

## **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 (%)

# 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*



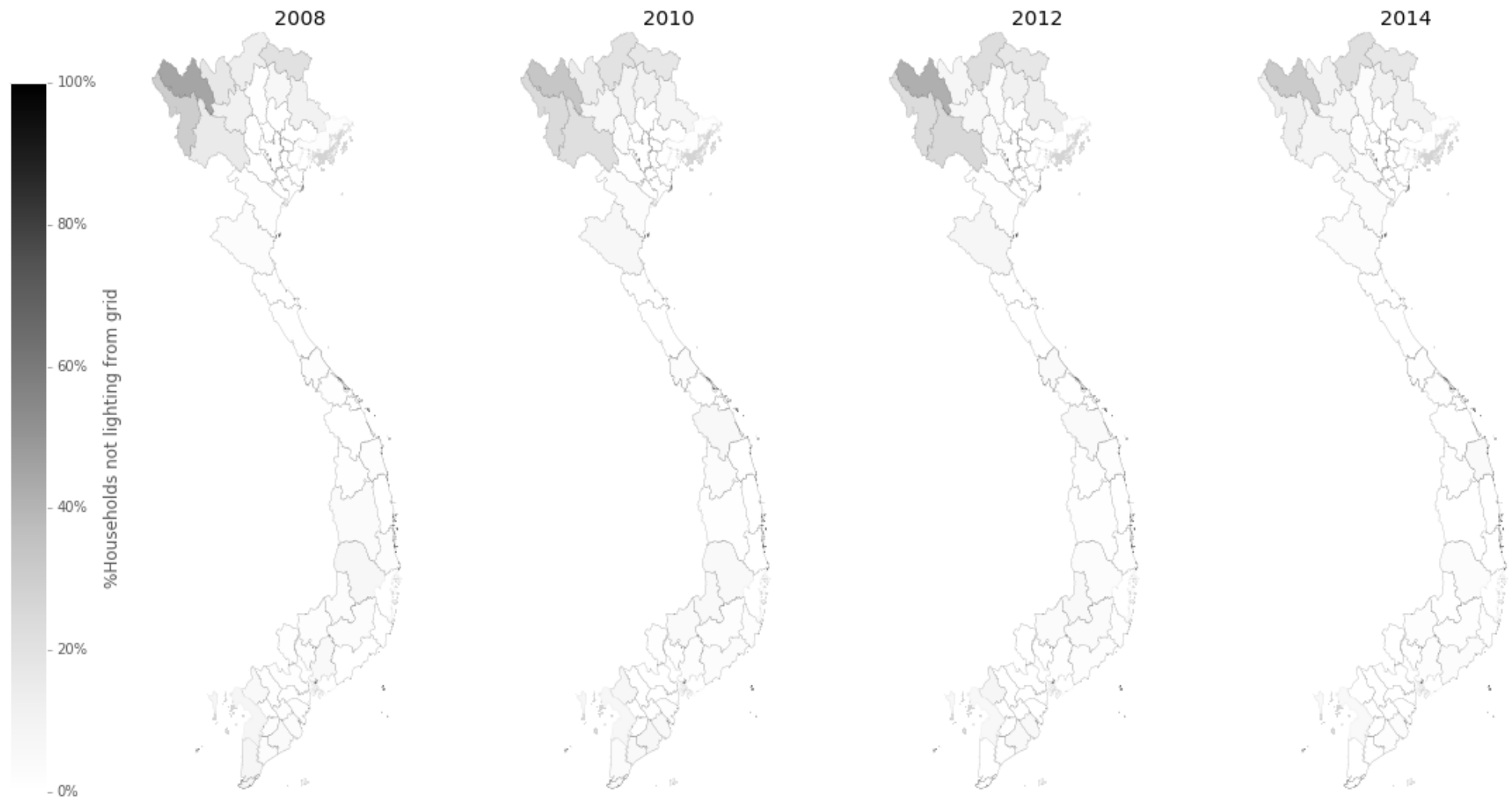


Rural electrification in the  
northern provinces.

Hà Giang, 2016-11  
© Ha-Duong



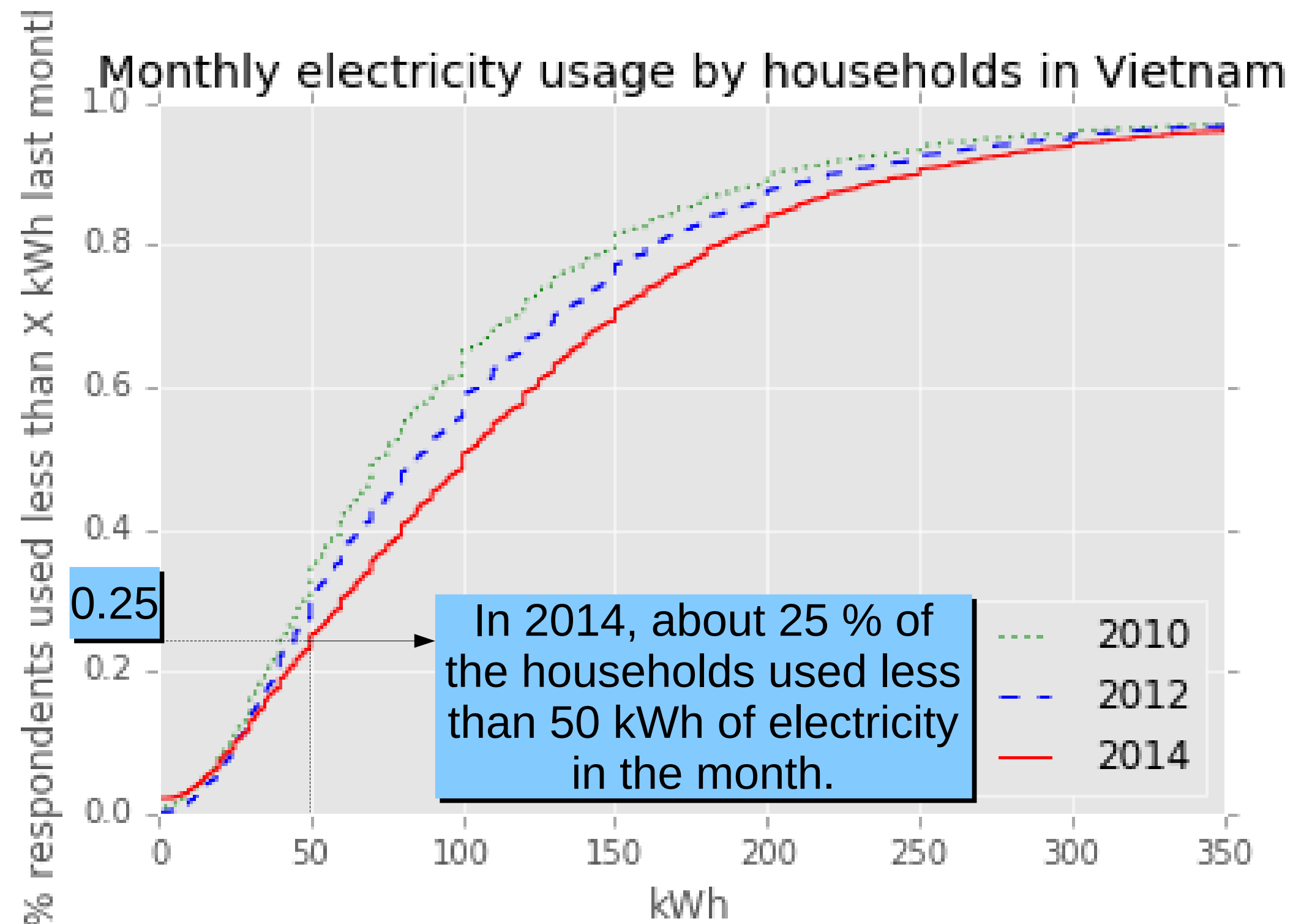
The share of households not relying on the national grid for lightning decreased from 2010 to 2014 in most provinces.



# Key stats on access and usage

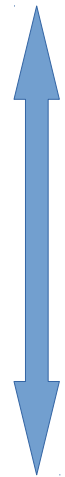
- In 2014, **97.7 %** of households in Vietnam used grid electricity for lighting.
- « One million people primarily in the northern mountainous regions of Vietnam are currently without access to electricity. » *Doan Van Binh, IES (2010)*
- In 2014, **one out of four** Vietnamese households used **less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

# Monthly electricity usage by households in Vietnam



# 50 kWh/month electricity budget

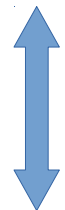
1 kWh	Charge phone everyday
2 kWh	Boil 5 teapots everyday
7 kWh	Lighting, 4 lamps 4 hour per day
17 kWh	Fan, 8 hours per day
23 kWh	Rice cooker OR Television



*Basics,  
add up to  
27 kWh*

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50 kWh	Fridge
60 kWh	A/C, 2 hours per day



*Do not fit into  
50 kWh budget*

# **3. Affordability**

# Electricity tariff control inflation

**Kinh tế Saigon Online**  
Thị trường  
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

**THANHNIEN  
NEWS**

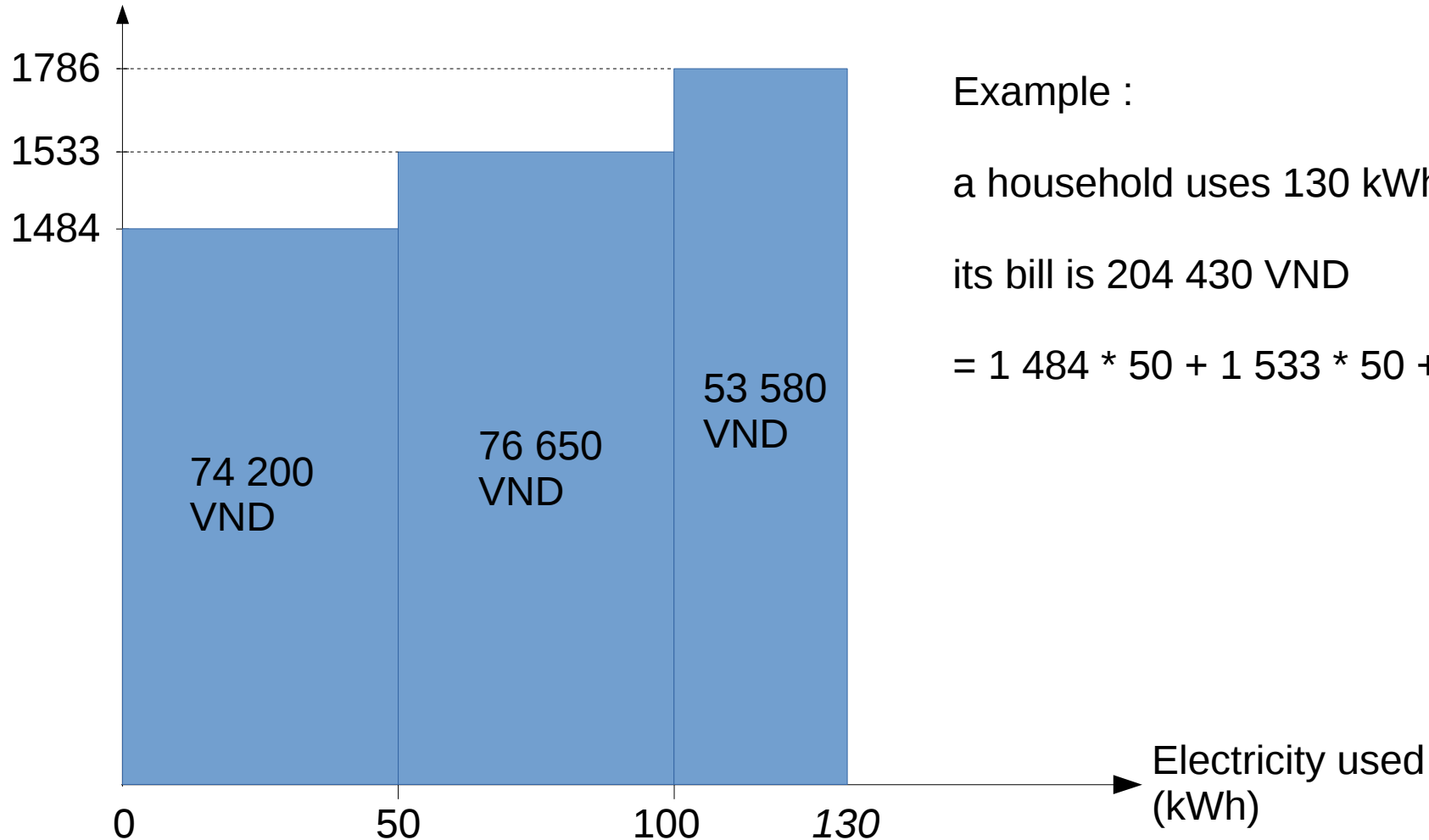
## **Vietnam to raise power prices from July 1 after inflation slows.**

*Thanh Nien News*. June 30, 2012

# Electricity is cheaper for poors

## « Blocks tariff »

Electricity price  
(VND per kWh)



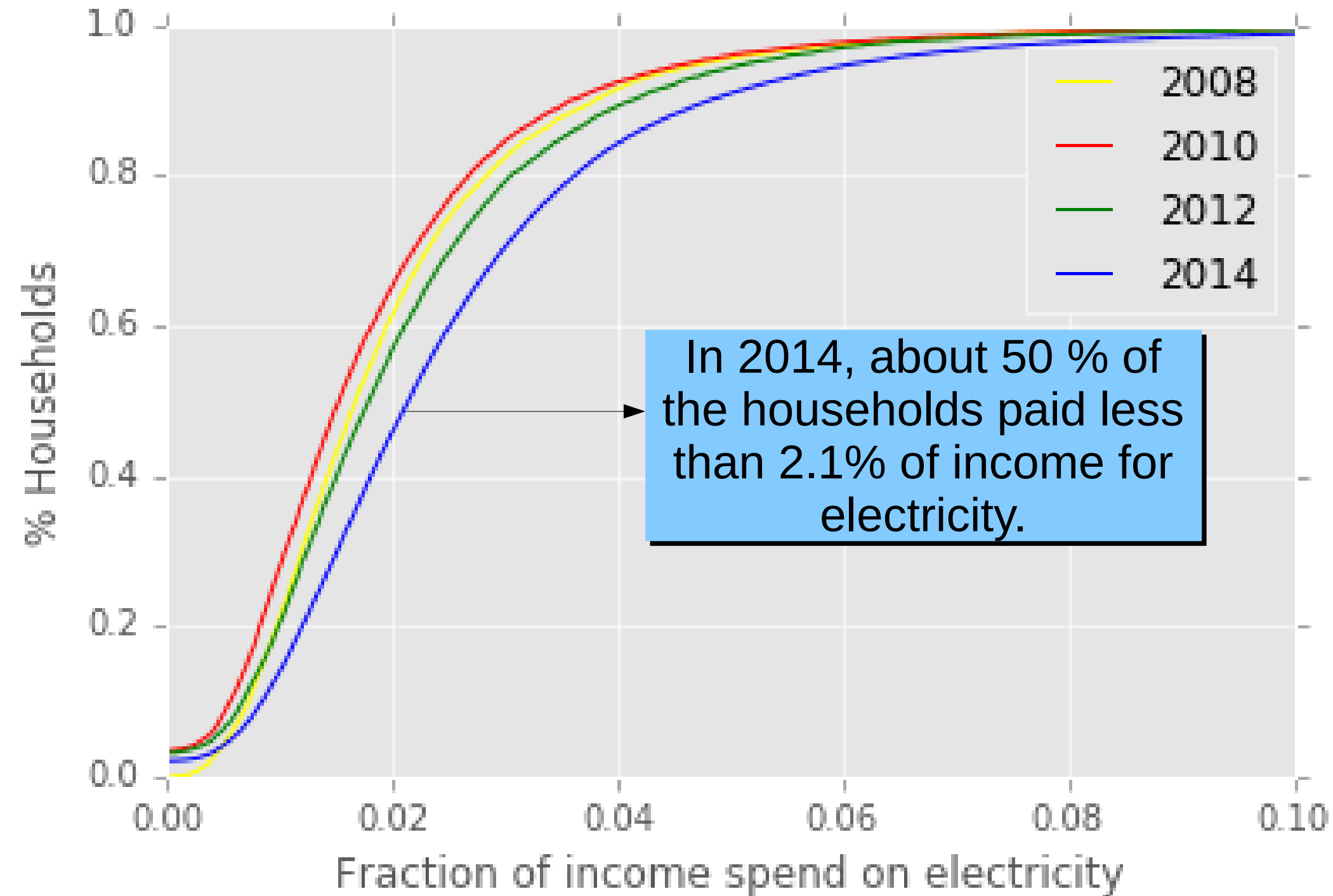
Example :

a household uses 130 kWh in month

its bill is 204 430 VND

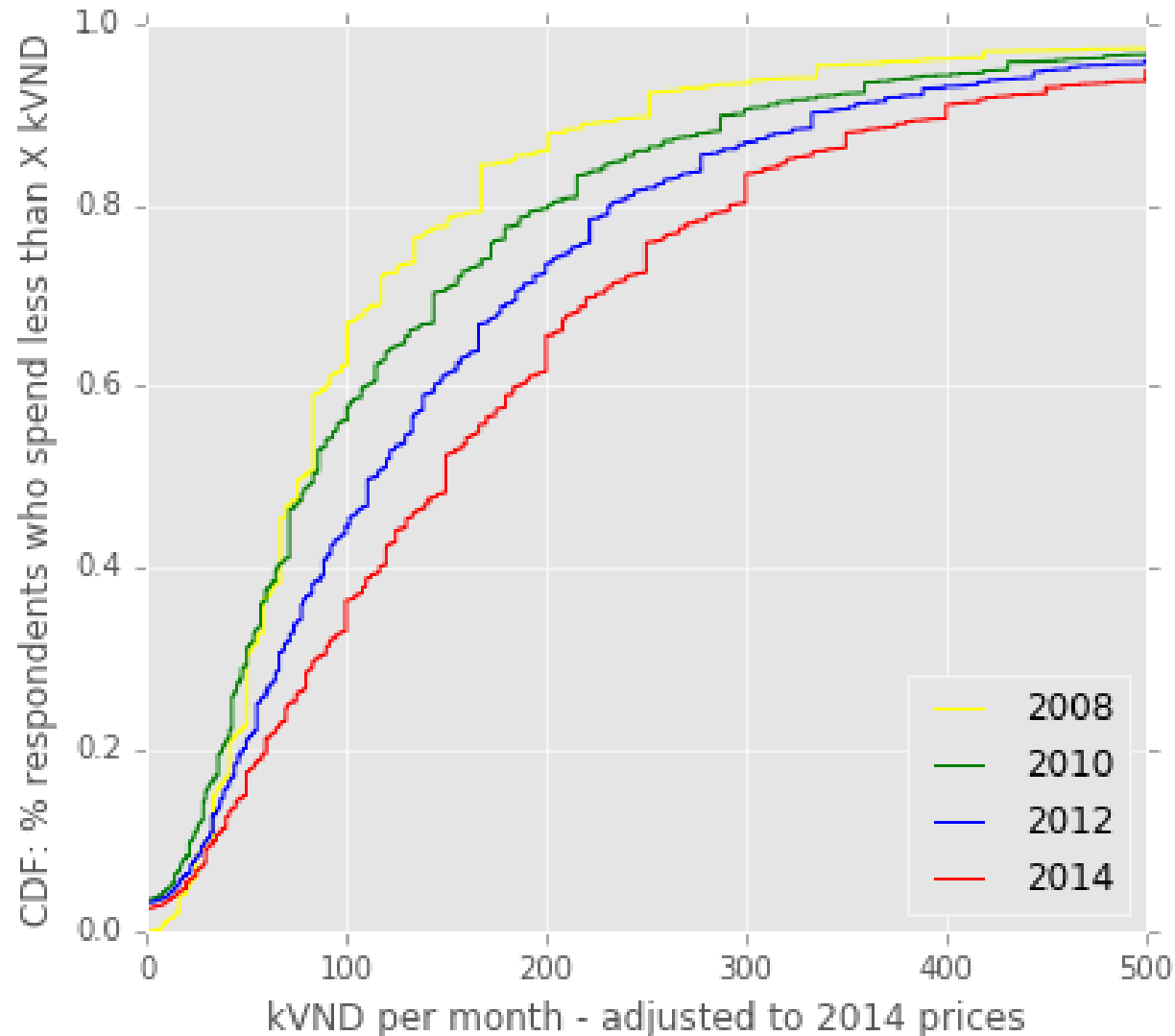
$$= 1\,484 * 50 + 1\,533 * 50 + 1\,786 * 30$$





# Electricity bills

## 2x between 2008 and 2014

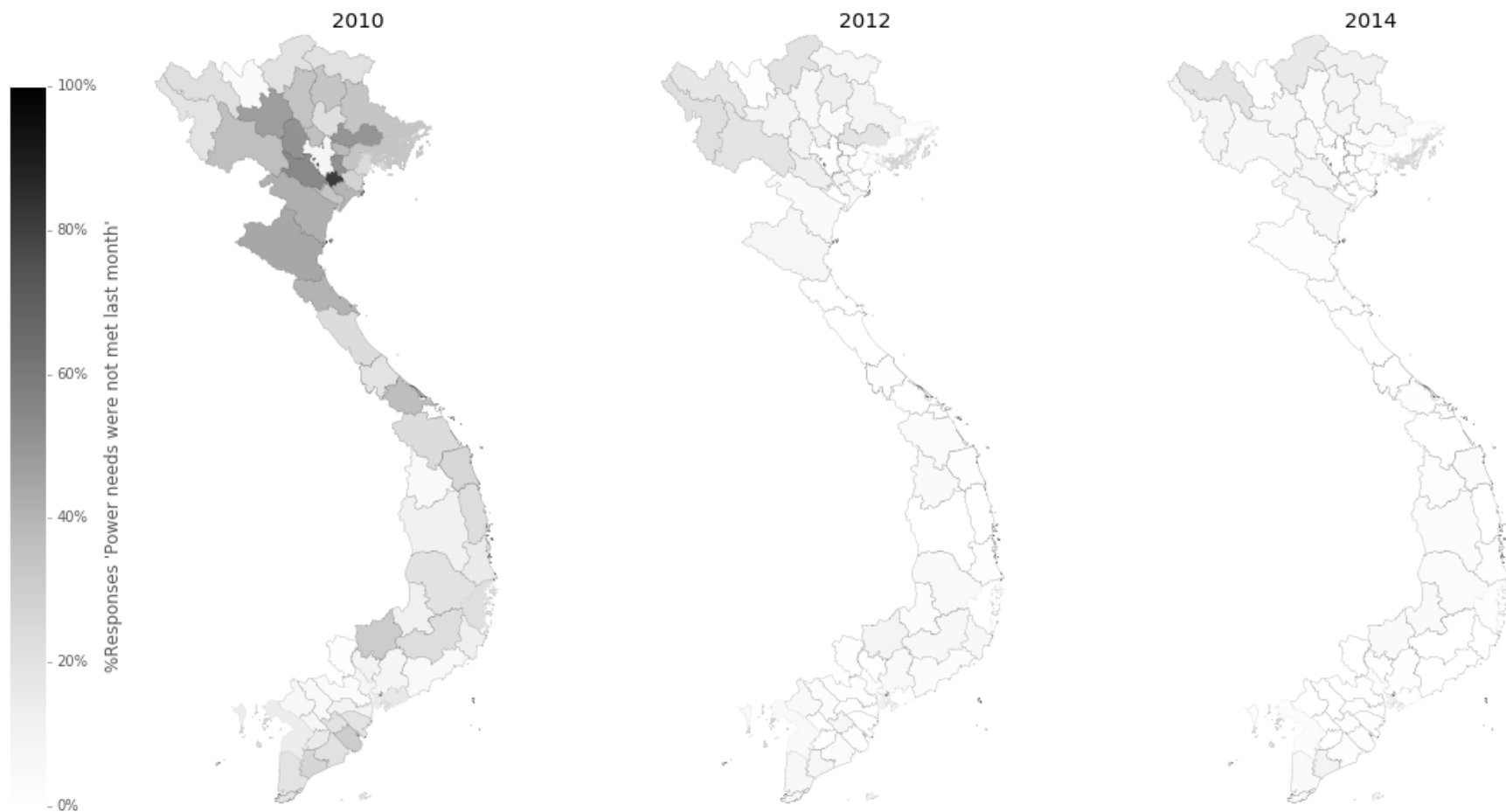


## 4. Needs satisfaction

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 <b>using grid electricity</b> 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 <b>did not meet their needs</b>	NA	24.0 %	4.7 %	2.7 %
Share of households declaring <b>less than 30 kWh</b> of electricity use within the last 30 days	NA	16.4 %	14.0 %	13.1 %
Share of households paying <b>less than 6 % of income</b> 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?