adesina - President African Development Bank and Honorable Macky SALL - The President of Senegal during their visit to Company’s Stall at the Exhibition coinciding with African Development Bank’s Annual Meetings held at Gandhi Nagar from May 22-26, 2017”
PARTICIPATION IN 3RD ANNUAL INTERNATIONAL CONFERENCE AND EXHIBITION ON “AFRICA: A LAND OF OPPORTUNITIES” – JULY 2017

Mr. David Rasquinha – Managing Director Exim Bank visit our stand during the conference
Participated and Invited a speaker in Regional Platform for Sharing and Learning “Renewable Energy - Challenges and Opportunities” by IDCOL with Support German Development Corporation KFW & AEPC Nepal

Visit of Mr. MD Enamul Karim Pavel (Head of Renewable Energy, IDCOL, Bangladesh) & Miss. Sanjidaa Haque (Relationship Officer, IDCOL, Bangladesh) at our factory Pithampur - October 2017
Visit of IDCOL Technical team at our factory Pithampur for Factory Visit and Solar Product Training – January 2019

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Visit of H.E. EL HADJI IBOU BOYE & Hon. DEMBA CAMARA SENEGAL AMBASSADORS at our factory Pithampur – August 2017 & July 2018
Visit of H.E. Mrs. Judith kasashi Mwale Kasanda Kangoma 
Kapijimpanga- The High Commission of THE REPUBLIC OF ZAMBIA & Mr. Mucyo Rutishisha – 2nd Counsellor, The High Commission of THE REPUBLIC OF RWANDA at our factory in October 2017
Visit of HON. JOSEPH KOFI ADDA (Minister of Sanitation & Water Resources), H.E. MICHAEL AARON N.N. OQUAYE JNR (The High Commissioner Ghana to India), & Delegates from Ministry of Sanitation & Water Resources THE REPUBLIC OF GHANA, INDIA at our factory Pithampur - November 2017 & April 2018
Visit of H.E. CHRIS S EZE - THE HIGH COMMISSIONER, The High Commission of FEDERAL REPUBLIC OF NIGERIA, INDIA at our factory Pithampur – January 2018
Visit of NFP’s of INTERNATIONAL SOLAR ALLIANCE at our factory
Pithampur – MARCH 2018 (Cambodia, Guinea, Ethiopia, Madagascar,
Malawi, South Sudan, Zimbabwe, Seychelles, Rwanda, Costa Rica, Fiji,
Uganda, Burundi, Ghana, Guyana, Gabon, India)
Visit of HE. Ronald Kibuule Minister of Water, Mr. Eyatu Joseph Oriono (Commissioner), Mr. Mutabazi Hillary (Sr. Engineer), Mr. Lutaaya Ndaliike Fred (Sr. Engineer), Ms. Orishaba Nuwagaba Catherine (Engineer) from THE REPUBLIC OF UGANDA at our factory Pithampur – MARCH 2018

Visit of H.E Grace Akello - High Commissioner & Ms. Jane Francesca Itero Emiru - Administrative Attache from UGANDA EMBASSY, INDIA at our factory Pithampur – November 2018

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Visit of H.E. Mr. SAINY TIEMELE (High Commissioner Embassy of Cote d’Ivoire, New Delhi), Ms Marie Paule Yapi Dogbo (Counselor), The Republic of Côte d'Ivoire, INDIA at our factory Pithampur – July 2018

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Visit of H.E. ALI ILLIASSOU (Ambassador Embassy of the Republic of Niger, New Delhi), Mr. BOUREIMA SOULEYMANE (Second Counselor), The Republic of Niger, INDIA at our factory Pithampur – August 2018
Visit of H.E. Mr. Jorge Castaneda (Ambassador The Embassy of Peru, New Delhi), Ms. Julia Gangwani, The Republic of PERU, INDIA at our factory Pithampur – September 2018
Visit of Hon. Moctar TOURE (Special Advisor to the President of the Republic of MALI,) the 2nd Global RE-INVEST Expo at Greater Noida, India – October 2018
Prestigious Installations

Solar Pump Installation (Water & Sanitation Corporation, Rwanda)
Power : 900 Watts
Flow : 1200 LPD
Head : 70 Mtr

Solar Pump Installation (Nyagtare District Rwanda)
Power : 900 Watts
Flow : 1200 LPD
Head : 70 Mtr
Prestigious Installations

Solar Pump Installation (Gonarazhou National Park, Zimbabwe)
Power : 15000 Watt
Flow : 390000 LPD
Head : 50 Mtr

Shakti Solar Pumps (Ouargla, Algeria)
Power : 3600 Watt
Flow : 102,000 LPD
Head : 40 Mtr
Prestigious Installations
Solar Pump Installation (Nigeria)
Power : 3000 Watt,
Flow : 180’000 LPD
Head : 30 Mtr

Solar Pump Installation (SOMALILAND)
Power : 2000 Watt
Flow : 90’000 LPD
Head : 30 Mtr
Prestigious Installations

Shakti Solar Pumps
(AL WAHAT AL BAHERIYA, Egypt)
Power : 4600 Watt
Flow : 72000 LPD
Head : 80 Mtr

Shakti Solar Pumps
(TIVOUANE PEULH, SENEGAL)
Power : 6200 Watt
Flow : 180’000 LPD
Head : 45 Mtr
**Prestigious Installations**

Shakti Solar Pumps (Morocco)
- **Power**: 40000 Watt
- **Flow**: 620000 LPD
- **Head**: 90 Mtr

Shakti Solar Pumps (Taroudant, Morocco)
- **Power**: 14000 Watt
- **Flow**: 360000 LPD
- **Head**: 70 Mtr
## Prestigious Installations

### Shakti Solar Pumps (Tanzania)

- **Power**: 8200 Watt
- **Flow**: 432000 LPD
- **Head**: 30 Mtr

### Shakti Solar Pumps (District Same, Tanzania)

- **Power**: 41500 Watt
- **Flow**: 180000 LPD
- **Head**: 350 Mtr
Prestigious Installations

Shakti Solar Pumps (Free State, South Africa)
Power : 10500 Watt
Flow : 270000 LPD
Head : 50 Mtr

Shakti Solar Pumps (Saudi Arabia)
Power : 50000 Watt
Flow : 680000 LPD
Head : 180 Mtr
Prestigious Installations

Solar Pump Installation (Florida, USA)
Power : 4600 Watt
Flow : 50000 LPD
Head : 120 Mtr

Solar Pump Installation (Goiania, Brazil)
Power : 4600 Watt
Flow : 30000 LPD
Head : 140 Mtr
**Prestigious Installations**

Solar Pump Installation (Vinaros, Spain)
Power: 1500 Watt
Flow: 12000 LPD
Head: 130 Mtr

Shakti Solar Pumps (40 Hectare Mango Farm Al Hodida, Yemen)
Power: 32000 Watt
Flow: 9720000 LPD
Head: 85 Mtr
Various Certification and Approval -
A Proof of Our Excellence

BS OHSAS 18001:2007
ISO CERTIFICATE
UL
BS OHSAS 18001:2007
ISO CERTIFICATE
UL
Statement of Confirmation (CE)
Ministry of Works - Bahrain
AECOM
Ministry of Works - Bahrain
Star Export House

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PARTICIPATIONS IN INTERNATIONAL EXHIBITIONS

MCE – Milan, Italy
WFES 2018 – Abu Dhabi

Irrigation Australia
Big 5 – Dubai

NGWA Expo – USA
Aquatech Amsterdam
SHAKTI PUMPS at the 2nd Global RE-INVEST Expo in Greater Noida, India October 3-5’ 2018
Associate with a leader in SOLAR PUMP INDUSTRY
Associate your name with success.

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