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# POWER FOR ALL FACT SHEET

## Decentralized Renewable Energy Can End Energy Inequities Inherent In the Global Power System

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### POWER FOR ALL

## 2%

OF TOTAL ELECTRICITY  
SUBSIDIES GO TO THE BOTTOM  
50% OF THE POPULATION IN  
ZAMBIA

## 4%

OF RURAL POPULATION IN  
MALAWI HAS ACCESS TO  
ELECTRICITY

## 86 countries

THE WEALTHIEST 10%  
CONSUME 20X MORE ENERGY  
THAN THE POOREST 10%

Nearly 800 million people live without electricity worldwide.<sup>1</sup> This lack of energy equity is the result of an unfair distribution of energy resources, institutional bias, and outdated approaches to electrification. The bias toward funding traditional centralized power grids in developing countries can hinder human development, productivity gains, and economic growth due to intermittent and unreliable service—or a lack of access altogether. Distributed renewable energy (DRE) solutions can contribute to addressing these energy inequities by providing on-site clean, sufficient, affordable, reliable and sustainable energy.<sup>2</sup>

### **Traditional energy programs and subsidies are regressive, thus contributing to energy inequity.**

- » Only about 2% of electricity subsidies in Zambia go to the bottom 50% of the population<sup>3</sup>
- » Utilities tend to concentrate their expansion efforts among the wealthier segments of the population, thus exacerbating inequalities<sup>4</sup>
- » Since poor households tend to live in areas without grid coverage, they cannot benefit from traditional electricity subsidies. Even where access to the grid is available to the poor, many remain unconnected because connection and equipment costs—as well as tariffs—are too high<sup>5</sup>
- » Extending the grid to increasingly poorer customers results in reduced revenue per customer, which in turn raises the costs for connecting these customers. In addition, the high cost of providing grid electricity connections does not necessarily justify the benefits derived by newly-connected grid customers<sup>6</sup>

### **Traditional centralized grid approaches have resulted in disparate development within and between regions. In addition, marginalized communities often bear disproportionate energy burdens and climate change impacts.**

- » Across 86 countries, the wealthiest 10% of people consume around 20 times more energy than the poorest 10%<sup>7</sup>
- » In many countries in Sub Saharan Africa, consumers pay as much as 50 cents per kilowatt-hour against a global average of around 10 cents<sup>8</sup>
- » While 46% of the urban population in Malawi has access to electricity, only 4% of the rural population does<sup>9</sup>
- » African nations have done little to cause climate change and have not benefited from this energy use; yet, they are more climate vulnerable and thus will be disproportionately (negatively) affected by emissions from industrialized countries<sup>10</sup>

### **DRE systems have the potential to address energy inequities by offering customized solutions—in terms of power and cost—to households and businesses. In addition, DRE is a cost-effective approach to improving reliability in weak grid environments.**

- » High-quality, low-cost, customizable, and adaptable DRE solutions allow individuals to control their power supply and cost<sup>11</sup>
- » DRE approaches are far more economical and effective than traditional “steel-in-the-ground” approaches because they can be deployed faster and at the scale and price that the energy-impoverished want and can afford<sup>12</sup>
- » Decentralized renewable energy is designed for places the grid will not easily or cost-effectively reach, where majorities of those without energy access now reside<sup>13</sup>

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### By the Numbers:

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» The adoption of cost-effective solar solutions could provide sufficient capacity and reliability to support (productive use) income-generating activities such as off-season farming, value-added agro-processing, and the promotion of small businesses<sup>14</sup>

### Share the Message

- » Renewable, distributed, and democratized energy is the key to providing universal energy access to billions—and it doesn't have to wait
- » More than 80% of the energy-impooverished live in rural settings because traditional centralized grid access is inherently inequitable
- » Small-scale, distributed renewables allow the energy-impooverished to create their own power and control their own costs

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