MINI GRIDS FOR HALF A BILLION PEOPLE

To achieve Sustainable Development Goal 7 (SDG 7)

million

will have to obtain an electricity connection between 2022 and 2030 If current policies and efforts are not ramped up,



people are anticipated to be electrified between now and 2030 (IEA 2021)

and an estimated



of them likely to live in **Sub-Saharan Africa**





\$U.3U/kWh

people served at least cost by 217,000 mini grids by 2030, mostly in **Africa and Asia**

million

REDUCING COST OF MINI GRIDS

decrease in upfront cost by 2030

decrease in electricity cost by 2030

20c/kWh

unsubsidized electricity cost by 2030

64%

BETTER QUALITY AND RELIABILITY

Uptime **99**0 year-long

EFFICIENT

Built in less than

weeks

2025*

5 KPIS: CURRENT STATUS AND OUTLOOK TO 2030

MINI GRIDS INSTALLED ANNUALLY IN EACH OF THE TOP **20 ELECTRICITY- ACCESS-DEFICIT COUNTRIES**, 2018–30



AVERAGE MINI GRID LOAD FACTOR, 2018–30



COST OF ENERGY PRODUCED BY SOLAR MINI GRIDS



AVERAGE RISE SCORE IN TOP 20 ELECTRICITY-ACCESS-DEFICIT COUNTRIES



TOTAL CUMULATIVE INVESTMENT IN MINI GRIDS FOR ENERGY ACCESS, 2018–30



MINI GRIDS CAN BRING LONG-TERM BENEFITS



COMBAT CLIMATE CHANGE

- **1.2 billion tonnes of CO**, emissions avoided through
- 10-15 GW of solar PV installed and energy efficiency gains
- 50-110 GWh batteries mostly lithium-ion



POWER INCLUSIVE GROWTH AND HUMAN DEVELOPMENT

200,000 communities transformed through reliable electricity for

- 3 million income-generating machines and appliances
- 200,000 schools and clinics
- 10 million streetlights



BUILT TO INTER-CONNECT WITH THE MAIN GRID

Easier and more financially viable future grid expansion

SCALING UP MINI GRIDS REQUIRES 10 BUILDING BLOCKS:



Costing, Design, and Innovation



Community Engagement



Geospatial Planning



Companies and Utilities



Income-Generating Appliances and Machines



Access to Finance



Skills Development



Institutional Setup and **Business Models**



Regulations and Policies



FINANCING FOR MINI GRIDS NEEDS TO SCALE UP



Source: Mini Grids for Half a Billion People: Market Outlook and Handbook for Decision Makers 2022 *Note: * projection with business-as-usual scenario.*





