
POWER FOR ALL FACT SHEET

Developing a strong, qualified and gender-balanced workforce is key to support the electrification of a billion people

**POWER
FOR
ALL**

4.5 million

GLOBAL DRE JOBS BY 2030

9x

MORE JOBS IN SOLAR
LIGHTING THAN FUEL
ALTERNATIVES

6%

SOLAR LIGHTING JOBS IN
DEVELOPING COUNTRIES
(EXCLUDING INDIA AND
CHINA)

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The decentralized renewable energy (DRE) sector continues to be a strong engine for job creation. This fact sheet provides up-to-date information on the current status of DRE job creation, value chain gaps, the significance of gender equality within the industry, the importance of capacity building, and impact on rural induced or displaced jobs.

DRE jobs are growing at a fast pace as access improves. However, job creation in developing countries remains sluggish with the exception of India and China.

- » With energy access improving, the potential for job creation from the DRE sector is increasing.¹ In Bangladesh, the installation of 4.5 million solar home systems (SHS) led to the creation of jobs in installation, panel assembly and operations and maintenance, rising from 60,000 direct jobs in 2011 to around 127,000 in 2015.²
- » IRENA estimates that achieving universal access to modern energy by 2030 could create at least 4.5 million jobs in the off-grid sector alone.³
- » 38 jobs are created in the solar-lighting industry for every 10,000 lights sold - so this part of the sector alone could create 2 million jobs based on future market projections. In contrast, the entire fuel-based lighting sector only enables 150,000 jobs;⁴ 9 times fewer.
- » Local job creation in developing countries, except for India and China is limited. Employment can only be captured locally when domestic supply chain capacities are developed.⁵
- » Of the 110 companies that are active in solar lighting manufacturing worldwide, about 40% are headquartered in India, 34% in China and 20% in industrialized countries.⁶
- » China is the leader in solar water heating sector, with an estimated 800,000 people employed.⁷ India has estimated 41,000 solar thermal jobs.⁸

To capture local job creation value chain development is key - removing import tariffs, establishing clear quality control standards, and strengthening education and training.

- » Policy-makers need to analyze the labor, materials and equipment requirements of each segment of the value chain, so as to leverage local labor markets and existing industries to maximize domestic value.⁹
- » Value chain localization has proven impacts on employment. Solinc in Kenya started its first PV module factory in 2011 and employed 130 Kenyans in 2015. With companies such as M-KOPA committing to sourcing all its PV panels domestically, larger production capacity and therefore more employment is needed.¹⁰
- » Proven success of TVET system supporting energy access value chain can be observed in Bangladesh, whose SHS sector employs an estimated 60,000 people along the value chain because of microfinance and a strong vocational system for training solar technicians.¹¹

Women employment in DRE remains low, despite proven positive impact on productivity and profitability. National policy frameworks play key roles in improving gender equality.

- » Women's engagement in the sector brings tangible commercial benefits. In Jamaica, customer satisfaction jumped from 23% to 70% for Jamaica Power Service when the company employed more women into their labor force.¹²
- » Despite proven benefits of women's engagement in DRE sector, female employees

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are a minority, particularly in managerial and technical positions. Women represent 22% of middle management and 22% of senior management positions in the energy sector in Africa.¹³

- » Clear gender action plans in national energy policy framework should include gender budgeting and indicators. For example, energy framework in Benin includes an indicator on the number of jobs created for men and women as a result of renewable energy generation.¹⁴

Indirect and induced jobs can represent a large share of impact on employment, however potential job displacement from improved energy access is also observed.

- » Every MW of solar PV capacity installed in India creates 30 direct jobs and 60 indirect jobs.¹⁵
- » Powering the agri-food chain can induce employment opportunities. In Ghana, an EnDev project providing energy access to agriculture and small-scale manufacturing resulted in the development of 1,000 small and medium-sized enterprises (SME) and 3,000 jobs.¹⁶
- » There is a possibility for negative jobs displacement effect from energy access. In Ethiopia, government-led transition from cooking wood led to a displacement of 38,500 jobs while only 2,000 jobs are created from improved cookstoves.¹⁷

Share the Message

- » Improving energy access has a significant impact on job creation. To capture employment locally, however, interventions in building a more integrated local value chain are required.
- » Import tariff, quality standards and training programs are key to strengthen local value chain.
- » Women are beneficiaries, key stakeholders and agents of change. Bridging the gender gap in DRE industry will advance the sector's impact and profitability.
- » Direct jobs in the DRE sector represent only a tip of the iceberg of its employment impact. Informal labor and induced jobs should be supported and accounted for.

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