

MINI GRIDS FOR HALF A BILLION PEOPLE

To achieve Sustainable Development Goal 7 (SDG 7)

930 million will have to obtain an electricity connection between 2022 and 2030

If current policies and efforts are not ramped up,

only **260 million** people are anticipated to be electrified between now and 2030 (IEA 2021)

and an estimated **670 million** people are projected to remain without access

with **9 out of 10** of them likely to live in Sub-Saharan Africa

KEY SOLUTIONS TO PROVIDING ACCESS TO ELECTRICITY

MAIN GRID

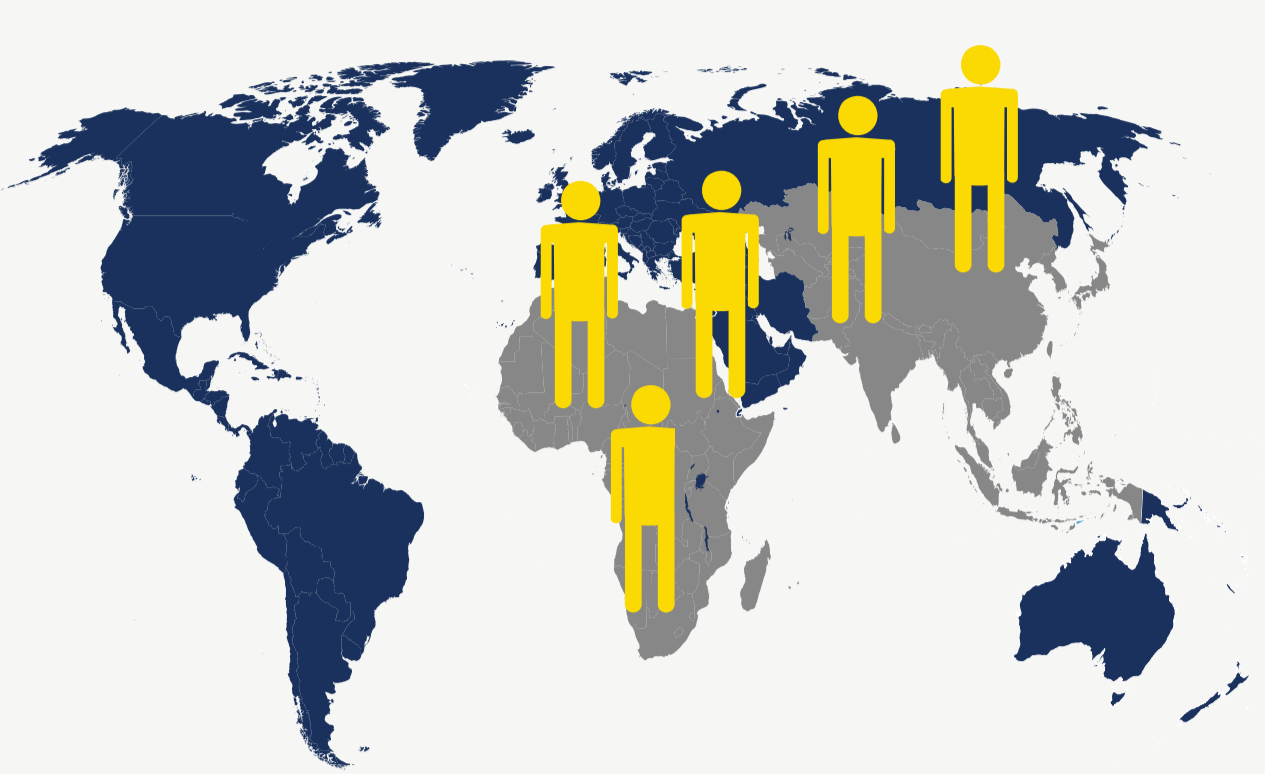


OFF GRID SOLUTIONS



MINI GRIDS

MINI GRIDS HAVE THE POTENTIAL TO CONNECT HALF A BILLION PEOPLE



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

REDUCING COST OF MINI GRIDS

55% decrease in upfront cost by 2030

64% decrease in electricity cost by 2030

20c/kWh unsubsidized electricity cost by 2030

BETTER QUALITY AND RELIABILITY

99% Uptime year-long electricity

EFFICIENT

Built in less than

6 weeks

REDUCING COST

levelized cost of energy [\$/kWh] of a best-in-class solarhybrid mini grid



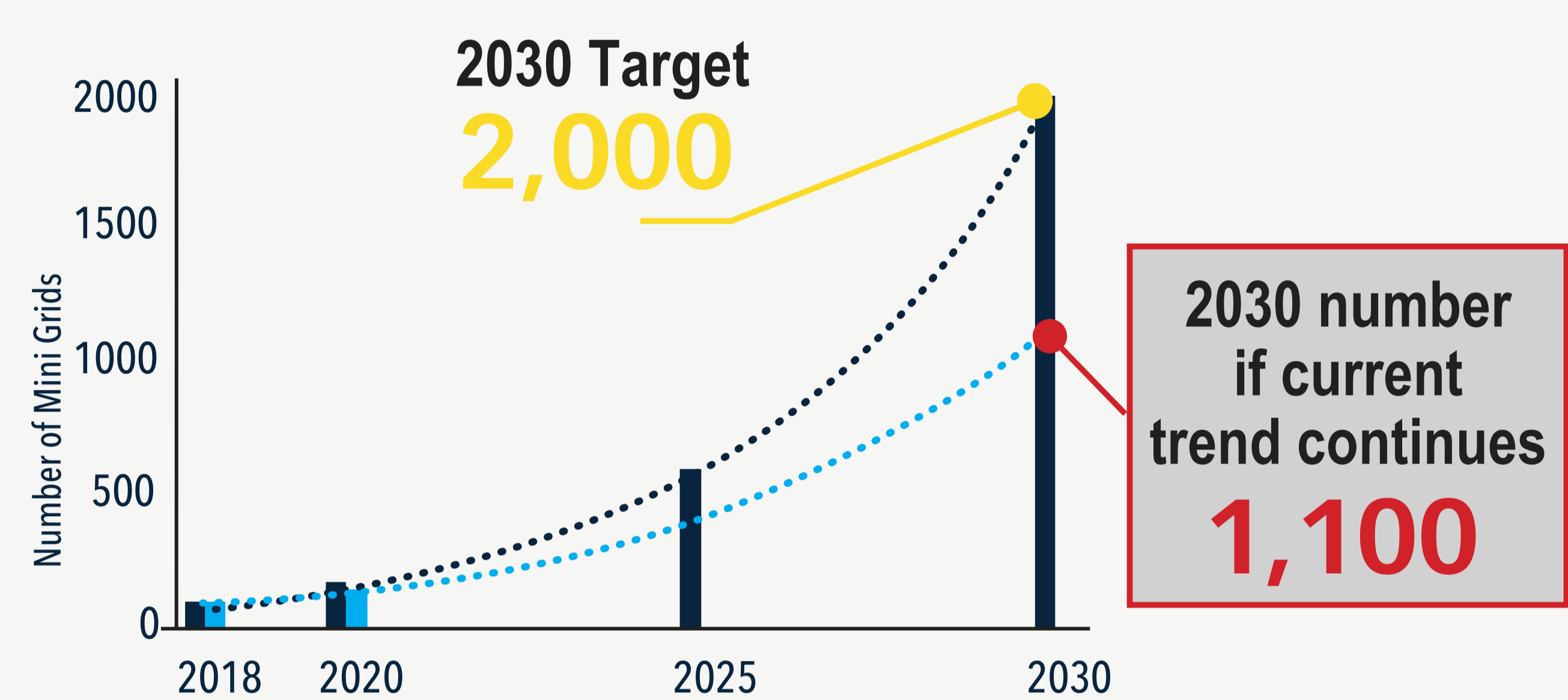
2018 **\$0.55/kWh**

2021 **\$0.38/kWh**

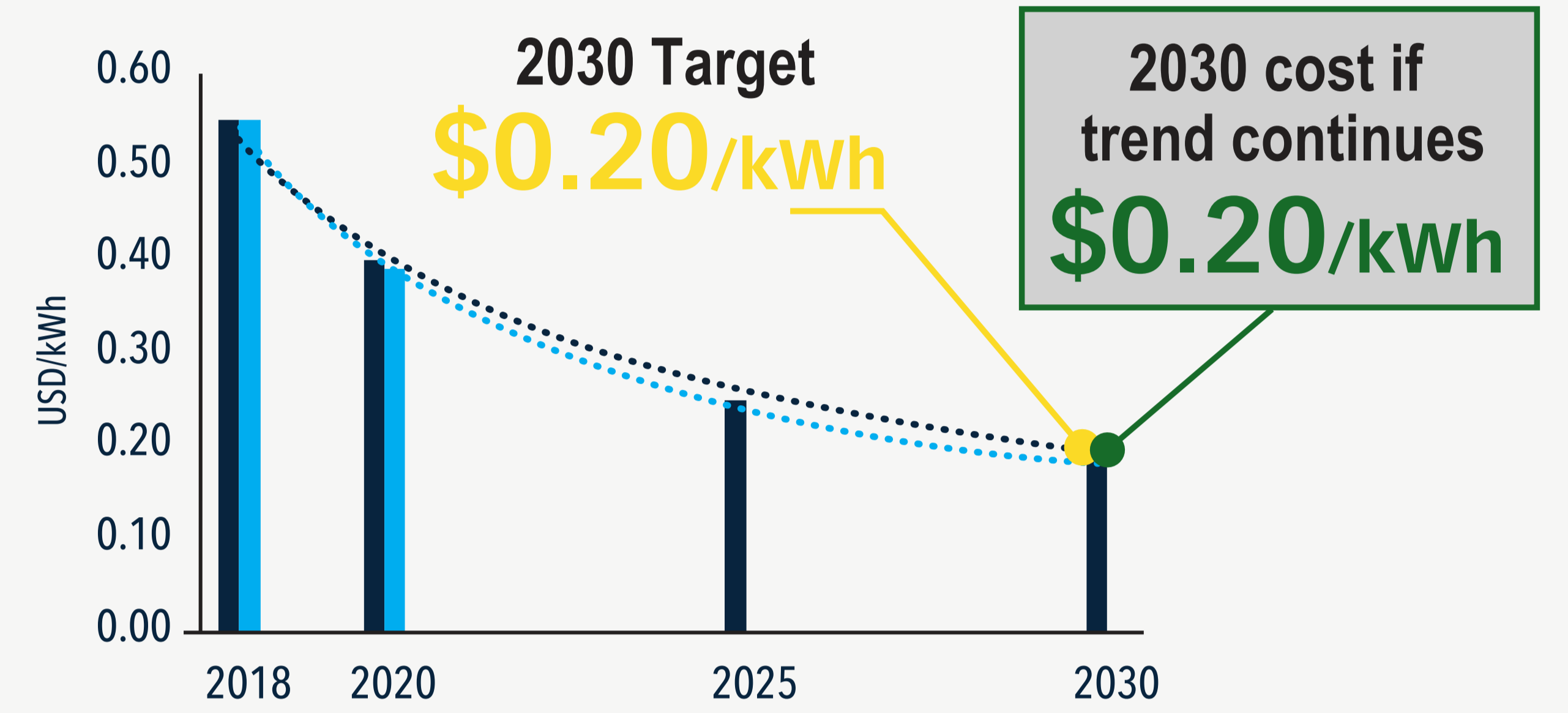
2025* **\$0.30/kWh**

5 KPIS: CURRENT STATUS AND OUTLOOK TO 2030

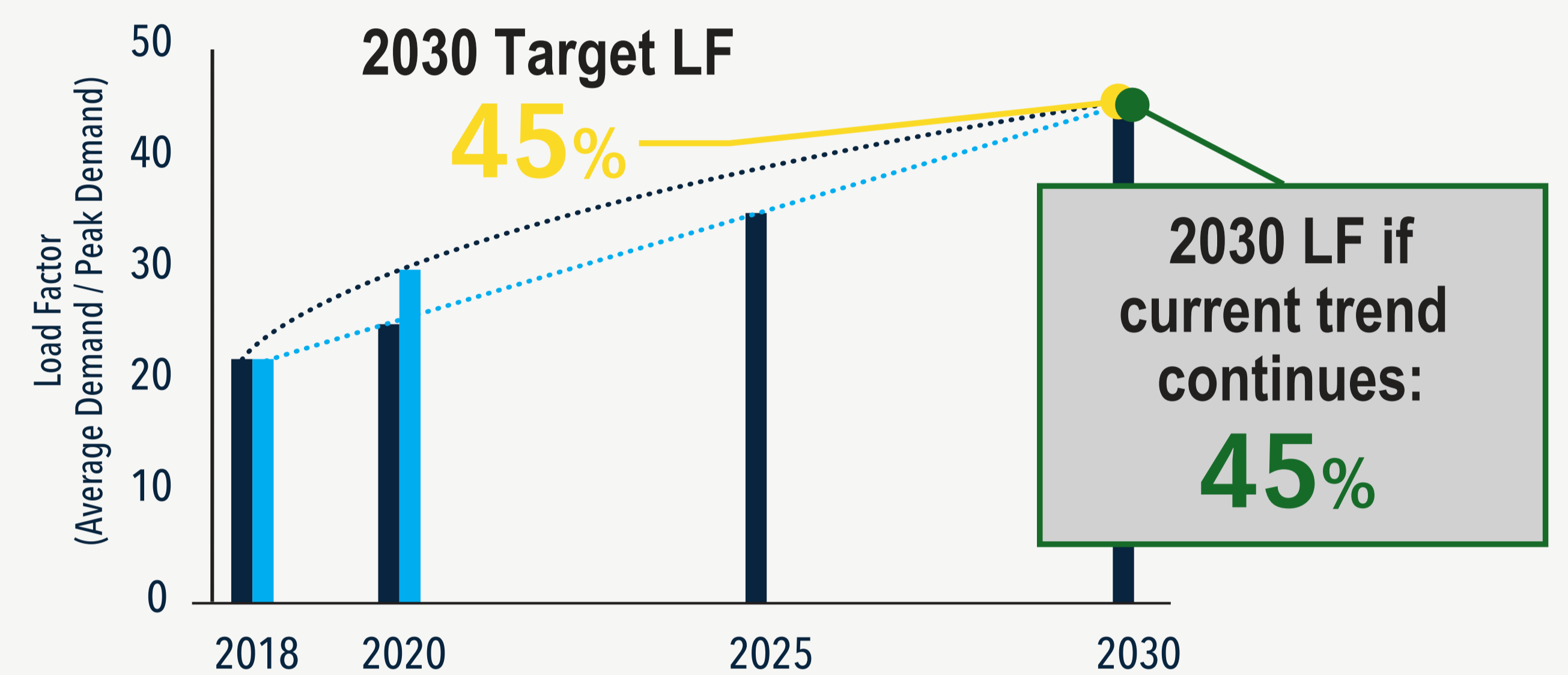
MINI GRIDS INSTALLED ANNUALLY IN EACH OF THE TOP 20 ELECTRICITY- ACCESS-DEFICIT COUNTRIES, 2018-30



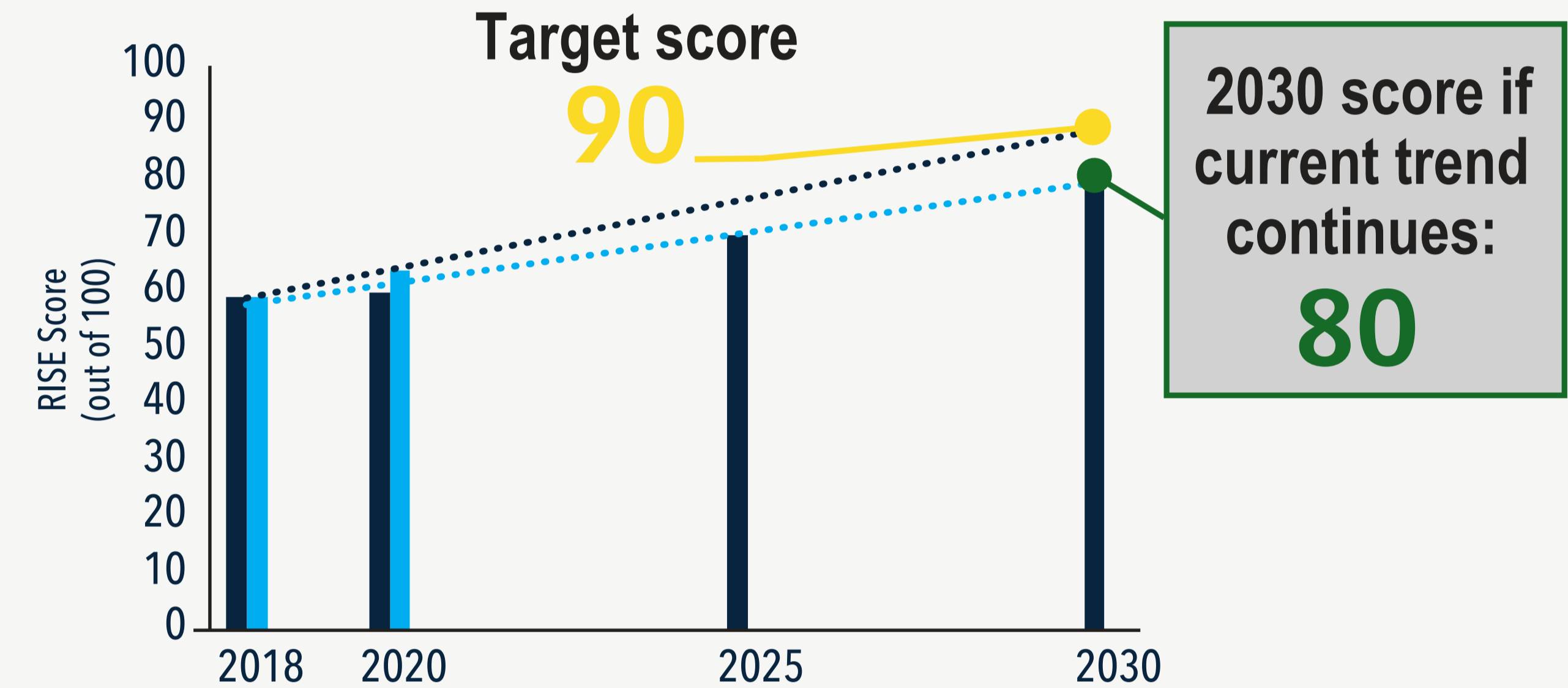
COST OF ENERGY PRODUCED BY SOLAR MINI GRIDS



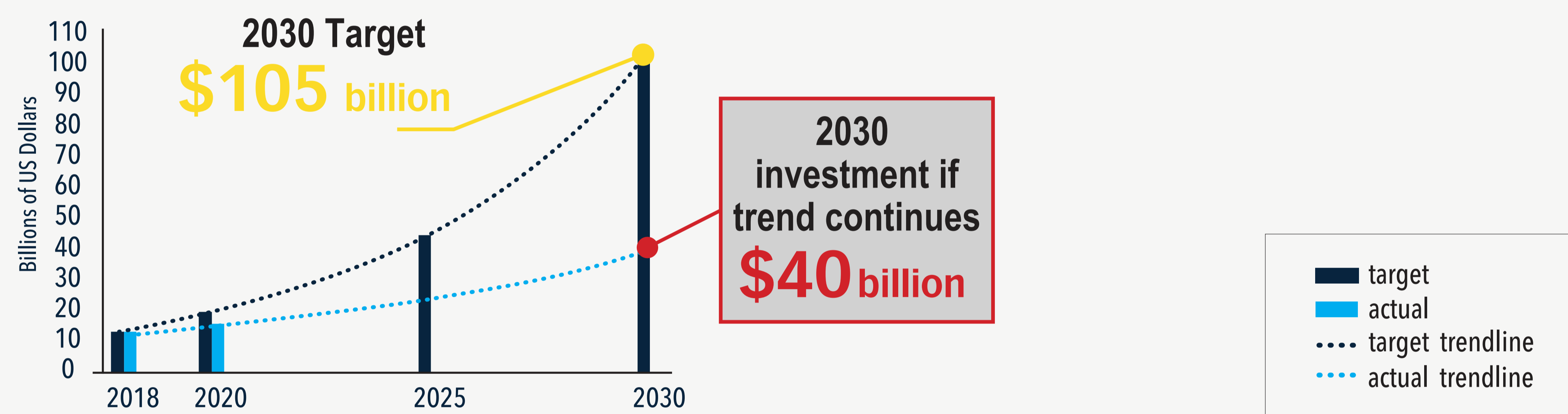
AVERAGE MINI GRID LOAD FACTOR, 2018-30



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 CO₂ 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

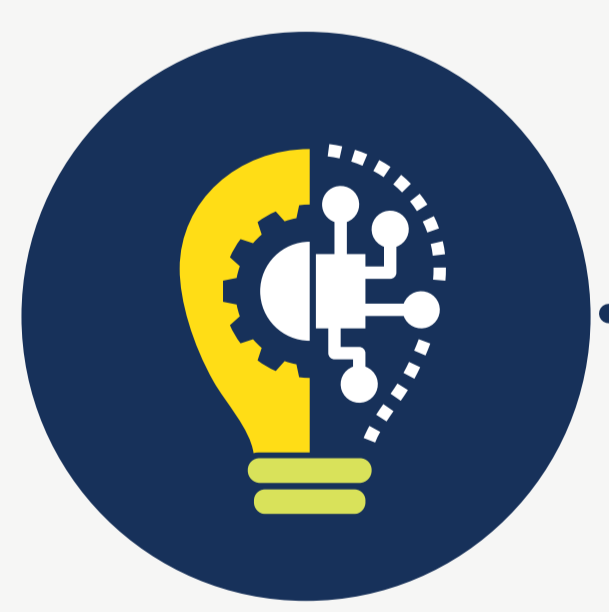
- 3 million income-generating machines and appliances
- 200,000 schools and clinics
- 10 million streetlights



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



Geospatial Planning



Income-Generating Appliances and Machines



Community Engagement



Companies and Utilities



Access to Finance



Skills Development



Institutional Setup and Business Models



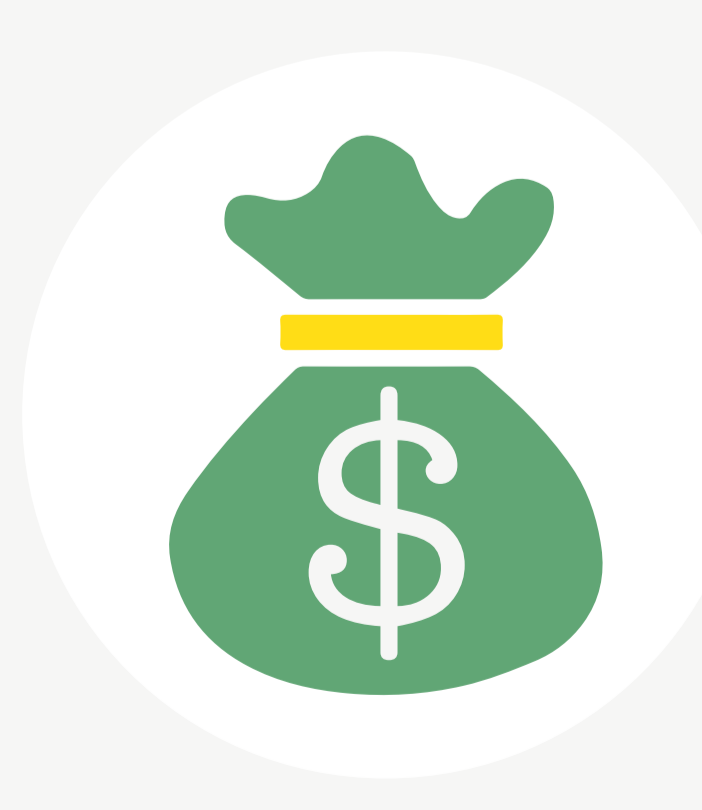
Regulations and Policies



Cutting Red Tape

FINANCING FOR MINI GRIDS NEEDS TO SCALE UP

CURRENT INVESTMENT



\$9 billion

in Africa and Asia

CURRENT PACE OF DEPLOYMENT



10-50 mini grids

built annually per country

NEEDED INVESTMENT



\$127 billion

needed to build 217,000 mini grids

NEEDED PACE OF DEPLOYMENT



2,000 mini grids

need to be deployed annually per country

Source: Mini Grids for Half a Billion People: Market Outlook and Handbook for Decision Makers 2022

Note: * projection with business-as-usual scenario.

