

# **India Residential Energy Survey (IRES) 2020**

# **Questionnaire**

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#### <u>Instructions for the interviewers:</u>

- All questions are compulsory unless otherwise stated.
- Please follow the instructions for each question, where relevant. These are shown in a specific colour; not to be read aloud to the respondents, unless specified.
- Unless specified, list of options not to be read aloud; only one option to be marked.
- Codes: MC multiple choice, SC Single choice

INTRODUCTION / परिचय		
[Show ID card to the household member and request to meet the head of the family. If the household head is not available, ask for an adult member who has full knowledge about the household situation and its key decisions.]		
Good! My name is I work with Market-Xcel, an organization that conducts surveys in India. Your household has been selected to participate in a short survey. The survey is led by the Council on Energy, Environment and Water (CEEW) in association with Johns Hopkins University.		
The objective of this all-India survey is to understand the state of electricity supply and the way people use electricity in their houses. This information could potentially help the electricity companies to plan better for their electricity services and could assist in better policies around electricity provision in India. The survey also aims to understand the state of access to cooking energy. Any personal/identification details will be kept strictly confidential and only anonymized aggregated information will be used for research purposes only.		
I would be highly obliged if you can spare some time. This would take around $30-45$ minutes. Thank you.		

# Section 1 - Household consent

<b>Q101.</b> Would you like to participate in the survey?	1 Yes	0 No
If no to Q101, (Go to Q102)		
Q102. Record the reason from the following and abort th	e survey:	
No adult member is present		1
Adult member aware of the household decisions it not pro-	resent	2
Refused, do not have time to give interview		3
Do not want to share personal data		4
Door locked		5
Other, please specify		6



## Section 2 - Household roster

#### **SECTION 2a - Demographics**

#### Q103. Survey type

Rural	1
Urban	2

#### **Q201.** Respondent's Gender [Observe and note]

Male	0
Female	1

#### **Q202.** What is your age?

Years			

Read aloud: I will start by asking some questions about your household. The following questions are about the primary income earner - the person who makes maximum contribution to income in your house.

**Q203.** Who is the primary income earner in your household - the person who earns the most in your family? Is it your...

, ,	
Self	1
Husband/Wife	2
Mother/father	3
Son/Daughter	4
Brother/Sister	5
Others, please specify	6

### **Q204.** Gender of the primary income earner

[Do not ask; Record on the basis of the previous response]

Female	1
Male	0



#### [If coded 1 in Q203, then Q205 to be self-populated on the basis of Q202]

#### **Q205.** Can you please tell me the age of the primary income earner?

#### Q206. Are you/this person (primary income earner) also the head of the household?

	Code
Yes	1
No	0

# **Q208**. What is the highest level of education of the primary income earner of your household? [Single choice - SC]

	Code
Illiterate	1
Literate but no formal schooling	2
School up to class 4 <sup>th</sup>	3
School - 5 <sup>th</sup> to 8 <sup>th</sup> class	4
School - 9th to 10th class	5
School - 11 <sup>th</sup> to 12 <sup>th</sup> class	6
Some college (including diploma but not graduate)	7
Graduate or post graduate	8

# **Q209.** What is the highest level of education received by any member in your household? [SC]

	Code
Illiterate	1
Literate but no formal schooling	2
School upto class 4 <sup>th</sup>	3
School - 5 <sup>th</sup> to 8 <sup>th</sup> class	4
School - 9th to 10th class	5
School - 11 <sup>th</sup> to 12 <sup>th</sup> class	6
Some college (including diploma but not graduate)	7
Graduate or post graduate	8

Options in Q209 should start from the option selected in Q208.



## **Q210.** What religion do your family members follow? [SC]

	Code
Hinduism	1
Islam	2
Christianity	3
Sikhism	4
Buddhism	5
Jainism	6
None	7
Others, please specify	8

#### **Q211** What is the government caste category for your household? [SC]

• , ,	
Government caste category	Code
Scheduled Caste (SC)	1
Scheduled Tribe (ST)	2
Other backward class (OBC)	3
General	4
None/ Don't want to reveal	5
Don't know	99

### **Q212.** Do you have BPL or Antyodaya ration card? [SC]

	Code
Antyodaya	1
BPL	2
None	3
Don't know	99

Q213. How many people live in this household permanently (as of now)?
(Include all members of the household who permanently reside in the house and eat the
meals from one chulha (stove) in the house)

- 1				
-				
- 1				
- 1				
- 1				
- 1				
- 1				
- 1				
- 1				
- 1				
-				
- 1				



# **Q214.** Please mention the number of people staying in this house according to their agegroups?

Age group	Number
1. Less than 18 years	
2. 18 to 40 years	
3. 41 to 60 years	
4. More than 61 years	

(Total should add up to number specified in Q213)

**Q215.** How many people are currently studying?

(Should be less than number specified in Q213)

#### **SECTION 2b – House characteristics**

### **Q216.** Is the house pucca or kachha? [Observe and code]

	Code
Kachha	1
Mixed (Semi – Pucca)	2
Pucca	3

If Coded 1 in Q216 skip to Q220

#### **Q217.** Type of the house. [Observe and code]

	Code
Independent house/bungalow	1
Multi-storey apartment building (multi-family units)	2

**Q218.** How many storeys/levels are there in the building? [Observe and code; ask only if needed]

If Coded 1 in Q218 then skip to Q220

# **Q219.** Floor at which the family is residing? (Multiple choice - MC) [Observe and code; Select all that apply]

, -	
	Code
Ground floor	1
Middle floor	2
Top floor	3
All the floors	4



# Read aloud: Now I am going to ask some questions about your house. Please do not include area used by tenants.

Q220. Does your family own this house?

	Code
Yes	1
No	0

<b>Q222.</b> For how many years have you/your family been living in this house? [Less than 6 months to be coded as 0. Round off to the nearest integer; If the response is ever since, ask – have you been living for more than 100 years? If yes, mark 100]		
Q223. How many bedrooms do you have in your house?		
[Please do not include the area in use by the tenants]		
Q224. How many toilets/bathrooms do you have in your house?  [Please do not include the area in use by the tenants]		
<b>Q225.</b> Now think about other rooms in your home besides bedrooms, toilets and bathrooms. How many other rooms do you have in your house? [For interviewer: Covered spaces used for kitchen, dining, living room, storage, etc. to be counted here. Area used by the tenants to be excluded]		

Q226. Do any large trees shade your home from the afternoon summer sun?

	Code
Yes	1
No	0



**Q227**. In order to understand the usage of energy in your home, we need to know about its size.

**Q227.a** Can you please tell us how big is your plot area? Your best estimate will do.

 Units (Drop down)
<1> Square feet
<2> Gaz (sq. yard)
<3> Acre / killa
<4> Bigha (kachha)
<5> Bigha (pucca)
<6> Biswa (kaccha)
<7> Biswa (pucca)
<8> Cent / Decimal
<9> Dhur
<10> Gunta
<11> Kattha
<12> Kuncham
<13> Marla
<14> Nali
<15> Square meter
<16> Others - Please specify
<99> Don't know

If coded 99 in Q227a then ask Q227b

**Q227.b.** Record the estimated plot area by observing length and breadth of the plot.

 Units (Drop down)
<1> Square feet
<2> Gaz (sq. yard)
<3> Acre / killa
<4> Bigha (kachha)
<5> Bigha (pucca)
<6> Biswa (kaccha)
<7> Biswa (pucca)
<8> Cent / Decimal
<9> Dhur
<10> Gunta
<11> Kattha
<12> Kuncham
<13> Marla
<14> Nali
<15> Square meter
<16> Others - Please specify
<99> Difficult to estimate



**Q228.** Of your total plot area, what percentage is in use for house, i.e. is built-up/covered area? Your best estimate will do.

[Interviewer Note: If the respondent doesn't know, estimate by observing. If difficult to estimate, code 99]

<b>Percentage</b>	(%)
-------------------	-----

#### **SECTION 2c - Economic status**

# Read aloud: I would now ask few questions about the economic situation of your house

**Q229.** Do you own a bicycle?

	Code
Yes	1
No	0

Q230. How many motorized 2-wheeler (examples: motor bike, scooter) do you own?

**Q231.** How many motorized 3/4-wheeler (examples: auto, car, tractor, truck) do you own?

**Q232.** How many mobile phones does your household use?

Ask Q232.1 if more than 0 in Q232

**Q232. 1.** How many of these are smart phones?

[Q232.1 should be less than or equal to number in Q232]

Q233a. Which sources of water do you use to meet your household needs? (MC)

**Q233b.** What is the main source of water for your drinking needs? (SC)

	Q233.a	Q233b.
Piped water supply	1	1
Tube well or borehole	2	2
Hand pump at home	3	3
Public or neighbour's hand pump	4	4
Public tap/standpipe	5	5
Tanker truck	6	6



Water well	7	7
Tank/pond/lake	8	8
River/canal	9	9
Canned water (water bottle/ camper etc)	10	10

**Q234.** Considering all expenditure heads, how much is the average monthly expenditure of your household (in rupees)? [Code 99 if don't know]

**Q235**. What is the primary source of income for your family? (SC)

	Code
Agriculture	1
Agricultural labour	2
Non-agricultural labour	3
Cattle rearing	4
Government job	5
Private job	6
Self-employed/Freelance work	7
Petty business/ shop	8
Business/ trade	9
Pension	10
Remittances	11
Rental Income	12
Others, please specify	13

**Q236.** Please see this **card.** Considering the income from all sources that you just mentioned, under which monthly income category does your household fall?

	Code
Up to Rs. 5000	1
Rs. 5,001 - Rs. 10,000	2
Rs. 10,001 to 20,000	3
Rs. 20,000 - Rs. 30,000	4
Rs, 30,001 to 40,000	5
Rs. 40,001 - Rs. 50,000	6
Rs. 50,001 to 75,000	7
Rs. 75,001 – Rs. 1,00,000	8
Rs. 1,00,000 – Rs. 1,50,000	9
More than 1,50,000	10
Do not want to reveal/NA	88

10



## SECTION 3 - State of electricity access

#### Read aloud: I will now ask about the quality of electricity supply in your household

#### **Section 3a - Grid-electricity services**

#### **Q301** Do you have government (or grid) electricity supply in your house?

	Code
Yes	1
No	0
Have connection, but no electricity yet	2

#### Ask 301.a if coded 1 in Q301 and 1 in Q103

#### **Q301.a** Is this supply from an (agricultural) electricity connection?

	Code
Yes	1
No	0

#### Ask Q301.1 if coded 0 in Q301

#### **Q301.1** Why don't you have government (or grid) electricity? (MC)

	Code
Cannot afford the connection (or do not earn enough)	1
Not available in my neighbourhood	2
Poor quality supply or too many power cuts	3
Already have some other sources	4
Connection got cut by electricity department	5
Have applied for the connection	6
Connection was refused	7
Landlord has not taken connection	8
Others, please specify	9

#### Ask Q302 - 316 if coded 1 in Q301, else skip to Q317

**Q302.** How many hours a day is electricity usually available?

[If coded 24 in Q302, skip to Q304]

**Q303.** How many hours is electricity usually available between sunset and midnight (6 pm till 12 o' clock midnight)?



#### [Allow decimal entry]

**Q304.** What was the pattern/rate of power-cuts in the past one month? (SC)

	Code
Few times a day	1
Once a day	2
Few times a week	3
Few times a month	4
No power cut	5
Don't know / Can't say	99

If coded 5 in Q304 then skip to Q308

Q305. Do you generally know beforehand when would a power-cut happen?

	Code
Yes	1
No	0

#### Ask Q306 if coded 1 in Q103 (asked only to rural households)

**Q306.** How many days in the last month has there been a power cut of more than 20 hours continuously? [Code 99 for Don't know]

#### Ask Q307 if coded 2 in Q103 (asked only to urban households)

**Q307.** How many days in the last month has there been a power cut of more than 12 hours continuously? [Code 99 for Don't know]

#### Ask to both urban and rural HH (coded 1or 2 in Q103)

**Q308.** How many days in the last month did you experience that voltage was too low to run appliances properly? [Code 99 for Don't know]

**Q309.** How many days in the last month did you experience voltage fluctuation which led to electric equipment failure or the need for repair? [Code 99 for Don't know]

**Q310.** Do you have voltage stabilizers in your house? [Include stablisers used at the mains supply or with AC/Fridge]

	Code
Yes	1
No	0



#### Ask Q310.1 if coded 1 in Q310

**Q310.1** How many stabilizers do you have in your home?

#### Read aloud: Now I will ask about your experience related to metering and billing

**Q311**. Since how many years has your household been using grid electricity? [Code 0, if the connection is less than 6 months old; Round off to nearest integer]

	<u> </u>		
Number of years Years		Don't know (99)	

### **312.** Do you have an electricity meter?

	Code
Yes	1
No	0
Yes, but not working	2

### **Q313.** How frequently do you receive electricity bill?

	Code
Once every Month	1
Once every two months	2
Once every three months	3
Once a year	4
Irregular	5
Haven't received so far	6
Pay to landlord/society management as a part of	7
rent/maintenance charges	,
Katiya connection	8
Others , please specify	9

### **Q314.** How do you pay your electricity bills? (MC)

	Code
Online payment (Paytm, BHIM, google pay, etc.)	1
Private shops/kiosk	2
Customer care centre/ electricity department office	3
Collection agent (who comes at home)	4
Nearby bank	5
Post office	6
Panchayat or municipality office	7
Pay to landlord/society management as a part of rent/maintenance charges	8
Neighbour/relative	9
No spending for electricity	10
Others, please specify	11



#### Ask Q314.a and Q314.b if not coded 1 in Q314

**Q314.a** Has any member in your house ever made any online payment?

<u> </u>	· · · · · · · · · · · · · · · · · · ·
	Code
Yes	1
No	0

Skip Q314b if answered 1 in Q314a.

**Q314.b** Would you find it easier or more difficult to pay your electricity bills online, compared to the way you pay them currently?

	Code
Easier	1
Difficult	2
Don't Know	99

**Q315.** What is your average monthly spending on (government/grid) electricity during the following months? [Exclude electricity bill for the tenants, where applicable and known]

a.	March – June	Rs	Don't Know (99)
b.	July – October	Rs	Don't Know (99)
С	November – February	Rs	Don't Know (99)

#### Section 3b - Alternative electricity and lighting sources

**Q316.** Do you have an **inverter-battery system** (rechargeable battery) in your house?

,	, , , , ,	
	Code	
Yes	1	
No	0	

#### Ask Q316.a - Q316.d if coded 1 in Q316; else skip to Q317

Q316.a How many rupees did the inverter-battery system (rechargeable battery) cost you?

Cost in Rupees	Rs	Don't Know (99)

**Q316.b** How many years ago did you buy your first battery?

[Less than 6 months to be coded as 0. Round off to the nearest integer]

Number of years	Years	Don't Know (99)

**Q316.c** How many years did your previous battery last for?

Number of years	Years	If this is the first battery, code	
		88; code 99 if don't know	



#### If 1 in Q301 then skip to Q317

Q316.d How many r	upees does it cost yo	ou per month for	charging?
-------------------	-----------------------	------------------	-----------

Cost in Rupees	Don't Know (99)
	, ,

#### Q317. Does your household use electricity from a diesel generator?

	Code
Yes	1
No	0

#### Skip to Q318 if coded 0 in Q317

# **Q317.a** Do you use a personal generator or do you receive electricity from a generator operator or society management?

	Code	
Personal	1	
Operator	2	
Society	3	

#### Q317.b How much do you spend on diesel back-up for electricity per month?

Cost in Rupees	Rs	Don't Know (99)

#### Ask Q317.c if coded 1 in Q317.a

Q317.c How many rupees did the diesel generator cost you?

Cost in Rupees	Rs	Don't Know (99)

#### **Q318.** Please see this **picture.** Have you heard about **solar home system**?

Interviewer to show picture and read aloud if the respondent doesn't understand: Sunlight can be used to produce electricity. Solar panels are installed on rooftops and the energy from sunlight is transformed into electricity. The system life is 15-20 years. If the system has batteries, then those need to be replaced after every 3-5 years.]

	Code
Yes	1
No	0

#### **Q319.** Do you use solar home system for electricity in your house?

<u>, , , , , , , , , , , , , , , , , , , </u>	, ,
	Code
Yes	1
No	0



#### Ask Q319.a - Q319.c only if coded 1 in Q319

Q319.a How much did the solar home system cost you?

Cost in Rupees	Rs	Don't Know (99)

#### **Q319.b** What is the capacity of your system or solar plate?

Capacity in Watts	Watts	Don't Know (99)

**Q319.c** How many years have you been using solar home system for electricity in your house for? [Less than 6 months to be coded as 0. Round off to the nearest integer]

Number of years	Years	Don't Know (99)

#### Ask Q319.d and 319.e if coded 0 in Q319

Q319.d Have you ever considered installing a solar home system in your house?

	Code
Yes	1
No	0

#### **Q319.e** Why do you not have a solar home system? Please state the main reasons. (MC)

	Code
Don't need it in near future	1
It is expensive (high capital cost)	2
Have doubts about electricity savings from it	3
Have doubts about system quality	4
Do not know how will it benefit me	5
Do not know any locally available company for this	6
Do not know about the process to install it	7
Do not know how to get subsidy for it	8
Do not know how to get a loan for it	9
Did not get good feedback from current users	10
Do not have space for it	11
Others, please specify:	12



### Q320. See these pictures. Does your household use any of the following sources of lighting?

		Yes	No
Q320a.	Solar Lanterns	1	0
Q320b.	Emergency Lights	1	0
Q320c.	Solar Mini Grid	1	0
	connection	1	
Q320d.	Kerosene	1	0
	lamp/Lanterns	1	

Ask Q321 if coded 1 in Q320.b and (0 or 2) in Q301 [i.e. household without grid-electricity supply]

**Q321.** How much do you spend on charging your emergency light per month?

Cost in Rupees	Rs	Don't Know (99)

#### Ask Q322 if CODED 1 in Q320.c

**Q322.** What is your monthly expenditure on using mini-grid electricity? [Code 99 if don't know]

Cost in Rupees	Rs	Don't Know (99)

#### Ask Q323 if coded 1 in Q320.d

**Q323.** How much do you spend on kerosene per month that is used for lighting? [Code 99 if don't know]

Cost in Rupees	Rs	Don't Know (99)

[If the household is not electrified, i.e. has 0 in (Q301 and Q316 and Q317 and Q319 and Q320c), then go to section 5]



#### Section 3c - Satisfaction with the electricity and lighting services

#### Q324. Overall, what is the primary source of electricity for your household?

	Code
Grid electricity	1
Rechargeable battery	2
Solar home system	3
Solar mini-grid	4
Personal Diesel generator (personal)	5
Society/ Operator Diesel generator	6

### Q326. Overall, how satisfied are you with the electricity situation in your home?

Very Unsatisfied	Somewhat	Neutral	Somewhat	Very Satisfied
	Unsatisfied		Satisfied	
1	2	3	4	5

Skip Q328, Q328.1, Q329 and Q329.1 if coded 0/2 in Q301 (i.e., for those households that are not using grid electricity)

**Q328.** Did any one in your family register any complaints related to electricity faults or maintenance in the past 6 months?

Yes	1
No	0
Don't Know	99

#### Ask Q328.1 If coded 1 in Q328

Q328.1 On an average, how much time did it take for your complaint to get resolved?

	Code
Less than 3 hours	1
3-6 hours	2
6-12 hours	3
12-24 hours	4
1 day - 7 days	5
More than 7 days	6

**Q329.** Is any member of your family aware of the electricity helpline number (toll-free customer care number)?

Yes	1
No	0

#### Ask Q329.1 if coded 1 in Q329

Q329.1 Has anyone in your family ever used it to register any electricity related complaints?

Yes	1
No	0



# Section – 4: Electricity appliances and usage pattern

# Read aloud: Now I will ask questions related to electric appliances used in your house.

#### Interviewer to show the BEE star label to the respondent.

**Q401.** Please see this **picture.** Have you heard or seen about the BEE star labels on electric appliances?

	Code
Yes	1
No	0

#### AskQ403 and Q404 if coded 1 in Q401. Else skip to Q405

**Q403.** According to you, what are the benefits of using star labelled appliances? (MC)

#### Section 4a - Lighting

#### Now I will ask questions related to lighting in your house.

Q405. Please see these pictures. How many of the following lighting fixtures do you have?

Α	Incandescent bulbs	
В	CFL bulbs	
С	LED bulbs	
D	LED Tube-lights	
E	Tube-lights (CFL)	

#### Ask Q406 if answer to Q405.c and Q405.d is 0

**Q406.** Why have you not installed LED bulbs or tubelights in your house?

	Code
Not aware of LED bulbs	1
These are costlier than other bulbs	2
They are not available in nearby shops	3
Waiting for present bulbs to stop working	4
Installed LED bulb(s) earlier but they got damaged very soon	5



Others, please specify:	6

#### Skip to Q409 if answer to Q405.c and Q405.d is 0

#### **Q407.** Why did you purchase LED bulbs and/or tube-lights? (MC)

	Code
Work better in poor electricity supply	1
Better light quality than other lighting options	2
Longer life	3
Available for low cost/free under government programme	4
To save electricity/reduce electricity bill	5
Others, please specify	6
Can't Say / Don't know	99

#### **Q408.** Are you satisfied with the LED lighting in your house?

	Code
Yes	1
No	0

#### Ask Q408.1 if coded 0 in Q408

#### **Q408.1** Why are you not satisfied with LED lighting in your house? (MC)

• , ,	,
	Code
Causes strain to the eye	1
Light is insufficient	2
Stopped working sooner than expected	3
Has dimmed over time	4
Is costly to replace	5
Can't Say / Don't know	99

#### Section 4b -Space Cooling/Heating

#### **Q409.** Do you have **ceiling fans** in your house?

	Code
Yes	1
No	0

#### Ask Q410 - Q414 if coded 1 in Q409, else skip to Q415

#### **Q410.** How many ceiling fans do you have in your house?





c	111	How	many	months	in a	vear	do v	VOL	IISE	ceiling	fans?
•	/ T L L .	11000	IIIaiiy	1110111113	ша	y Cai	uo '	you	use	CEIIIII	ialis:

_	off to the nearest integer. Less than 1 month should be put as 1. If not used at a then put $0$ ]	II,
-	On an average, what is the total hours of ceiling fan use per day in your house? own hours for all fans in Q410. Code 0 if any fan is used for less than 30 mintues/da	y]

	~
Fan 1	
Fan 2	
Fan 3	
Fan 4	
Fan 5	
Fan 6	
Fan 7	
Fan 8	
Fan 9	
Fan 10	

### **Q413.** How old is your most used ceiling fan?

[Less than 6 months should be put as 0. Between 6 months and a year should be put as 1. Code 99 if don't know]

Years			

#### **Q414.** The ceiling fan that you use the most, is it from a local company or a reputed brand?

	Code
Local Company	1
Reputed Brand	2
Don't Know	99

#### **Q414a.** See this **picture**. Have you heard about energy-efficient (BEE star rated) fans?

	Code
Yes	1
No	0

C	)414 <sub>.</sub> h	How	many	of vo	ur ceiline	r fans	are	star	rated	17
•	/サエマ.レ	11000	IIIaliv	01 90	ui ceiiiii	a iaiis	aıc	Stai	Iatet	4:



### **Q415.** Do you have table/pedestal/wall mounted in your house?

	Code
Yes	1
No	0

Ask Q416 -	Q420 if	coded 1	in C	)415,	, else	skip	to C	)421
------------	---------	---------	------	-------	--------	------	------	------

Q416.	How many such table/pedestal/wall mounted fans do you have in your house?
Q417.	How many months in a year do you use table/pedestal/wall mounted fans?
	[Round off to the nearest integer. Less than 1 month should be put as 1. If not used a
	all, then put 0]

**Q418.** On an average, what is the total hours of table/pedestal/wall mounted fan use per day in your house?

[Note down hours for all fans in Q416; code 0 if fan use is less than 30 mintues/day]

20111 110 di 5 101 di 1110 111 Q 1207 0000 0 11	
Table Fan 1	
Table Fan 2	
Table Fan 3	
Table Fan 4	
Table Fan 5	
Table Fan 6	
Table Fan 7	
Table Fan 8	
Table Fan 9	
Table Fan 10	

Q419. How old is your most used table/pedestal/wall mounted fan (in years)?

[Less than 6 months should be put as 0. Between 6 months and a year should be put as 1. Code 99 if don't know]

Years			

**Q420.** The table/pedestal/wall mounted fan that you use the most, is it from a local company or a reputed brand?

	Code
Local Company	1
Reputed Brand	2
Don't Know	99



## **Q421.** Do you have **air coolers** in your house?

	Code
Yes	1
No	0

res	
No	0
sk Q422 - Q426 if coded 1 Q421	,
<b>2422.</b> How many air coolers do you h	nave in vour house?
- The many an edolers do your	lave iii your nouse.
<b>2423.</b> How many months in a year d	o you use air coolers?
Round off to the nearest integer. Le	ss than 1 month should be put as 1. If not used at
hen code 0.]	·
-	
<b>2424.</b> On an average, what is the tot	tal hours of air cooler use per day in your house?
Note down hours for all air coolers in	n use as specified in Q422; code 0 if use is less than
mintues/day]	
Air cooler 1	
Air cooler 2	
Air cooler 3	
Air cooler 4	
Air cooler 5	
Air cooler 6	
Air cooler 7	
Air cooler 8	
Air cooler 9	
Air cooler 10	
<b>Q425.</b> How old is your most regularly	used air cooler?
Less than 6 months should be put a	s 0. Between 6 months and a year should be put as
Code 99 if don't know]	5 5. Section 6 moners and a year should be put us
.cac 55 ii doire kilonij	

Years			



#### **Q426.** The air cooler that you use the most, is it from a local company or a reputed brand?

	Code
Local Company	1
Reputed Brand	2
Don't Know	99

Ask Q427 - Q444 if coded 2/3 in Q216 (Pucca, Mixed house) else skip to Q445.

#### **Q427.** Do you use any air-conditioner?

	Code
Yes	1
No	0

#### Ask Q428 - 443 if coded 1 in Q427, else skip to Q444

Q428. How many air-conditioners do you have?

Numbers -		

### **Q429.** When did you buy your first AC?

[Less than 6 months should be put as 0. Between 6 months and a year should be put as 1. Code 99 if don't know]

Years -			

#### [Read aloud: I would like to ask few questions about your most used air-conditioner.]

**Q430**. What is the type of this air conditioner - window or split?

	Code
Window	1
Split	2

**Q431.** What is the capacity of this air conditioner (in tons). [Code 99 if Don't know]

Tons			

[Allow decimal entry]



#### **Q432.** How old is this air conditioner?

[Less than 6 months should be put as 0. Between 6 months and a year should be put as 1. Code 99 if don't know]

Years -			

#### **Q433.** Is this AC a new buy or second-hand?

	Code
New Buy	1
Second Hand	2
Rented	3
Gifted	4
Don't know/ Can't say	99

# **Q434.** What is the BEE star rating of this air conditioner? (Interviewer to show image of star rating) [Request the respondent to physically check and confirm]

	Code
Not Rated	0
1 star	1
2 star	2
3 star	3
4 star	4
5 star	5
Don't know/ Can't say	99

Ask Q434.1 if coded 0/1/2/3 in Q434

#### **Q434.1** Why did you not chose a higher star labelled AC? (MC) [Don't read options]

Didn't think much about it	1
Chose according to vendor's suggestions	2
Was too expensive	3
Was not available at the shop	4
Unsure of the benefits from higher rating	5
My use of AC is too low to justify addition cost	6
Other:	7

#### **Q435.** How many days during the following months do you use this AC?

March - June	Fix between 0-120 days
July – October	Fix between 0-120 days
November – February	Fix between 0-120 days

25



**Q436.** How many hours a day do you use this AC during the following months? [Code 0.5 if used for less than or equal to half an hour]

March – June	Fix between 0-24 hours
July – October	Fix between 0-24 hours
November – February	Fix between 0 -24 hours

[Allow decimal entry]

**Q436.1** Please see this picture. During which of the following time-slots do you use your AC during summer months? (MC)

	Code
5 am -8 am	1
8 am -11 am	2
11 am -2 pm	3
2 pm -5 pm	4
5 pm -8 pm	5
8 pm -11 pm	6
11 pm -2 am	7
2 am -5 am	8

**Q437.** What is the average temperature setting for this air-conditioner in your home?

[If the facility doesn't allow temperature setting then code 88; if the respondent doesn't know or doesn't set temperature, code 99]

Temperature in Celsius	

(Fix between 16-31)

Q438. How often do you use ceiling fan while using air-conditioner in the room?

	Code
Never	0
Sometimes	1
Always	2

#### If coded 1 in Q428 i.e., if the household has only 1 AC; skip to Q443

Now I would like to ask few questions about your second most used air-conditioner

**Q439.** What is its capacity (in tons) of your second most used AC? [Code 99 if Don't know]

Tons			

[Allow decimal entry]



#### Q440. How many days during the following months do you use your second most used AC?

March – June	Fix between 0-120 days
July – October	Fix between 0-120 days
November – February	Fix between 0-120 days

# **Q441.** How many hours a day do you use your second most used AC during the following months? [Code 0.5 if used for less than or equal to half an hour]

March - June	Fix between 0-24 hours
July – October	Fix between 0-24 hours
November – February	Fix between 0-24 hours

[Allow decimal entry]

# **Q442.** What is the BEE star rating of the second most used air conditioner? (Interviewer to show image of star rating)

	Code
Not Rated	0
1 star	1
2 star	2
3 star	3
4 star	4
5 star	5
Don't know/ Can't say	99

#### If coded 1 or 2 in Q428 i.e. If the household has 2 or less ACs; skip to Q443

# **Q442.1.** Please tell me few details about the other ACs in your house: [Note down for all AC in Q416)

	Capacity	Hours of use	Months of use	BEE star rating
	[0.5-5 ton]	[0-24 hours/day]	(0-12)	[0-5, 99]
		[Allow decimal	[Allow decimal	[drop down as per
		entry]	entry]	q442]
AC 3				
Ac 4				
AC 5				
AC 6				
AC 7				
AC 8				



**Q443.** How frequently do you get your air-conditioner serviced by the technician?

	Code
Do not get it serviced by the technician	1
Service/clean it ourselves	2
When it stops working	3
Once in three years	4
Once in two years	5
Once in a year	6
Twice a year	7
Thrice a year	8
Others, please specify	9
Don't know/ Can't say	99

#### Q444. Do you plan to buy an air-conditioner in next two years?

	Code
Yes	1
No	0
Don't Know/ Can't say	99

#### Q445. Do you use any equipment to warm your house in winters, such as heater, etc.?

	Code
Yes	1
No	0

#### Ask Q446 - Q449 if coded 1 in Q445, else skip to Q450

**Q446.** Please see these **pictures**. Please tell me the type of heating equipment that you use? (MC) [Read aloud all options and mark all that apply]

	Code
Electric heater - with a fan	1
Electric heater - with halogen	2
Electric heater - oil-filled	3
Gas heater	4
Heating stove or fireplace	5
Cooking stove /Chulha	6
Others, please specify	7



#### Ask Q447 - Q449 if coded 1/2/3 in Q446

Q447.	How many electric room neaters do you have in your nome?
Q448.	How many months in a year do you use electric room heater?
-	d off to the nearest integer. Less than 1 month should be put as 1. If not used at all then put $0$ ]
Q449.	On average, how many hours per day do you use these heaters?
[Write	hours for all heaters specified in Q447]

Heater 1	
Heater 2	
Heater 3	
Heater 4	
Heater 5	
Heater 6	
Heater 7	
Heater 8	
Heater 9	
Heater 10	

#### Section 4c- Water heating

#### **Q450.** Does your household use hot water for bathing?

	Code
Yes	1
No	0

### Ask Q451 – Q458 if coded 1 in Q450, else skip to Q459

**Q451.** Please see these **pictures** and tell me. Which of the following appliance is generally used for heating water in your house? [Read aloud all options and mark all that apply]



	Code
Electric Geyser	1
Immersion rod	2
LPG gas based water-heater	3
LPG/PNG stove	4
Chulha (Firewood/dung cake stove)	5
Kerosene stove	6
Electric coil stove	7
Solar water heater	8

<b>Q452.</b> Ho	w many months in a year your family uses hot water for bathing?
[Ro	ound off to the nearest integer. Less than 1 month should be put as 1.]
Ask Q453	- Q457 if coded 1 in Q451.
<b>Q453.</b> Ho	w many electric geysers do you have?
<b>Q454.</b> Ho	w old is your most used electric geyser?
='	$^{\circ}$ 6 months should be put as 0. Between 6 months and a year should be put as 1; $^{\circ}$ don't know]
Y	ears -
 <b>Q455.</b> Wh	nat is the storage capacity (in litres) of your geyser? [Code 99 if Don't know]
	apacity in litres

## **Q456.** What is the BEE star rating of your most used electric geyser?

	Code
Not Rated	0
1 star	1
2 star	2
3 star	3
4 star	4
5 star	5
Don't know/ Can't say	99



**Q457.** During the months of use, for how many hours per day is the geyser(s) used? [Note down hours for all geysers in Q453]

	Hours (0-6)	Minutes (0-59)
Geyser 1		
Geyser 2		
Geyser 3		
Geyser 4		
Geyser 5		
Geyser 6		
Geyser 7		
Geyser 8		
Geyser 9		
Geyser 10		

Ask Q458 if coded 2 in Q4	151, else skij	o to Q459
---------------------------	----------------	-----------

n	458	How	many	immersion	rods do	vou use in	your house?
ч	, TJO.	11000	illaliy	11111116131011	1005 00	you use iii	your nouse:

**Q458a.** During the months of use, for how many hours per day is the immersion rod(s) used? [Note down hours for all immersion rods in use, as specified in Q458]

Immersion rod 1	
Immersion rod 2	
Immersion rod 3	
Immersion rod 4	
Immersion rod 5	
Immersion rod 6	
Immersion rod 7	
Immersion rod 8	
Immersion rod 9	
Immersion rod 10	

#### Section 4d- Entertainment

Q459. Do you have television (TV) in your house?

	Code
Yes	1
No	0

If coded 0 in Q459 skip to Q465



Q460. How many TV sets do you ha	ave?		
[If the house has more than 1 TV, t	hen instruction app	ears:]	
[Please read aloud: I would like	to ask few quest	ions about your m	nost used TV.]
	-	_	
<b>Q461.</b> See these <b>pictures</b> and tell	me. What is the ty	pe of your most use	ed TV?
		Code	
CRT – black and white		1	
CRT – color		2	
LED/LCD		3	
Plasma		4	
Don't know/ Can't say		99	
[Less than 6 months should be put Code 99 if don't know] Years –		·	
Q463. What is its screen size (in in	ches)? [Code 99 fo	or Don't know]	
<b>Q464.</b> For how many hours is this one is watching.	ΓV turned on each α	day? Include the tim	ne it is on even if no
Q465. How many of the following d	levices do you have	e in your home?	
	Code	Number	
Desktop computer	1		
Laptop/Tablet Computers	2		
Modem/router (for Internet or	_		
WiFi)	3		
Audio or music system	1		1



### Section 4e - Kitchen and household appliances

### Now I want to ask about the electric appliances that you may be using in your kitchen

### **Q466.** Do you a have **refrigerator** in your house?

	Code
Yes	1
No	0

If coded 0 in Q466 skip to Q471

	<b>Q467.</b> How r	many refr	igerators	do y	ou	have?
--	--------------------	-----------	-----------	------	----	-------

#### **Q468.** How old is your most used refrigerator?

[Less than 6 months should be put as 0. Between 6 months and a year should be put as 1; Code 99 if don't know]

Years -			

#### **Q469.** What is the BEE star rating of this most used refrigerator?

(Interviewer to show image of star rating)

	Code
Not Rated	0
1 star	1
2 star	2
3 star	3
4 star	4
5 star	5
Don't know/ Can't say	99

#### **Q470.** When do you switch off your refrigerator?

	Code
Never	1
When going on a vacation	2
For a few hours everyday (e.g. during night)	3
For a few hours in the day in some seasons	4
During entire winter months	5
Others, please specify:	

33



# **Q471.** Do you use any of the following **kitchen appliances** in your house at least once a month? (Read all aloud)

	Yes	No
Electric Water purifier	1	0
Blender/juicer/mixer/grinder	1	0
Electric Kettle	1	0
Electric atta chakki/rice huller	1	0

### **Q472.** Do you use **washing machine** in your house?

	Code
Yes	1
No	0

#### If coded 0 in Q472, skip to Q476

r	1473	How	many	times :	a week	dο	VOL	IISA	the	washing	machine?
٠,	/4 <i>/</i> 3.	HOW	IIIally	unies d	a week	uυ	you	use	uie	wasiiiiiy	macmine

#### **Q474.** How old is the washing machine?

[Less than 6 months should be put as 0. Between 6 months and a year should be put as 1; Code 99 if don't know]

V		
Years		
I Cais		

# **Q475.** What is the BEE star rating of the washing machine? (Interviewer to show image of star rating)

	Code
Not Rated	0
1 star	1
2 star	2
3 star	3
4 star	4
5 star	5
Don't know/ Can't say	99



#### **Q476.** Do you use **electric iron** in your house?

	Code
Yes	1
No	0

#### **Q477.** Do you have an electric water pump in your house?

	Code
Yes	1
No	0

If coded 0 in Q477 skip to Q501

**Q478.** How old is the water pump? [Less than 6 months should be put as 0. Between 6 months and a year should be put as 1; Code 99 if don't know]

#### **Q479.** What is the BEE star rating of the water pump?

	Code
Not Rated	0
1 star	1
2 star	2
3 star	3
4 star	4
5 star	5
Don't know/ Can't say	99

### **Q479.1** Is it a submersible pump (for ground water pumping)?

	Code
Yes	1
No	0

Q480. V	Vhat is its ca	pacity in HP	(horse-power)	of the water	pump? [Code 99	for Don't know]
---------	----------------	--------------	---------------	--------------	----------------	-----------------

**Q481.** How many hours a day is this pump used for your domestic water needs? [If the pump is shared by multiple families, record hours of use for the concerned family only]

Hours :	Minutes:



# Section 5 - Cooking energy access and use

I will now ask you questions related to energy use for cooking in your house.

#### Section 5a - PNG and LPG use for cooking

Ask Q501 if coded 2 in Q103

**Q501.** Do you use **PNG or piped gas** for cooking in your house?

	Code
Yes	1
No	0

Ask Q501.1 if coded 1 in Q501

**Q501.1** What is your typical monthly bill on PNG gas use? [Code 99 if don't know]

Rs.		

#### Ask Q502 to all households

Q502. Do you use LPG gas for cooking in house?

	Code
Yes	1
No	0

Ask Q502.1 if coded 0 in Q502 and 0 in Q501

Q502.1 Why don't you have LPG?

	Yes	No
Is it not available or too far from your place to obtain?	1	0
Is it too expensive to install an LPG connection?	1	0
Is the monthly expense of LPG too expensive?	1	0
Is it because free biomass is easily available?	1	0
Is it because you don't like LPG cooked food?	1	0
Tried to get it, but declined because you didn't have required documentation		0
Don't know how to get or whom to ask?		0
Others, please specify:		0

Skip to Q514.a for all those households who do not have LPG.

**Q503.** How many years ago did your house begin to use LPG? [Code 99 if don't know] [Less than 1 year to be coded as 0. Round off to the nearest integer]



YEARS			

If coded >=4 in Q503, then skip to Q505

**Q504.** How much did it cost to get the LPG connection? [Code 99 if don't know]

**Q504.1**. Did you receive LPG connection under the Pradhan-mantri ujjwala yojana?

	Code
Yes	1
No	0
Don't know	99

## Q505. Do you use large cylinder (14 kg) or small (<=5 kg)?

	Code
Large	1
Small	2
Both	3

If coded 0 in Q503 then skip to Q507

If coded 1 OR 3 in Q505 then ask Q505.1 - Q505.3, else skip to Q506

Q505.1. How many large LPG cylinders (14.2 kg) do you use in a year?

**Q505.2** Of the total large cylinders bought in a year, how many cylinders do you buy from authorized distributors (agency) per year? [Code 99 if don't know]

Number		

(Should not be greater than number coded in Q505.1)

## **Q505.3** Do you ever buy LPG cylinders from the market (apart from the agency)?

	Code
Yes	1
No	0
Don't know	99



### If Q505.3 is 0, skip to Q506

Q505.4 How much do you pay for a large cylinder of LPG bought from the market?

[Code 99 if don't know or if it takes too long to find out]

Rs/cylinder			

## If Coded 2/3 in Q505 then ask Q506-q506c, else skip to Q507

**Q506.** How many small LPG cylinders do you use in a year?

Number		
--------	--	--

### If Q506 is 0 skip to Q507, else ask Q506.1 - Q506.4

**Q506.1** What is the size of the small LPG cylinder you use? [Code 99 if don't know]

Kg		

**Q506.2** Of the total small cylinders bought in a year, how many cylinders do you buy from authorized distributors (agency) per year? [Code 99 if don't know]

Number

(Should not be greater than number coded in 506)

Q506.3 Do you ever buy small LPG cylinders from the market (apart from the agency)?

	Code
Yes	1
No	0
Don't know	99

#### If Q506.3 is 0, skip to Q507

**Q506.4** How much do you pay for a small cylinder of LPG bought from the market?

[Code 99 if don't know or if it takes too long to find out]

Rs/cylinder			



## If coded 1 or more in Q503 then skip to Q508

**Q507.** On average, in how many days do you refill your LPG cylinder from the authorized dealer? [Ask for large cylinder only, if the household is using both smaller and larger LPG cylinders for cooking]

Days (Fix between 10-300)	
88	Not refilled so far
99	Don't know

[Skip to Q512 if coded 88 in Q507]

**Q508.** How much did you pay to the distributor/delivery person for the last refill? [Code 99 if don't know]

Rs/cylinder			

Q509. How much subsidy did you receive against that refill in your bank account?

Rs/cylinder	
77	Gave up subsidy
88	not aware of the fact that subsidy is credited to bank account
99	doesn't know the value of subsidy amount credited
0	is certain that there is no subsidy received against the refill

**Q510** Is the domestic gas cylinder delivered at your door step?

	Code
Yes	1
No	0

## (Ask Q510.a if coded 0 in Q510)

**Q510.a** What is the one-way distance in kilometres your household typically travels to get LPG? [Code 0 for less than half km; Code 99 if don't know]

[Allow decimal entry]		



-	ow many days does it usually take between placing an order for LP f the cylinder? [Code 99 if don't know, 0 if it is delivered the same	
<b>Q512.</b>	ow many LPG cylinders (filled or empty) do you currently have in the	ne home?

## **Q513.** Who takes the decision of whether to order a refill? [Mark all that apply.]

Head of the household	1
Spouse of the head of the household	2
Son of the household head	3
Daughter/Daughter-in-law of the household head	4
Other	5

## **Q514.** Do you use LPG for all your cooking needs? [Do not include special occasions.]

	Code
Yes	1
No	0

## Ask Q514.1 if coded 0 in Q514

## **Q514.1** Why do you not use LPG for all your cooking needs? [Read all options]

	Yes	No
LPG is expensive		0
LPG is not always available		0
Few items are preferred to cook on chulha		0
Few items are cooked on electric appliances		0
Free dungcake/firewood is easily available		0

# **Q514.a** Do you ever use any solid fuels, such as firewood/dung cakes/charcoal etc. for cooking?

	Code
Yes	1
No	0

If coded 0 in Q514.a then skip to Q526



## Section 5b - Traditional cooking fuels

## **Q515.** Do you use **firewood and chips** for cooking?

	Code
Yes	1
No	0

If coded 0 in Q515, then skip to Q519

#### **Q516**. How frequently do you use firewood for cooking?

	Code
Daily	1
A few times a week	2
A few times a month	3
A few times a year	4

If coded 4 in Q516, skip to Q519

## **Q517**. Do you collect firewood or purchase it from market?

Only Collect	1
Only Purchase	2
Both	3

If coded 2 in Q517 then skip to Q518a

## **Q517.a** Which member of your family collects firewood the most often?

Male member (s) of the family	1
Female member (s) of the family	2
Others, please specify	3

If coded 3 in Q516, then skip to Q518a

## **Q517.b.** What is your collection frequency for firewood?

Daily	1
A few times a week	2
A few times a month	3
A few times a year	4

Ask Q517.c and Q517.d only if coded 1 / 2 in Q517.b

# **Q517.c** How much time do you spend each time you go for collection? [Round off to nearest integer]

Hours/collection		

[Allow decimal entry]



**Q517.d** What is the one-way distance in kilometers your household typically travels to collect firewood and chips? [Round off to the nearest integer]

KM		

If coded 1 in Q517 then skip to Q519

**Q518.a** On average, how much do you spend on buying firewood every month?

[Code 99 if don't know]

INR/month			

#### **Q519.** Do you use **dung cakes** for cooking?

	Code
Yes	1
No	0

If coded 0 in Q519 skip to Q523

**Q520.** How often do you use dung-cake for cooking?

	Code
Daily	1
A few times a week	2
A few times a month	3
A few times a year	4

If coded 4 in Q520, then skip to Q523

**Q521**. Do you ever purchase dung-cakes from the market?

	Code
Yes	1
No	0

If coded 0 in Q521 then skip to Q523

**Q522.** On average, how much do you spend on buying dung-cakes every month?

[Code 99 if don't know]

Rupees/month			



## **Q523.** Do you use any other fuel for cooking, such as... [Read aloud all options]

	Yes	No
Agri-residue	1	0
Coal/ charcoal/ lignite	1	0
Kerosene	1	0

If coded 1 in Q523.1 OR Q523.2 OR Q523.3, then ask Q524

**Q524.** On average, how much do you spend per month on buying these for cooking use?

[Code 99 if don't know, code 0 if obtained for free.]

Rupees/month	
99	Don't know
0	Obtained for free

[If the household is not electrified, i.e. has 0 in (Q301 AND Q316 AND Q317 AND Q319 AND Q320c), then go to Q529 [section 5d]

## Section 5c - Electricity based cooking

## **Interviewer to show pictures**

**Q526.** Please see these pictures and tell me. Do you use any of the following **electric appliances** for cooking in your house? [Read all options]

	Yes	No
a. Electric coil	1	0
b. Induction cook-stove	1	0
c. Micro-wave oven	1	0
d. Electric oven/griller/toaster	1	0
e. Electric rice cooker	1	0

If coded 0 in all options in Q526 i.e., Q526a, Q526b, Q526c, Q526d, and Q526e, go to Q528

Q527. How often do you use electricity for cooking? Would you say that you use it...

[Read aloud all options; mark only one]

For 'most of the cooking' every day	For 'some of the cooking' every day	Occasionally for some special cooking	Only when other options are not available
1	2	3	4

If coded 1 in Q527 go to Q529



# **Q528.** If you had to rely only on electric appliances for your cooking needs, what would you say... [Read all statements]

		1	0	99
A	Would it be feasible or not to meet all cooking needs?	Feasible	Not feasible	Don't know
В	Would it be faster or slower than other alternatives	Faster	Slower	Don't know
С	Would it be cheaper or costlier than other alternatives?	Cheaper	Costlier	Don't now

## Section 5d- Cooking satisfaction

[To all households]

**Q529.** What is your primary fuel for cooking?

LPG gas	1
PNG gas connection	2
Electricity (induction stove/electric cooking coil)	3
Firewood	4
Agricultural residue	5
Cow-dung cake	6
Coal/Charcoal	7
Kerosene	8
Biogas	9
Other, please specify:	10

## **Q530.** Overall, how satisfied are you with your current primary cooking arrangement?

Not satisfied	Neutral	Satisfied	Don't know
1	2	3	99

## **Q531.** Generally, how satisfied are you with the availability of this primary cooking fuel to your household?

Not satisfied	Neutral	Satisfied	Don't know
1	2	3	99

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## Skip Q532 if coded 1/2/3 in Q529

**Q532.** Please answer the below questions for the primary cooking arrangement you currently use. [\*\*Read all options\*\*]

		Yes	No	Don't know
А	Does it take too much time to cook food on it?	1	0	99
В	Is it very difficult to use?	1	0	99
С	Is it adequate for properly cooking the food?	1	0	99

## [If coded 1 in Q514.a, then ask Q533]

**Q533.** Do you think there is any negative impact on your health from the use of chulha?

	Code
Yes	1
No	0

[If the household is not electrified, i.e. has 0 in (Q301 and Q316 and Q317 and q319 and Q320c), then fill the Metadata and END THE SURVEY]



## Section – 6: Appliance Purchase and energy use behavior

#### Now I would like to ask few questions related to purchase of new appliances

**Q601.** Who in your house takes the most decision on the purchase of durable goods like electric appliances? [Read all options; mark only one]

	Code
Male head of the house	1
Female head of the house	2
Both heads of the house	3
Some other member	4
All members of the family	5

**Q602.** Whenever your family has to buy a new electric appliance, like TV, fridge, or AC, then how important are the following parameters for that buying decision? Please see this picture. Of these options, choose at least 3 parameters and rank them, where 1 means 'most important'.

(Interviewer to display showcards to respondents and code accordingly)

	Rank (1-8)
1. Appliance cost	
2. Popular or well-known brand	
3. Durable and long lasting	
4. Energy savings	
5. Discount schemes	
6. Warranty period	
7. After sales service	
8. Retailer's advice	

**Q603.** Whenever your family has to buy a new appliance, whom do you consult? (MC)

(Interviewer to display showcards to respondents and code accordingly)

1 / 1	
	Code
Don't consult anyone	1
Friends/relatives/ family	2
Online reviews	3
Adv. on TV	4
Adv. on radio/newspapers	5
Vendor/ Sales person	6
Others, please specify:	7



#### **Q604.** Has anyone in your family ever taken a loan to buy a household appliance?

[Do not include the loans taken for appliances used for income generation]

	Code
Yes	1
No	0

### If coded 1 in Q604 the ask Q604.1 else skip to Q604.2

Q604.1 What appliances did you buy with the help of a loan (or EMI)? (MC)

[Select all that apply]

- 1. Light bulbs
- 2. Fans
- 3. Cooler
- 4. Air conditioner
- 5. Television
- 6. Computer/Laptop
- 7. Refrigerator
- 8. Mixer-Grinder/ food-processor
- 9. Washing Machine
- 10. Electric iron
- 11. Immersion rod
- 12. Electric Geyser
- 13. Electric stove
- 14. Submersible pumps
- 15. Others (specify): \_\_\_\_\_

**Q604.2** If given an option, which appliances would you like to buy with the help of a loan (or EMI)? (MC) [Select all that apply]

- 1. Light bulbs
- 2. Fans
- 3. Cooler
- 4. Air conditioner
- 5. Television
- 6. Computer/Laptop
- 7. Refrigerator
- 8. Mixer-Grinder/ food-processor
- 9. Washing Machine
- 10. Electric iron
- 11. Immersion rod
- 12. Electric Geyser
- 13. Electric stove
- 14. Submersible pumps
- 15. Others (specify): \_\_\_\_\_



#### 16. None

[If the household is not grid-electrified, i.e. has 0/2 in Q301, then fill the Metadata and END THE SURVEY]

#### PERCEPTION TOWARDS PRE-PAID METERS

Read aloud: Now I will ask a few questions about pre-paid electricity meters.

Prepaid meters operate in a manner similar to prepaid mobile phones, wherein consumers have to pay for their electricity consumption in advance

**Q605.** Have you heard about pre-paid meters?

	Code
Yes	1
No	0

### If coded 0 in Q605, skip to Q609

**Q606.** Is your electricity meter a pre-paid meter?

	Code
Yes	1
No	0

#### Ask Q607 if coded 1 in Q606, else go to Q608

**Q607.** Please answer the below mentioned questions on the benefits or limitations of using pre-paid meters. [Read aloud all options]

**Q607.a** Have pre-paid meters helped you gain more control on your electricity expenditure or not?

	Code
Yes	1
No	0
Don't know/Can't say	99

**Q607.b** Has it led to any change in your electricity bill? Has it increased or decreased due to the meter?

	Code
Increase	3
No change	2
Decrease	1



Don't know/Can't say	99

## **Q607.c** Has it removed the problem of wrong or delayed bills or not?

	Code
Yes	1
No	0
Don't know/Can't say	99

## **Q607.d** Did it have any impact on electricity theft in your area?

	Code
Yes	1
No	0
Don't know/Can't say	99

## **Q607.e** Has it increased your trust in the electricity company or not?

,	, , ,
	Code
Yes	1
No	0
Don't know/Can't say	99

#### Ask Q608-Q609 if coded 0 in Q606, else go to Q610

**Q608.** If your current meter were to be replaced by pre-paid meter, what could be its benefits or limitations, according to you? Please answer the below questions –

## Q608.a Will it help you gain more control on your electricity expenditure or not?

	Code
Yes	1
No	0
Don't know/Can't say	99

#### **Q608.b** Will it lead to any change in your electricity bill? Will it increase or decrease?

	Code
Increase	3
No change	2
Decrease	1
Don't know/Can't say	99

## **Q608.c** Will it remove the problem of wrong or delayed bills or not?

	Code
Yes	1



No	0
Don't know/Can't say	99

## **Q608.d** Will it have any impact on electricity theft in your area?

	Code
Yes	1
No	0
Don't know/Can't say	99

## **Q608.e** Will it increase your trust in the electricity company or not?

	Code
Yes	1
No	0
Don't know/Can't say	99

## **Q609.** Will you be interested in getting pre-paid meters installed in your house?

	Code
Yes	1
No	0
Don't know/ Can't say	99

## Skip 609.1 for those households who say no in both Q605 and Q609

# **Q609.1.** Do you have any concerns/doubts related to pre-paid meters? [Select all that apply]

No concerns [Skip to Q610]	1
Don't know how will it work	2
Will be difficult to use	3
May lose power in case of delayed payments	4
There should be a mobile app associated with it	5
Waste of taxpayer/public money	6
Some people will lose their job (meter checker)	7
Others (specify):	8
Don't know	9

# **Q610.** Can I see your recent electricity bill to understand how much electricity the household actually used?

	Code
Yes	1
No	0



## (If coded 0, then fill Meta data and END the survey)

# [If the bill is available and can be properly read, then note down the following details]

## **Q610.a** No of billing days:

[Calculate using current and past reading dates; code 9999 if not visible]

_	_	•	_	•	_	
Davis						
11121/6						
Days						
- / -						

## Q610.b Billed Units

Units in kWh	
7777	Bill is fixed and billed units are not shown
9999	Units not visible

## **Q610.c** Billed amount

Current bill amount in INR (including arrears)	
9999	If amount not visible

## Q610.d. Sanctioned Load

Current load (Kw)	
9999	If value not visible

## [Allow decimal entry]

## **Q610.e.** Bill date

Date		

## **Q610.f.** Total arrears

INR			

## **Q613.** Can I take a picture of your electricity bill?

	Code
Yes	1
No	0

If coded 1 click picture.



## METADATA

State																				
District																				
Block/Town																				
Village/Ward Name																				
Village/Ward Census																				
code																				
Read aloud: I am now going to request you to share your name, address and telephone/								/												
mobile number. We m																		·up		
questions or survey, i	re	equii	rea.	It yo	ou a	gree	e to	tna	τ, κ	inai	y Sr	iare	e tn	ese	e a	eta	IIS.			
Name	<u> </u>																			
Address																				
Landmark																				
Pin Code																				
Telephone Number																				
Mobile number 1																				
Mobile number 2																				
Interviewer Id																				
Name of Interviewer																				
Supervisor's name																				
Interview start time							Inte	ervi	ew	end										
THE VIEW SEARCE HITE							tim	е												
Length of Interview							Dat	e o	f th	е										1
(seconds)							Inte	ervi	ew											1

## END OF THE SURVEY

**Enumerator: Thank the respondent for giving their precious time for the survey.** 

For Enumerator:

**Q614.** Do you have any comments regarding the quality of data entered for this households?

	Code	<b>Q615.</b> – Comments
Yes	1	