

ResearchReel presentation

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# **Electricity poverty reduction and progress towards the sustainable development goal 7: Vietnam, 2008-2018.**

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*In the last month, did the consumption of electricity meet the need of your household?*

# Engineers, economists angles to measure energy poverty

Access to reliable electricity

Basic needs satisfaction, energy poverty line, multidimensional indexes.

Nussbaumer, Bazilian, and Modi. 2012. "Measuring Energy Poverty: Focusing on What Matters." *Renewable and Sustainable Energy Reviews*

Hills. 2012. "Getting the Measure of Fuel Poverty: Final Report of the Fuel Poverty Review." CASE report 72. *Center for Analysis of Social Exclusion*.

Li, Pan, and Wei. 2015. "A Bibliometric Analysis of Energy Poverty Research: Results from SCI-E/SSCI Databases." *International Journal of Global Energy Issues*

He and Reiner. 2016. "Electricity Demand and Basic Needs: Empirical Evidence from China's Households." *Energy Policy*

Son and Yoon. 2020. "Reducing Energy Poverty: Characteristics of Household Electricity Use in Vietnam." *Energy for Sustainable Development*

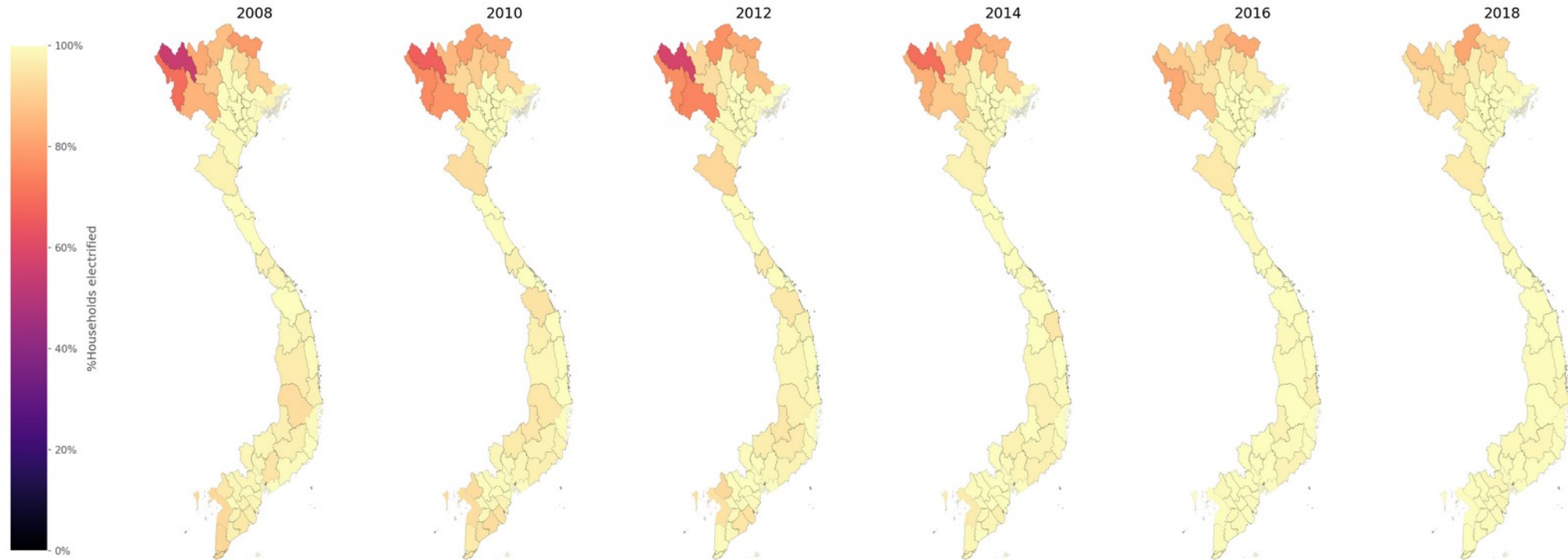
# Electricity poverty in Vietnam, from 3 angles

- Engineering: *Access to the grid*
- Economist: *Electricity bill % income*
- Social: *Perception that needs are met*

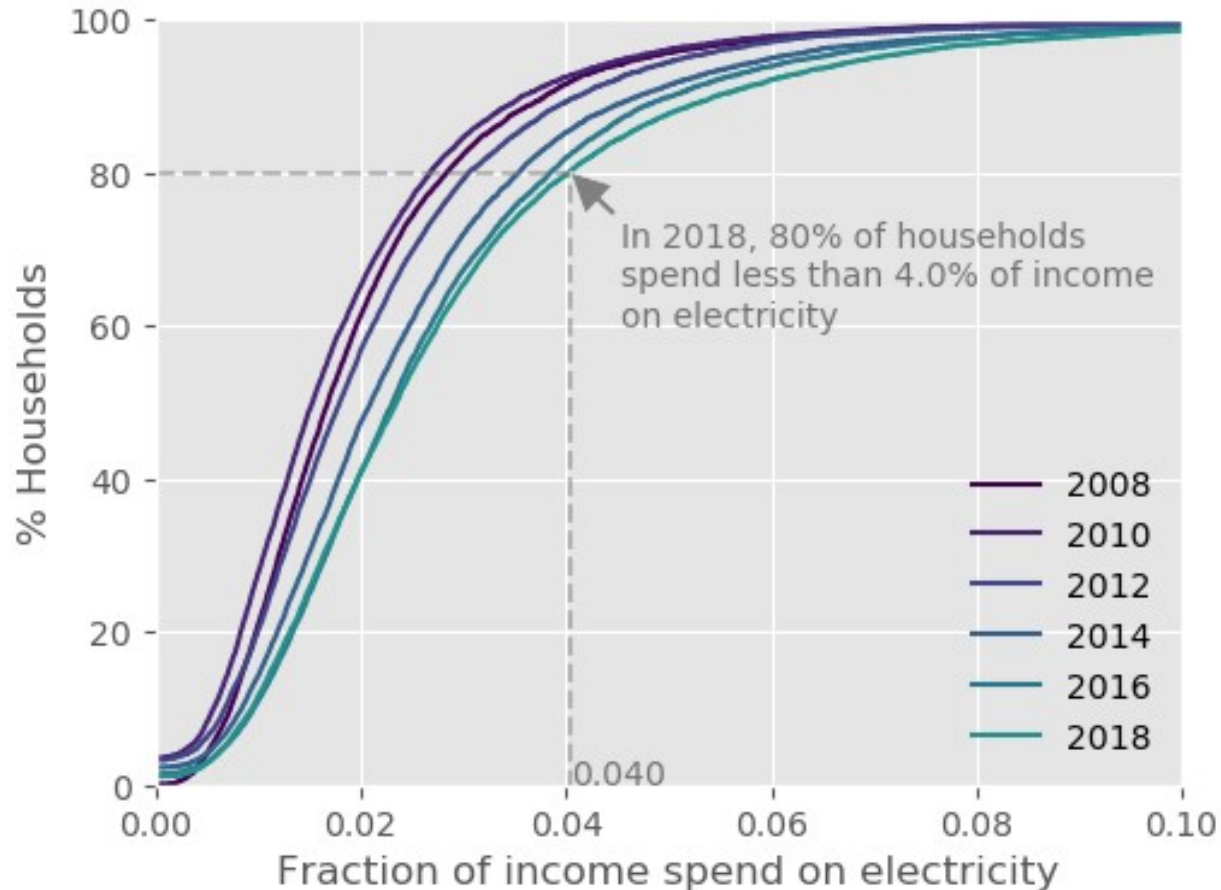
# Vietnam's economy and electricity 2008-2018

	2008	2018
Population (Thous. pers.)	85 119	94 666
GDP per capita, PPP, constant 2017 \$	4 628	7 586
Share of population in urban areas	29,0 %	34,5 %
Electricity production, annual per person	834 kWh	2 221 kWh

# Quasi-universal access achieved in 2008 already



# Electricity bills relatively low but growing



# Electricity bills relatively low but growing

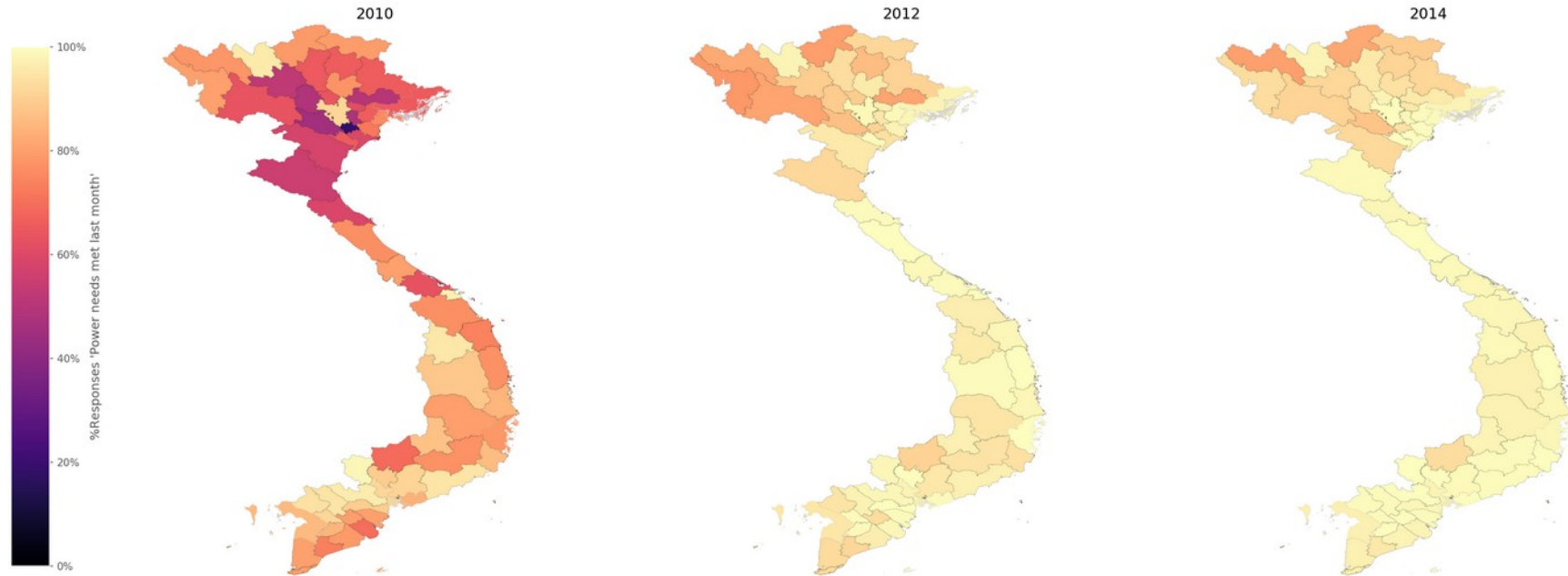


Unaffordable cooling during a heatwave makes media headlines, but welfare effect ambiguous

- Electricity substitutes other energy forms
- Rich households can afford high bills



The share of households declaring *their electricity consumption did not meet their needs* decreased after 2010.

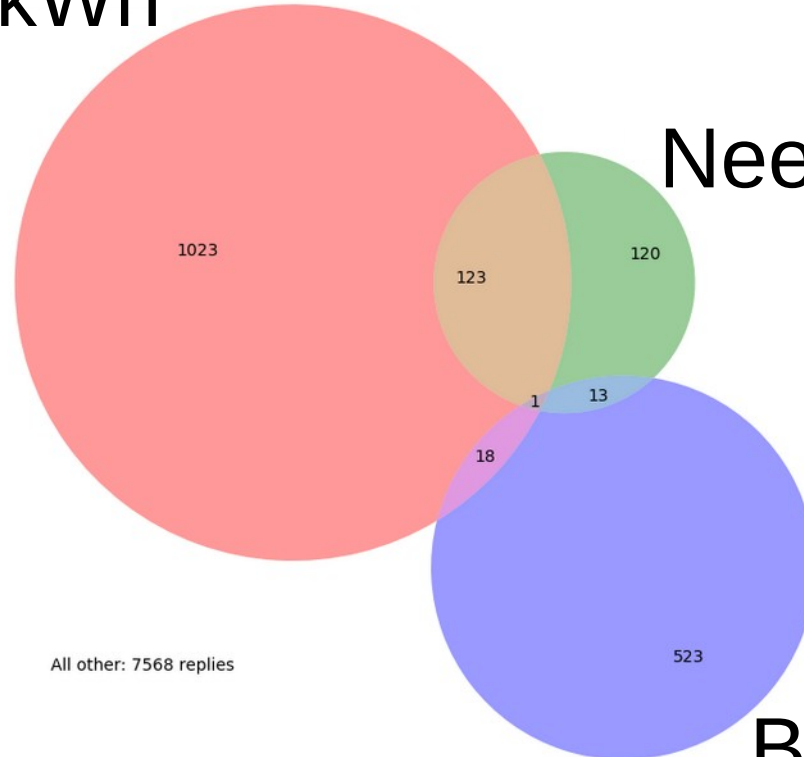


# Electricity poverty criteria do not overlap

Energy poverty in Vietnam Households 2014 survey  
(n=9389)

Used < 30 kWh  
last month

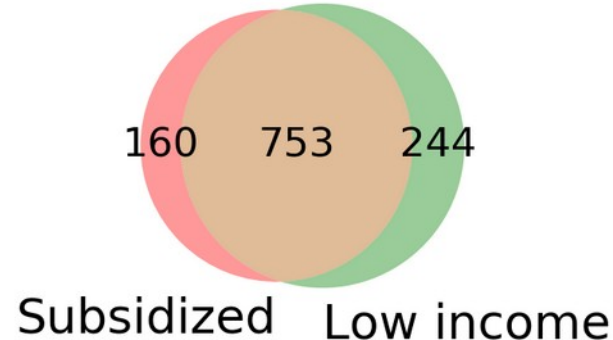
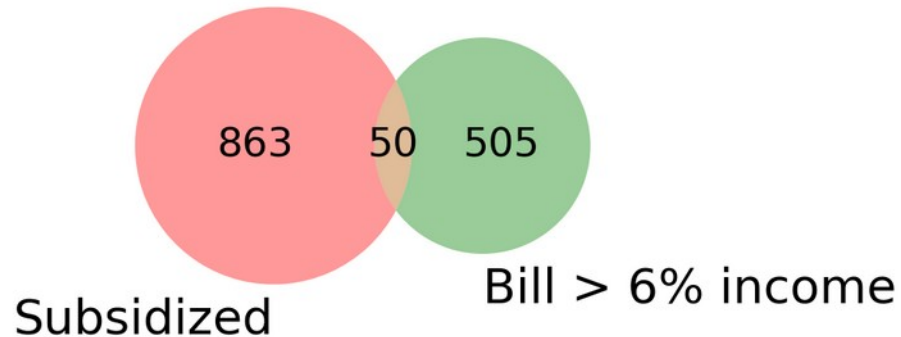
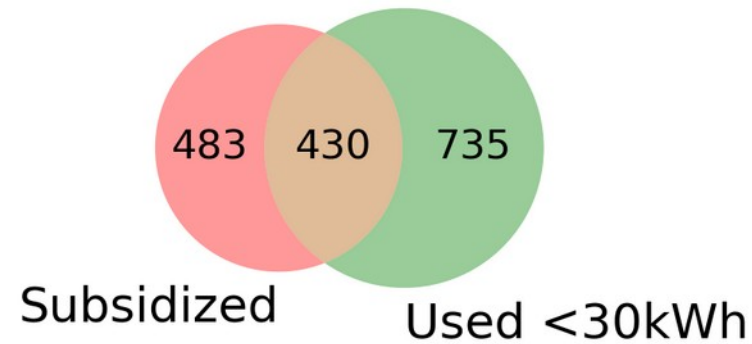
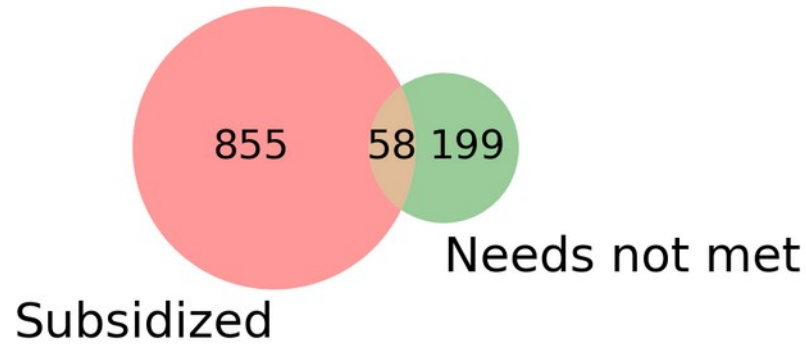
Needs not met



All other: 7568 replies

Bill > 6% income

# The electricity subsidy is... an income subsidy



# Conclusion

Electricity poverty is a human issue as much as an engineering and economic problem.

Out of 232 Sustainable Development Goal indicators, only two are subjective (SDSN 2015).

Working paper at <https://hal.archives-ouvertes.fr/hal-03160911>