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#ResilientAppliances

How affordable, high-performing appliances can enhance climate change mitigation and adaptation

If fossil fuel generators and inefficient appliances powered the off-grid addressable market for fans, TVs and refrigerators in sub-Saharan Africa and South Asia, annual CO₂ emissions would increase by 68 megatonnes. This would be equivalent to doubling current power plant emissions in Sub-Saharan Africa. Off-grid appliances can provide a solution to reducing CO₂ emissions. This factsheet explores how off-grid appliances can help enhance climate change mitigation and adaptation.



Climate change disproportionately affects the 840 million people around the world who currently lack access to electricity. Affordable and high-performing appliances powered by solar home systems or mini grids can meet energy access demands in off- and weak-grid communities. They can also help households adapt to rising global temperatures and extreme weather events. Read on to learn more.

How affordable, high-performing appliances can reduce or prevent greenhouse gas emissions



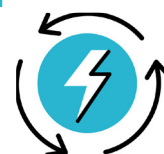
Emissions from charcoal-powered cookstoves or open fires are a significant contributor to climate change. Electric pressure cookers can help reduce cooking time and cut the use of black carbon. ([Efficiency for Access, 2020](#))

A solar powered refrigerator equipped with Peltier Technology enables cooling without greenhouse gas emitting refrigerants. ([Efficiency for Access, 2020](#))



Many rural off-grid communities use diesel-powered mills to process staple crops. Solar mills offer an environmentally friendly alternative. ([Efficiency for Access, 2020](#))

Creating easily repairable appliances can help reduce greenhouse gas emissions and e-waste. ([Allwood et al, 2010](#))



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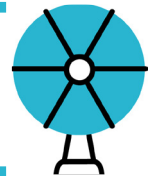
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How affordable, high-performing appliances can help reduce the effects of climate change



In hot climates, intact cold chain can help extend the shelf life of fresh produce, reducing food waste and enhancing food security. ([SEforAll, 2020](#))

Bangladesh is expected to see a temperature rise of 2.8°C over the next four decades. Solar-powered fans can help families avoid dehydration and stay comfortable in increasingly common heat waves across the globe. ([Efficiency for Access, 2019](#))



Solar water pumps present a clean energy solution for irrigation during droughts, which are expected to increase in frequency & severity due to climate change. ([Efficiency for Access, 2019](#))

Access to news and information via off-grid solar TVs can help increase people's knowledge of adapting to the effects of climate change. ([Efficiency for Access, 2020](#))



GET INVOLVED

Climate Resilient Appliances is a global campaign that seeks to demonstrate how affordable, energy-efficient appliances can help contribute to a green and resilient economic recovery. Running from July to October, it will highlight the importance of off-grid appliances in climate change mitigation and adaptation, as well as averting unintended environmental consequences.

To get involved with the Climate Resilient Appliances campaign, please contact:

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