



# Affordable and Clean Energy through DIGITAL FINANCIAL INCLUSION

Over 1 billion people lack access to electricity.<sup>1</sup>

## THE OPPORTUNITY

Solar companies in Africa and Asia are able to offer pay-as-you-go energy, thanks to digital payments. The technology is enabling millions of low-income families to make micropayments for solar energy. A clear win for people and the environment.



### CHALLENGES\*

Only 1 in 4 utilities in developing countries are **financially viable**, limiting their ability to grow.<sup>2</sup>

Nearly 1 in 4 unelectrified households – largely rural – **cannot afford the most suitable energy options for them**, like rooftop solar.<sup>3</sup>

**Over \$52 billion is needed every year** to achieve universal energy access, more than double the current spending.<sup>4</sup>



### SOLUTIONS\*

Digital finance helps utilities and mini-grid operators **shift toward low-cost, prepaid or pay-as-you-go services**, increasing financial viability.

20 million unelectrified households could benefit from **pay-as-you-go solar energy** by 2022.<sup>5</sup>

Digital finance is instrumental in the development of **unique energy financing models** that give utility providers the financing they need to scale.



“Ensure access to affordable, reliable, sustainable and modern energy for all.”

**WORLDWIDE** There are now **690 million registered mobile money accounts**<sup>6</sup> enabling new business models. Pay-as-you-go companies have used digital finance to provide **10 million people** with affordable, modern energy.<sup>7</sup>

**GHANA AND IVORY COAST** PEG Africa will expand its services to **500,000 people**<sup>8</sup> and is using its solar devices to establish a **credit rating** to help customers access loans.

**PAPUA NEW GUINEA** MiBankK launched a pay-as-you-go solar platform in 2016 that has the potential to reach **100,000 RURAL HOUSEHOLDS** by 2019.<sup>9</sup>

**UGANDA** Replacing cash with prepaid cards helped national electricity distributor Umeme raise its collection rate from **84% in 2006 to 98% in 2016**, enhancing financial viability.<sup>10</sup>

**KENYA** M-KOPA, a pay-as-you-go solar company, has raised **\$65 million** in local-currency debt, using its expected future revenue in digital payments as collateral. With only cash payments, the company would not be able to continue expanding in underserved areas.<sup>11</sup>



\* These represent only a few of the many important challenges and solutions. They should not be read as an exhaustive list.

1 IEA, 2017  
2 World Bank IEG, 2016  
3 IEA, 2017  
4 IEA, 2017  
5 Lighting Global & Dalberg, 2018  
6 GSMA, 2018

7 Lighting Global & Dalberg, 2018  
8 Lighting Global & Dalberg, 2018  
9 PFIP, 2017  
10 Umeme, 2016  
11 Price, 2016; M-KOPA, 2017