



Renewable Energy Week in Vietnam 2016

Can Tho, 2016-11-15 and Ha Noi, 2016-11-18

Affordable and reliable power for all in Vietnam

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Outline

1. Introduction : indicators of energy poverty
2. Access to grid and electricity
3. Affordability
4. Satisfaction
5. Summary and conclusion

1. Indicators of energy poverty

- ✖ Share of the population with access to modern cooking solutions (%)
- ✔ Share of the population with access to reliable electricity, by urban and rural (%)

Reference : SDSN (2015) Key Performance Indicators, KPI 50 and KPI 51

Other energy poverty indicators

- Not having access to enough electricity to meet basic needs, 30 kWh per month
- Spending more than 6 % of income on electricity bill

Ferme du moyen âge à Saint Julien aux Bois, France. © la Mairie



Subjectively defined indicator

- Did you suffer from cold last winter?
- In the last month, did your consumption of electricity met the needs of your household?

Data: VN households survey

- Population : Socio-demographics of all household members
- Housing : characteristics, equipments, ownership...

2. Access and usage

« From the early days [...], when the power system had just been unified, through to today, when more than 95 percent of all households have access to electricity, there is a compelling story.

It is not only a story of policies and institutions, or of financing and tariffs. It is also a story of Vietnam's growth as a nation and as a society built on the unifying force of electrification. »

Hoang Trinh Hai (2011)

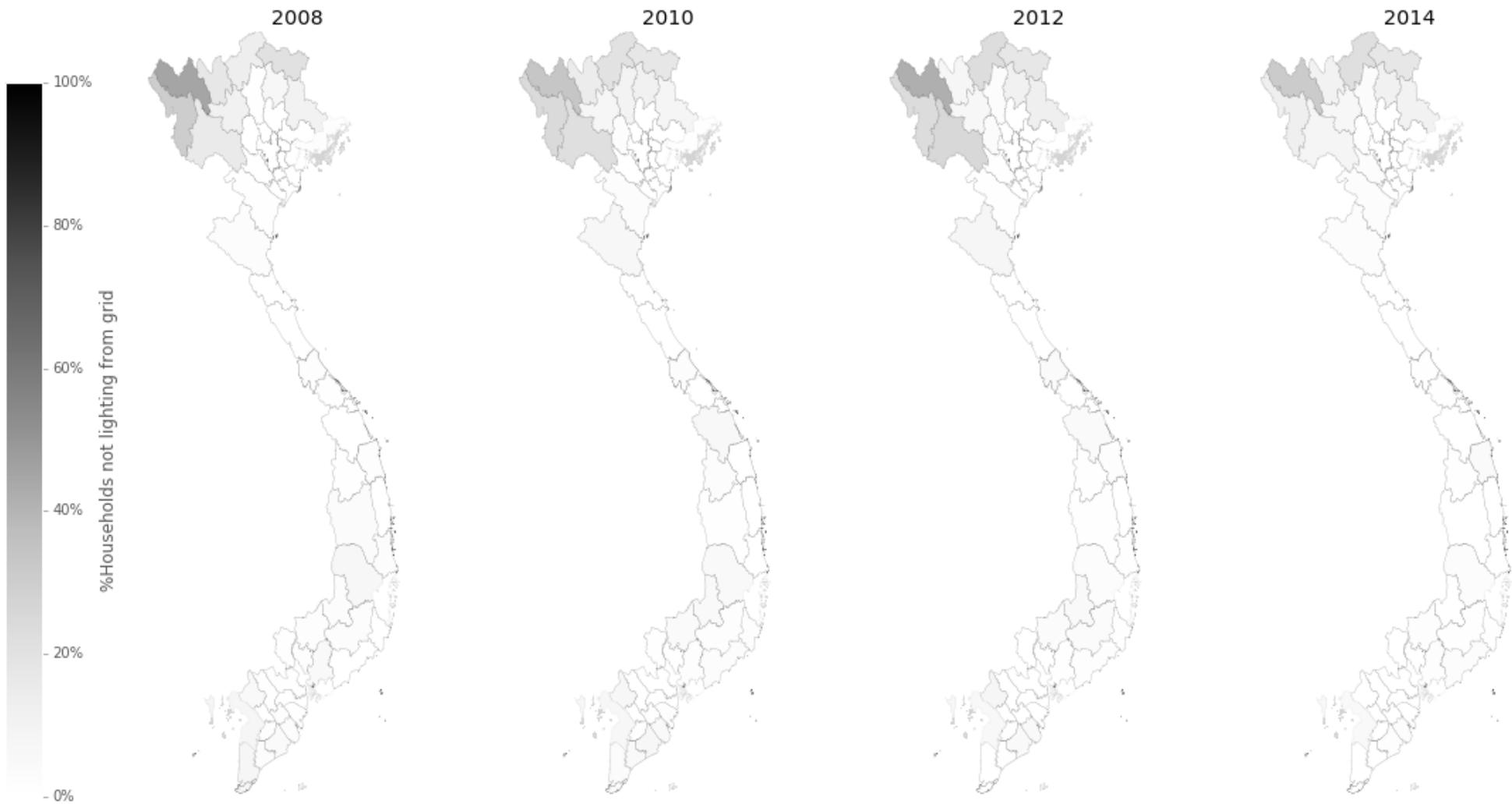
in World Bank (2011) State and People, Central and Local, Working Together: The Vietnam Rural Electrification Experience



Rural electrification in the
northern provinces.

Hà Giang, 2016-11
© Ha-Duong

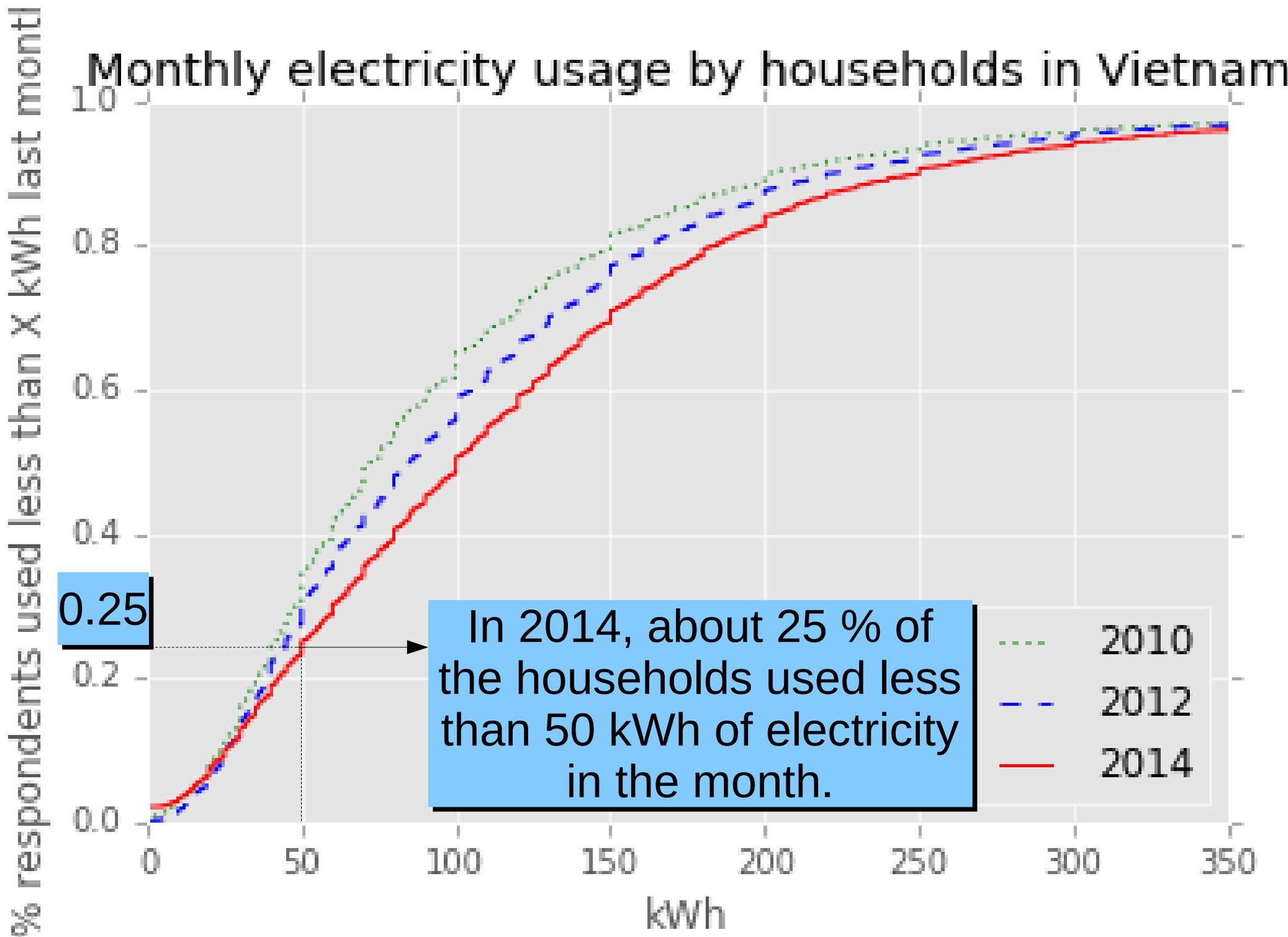
The share of households not relying on the national grid for lightning decreased from 2010 to 2014 in most provinces.



Key stats on access and usage

- In 2014, **97.7 %** of households in Vietnam used grid electricity for lighting.
- « One million people primarily in the northern mountainous regions of Vietnam are currently without access to electricity. » *Doan Van Binh, IES (2010)*
- In 2014, **one out of four** Vietnamese households used **less than 50 kWh** per month.

Monthly electricity usage by households in Vietnam



0.25

In 2014, about 25 % of the households used less than 50 kWh of electricity in the month.

- 2010
- 2012
- 2014

50 kWh/month electricity budget

1 kWh	Charge phone everyday	 <p><i>Basics, add up to 27 kWh</i></p>
2 kWh	Boil 5 teapots everyday	
7 kWh	Lighting, 4 lamps 4 hour per day	
17 kWh	Fan, 8 hours per day	
23 kWh	Rice cooker OR Television	
<hr/>		
50 kWh	Fridge	 <p><i>Do not fit into 50 kWh budget</i></p>
60 kWh	A/C, 2 hours per day	

3. Affordability

Electricity tariff control inflation

Kinh tế Saigon Online
Thời báo
CƠ QUAN CHỦ QUẢN: SỞ CÔNG THƯƠNG TP HCM

Preventing Power Tariffs From Stoking Inflation

Dr. Nguyen Minh Phong, *The Saigon Times*, Feb 25, 2010

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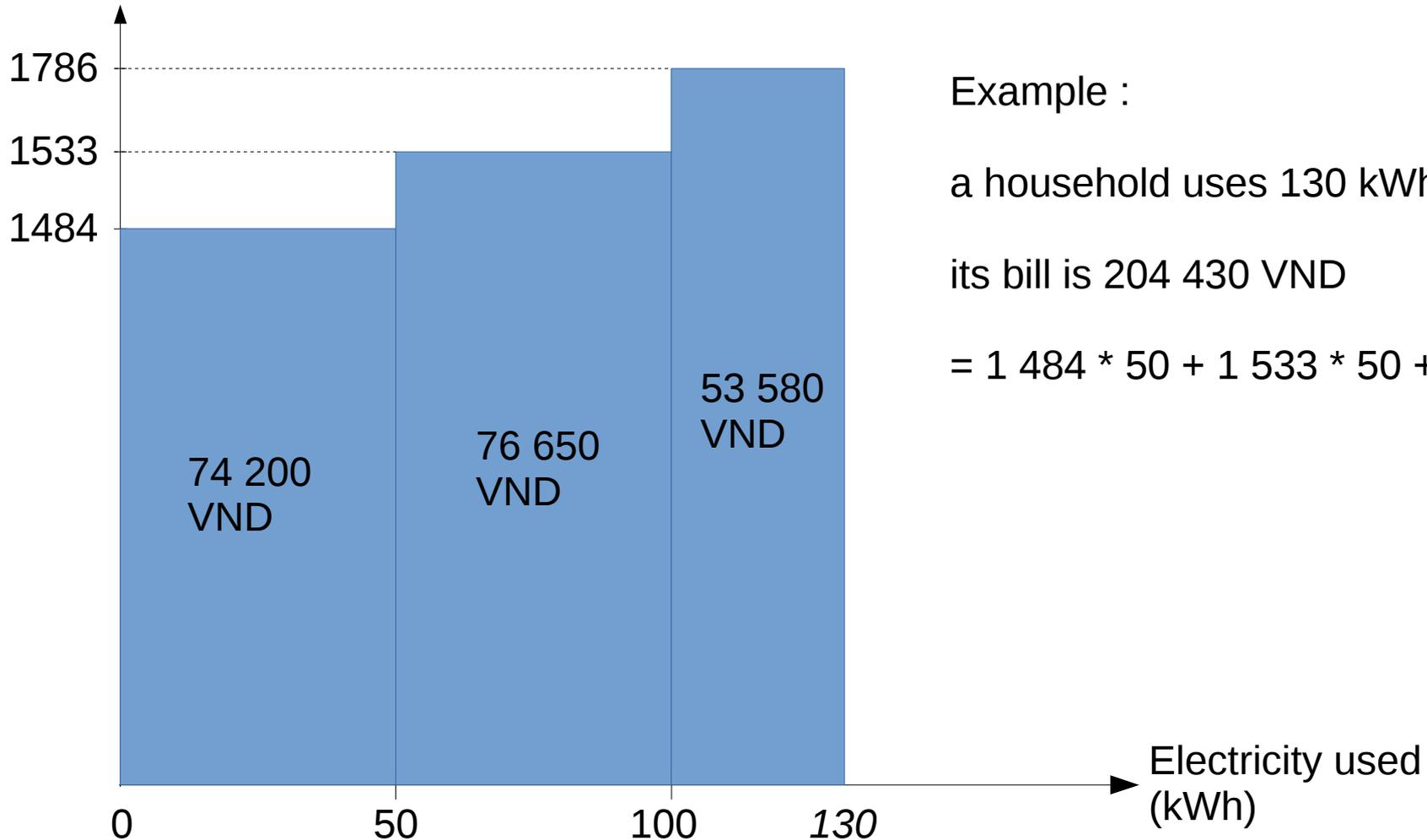
Vietnam to raise power prices from July 1 after inflation slows.

Thanh Nien News. June 30, 2012

Electricity is cheaper for poors

« Blocks tariff »

Electricity price
(VND per kWh)

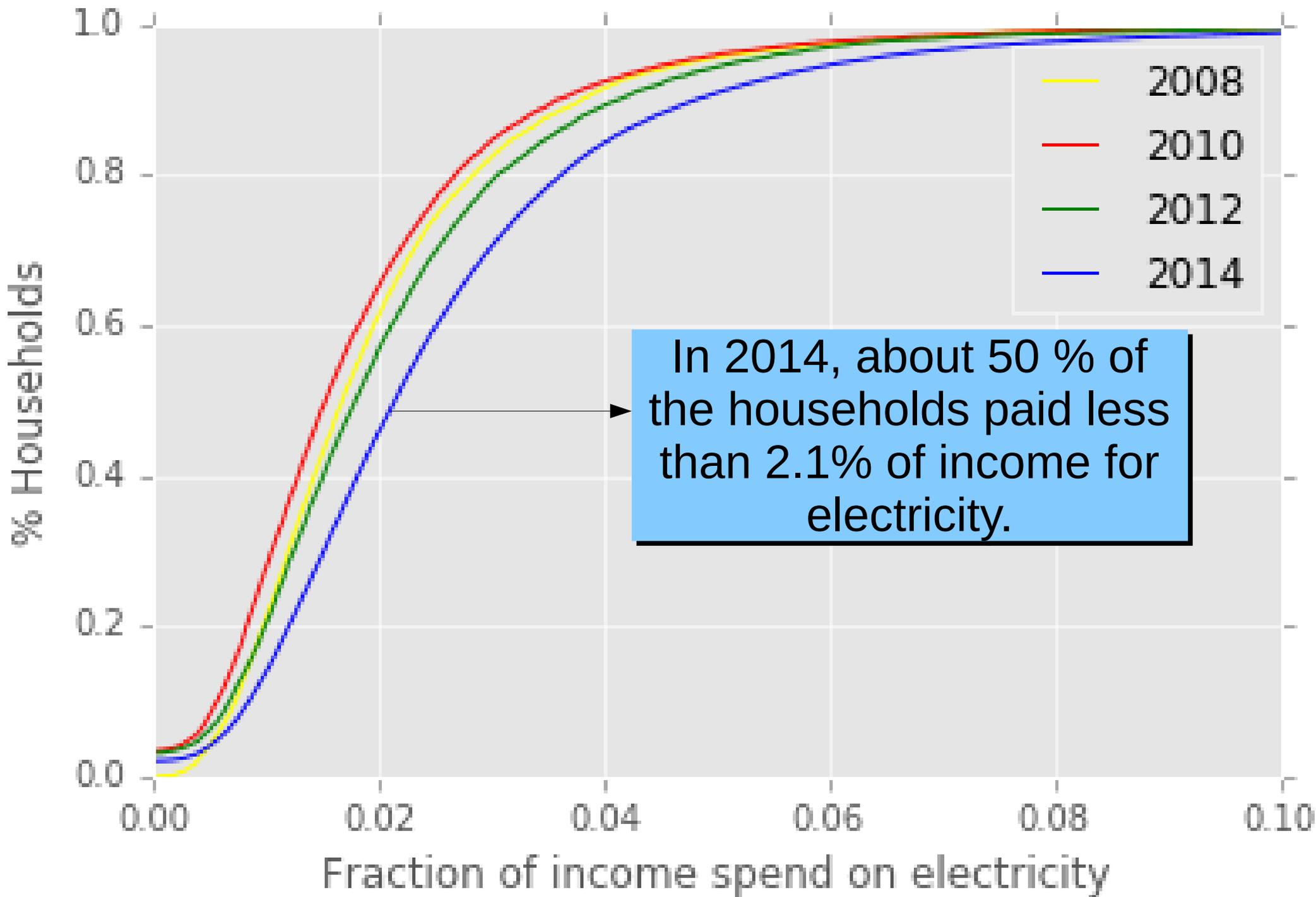


Example :

a household uses 130 kWh in month

its bill is 204 430 VND

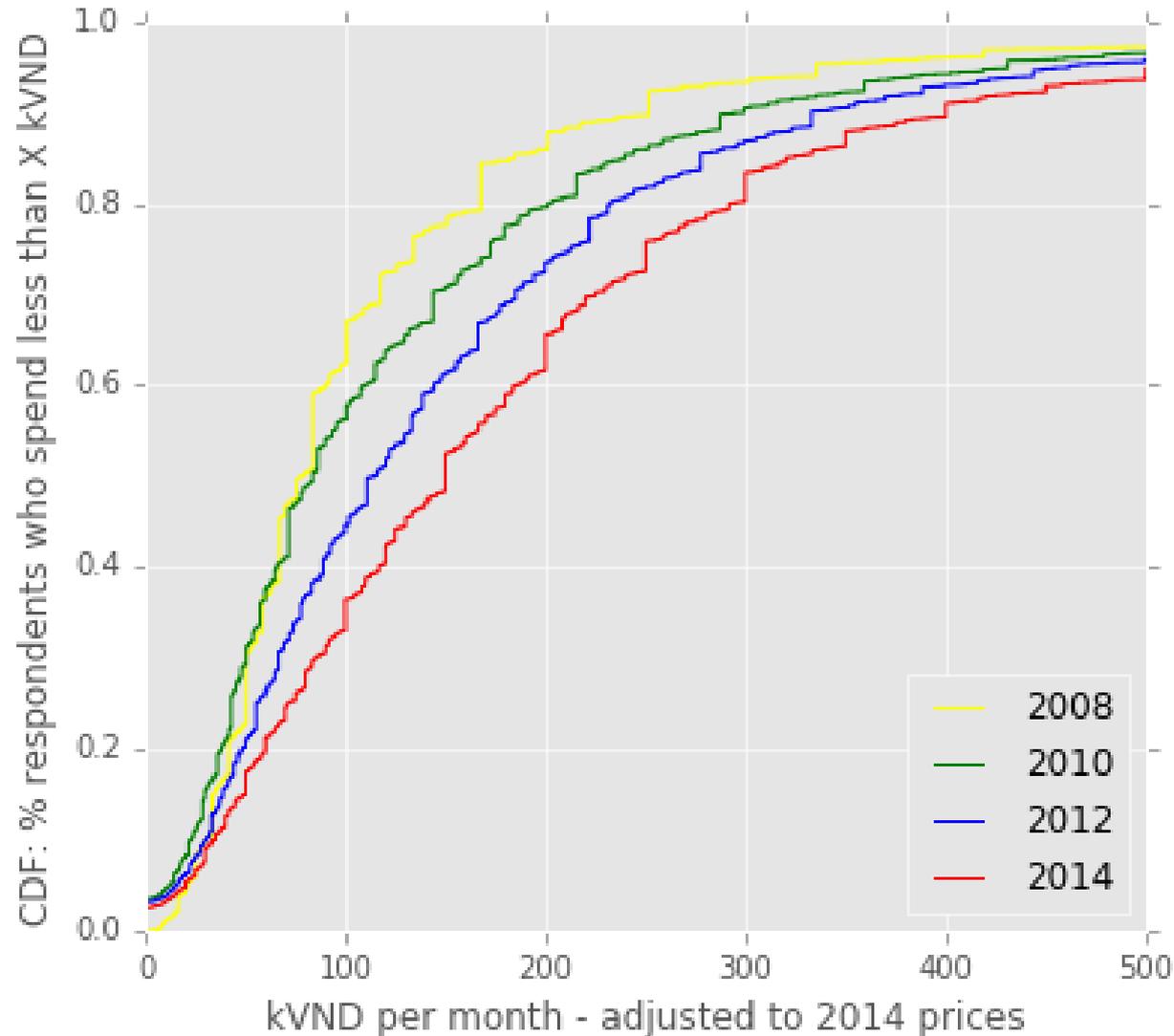
$$= 1\,484 * 50 + 1\,533 * 50 + 1\,786 * 30$$



In 2014, about 50 % of the households paid less than 2.1% of income for electricity.

Electricity bills

2x between 2008 and 2014

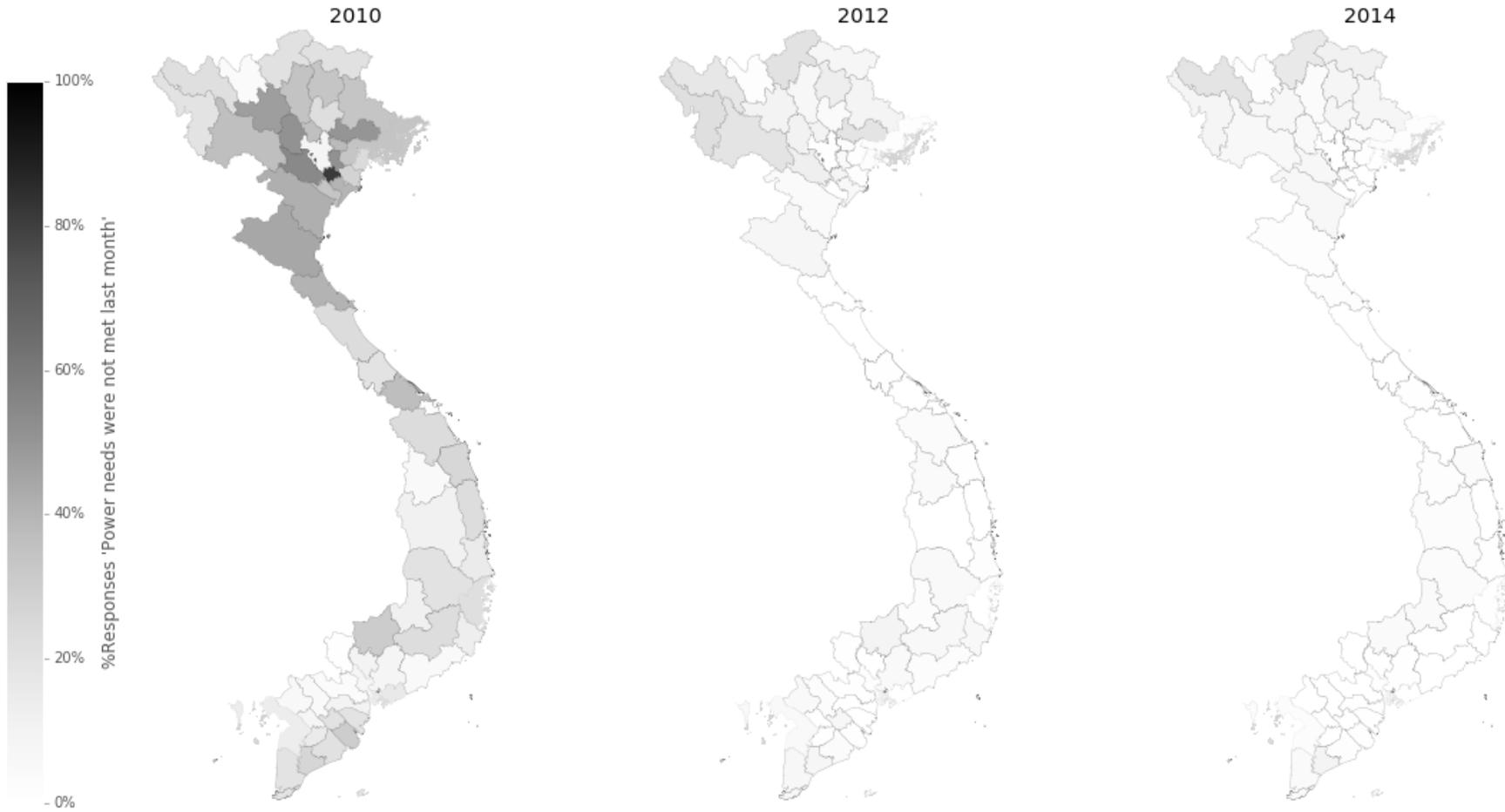


4. Needs satisfaction

In the last month, did your consumption of electricity met the needs of your household?

Survey year	2010	2012	2014
	<i>N</i> = 9 261	<i>n</i> = 9 242	<i>n</i> = 22 695
Not sufficient	24.4 %	4.8 %	2.7 %
Sufficient	72.6 %	89.6 %	91.7 %
More than sufficient	3.0 %	5.6 %	5.6 %

Satisfaction levels progress



Key result on needs satisfaction

- In 2010, one out of four households in Vietnam declared that their electricity use was insufficient to meet their needs.
- That insatisfaction ratio dropped **under 3 %** in 2014.

5. Key Performance Indicators

	2008	2010	2012	2014
Share of households using grid electricity for lightning, rural / urban	95.7 % / 99.7 %	95.3 % / 99.7 %	95.6 % / 99.7 %	96.9 % / 99.8 %
Share of households declaring their electricity use within last 30 days did not meet their needs	NA	24.0 %	4.7 %	2.7 %
Share of households declaring less than 30 kWh of electricity use within the last 30 days	NA	16.4 %	14.0 %	13.1 %
Share of households paying less than 6 % of income for electricity	97.4 %	97.6 %	96.9 %	94.5 %

Conclusions

- Rural electrification : poster success
- Power supply quality : recently improved
- Electricity costs increasing
- Who will pay for clean electricity?