





Annual Report 2017

# MLINDA FOUNDATION CIO ANNUAL REPORT AND UNAUDITED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2017

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## WHY WE ARE HERE

*Mlinda* researches, develops, invests in and shares improved modes of production and consumption: ideas that can scale and act as a catalyst for individual and systemic change.

We work on shifting mindsets from short-term attitudes to long-term values. In developing regions, that means creating the right socio-economic conditions for people to think beyond survival and consider long-term stewardship of the environment.



"One could not make the children study after sunset. It is much better now under the bulb - more light and less crowding." Resident, Kulabira



"We connected to the grid in our field so we could sell more vegetables. We are now saving to connect our house." Resident, Kasira

## WHAT WE DO



In Jharkhand, India, *Mlinda* is installing 4 new mini-grids every quarter between 2017 and 2019. By 2020, *Mlinda* will own and operate a total of 50 mini-grids.



Mlinda staff have a deep understanding of energy needs and create strong bonds of trust in the villages in which they serve.



Mlinda installs, operates and manages the distributions of metered energy throughout the villages, and ensures maintenance and repairs.



Mlinda supports village entrepreneurs, with access to credit or business advice, to transition to solar energy and grow their businesses.

www.mlinda.org | 05

# THE TRUSTEES PRESENT THEIR REPORT AND ACCOUNTS FOR THE PERIOD ENDED 31 DECEMBER 2017

The accounts have been prepared in accordance with the accounting policies set out in note 1 to the accounts and comply with the Charity's governing document, the Charities Act 2011 and 'Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102)'.

## OBJECTIVES & ACTIVITIES

Mlinda's objects are to promote, for the benefit of the public, conservation, protection and improvement of the physical and natural environment. In particular the Charity aims to educate the public about climate change and depletion of natural resources,

Mlinda aims to transform modes of production and consumption.

to encourage organisations to undertake systemic change in their production process and to transform individual behaviour and modes of consumption. The focus to date has been on the investment into research and development of a scalable and replicable model of rural electrification using renewable energy in rural India. There are no restricted or endowment funds.

Mlinda aims to raise income to support its objects by donations in order to make charitable contributions as the trustees see fit. The Charity receives donations from other institutions with a view to donating monies received to Mlinda Charitable Trust and Mlinda Sustainable Environment Private Limited, both of which are based in India.

The trustees confirm that they have referred to the Charity Commission's guidance on public benefit when reviewing the Charity's aims and objectives, in planning future activities and setting the grant making policy for the year.



# ACHIEVEMENTS AND PERFORMANCE

With around 7% annual growth, India is also one of the world's fastest growing economies and as a result, also one of the largest contributors to GHG emissions, 240 million (20%) people in India live without access to electricity. Most of them are based in rural areas.

Mlinda seeks to increase access to energy to enable India's most marginalised communities to grow sustainable livelihoods while also reducing CO2 emissions. The disadvantaged in India have average annual household incomes of the equivalent of less than 700 Euros and access to energy from the national grid is limited and unreliable.

Mlinda helps villagers to develop their agri-businesses and train local villagers to repair and maintain their energy service network.

Our organisation installs, operates and maintains village-wide minigrids, providing metered energy which is paid for by households.

We also offer business advisory support to help villagers to develop their agri-businesses and train local villagers to repair and maintain their

energy service network.

INDIA

Renewable energy activities began in 2011 with small solar roof tops systems shared between families in the mangrove areas of the Sundarbans of southern West Bengal. In 2013, Mlinda expanded to northern areas of West Bengal, later moving into Jharkhand in 2015.

In 2016, Mlinda began installing village-wide solar powered minigrids in Jharkhand. By 2017, the organisation managed and operated eight mini-grids in nine villages, providing 948 families and 213 farmers with reliable access to modern, clean and affordable energy 24/7 with proven financial, social and environmental benefits for women, children and entrepreneurs. •

**JHARKHAND** Jharkhand is among the most disadvantaged states in India. Average annual income is 700€. Villagers spend significant resources on kerosene for lighting and phone charging, and diesel for farm machinery.

> MLINDA PROJECT LOCATIONS

### **GUMLA**

Over 1000 villages in this region have little or unreliable, poor quality power. The key below shows locations

of villages now benefitting from Mlinda mini-grids.

- Ambatoli
- ☐ Aringtoli
- Bada Atariya
- Chota Atariya
- Kasira
- Kulabira
- Naratoli
- Passanga
- Sahitoli

IN 2017

## THE MODEL

Mlinda's model for mini-grid installation and support to the community is anchored in close ties with villagers, and deep understanding of their energy needs.

Mlinda designs, installs and operates mini-grids in the villages and then supports the community to make the transition from diesel and kerosene to renewable energy.

## MLINDA INSTALLS AND OPERATES MINI-GRIDS

- The average village size is 120 households with approximately 5 family members per household.
- The village-wide mini-grids provide 24 hour, seven days a week energy for productive agricultural and commercial needs as well as domestic nighttime use.
- Each system is between 20-30kWp, solar powered with

Mlinda's model for mini-grid installation and community support is anchored in its close ties with villagers.

diesel generators connected for peak load management or technical malfunction.

- The consumers pay upfront connection fees and then pay for energy usage through pre-paid meters.
- Part-time engineers and one full time operator stay in each village and work with the communities

   individual entrepreneurs, women's self-help groups and farmer groups to convert diesel to electric devices.
   These close ties ensure that we build relations of trust with the

community and provide a quality service.

- Local operators are also trained in maintenance and repair of the mini-grids.
- The grids are designed to increase in capacity as demand grows. Once the grids reach 95% capacity utilisation, we install an additional five kWp array to enable the community to meet its growing needs.

## MLINDA SUPPORTS AGRICULTURAL PRODUCERS AND ENTREPRENEURS

- Mlinda grows demand responsibly, ensuring it is based on low energy devices.
- Mlinda provides loans to farmers to finance energy efficient devices to accelerate uptake. Mlinda also supports agri-businesses such as oil expelling, mini cold storage, and electrification of poultry coops in villages. In addition, Mlinda engages with households

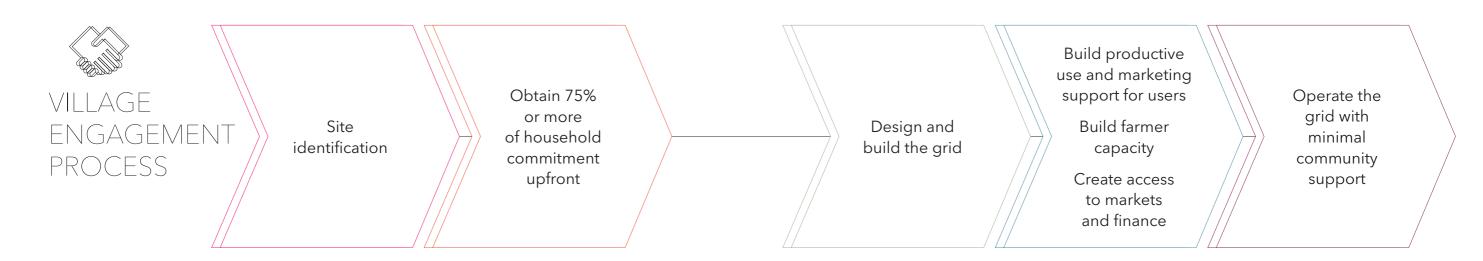
to help source low-watt domestic appliances such as fans.

 Incubated micro-enterprises (MEs) increase margins to the farmers.

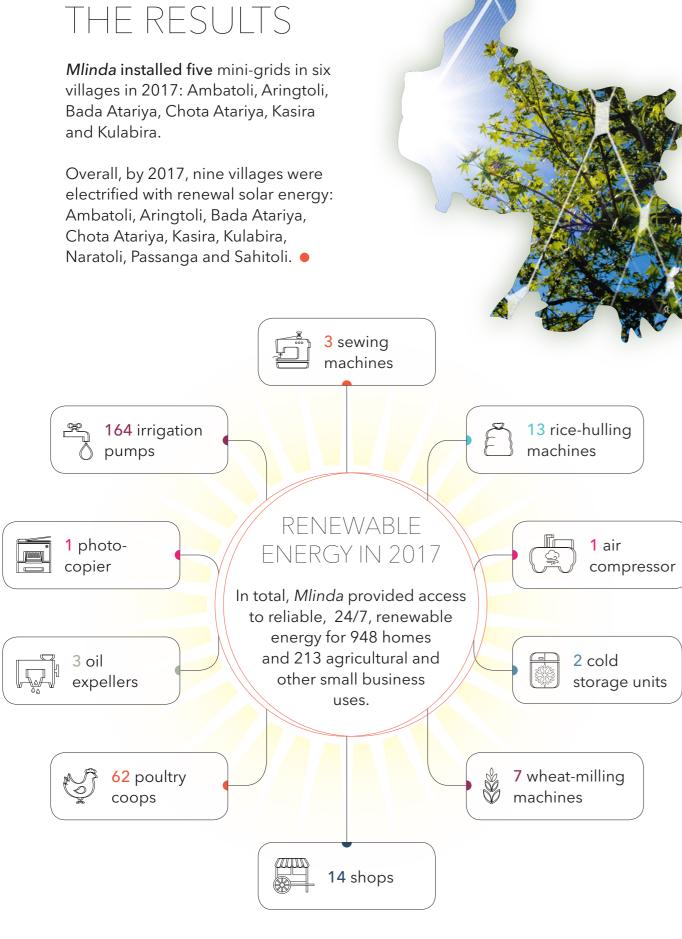
The MEs use locally grown raw materials and, through the use of electricity, add value to create a final good. The village economy benefits through the following channels:

- Local procurement of raw materials at market price, preventing farmers having to engage in distress selling.
- Promoting entrepreneurship and business skills in the villages, through ownership of the MEs by women's self-help groups and village entrepreneurs.
- Creating strong rural and urban market linkages for the sale of the ME produce.

Mlinda's engagement process is summarised below.







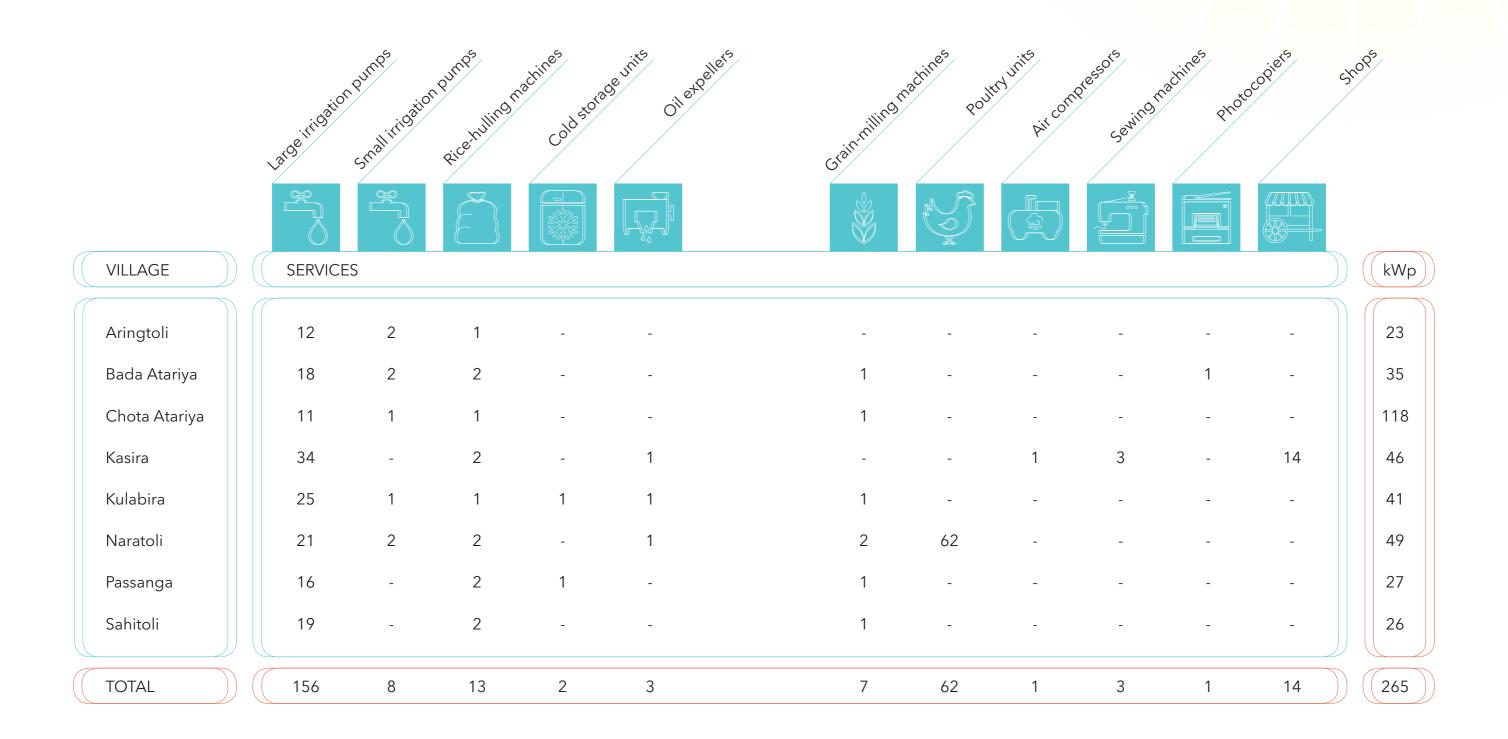


trustees' report

trustees' report

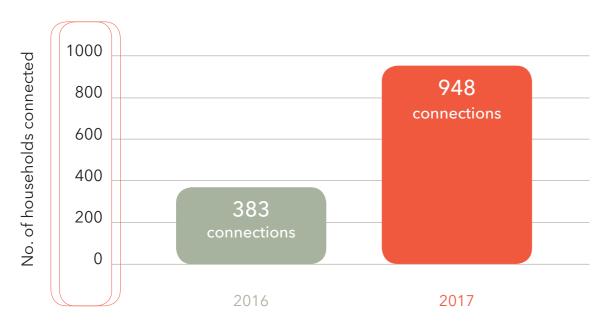
## DISTRIBUTION OF SERVICES FROM RENEWABLE ENERGY

The distribution of services across villages is summarised below.



#### **CUSTOMERS AND CONNECTIONS**

By the end of 2017, 92.3 % of households in operational villages were connected to our mini-grids.

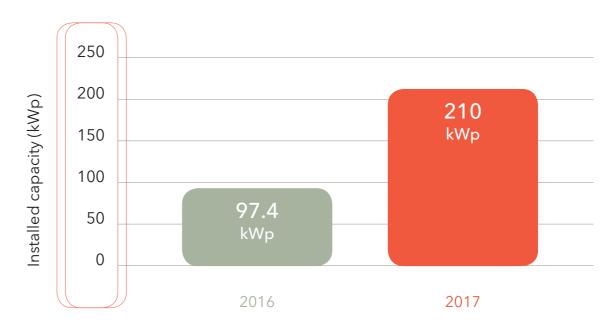


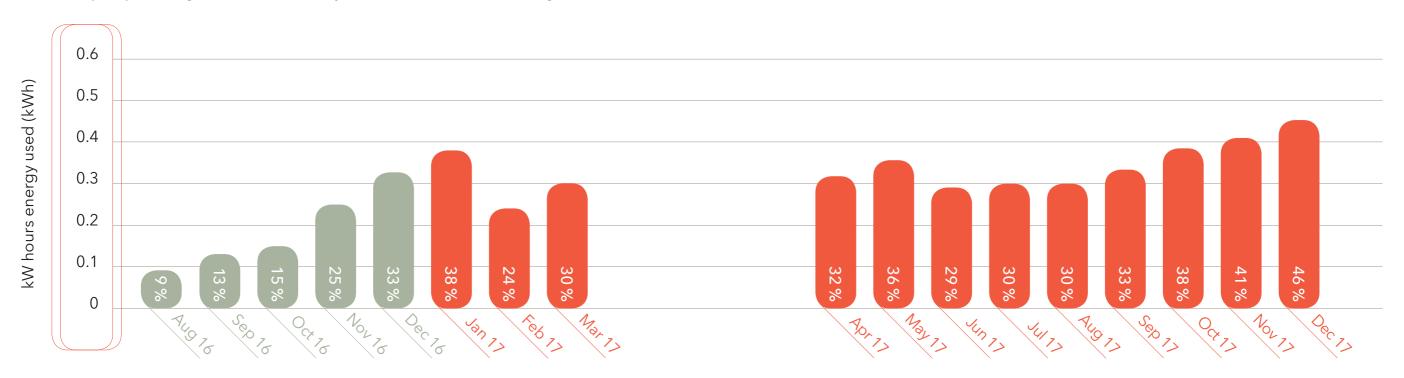
#### UTILISATION OF ELECTRICITY

The utilisation of energy continues to increase, with a slight decrease in average utilisation rate during the monsoon season, as there is less need for electrical pumps during the season of heavy rains between June and August.

## INSTALLED CAPACITY (kWp)

In 2017 *Mlinda* installed an additional five new mini-grids, reaching a total installed capacity of 210 kWp of solar energy.

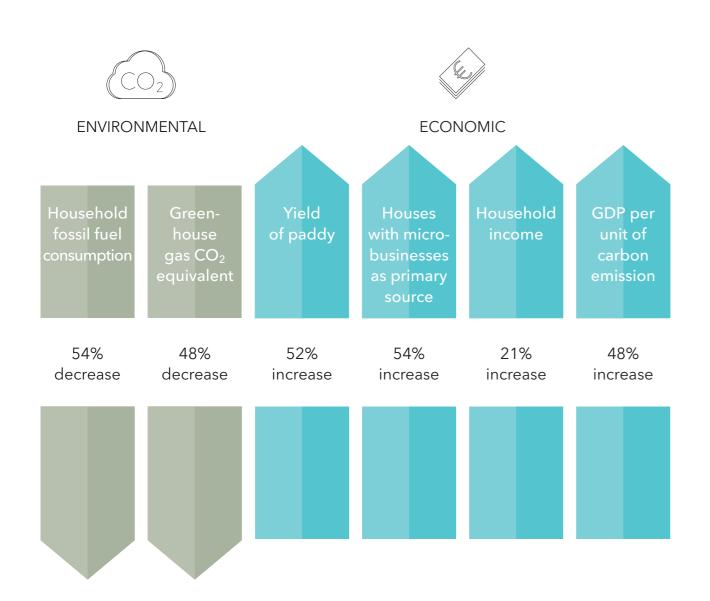


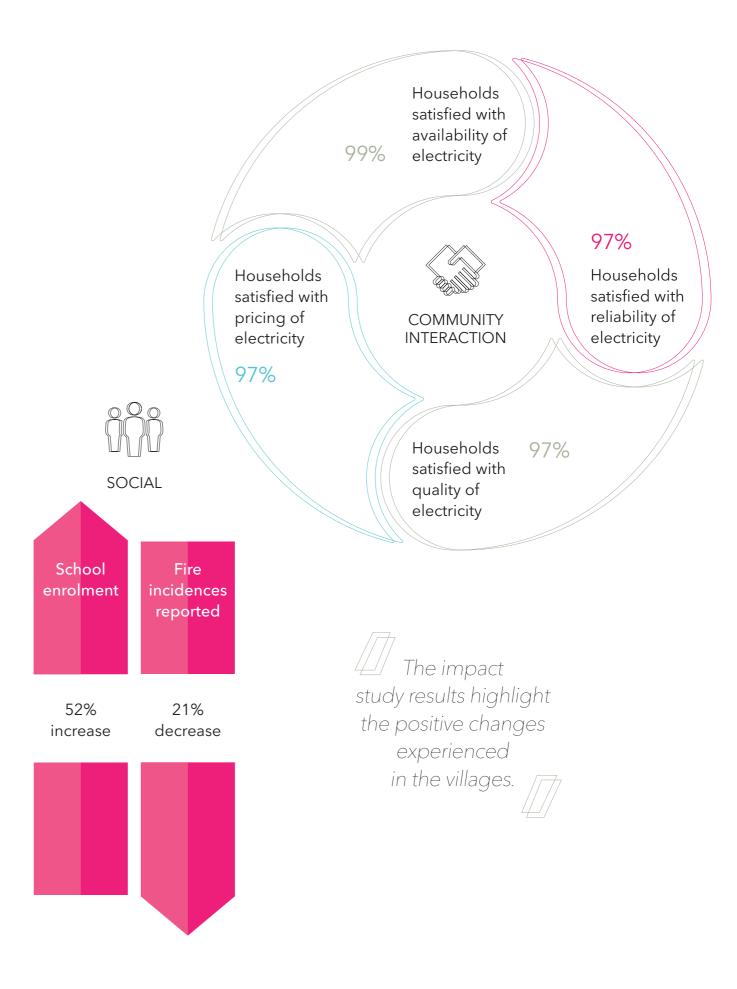


## IMPACT

During 2017, *Mlinda* commissioned an impact study in the nine villages, involving household surveys, to understand the economic and social impact of our mini-grids.

Comparison villages, which are similar in size and socio-economic factors, were also surveyed to enable *Mlinda* to establish with confidence that the improvements were the direct result of the presence of our mini-grids. The results highlight the positive changes experienced in the villages. •





## trustees' report

## STRUCTURE, GOVERNANCE AND MANAGEMENT

Mlinda Foundation CIO was registered in England and Wales in August 2015. Its trustees are Rebecca Symington, Mahesh Chhibber and Sally Chandler.

Mlinda Sustainable Environment Private Limited (MPL) was registered in Kolkata India in July 2014. MPL is a wholly owned subsidiary of the Mlinda Foundation CIO. Its directors are Rebecca Symington (Chairperson), Vijay Bhaskar (Managing Director) and Sudeshna Mukherjee (Director Operations). MPL is responsible for implementation, infrastructure, operations and maintenance. It works in close collaboration with the independent charitable trust Mlinda Charitable Trust which is responsible for community mobilisation, capacity building, and economic development, environmental and social impact.

Mlinda Foundation CIO and MPL work with the independent Mlinda Charitable Trust, which carries out activities related to research and development, community engagement and support to community businesses in relation to the rural electrification activities. Vijay Baskar and Sudeshna Mukherjee are the Country Director and Deputy Country Director of Mlinda Charitable Trust.

Executive

Director

Team of 6 staff in Kolkata Mlinda Sustainable **Operations** Environment and Private Limited maintenance (India) Team of 25 field staff in Gumla and villages Team of 2 staff in Kolkata Mlinda Research Charitable Trust and development (India) Team of 6 staff in Gumla

Mlinda Foundation CIO Board (England and Wales)

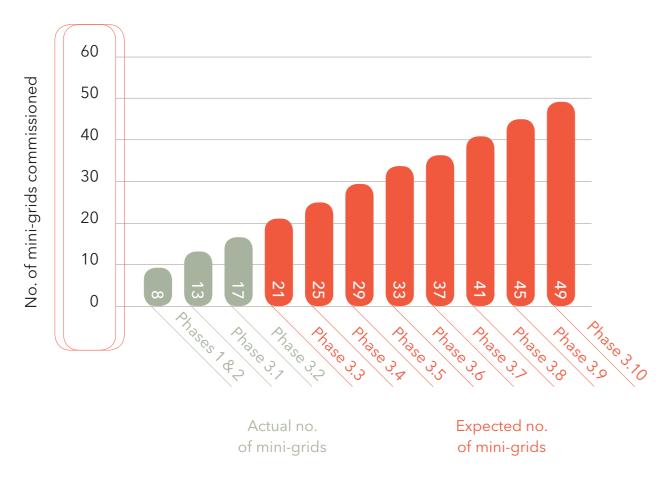
The governance structures will be reviewed in 2018 to strengthen the board of trustees in Mlinda Foundation CIO, as well as Mlinda Sustainable Private Limited Company.

## OUTLOOK FOR 2018-2020

Mlinda is currently installing four mini-grids every four months, enabling 480 new households to access clean energy. Mlinda aims to scale activities to reach 50 villages (49 grids) by June 2020. The total installed capacity by Mlinda in Gumla district will be one megawatt.

#### **COMMISSIONED GRIDS**

It is envisaged that a total of 5,000 households, 20,500 individuals, 500 irrigation pumps, 30 rice-hullers, 15 oil expellers; 3 cold storages, 30 wheat-milling machines anad 100 shops will benefit from improved access to energy by 2020.







#### **OBJECTIVES**

Mlinda's overall objective is to contribute to grow local economies in a manner which is environmentally and socially sustainable. Mlinda tracks a number of environmental, social and financial indicators to measure progress.





#### **NEW MINI-GRID INSTALLATIONS**

- Install an additional 41 minigrids, each with a capacity of 20-30 kW, and an overall capacity of 1000 kW.
- Manage operations, transmissions and distributions of energy.



#### ONGOING OPERATIONS AND MAINTENANCE

 Long-term repair and maintenance service: local maintenance of stocks and spares, training of operators.



#### SALE OF ENERGY EFFICIENT **APPLIANCES**

• Sell and finance farm equipment such as irrigation pumps, ricehullers, oil expellers, cold storage lamps, fans, TVs to be compatible with electric energy.





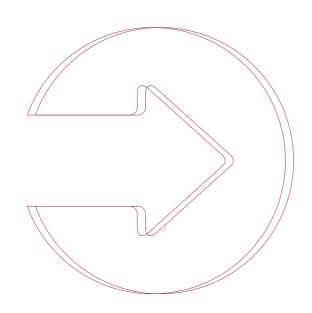
#### PROVISION OF BUSINESS ADVICE

 Advice to individuals and groups on how to use new machinery and access new markets.



#### RESEARCH AND DEVELOPMENT

• Research meters and mobile payments, energy storage systems, control room improvements and standardisation, transmission and distribution improvements, information management in monitoring and reporting, incubation of new microbusinesses and linkage to urban markets.





2017 **ACHIEVED**  2020 **TARGET** 



No. of grids

No. of families on Mlinda grids



No. of persons on Mlinda grids



CO<sub>2</sub> equivalent emissions reduced



No. of local

new jobs

% change in

income



946

4,746

936 tonnes tonnes in total

21%

36

50

4,100

20,500

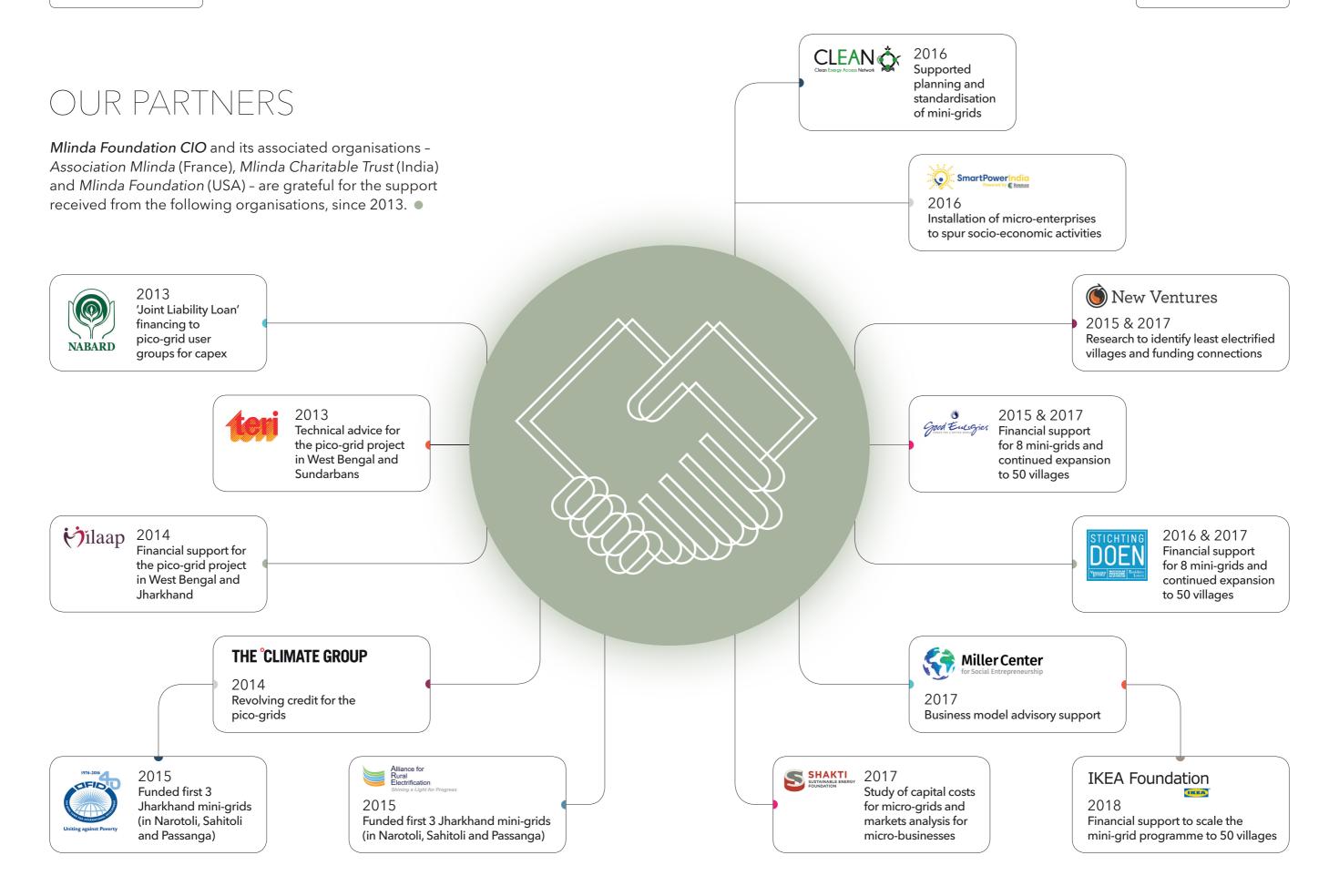
20 tonnes / year per village 900 tonnes / year total

10 - 15% increase

155

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trustees' report





# STATEMENT OF TRUSTEES' RESPONSIBILITIES

The trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The law applicable to charities in England and Wales requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Charity and of the incoming resources and application of resources of the Charity for that year.

In preparing these financial statements, the trustees are required to:

- Select suitable accounting policies and then apply them consistently;
- Observe the methods and principles in the Charities SORP;
- Make judgements and estimates that are reasonable and prudent;
- State whether applicable accounting standards have been followed, subject to any

material departures disclosed and explained in the financial statements;

 Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Charity will continue in operation.

The trustees are responsible for keeping sufficient accounting records that disclose with reasonable accuracy at any time the financial position of the Charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations 2008 and the provisions of the trust deed. They are also responsible for safequarding the assets of the Charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Trustees' Report was approved by the Board of Trustees on 24 October 2018.

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Rebecca Symington, Trustee



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