

What can be done?

Electricity sector

Nilusha Kapugama



This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada and the Department for International Development , UK.

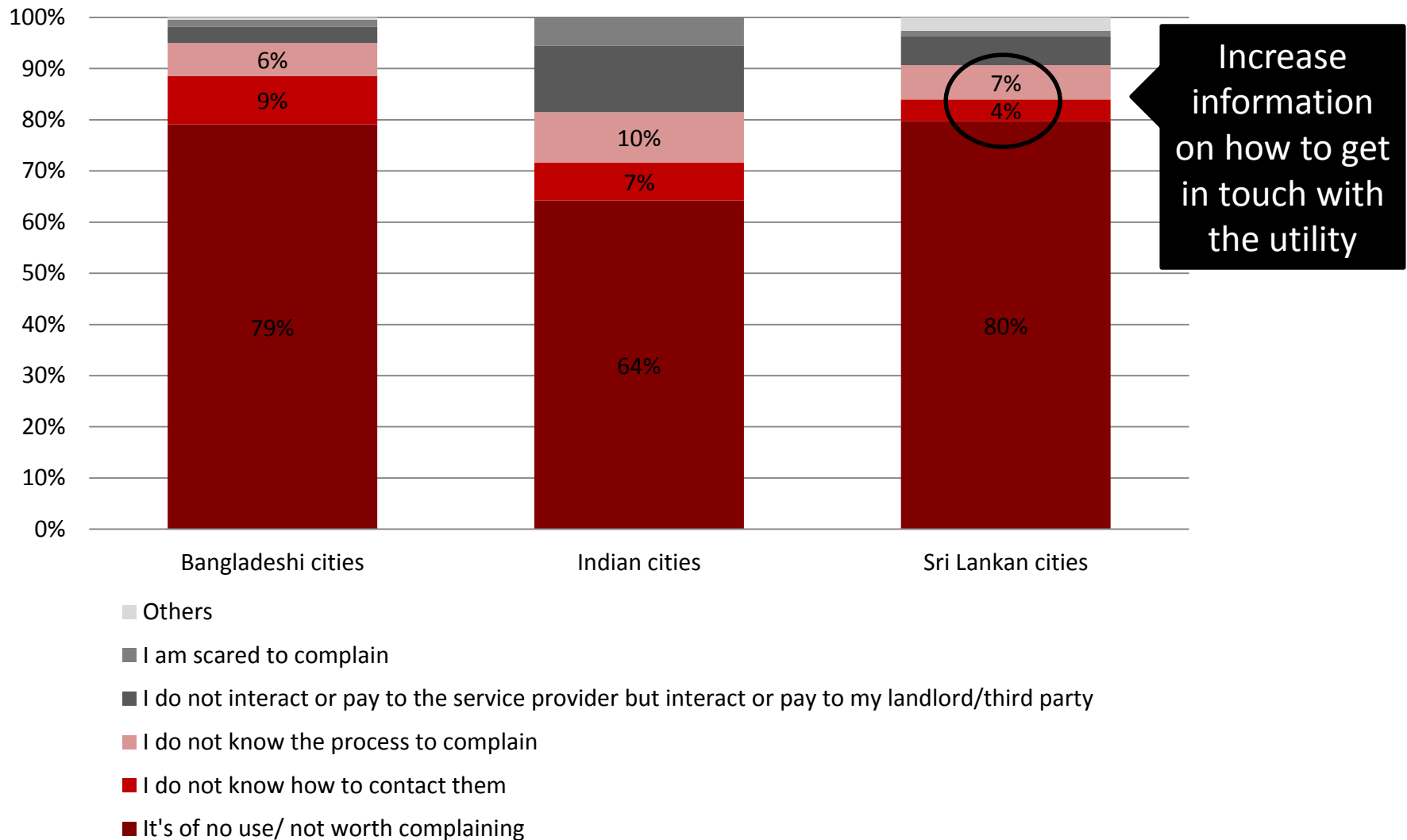


IDRC | **CRDI**

International Development Research Centre
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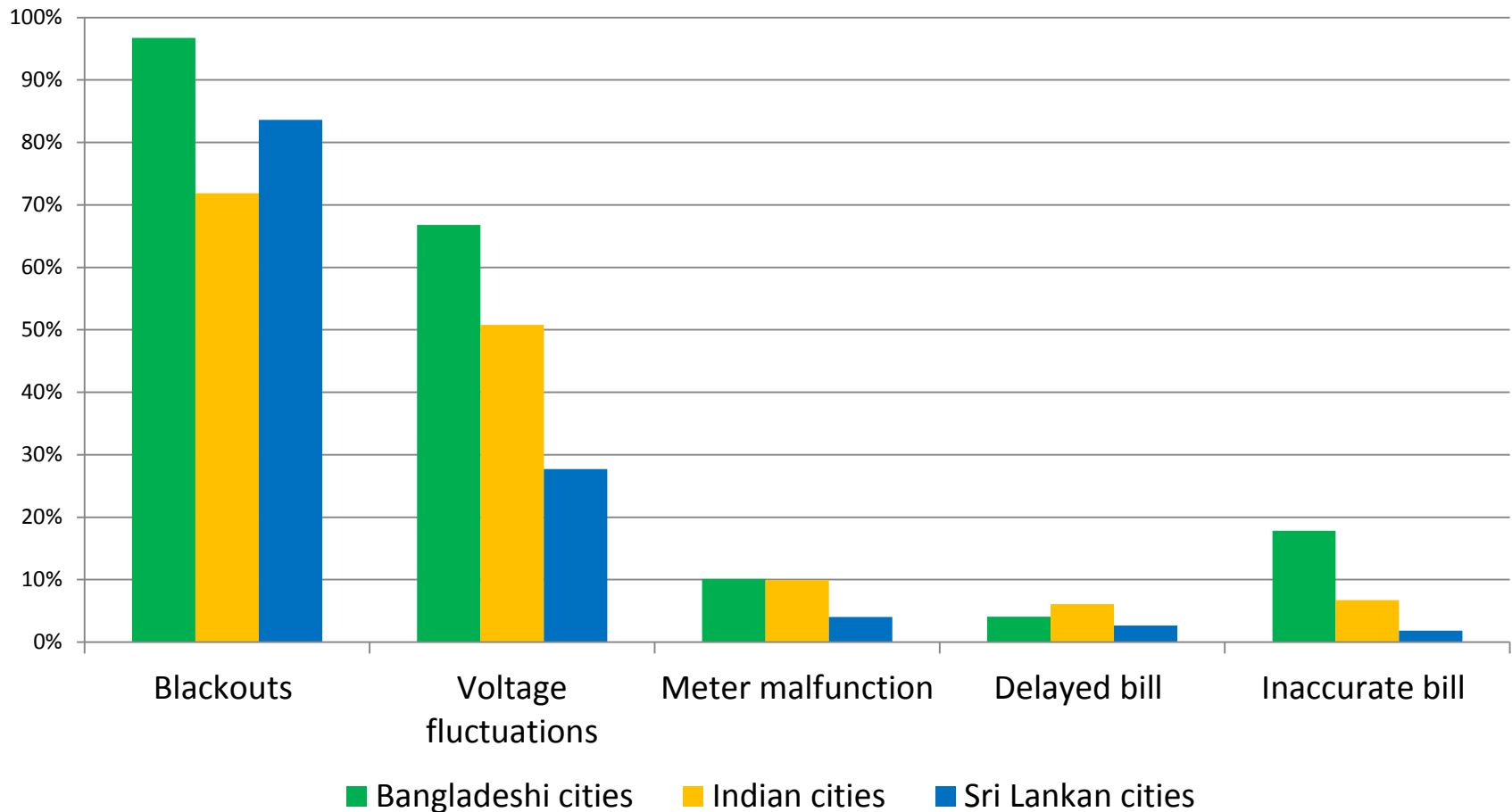
Canada

Most see no use of complaining



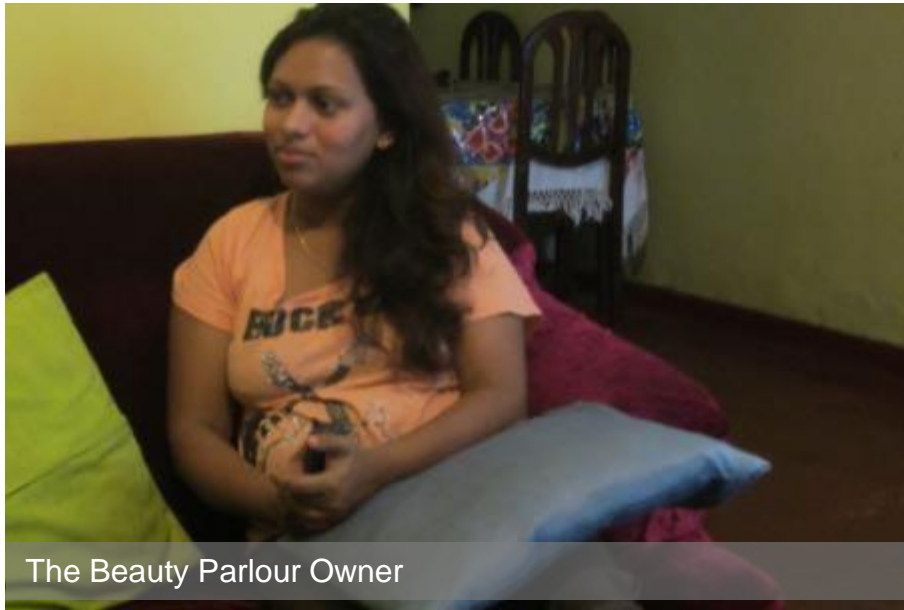
Why did you not complain to the service provider? (% BOP MEs who use electricity for business and who faced problems but didn't complain)

Blackouts and voltage fluctuations most common problems in LK



Did you face this problem? (% BOP MEs who use electricity for business from electricity co.)

Problem: Lack of information on power-cuts



The Beauty Parlour Owner

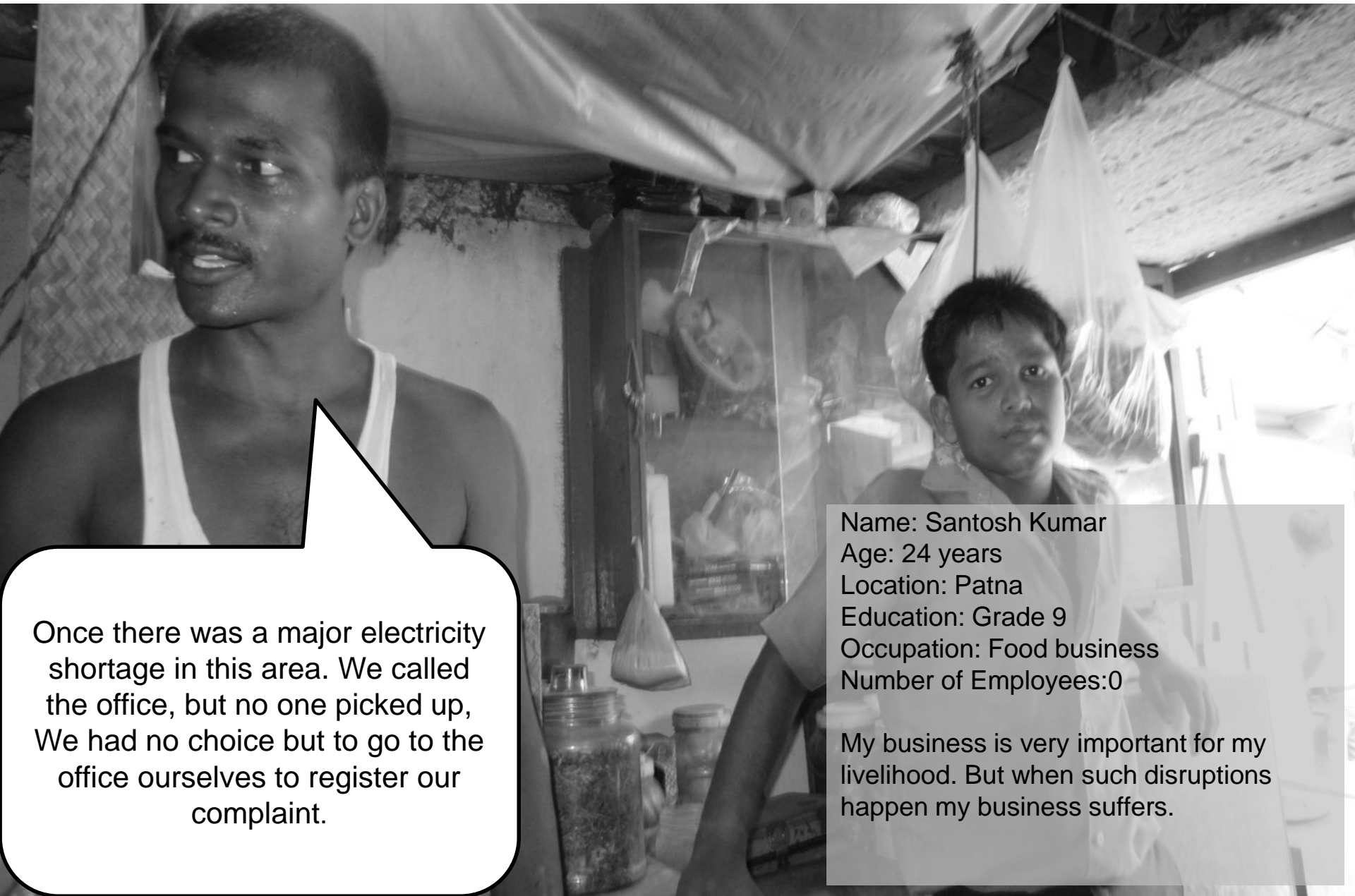
Name: Mihiri
Gender: Female
Age: 30 years
Education: Secondary Education
Location: Colombo
Business: Services– Beauty Parlor
Employees: None
Years of Service: 3



Inside the Beauty Parlour

- Runs her business from rented accommodation
- Has an electricity connection.
- Electricity is essential for her business.
- Unable to serve her clients if there is no electricity.
- Lack of information on power-cuts has an adverse effect on her livelihood.

Problem: Called but no response...



Once there was a major electricity shortage in this area. We called the office, but no one picked up, We had no choice but to go to the office ourselves to register our complaint.

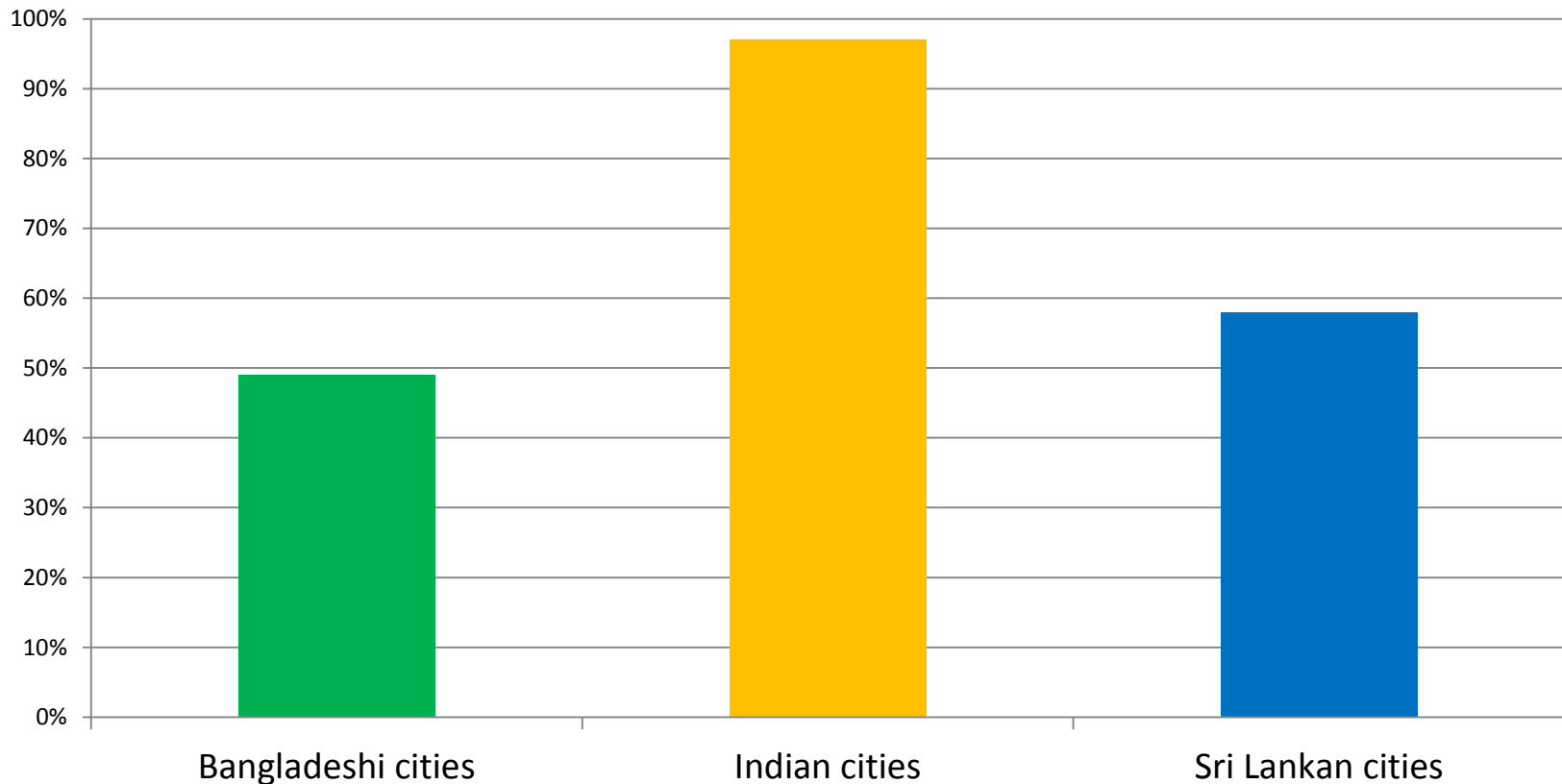
Name: Santosh Kumar
Age: 24 years
Location: Patna
Education: Grade 9
Occupation: Food business
Number of Employees:0

My business is very important for my livelihood. But when such disruptions happen my business suffers.

Communicate with your customer...

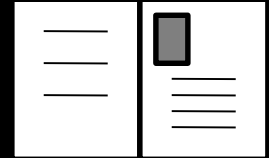
- Communication is two way
 - Utility needs to let customer know about planned and unplanned outages
 - Customer needs to talk to the utility to get information or make a complaint
- The need for efficient and professional service
- Managing the expectations of your customer

58% in LK do not get an advance notice about power cuts



Do you get advance notice about power blackouts? - NO (%BOP MEs who use electricity for business)

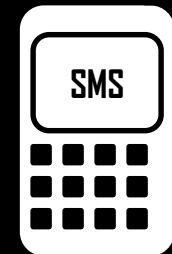
Solution: Provide Information on Blackouts



When setting up SMS services ensure that the sign up processes are not complicated

Ensure the services receive sufficient publicity to enable sign up

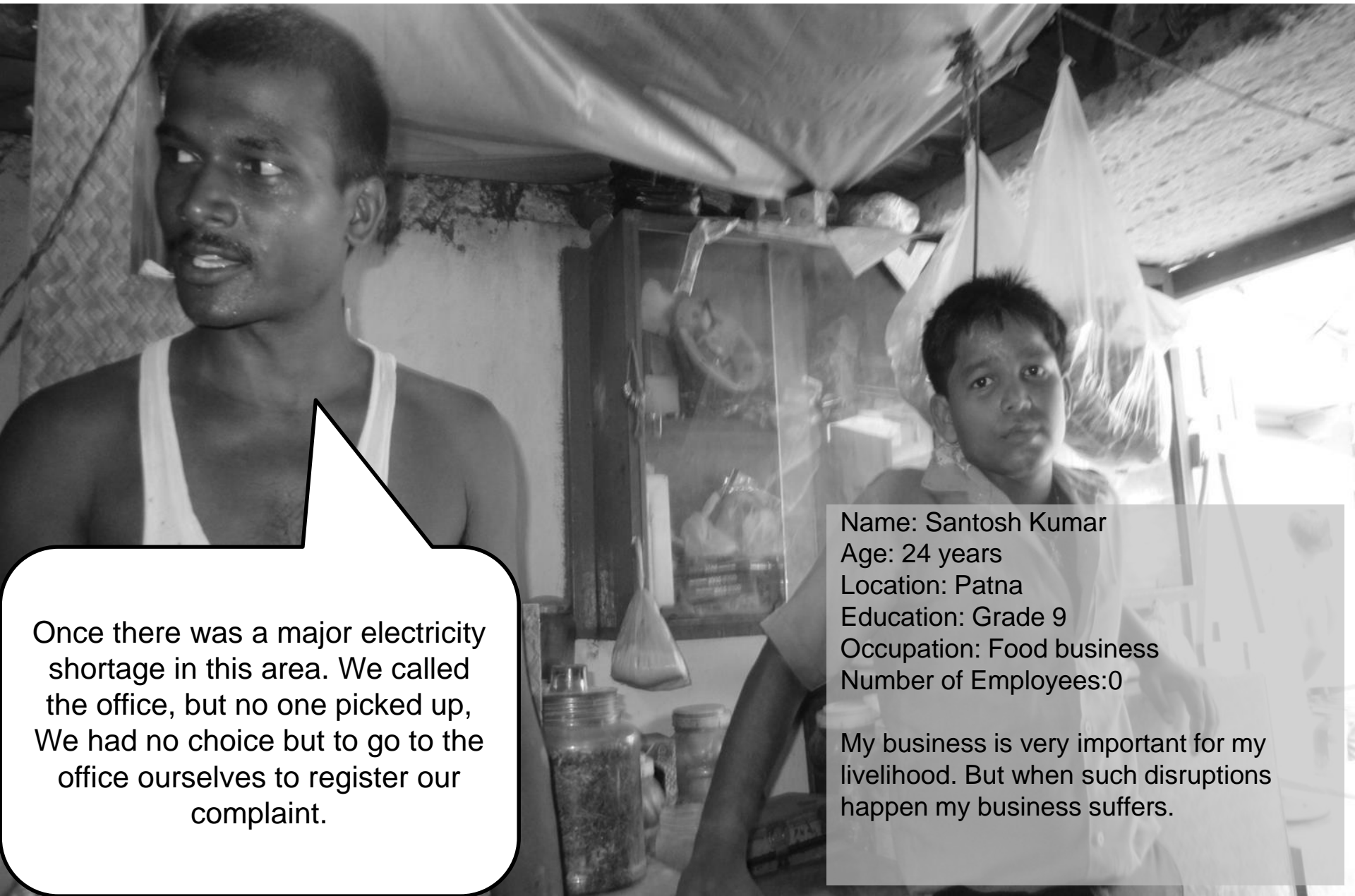
Use the bill as a method of sending information



The consumer being made aware of planned outages through multiple methods such as public announcements, newspapers, SMS and electronic media.

If unplanned outage, use medium such as SMS to convey the information to consumer

Problem: Called but no response...



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Current system have trade-offs and creates confusion

	Pros	Cons
Area engineer's office	<ul style="list-style-type: none">• Customers feel as if they have spoken to someone with authority	<ul style="list-style-type: none">• Lack of accountability as reference numbers are not always given• Under-trained staff• Unanswered calls• Takes up valuable time of the area engineers
Centralised call centre	<ul style="list-style-type: none">• Effective management of customers by trained staff• Maintenance of historical data on customer complaints/inquiries• Establishment IVRs for information provision	<ul style="list-style-type: none">• Lack of a personal touch

Solution : A dedicated call center for receiving complaints/inquiries



Consumer can rate
the Service
Providers response
to the query via SMS

- Maintain dedicated call centers
- Remove discretion from the complaints receiving process by accepting all complaints and issuing a reference number.
- Record calls so that the Supervisors can keep track of interactions.
- After the query has been resolved, the consumer can rate the Service Provider via SMS.

Do more with call center data

- Distribution companies already have SAIDI/SAIFI data originating from the system
- The call centre data can be analysed together with the system generated data for more in-depth understanding of issues such as breakdowns and voltage fluctuations
- Walk-in complaints should also be digitised to make the analysis more complete

Problem: insufficient info on effective consumption of electricity

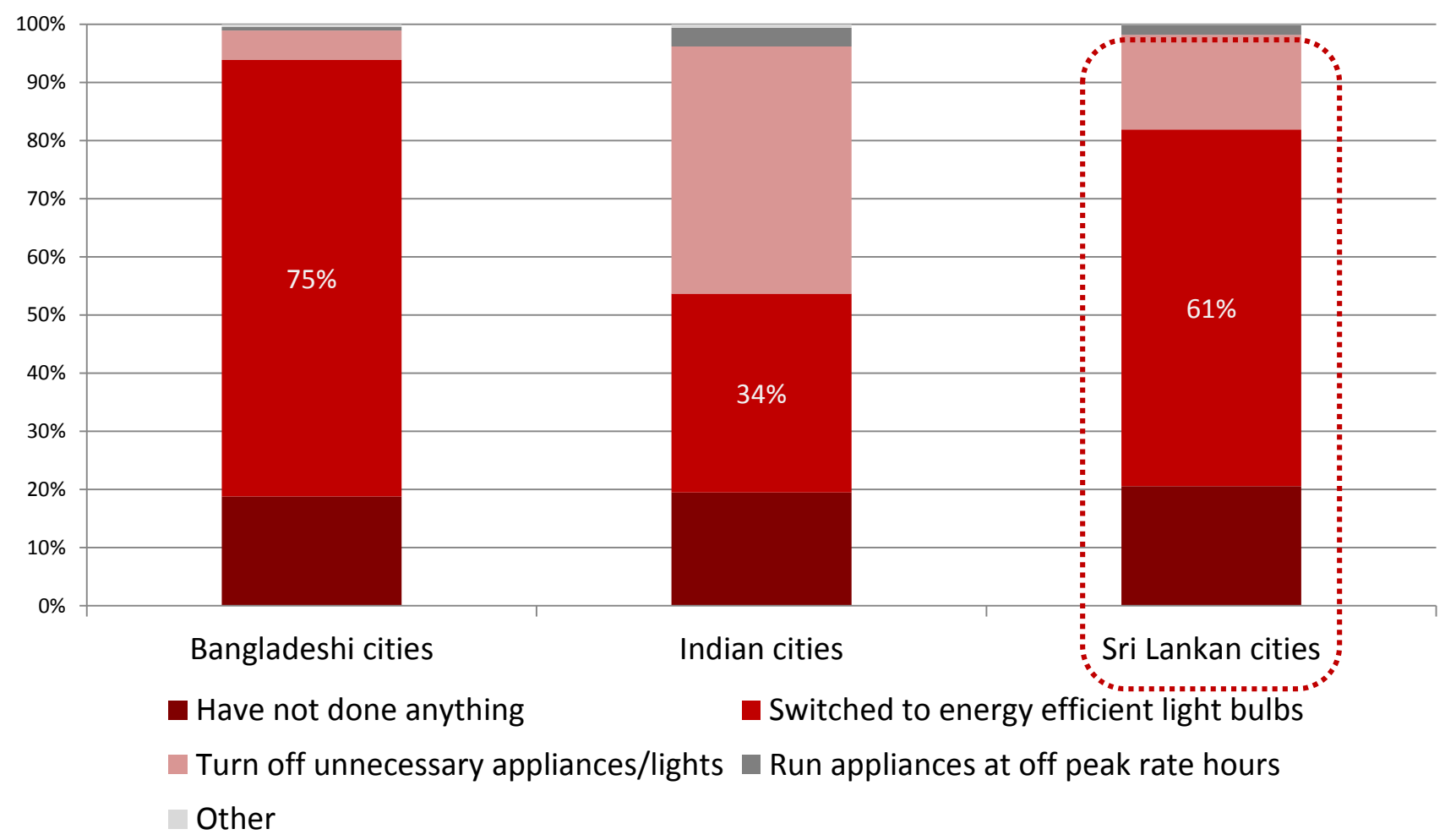


My electricity bill has risen lately. Since I am the only earning member of my family, things are difficult for me. I switch off my refrigerator when I am not using it, but I would like to know more about how else I can reduce my electricity bill.

Name: Nazreen
Age: 46 years
Location: Colombo
Education: Grade 4
Occupation: Food business
Number of Employees:0

I require electricity for my business since I run my business from home. Any increase in my costs will adversely affect my business.

About 80% of consumers have done something to reduce their power consumption



Please tell us about your most important step in conserving energy [reducing electricity bill] you have been following?(% BOP MEs who use electricity for business with supply from electricity co.)

02. In the case of cheques, payments, cheques should be written on the Electricity bill. The Electricity Account Number should be written on the backside of the cheque. All cheques must be crossed made payable to "General Manager, Ceylon Electricity Board", The Electricity Supply could be disconnected without any notice if a cheque is defaulted and returned. In such an event payment could only be made by cash.

03. In accordance with the Government Gazette (extra ordinary) No. 1572/ 25 dated 24/10/2008, a monthly interest of 2% on account balance will be added if the Electricity bill is not paid within 30 days.
04. Any complaints regarding the payment of electricity bills will be considered only if submitted within 2 years period from the date of payment.

Inquiries about bills, service connections :- etc

- a) Colombo West Office - 2574159
- b) Colombo South Office - 2828427
- c) Colombo East Office. - 2694181
- d) Colombo North Office - 2337673

Breakdowns:- In case of a breakdown first check whether the trip switch or main switch is off.

Please inform Maligawatta Control Centre (Tel :- 2498498) if it is not an internal fault (Open for 24 hrs.)

More than 60% of the electricity distributed among the customers are generated from thermal power stations. Therefore, you are kindly requested to use electricity with utmost care conserving Electricity energy.

Help us by paying your Electricity bill as early as possible !!!

CEB Call Centre - 1987

Please also visit our web site

www.metroceb.lk

ECO

Electricity Company (Pvt) Ltd

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s on electricity bills for power savers

| By : admin | Categories : latest news, News and Press Release | 0 Comment

was launched on the 01st of April 2012, in line with the power conservation drive 'Today for our view of the ministry of power and energy, where over 4.6 million consumers could win electricity bills.

Now a reduction of 20% in their electricity bills in comparison to the March 2012 bill, will gain full month's electricity bill. Those consumers who show a reduction of 10% of their electricity bill could electricity bills. All electricity consumers are eligible to register for this scheme. Consumers must their April, May or June 2012 bills in order to receive the concessions, or total exemption of the

Consumers who show a 20% reduction in their electricity bills will have a month's electricity bill B or LECO. Similarly 5000 consumers who show a 10% reduction in their electricity bills will on a month's electricity bill.

Implementing DSM...

- DSM is defined as “modification of consumer demand for energy through various methods such as financial incentives and education”
- Many new learnings emerging from the field of behavioral economics
 - Behaviors of human beings change in response to nudges
 - Human beings not always rational: How information and choices are framed matters!!!
 - **Sunstein, C. R., & Thaler, R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. New Haven: Yale University Press.**

From theory to practice...

- Richard Thaler (Prof of Behavioural Science & Economics at the University of Chicago; co-author of “Nudge”) now works with British Government.



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Behavioural Insights Team Blog

Guest blog post from Richard Thaler

Richard Thaler, co-author of *Nudge*, Professor of Behavioural Science and Economics at the University of Chicago Booth School of Business, and advisor to the Behavioural Insights Team, has written an article for us about midata. midata is a programme which gives consumers the right to request their transaction information from firms in a portable machine readable format. The Government [recently announced](#) plans to give midata statutory backing. This proposal will be debated in the House of Lords on 31 January.

Here is what Richard had to say:

Britain is on the verge of taking an important step to make sure the benefits of modern technology and “big data” are realised not just to big business, but to everyone by making



About

[The Behavioural Insights Team](#), commonly known as the 'Nudge Unit', was set up in July 2010 with a remit to find innovative ways of encouraging, enabling and supporting people to make better choices for themselves

[Sign up to receive emails](#)

People tend to change behavior when they get timely and specific feedback

- Keep telling them how much they are spending
 - Best solution:
 - Install smart meters that displays the RUPEE value of current consumption (not current kWh consumption)
 - Second best (without smart meters):
 - Implement a system where users are able to find out their current amount payable via SMS

Best Solution...smart meters!

- Smart meters will enable time of day metering [and cost reflective pricing]
- Bill shock will lead to lowering of the daily peak demand for energy
- Some consumers will be able to use energy more efficiently
- Overall demand will be lower

NOT AN OPTION RIGHT NOW FOR MOST OF YOUR CONSUMERS

- An extra step just to give consumers a light that flashes during high use is sufficient
- E&E's Energy Orb program
 - For business customers
 - During peak load times, turns red/flashes

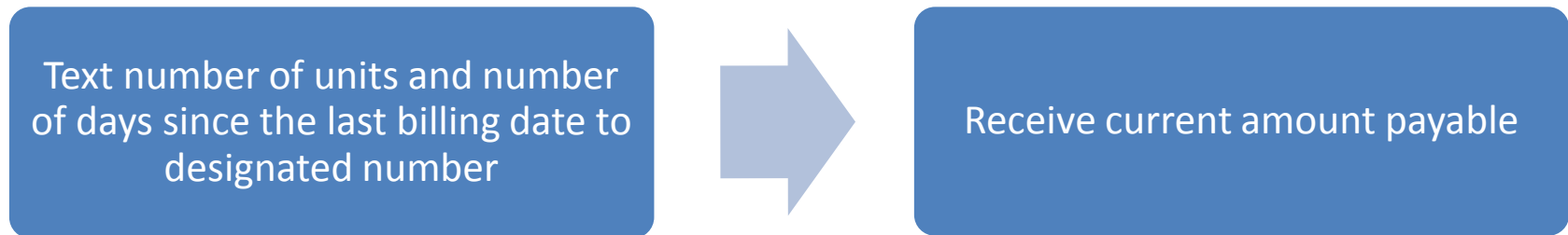


Second best solution... amount payable via SMS

- **Real-time feedback has an impact**
 - Most consumers only find out their consumption when they receive the bill
 - Often results in bill shock; too late to make changes to consumption
 - Bill calculators available online. However, these are not accessible for all
 - Why not let people find out their consumption real-time (when they want) through SMS

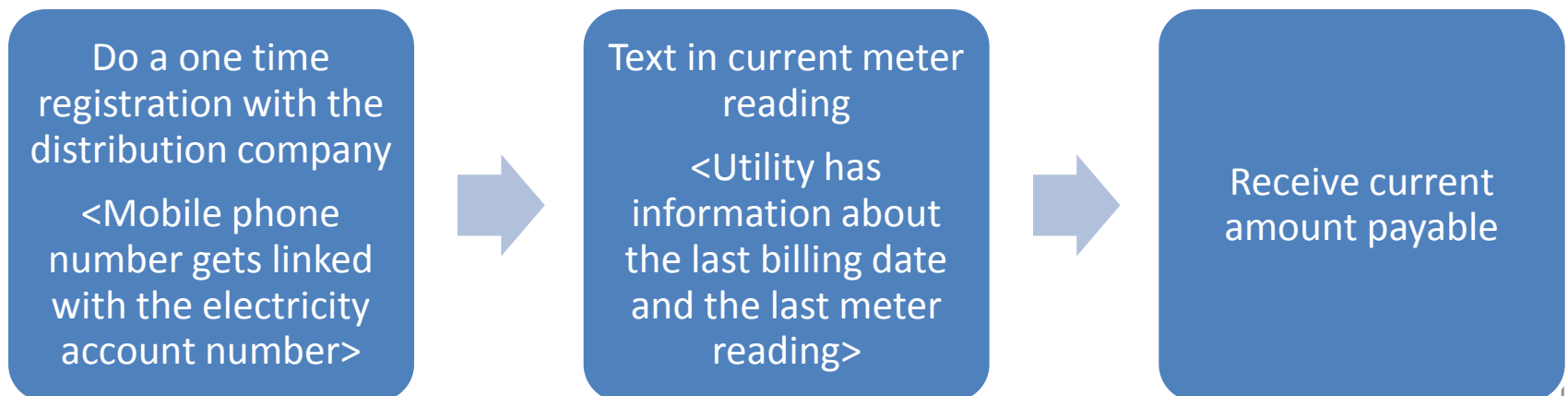
2 possible systems...

A basic solution



- The format of the SMS has to be specified and printed on the monthly bill or put up as a sticker on the meter

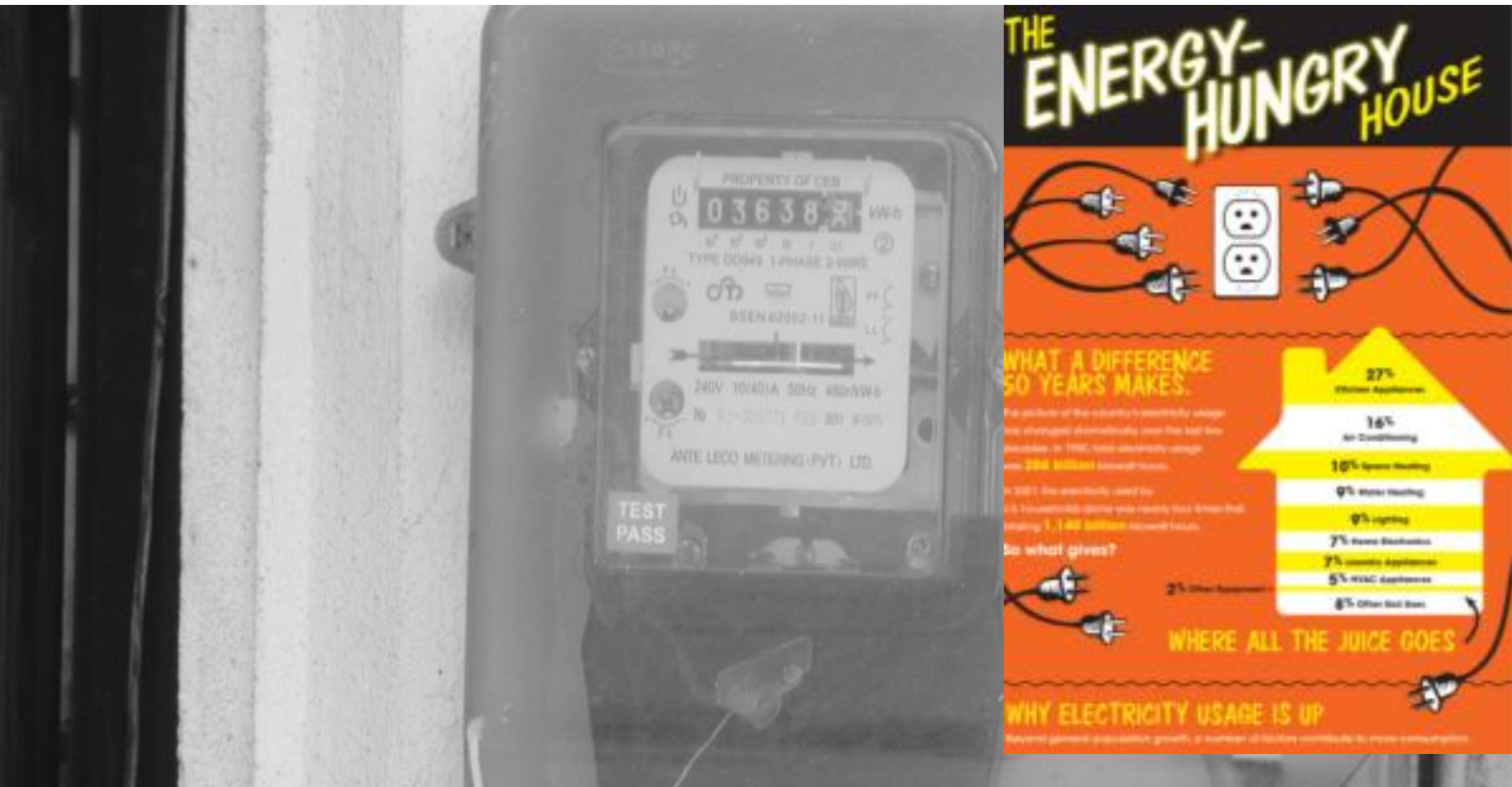
An advanced solution



People judge their wellbeing relative reference points, and care about what other people think about them

- A reference point they have experienced before, or what other people are doing (social norms)
- “75% of this hotel’s guests reused their towels” more effective in increasing reuse of towels than saying “partner with the hotel to save the environment” or “preserve our resources for the future”
- If you want consumers to use less electricity
 - Compare their consumption with those (in their neighborhood) who consume less than them
 - When users DO manage to reduce consumption, recognize this (smiling face/message printed in their bill)
- Singapore: running trials with bills that provide monthly national average costs for electricity for similar households .

Creating greater awareness of consumption



Inform high energy users that their consumption is higher than average when compared to their neighbours (single phase vs 3 phase)

infographic on the meter. The infographic should be in the local language.

Information through the bill.

People are psychologically invested in costs they have already paid (sunk cost) regardless of current costs/benefits

- Makes it harder for them to throw out non-energy efficient items such as old, energy-inefficient refrigerators
- Need to frame incentives
 - Exchange programs that say “Receive Rs. 5000 in return for your old refrigerator”
 - As opposed to “Receive a Rs. 5000 deduction when you buy a new energy efficient refrigerator”

People are bad at evaluating a large number of options or complex information. They tend to do nothing

- Limit choices
 - E.g. promote 3 types of CFL bulbs, not 8
 - Provide a limited number of energy saving tips, not exhaustive lists in your brochure
- Inform people of approximate electricity consumption of household appliances
 - Ensure it is framed in a way easily understood by the consumer
 - E.g., No. of units used by appliances (instead of KWh)

Information through bills

Right message makes a difference
How messages are “framed” and “presented” matters
– Words, sentences, references, numbers
Bold, repeated messaging have proven to be effective

Ceylon Electricity Board - Colombo City
Instructions for the Consumers

01. Bill payments :- Payments could be made by cash, cheques & bank drafts at the following Point of Sale (POS) Counters.

- From 8.30 a.m. upto 5.00 p.m. during weekdays and from 8.30 a.m. to 3.00 p.m. on Saturdays at the Colombo City office, 340, R.A. De Mel Mawatha, Colombo 03.
- From 8.30 a.m. to 3.00 p.m. during weekdays, on Saturdays till 1.00 p.m. at Colombo South and North Area Offices.
- From 8.30 a.m. to 3.00 p.m. during weekdays, on Saturdays till 1.00 p.m. at Colombo East Area Office.

04. Any complaints regarding bills will be

Breakdowns:- In case of a breakdown first check whether the trip switch or main switch is off.

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More than 60% of the electricity distributed among the customers are generated from thermal power stations. Therefore, you are kindly requested to use electricity with utmost care conserving Electricity energy.

Help us by paying your Electricity bill as early as possible !!!

CEB Call Centre - 1987

Please also visit our web site

12Jun2013
E B COLLECTION 3,4

740.79

மிட்டிப் / Meter Reading

308771

308771

Energy

Account No.	: 1014660 01	Bill Date	: 16-07-08
Name	: R N A BUILDERS		
Address	: 5249 SHOPPING ARCADE WING SSP COOP HSG. SOC. LTD., OSHIWARA, ANDHERI (W), MUMBAI - 400058		
Bill Distribution No.	: EAST/E21-POWAI/15/101/01		
Cycle No.	: 15	Tariff	: LT-2
Type of Supply	: SINGLE PHASE	Bill No.	: 548752666
		Category	: COMMERCIAL

Important message

Tariff related messages

- As per the new Tariff order your Tariff category has changed from LT V to LT IX



Energy wasters
will be shot!



Contact us

For all your queries (24 hours):
1800 200 3030 (toll-free) & 3030 3030

www.rinfra.com

Your nearest Customer Care Centre/Internal Grievance Redressal Cell (IGRC):
E-4, MIDC, Andheri (E), Mumbai - 400 093
Pfr: 3009 4844 • email: energy.helpdesk@relianceada.com

(Only for grievances unresolved by IGRC, reach Consumer Grievance Redressal Forum at: E-4, MIDC, Andheri (E), Mumbai - 400 093 • Tel: 3009 4247 • email: consumer_forum@cgrinfra.org.in • website: cgrinfra.org.in)

Your Electricity Bill for : Feb, 08

Your bill amount payable (round sum)

₹ : 960.00
Due by* : 25-03-2008

*Refers only to current bill amount. Previous balance is payable immediately.

Snapshot of your bill

Your current month bill amount (₹)*	: 430.79
Net other charges (₹)*	: 10.47
Net previous balance (₹)*	: 525.95
Total (₹)	: 960.00

Units consumed February, 2008	: 125
February, 2007	: 164

For details, please see overleaf

Track your consumption

Bar Graph	Units (kwh)	Month/Yr
	150	Mar-07
	205	Apr-07
	140	May-07
	210	June-07
	200	July -07
	220	Aug -07
	208	Sept-07
	145	Oct -07
	168	Nov-07
	230	Dec-07
	164	Jan-08

R.R. Mehta
Business Head (South Central Division)
(For Reliance Infrastructure Ltd.)



I Caught

Shoot and win!

Fans. Lights. TV sets. Not switched off after use. Every unit of wasted electricity adds to Mumbai's energy problems. Here's your chance to set it right. Just click instances of energy wastage, caption and upload to the "I Caught" Facebook app on our YES page. Win awesome goodies every day. And the chance to win the grand prize: a Nikon Coolpix L26 camera. Start shooting from 1st October.



www.facebook.com/YoungEnergySavers



RELIANCE
Energy

Please turn over

How your bill was calculated	Rate	₹
Fixed charge		
Energy charge		
Fuel Adjustment Charge (FAC)*	120 p/unit kWh	
Government electricity duty	20%	
Maharashtra Govt. tax on sale of electricity	15 p/unit kWh	
Current month's bill amount (A)		
Others		
Prompt payment discount		
Delayed payment charge on previous month's bill		
Incentive on payment mode (ECS/Internet*)		
Interest on arrears		
Adjustments		
Net other charges in current bill (B)		
Current month charges (A+B)		
Previous month's bill amount		
Payment received up to	DD / MM / YYYY	
Net previous balance (C)		
Total bill amount (A+B+C)		
Amount deferred		

As per the MERC's Tariff Regulations, FAC of 64.20 paise/unit is charged in September, 09 billing to recover differential in power purchase cost in July, 09.

Round sum payable with this bill			1910.00
Your security deposit (SD) with us			250.00
Your unpaid security deposit (SD)			150.00
Meter reading date	27/07/07	Connected Load	100KW
Previous meter reading date	27/06/07		

Your current consumption

Tariff	Meter number	Multiplying Factor (MF)	Energy consumption		Consumption (Unit kWh)	Energy charge (₹)	Fixed charge (₹)
			Present reading	Previous reading			
LF1	8129499	1.0	27876	12001	377	2.00	274.26
Total					244	1552.00	343.26

Keep a watch on the following to manage your energy consumption:

1. Your tariff structure				
Tariff	Tariff slabs For Load	Fixed charge ₹/Month	Energy charge Paise/Unit	FAC rate Paise/Unit Feb-12
LT-1 Residential				
Applicable for supply to residential premises etc.	0-100	30	140	29
	101-300	50	350	29
	301-500	50	560	29
Refer to tariff booklet for further details.	More than 500 (remaining Units)	100	610	29

Electricity Duty as per Govt. of Maharashtra Notification No. ELD/2003/CR 52/NRG-2 of 31-03-2003.
Tax on sale of Electricity as per Govt. of Maharashtra Notification No. EE-2004/CR-42/NRG-1 OF 19-05-2004.

Power theft results in power tariff hike - Report them

Honest citizens bear the cost of power stolen by unauthorised elements. If you spot an electrical theft please call 39090909 and report it between 09.30-17.00 hrs on weekdays.

Choose from multiple payment options



Cheque payments:

- Make cheque payable at Reliance Infrastructure Ltd. A/C No. XXXXXX
- Cheque should be Account Payee, of local clearing and not post-dated
- Mention account numbers and respective amounts on the reverse side of the cheque, while making multiple bill payments by a single cheque
- Payments subject to realization

Note

- To pay online, visit www.rinfra.com
- Cash payment limited to ₹20,000
- Get 0.5% discount on ECS/Internet (except cash/cards) payment
- Get 7% interest on VDS (reducing balance)
- Any dishonored cheque will
 - Result in payment of bills by DD for subsequent 3 months
 - Attract a penal amount of ₹250 per bill

Pay your bills using Suvidhaa / EasyBill / PayPoint Outlets and Billbox / Skypak / Post Office / RComm / Hsg. Soc. Drop Boxes

For more details, call 1800 200 3030 (toll-free 24x7)

2. Your energy appliance (be a smart user)

Allow enough space for air circulation around the refrigerator. Keep atleast six inches distance from the wall to allow the heat generated by the compressor and motor to escape.



Please remember

- 1) Using electricity connection for purposes other than that provided for is a tariff violation and may lead to disconnection/penal action.
- 2) Kindly note that theft of electricity in any manner attracts penal action under the Electricity Act, 2003.
- 3) Please quote your account no. A1597499, in all your correspondence.

"Quick.
Is it
my best?"

[illegible]

"Quick. Is it this month's bill?"

[illegible]

Your bill amount payable (rounded)

Rs 1840.00

Due by: 15-11-2008

*Refers only to current bill amount. Previous balance is payable immediately.

Snapshot of your bill

**"Quick.
How
much
Due
within**

"Quick. What's been my consumption over the past months?"

Bar Graph	Links (x/wk)	Month
	344	Sep-08
	341	Aug-08
	401	Jul-08
	451	Jun-08
	416	May-08

**The Reliance Energy bill.
Redesigned for those
who are in a hurry.**

And for those
who are not.

"So what does my bill say in detail?"

In the city where time is money, the redesigned Belliance Energy bill can help you save both.

We spoke to a lot of people like you. We figured out your needs. And the outcome is a bill that brings a welcome simplicity to complicated lives.

At a glance, the front page of the bill conveys

units did you consume the same month last year?

And if you have the time, on the back of the bill, there's a wealth of easy-to-access information (including energy saving tips).

For instance, need to know how your bill was calculated? How much electricity tax or duty you're paying?

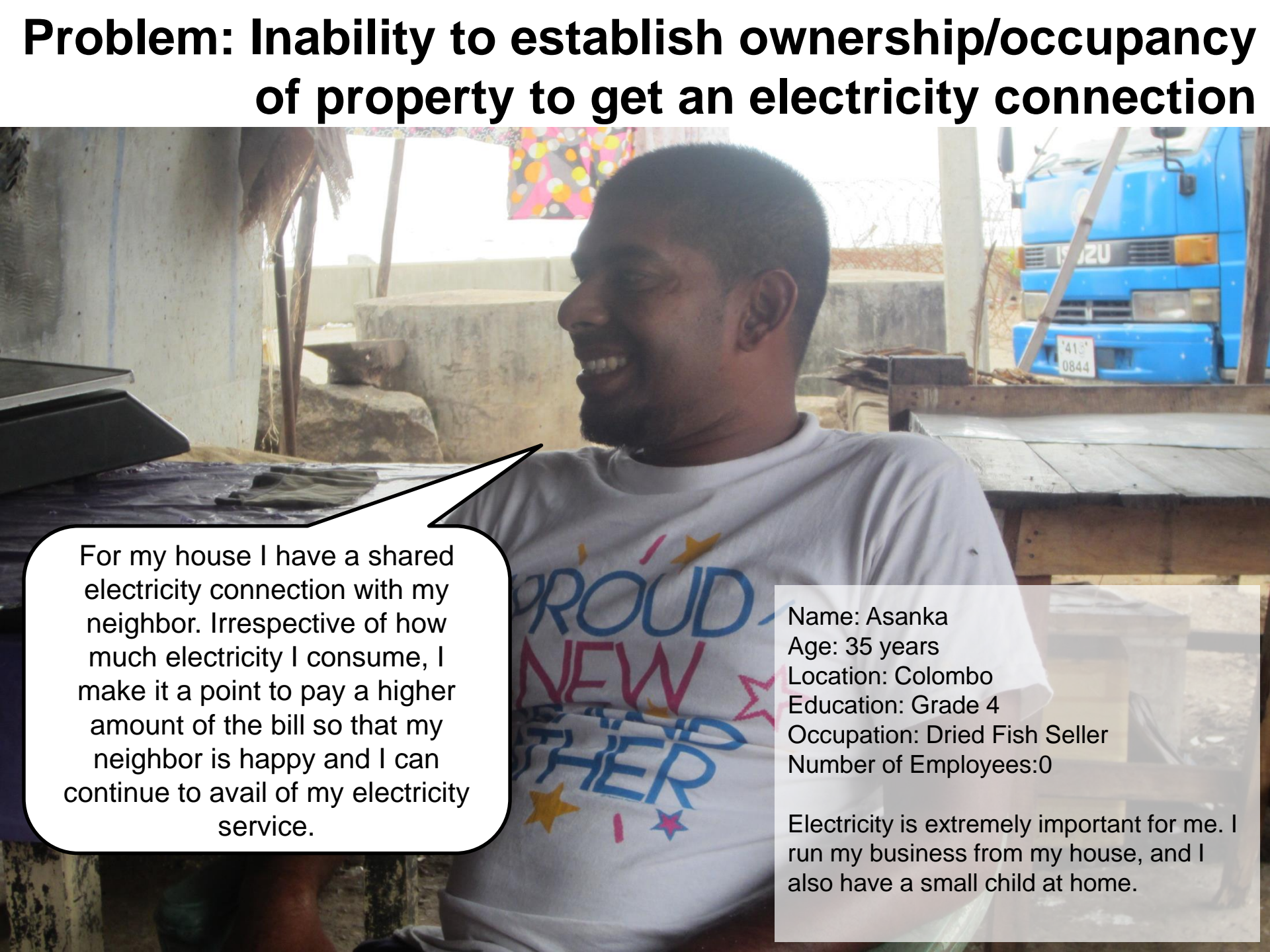
People tend to put off actions that only impose costs or give benefits in the long term

- They want to exercise, but negative effects of not exercising are not seen day to day
- They want to save, but need other “nudges” to get them to save. E.g. Commitment Devices
 - Group A: offered “Flexible Savings Account”
 - with 10% PA interest, and you can take your money out at any time (no penalty fee)
 - Group B: offered “Commitment Savings Account”
 - with 10% PA interest, but you can’t take it out for 2 years
 - Which plan had more take up?
- They want to save energy, but will put off installing energy saving features in homes to the future
 - What can be done?

Experimenting with nudges...

- Nudges” trialed by the Energy Market Authority (EMA), Singapore can be found in
 - Low, D. (Ed.). (2012). Behavioural Economics and Policy Design: Examples from Singapore. World Scientific
 - Chapter on electricity available at http://www.ema.gov.sg/media/files/publications/Behavioural%20Economics%20n%20Policy%20Design-%20Examples%20from%20Singapore_Ch-05.pdf

Problem: Inability to establish ownership/occupancy of property to get an electricity connection

A man with a beard and short hair, wearing a white t-shirt with colorful text and stars, is sitting outdoors. He is smiling and looking to his left. In the background, there is a blue truck with the number '15020' and a license plate '41 0844'. There are some wooden structures and a colorful patterned cloth hanging in the background.

For my house I have a shared electricity connection with my neighbor. Irrespective of how much electricity I consume, I make it a point to pay a higher amount of the bill so that my neighbor is happy and I can continue to avail of my electricity service.

Name: Asanka
Age: 35 years
Location: Colombo
Education: Grade 4
Occupation: Dried Fish Seller
Number of Employees:0

Electricity is extremely important for me. I run my business from my house, and I also have a small child at home.

Solution: Relaxing existing document requirements and issue pre-paid connections



Relaxing existing document requirements to enable MEs with temporary structures to acquire an electricity connection

Existing regulations does not allow supply of electricity to those unable to prove occupancy or ownership, therefore this requires a change in law.

It will ensure that having an electricity meter does not automatically entail property rights over time.

Provide a pre-paid connection to avoid any liability

For those who require a post-paid connection, existing requirements should be streamlined and stated clearly with ambiguity.

Solution: Prepaid Meters

To enable easy top ups, super markets, small shops and agents (who presently sell mobile vouchers) are used to provide access to reloads

Consumer reloads as per his requirement.

SMS

Your transaction has been
successful



The consumer can top up at a local vendor for a reload thus reducing costs for the electricity distribution company due to non involvement of the meter reader and bill prints.
Reduces liability for the distribution company
It ensures that consumers don't suffer from bill shock

Pre-paid contd...

- Prevents bill shock
- Reduces liability to the distribution company
 - Reducing bad debt due to non-payment of bills
 - Reduces cost incurred during recoveries
- Reduces the cost of incurred during the billing process
 - Reduces cost of generating a bill
 - Reduces the need for more meter readers

Pre-paid contd...

- Successfully used in India, piloting in Bangladesh
- Can be used for numerous customer segments
 - Rural households
 - Low user households
 - Rented properties (High and low end)
- Leverage existing systems used by telecom for top ups/recharge

In summary

Quick wins

Channel all complaints/inquiries to call centre

Communicate planned and unplanned outages more effectively

Little more time

Send bold, repeated messages via bills

Implement SMS system to find current amount payable

Begin programs for effective DSM

Streamline document requirement

Long term

Introduce Smart Meters (& TOD pricing) and pre-paid meters

Relax existing document requirements for those who lack documentation