

IMPACT: ELECTRICITY HAS THE POWER TO TRANSFORM PEOPLE'S LIVES

PER PERSON, PER YEAR

50 kWh

POWERS A
HOUSEHOLD

70 kWh

POWERS A HOUSEHOLD
+ COMMUNITY SERVICES

200+ kWh

POWERS A HOUSEHOLD
+ COMMUNITY SERVICES
+ PRODUCTIVE USE

No rich country is energy poor. Electricity access and consumption are essential for human development and economic growth—especially in rural areas where access to power remains limited.

PROVIDING ENERGY FOR RURAL DEVELOPMENT

Most electricity is used outside the home. Without sufficient access to power for agriculture and businesses, people risk being locked out of the modern economy.

As a first step on the energy ladder, let's consider a minimum level of annual electricity demand per person to drive social and economic development in **rural communities**.

ELECTRICITY CONSUMPTION PER PERSON WILL BE MUCH HIGHER WHEN AVERAGED ACROSS A WHOLE COUNTRY, INCLUDING CITIES AND INDUSTRY. WHILE 200 kWh PER PERSON CAN PROVIDE POWER FOR THE FIRST STAGES OF DEVELOPMENT IN RURAL COMMUNITIES, A MODERN ENERGY MINIMUM OF 1,000 kWh PER PERSON HAS BEEN PROPOSED AS A COUNTRY-LEVEL THRESHOLD FOR MIDDLE-INCOME STATUS.

50 kWh

POWERS A
HOUSEHOLD

Household services include:

Lights, phone chargers, a fan, TV

What's needed to unlock this demand:

Support for homeowners to wire their houses; financing for home appliances and places to buy them

THIS IS AN ESSENTIAL FIRST STEP, HOWEVER INSUFFICIENT ALONE TO DRIVE REAL ECONOMIC DEVELOPMENT

70 kWh

POWERS A HOUSEHOLD
+ COMMUNITY SERVICES

Community services include:

Health clinics, schools, water pumping

What's needed to unlock this demand:

Better coordination between responsible ministries, NGOs, and power providers

200+ kWh

POWERS A HOUSEHOLD
+ COMMUNITY SERVICES
+ PRODUCTIVE USE

Productive uses of energy include:

Agricultural processing, small businesses

What's needed to unlock this demand:

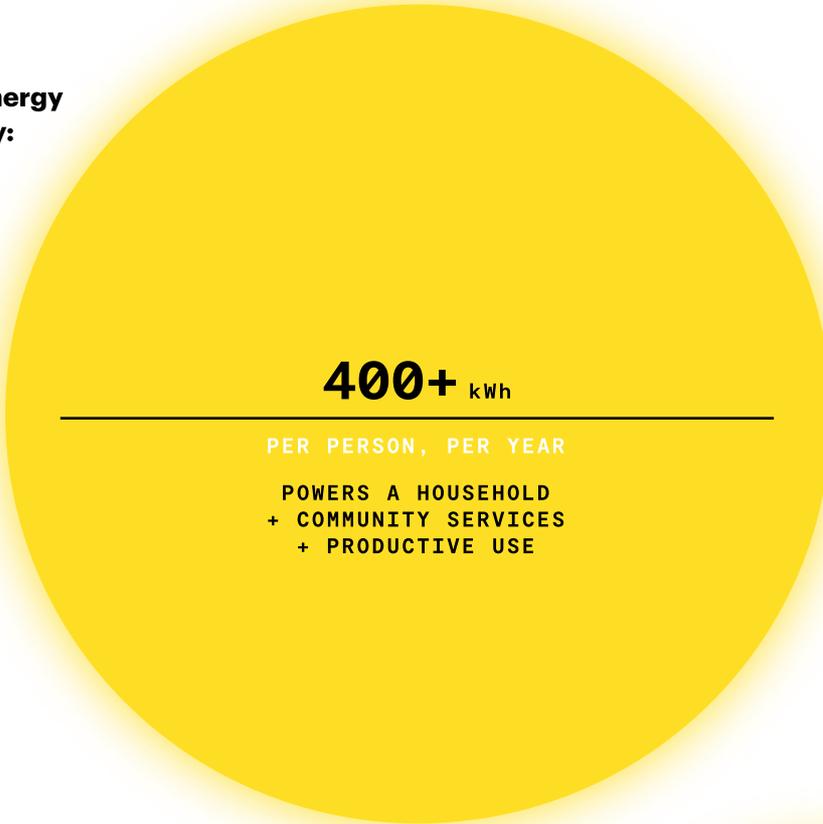
Structured support to access appliances and finance

NEW JOBS AND INCREASED INCOMES FROM RURAL ELECTRIFICATION START TO HAPPEN HERE

ENERGY-EFFICIENT APPLIANCES ARE CRITICAL TO OPTIMIZE ELECTRIFICATION'S IMPACT

200 kWh is our minimum productive use benchmark:
energy-efficient appliances cut demand by half, making
the same set of energy services viable at half the cost.

**Before energy
efficiency:**

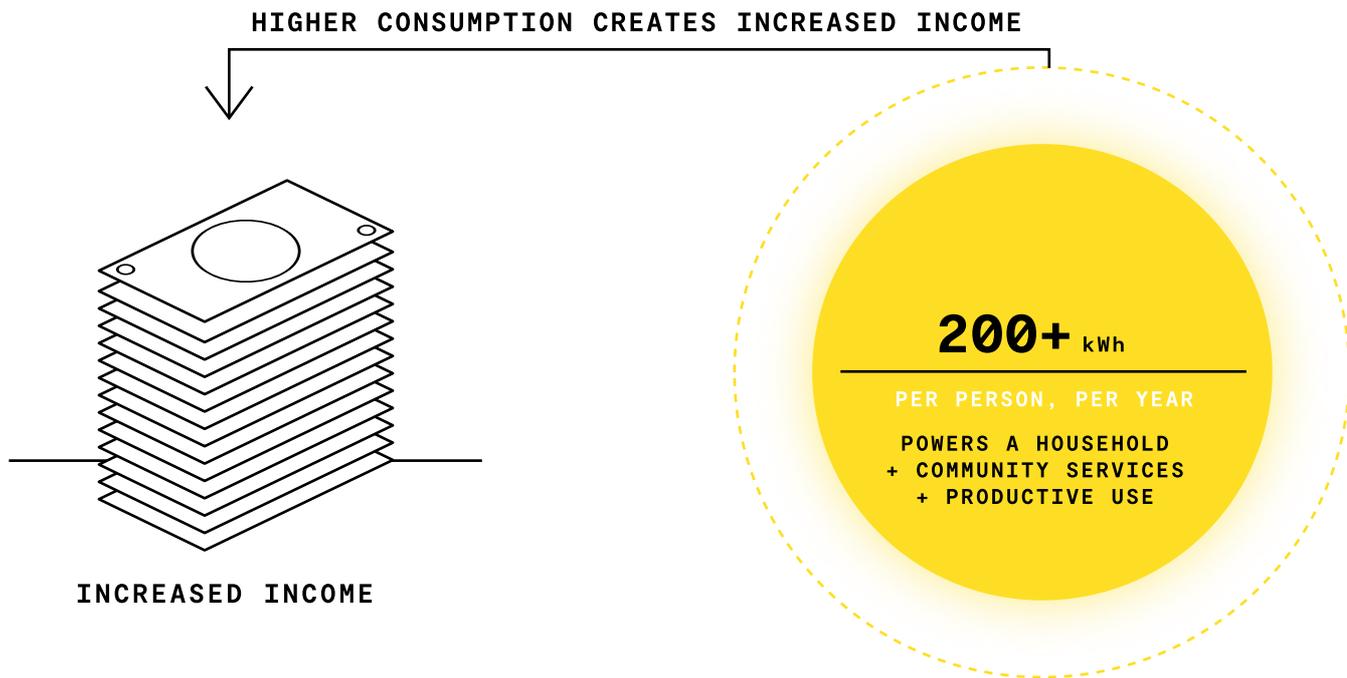


**With energy
efficiency:**

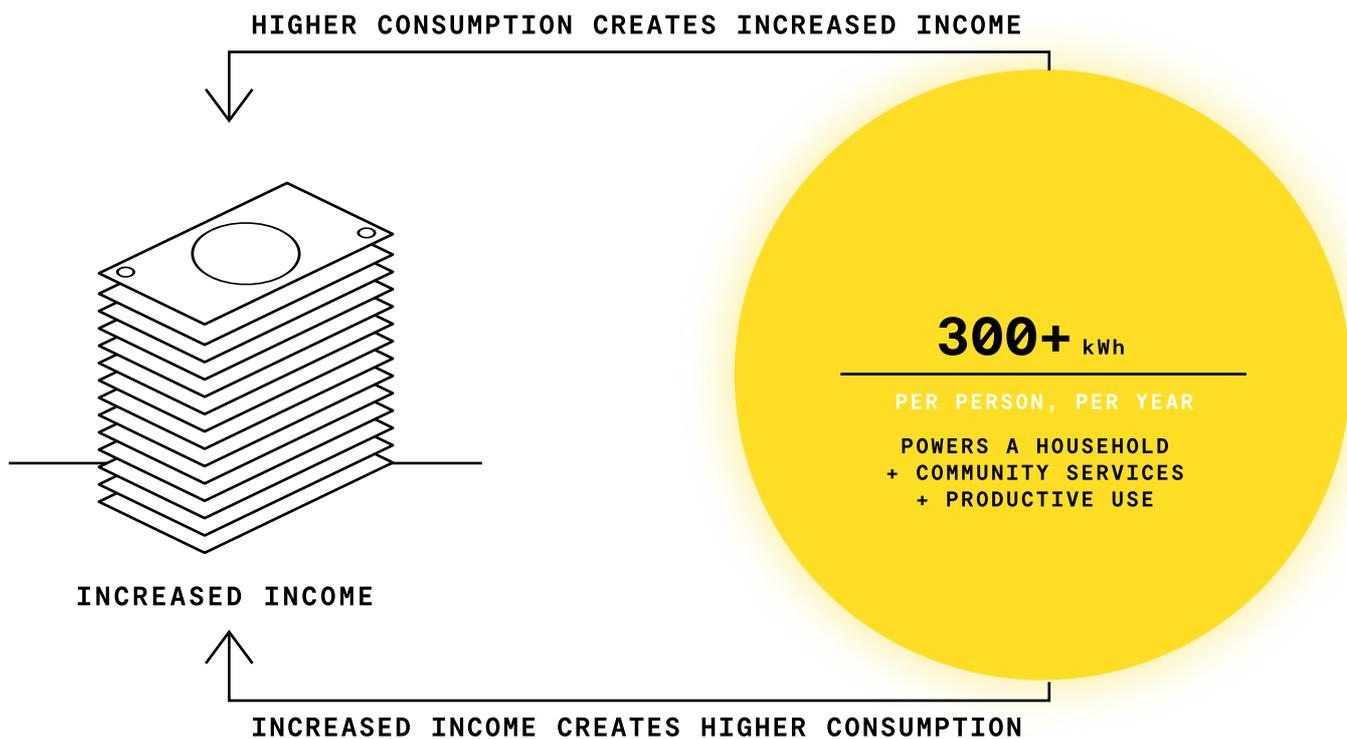


Per person in rural communities

200 kWh is our minimum productive use benchmark: energy-efficient appliances cut demand by half, making the same set of energy services viable at half the cost.



Higher-income households can afford to use more appliances, like refrigerators. They can use electricity for cooking, leading to major health benefits. As communities move to the next stage of the energy ladder, electricity consumption can rise to 300 kWh per person (or 600 kWh if inefficient appliances are used).





ELECTRIFYING ECONOMIES

The Electrifying Economies project

demonstrates the role distributed energy will play in ending energy poverty and catalyzing a green and equitable recovery from the Covid-19 crisis. It draws on the latest data and research from around the world to show how distributed renewables can provide sustainable, affordable, and reliable power for all. The project provides information to support policy makers and investors in taking action today, to realize this potential.



#ElectrifyingEconomies
ElectrifyingEconomies.org