Questionnaire

Note: this is the questionnaire used for the follow-up survey of small firms in Bihar, India. Questions (or text) highlighted in red were present in the first survey but not in the second. Questions (or text) highlighted in yellow were present in the second survey but not in the first.

Introduction to a firm manager

Namaste, my name is ___. I work with MORSEL, an organization based in Lucknow that conducts surveys in India. About one year ago your firm participated in a short survey from Morsel Research & Development. I am calling again to do a follow-up survey. It will take approximately 15 minutes.

A. Is the respondent the same as in the previous interview?
   -99 Unsure 1 Yes 0 No
B. IF YES: Are you still working at this firm? 1 Yes 0 No
   IF NO:
   1. Why?
      1 Laid off
      2 Quit
      3 Other. SPECIFY: _____
C. Does your firm still exist? 1 Yes 0 No

IF FIRM DOESN'T EXIST ANYMORE OR RESPONDENT DOESN'T WORK THERE ANYMORE: END THE CALL.

IF FIRM STILL EXISTS AND RESPONDENT WORKS THERE: Would you like to participate?

1. Survey taken? 1 Yes 0 No
   1.1. **IF NO**: why? _____

A. Metadata

2. Enterprise ID _____
3. ID and name of interviewer ID _____ NAME _____
4. ID and name of supervisor ID _____ NAME _____
5. Date of interview _____
6. Interview start time _____ Interview end time _____

Geographic information

7. District _____
8. Block _____
9. Village/town name _____
10. Village/town census ID _____
11. Habitation/ward name _____
12. Full address _____
13. Mobile contact number _____
14. GPS latitude _____
15. GPS longitude _____

B. Respondent Characteristics

16. What is your position in this firm?

1 Owner 2 Senior manager 3 Employee

4 Other. SPECIFY _____

17. How much time do you work for your firm? ____ [HOURS] per ☐day ☐week ☐month

18. Age of respondent _____

19. Gender 1 Male 0 Female

~~20. Native language _____~~

~~21. Read and write in native language? 1 Yes 0 No~~

~~22. Does the respondent speak Hindi? 1 Yes 0 No~~

~~23. Does the respondent read/write Hindi? 1 Yes 0 No~~

~~24. Level of education of respondent~~

~~1 No formal schooling~~

~~2 Up to 5th standard~~

~~3 Up to 10th standard~~

~~4 12th standard or diploma~~

~~5 Graduate or above~~

~~25. Religion~~

~~1 Hindu~~

~~2 Muslim~~

~~3 Christian~~

~~4 Other. SPECIFY _____~~

~~26. Government caste~~

~~1 Scheduled Caste~~

~~2 Scheduled Tribe~~

~~3 General~~

~~4 Other Backward Class~~

~~5 Other. SPECIFY _____~~

~~27. How many adults (18+) live in your household? _____~~

~~28. How many children live in your household? _____~~

C. Firm Characteristics

29. What services/products do you provide from your firm?
[Observe and mark. If needed, confirm from the respondent.]

1 Grocery shop
2 Fruit/juice shop
3 Sweet shop
4 Readymade shop for clothes/bags/etc.
5 Hardware/electronics shop
6 Agricultural inputs (such as fertilizer)
7 Medical store
8 Mobile repair shop
9 Cyber café (photocopier/ printer/ scanner)
10 Photo-studio
11 Tailoring shop
12 Beauty parlor
13 Carpentry shop
14 Cycle, handcart repair center
15 Car/bike service center
16 Private clinic/nursing home/veterinary
17 Flour or oil extraction mill
18 Godowns/warehouse
19 Cold storage
20 Dairy/milk Chilling Center
21 Others. SPECIFY: _____

30. How many years ago was your firm created? _____ [YEARS AGO]

31. Excluding you, how many employees (full-time and part-time, including family members) does this firm have? _____ [EMPLOYEES]

IF MORE THAN ZERO:

31.1. How many of these people work full-time at your firm? _____ [EMPLOYEES]

31.2. How many of these people work part-time and salaried at your firm? _____ [EMPLOYEES]

31.3. How many of these people are daily or short-term workers at your firm? _____ [EMPLOYEES]

31.4. What is the average monthly salary of those who are salaried and work full time? ____ [RUPEES]

31.5. What is the average daily salary of those who are not salaried? ____ [RUPEES/DAY]

31.6. How many hours do full-time employees work? _____ [HOURS] per ☐day ☐week ☐month

31.7. How many women are employed by this firm? _____ [NUMBER]

32. On a typical day, at what time does this firm open on a typical day of last week? ____ [TIME]

33. ~~On a typical day,~~ at what time does this firm close on a typical day of last week? ____ [TIME]
34. How much debt does your firm have right now? _____ [RUPEES]

    ~~**IF MORE THAN ZERO:**~~

    ~~34.1. What is the interest rate on this debt?~~

    ~~_____ [INTEREST RATE %] 1 Daily 2 Weekly 3 Monthly 4 Yearly~~

    TO ALL FIRMS

    ~~34.2. If you had to borrow money to invest in your firm, what would the interest rate be?~~

    ~~_____ [INTEREST RATE %] 1 Daily 2 Weekly 3 Monthly 4 Yearly~~
35. Think of all appliances or other items (furniture, machines, motorcycle, etc.) owned by your firm. How many rupees are these worth? _____ [RUPEES]
36. ~~In a typical month,~~ Last month, how much ~~does~~ did your firm spend to buy inputs (such as raw materials or products it later sells)? _____ [RUPEES/MONTH]
37. How much ~~does~~ did your firm spend in ~~a typical month~~ last month on repairing the items it uses (machines, appliances, etc.)? _____ [RUPEES/MONTH]
38. ~~In a typical month,~~ Last month, what ~~are~~ were this firm's total sales (turnover) for all products and services? _____ [RUPEES/MONTHS]
39. In your view, how much profit (turnover minus all the spending the firm has to do) ~~does~~ did your firm make ~~in a typical~~ last month? _____ [RUPEES/MONTHS]
40. How many firms compete with you for your customers? _____ [NUMBER]
41. Would you say that competition with other firms for your customers is:

    1 Very weak 2 Weak 3 Neutral 4 Strong 5 Very strong

D. Firm Energy Access

42. What is your firm's primary source of lighting?

1 Grid electricity
2 Solar standalone system
3 Solar or diesel microgrid/minigrid
4 Diesel generator
5 Solar lantern
6 Kerosene lamp
7 Other. SPECIFY: _____

43. What sources of electricity does your firm use? [**Check all that apply**]

1 Grid electricity
2 Solar standalone system
3 Solar or diesel microgrid/minigrid
4 Diesel generator
5 No electricity
6 Other. SPECIFY: _____

IF MORE THAN ONE SOURCE:

43.1. What is the electricity source your firm uses the most?

1 Grid electricity
2 Solar standalone system
3 Solar or diesel microgrid/minigrid
4 Diesel generator
5 No electricity
6 Other. SPECIFY: _____

43.2. During a ~~typical~~ last week, how much of the electricity used by your firm comes from the grid compared to generators/solar power/microgrids? 100% means that all your electricity comes from the grid; 0% means that you only use alternatives (generators/solar power/microgrids). _____ [0-100%]

Grid electricity

44. Do you use grid electricity for your business? 1 Yes 0 No

~~**IF NO**~~

~~44.1. Why doesn't your firm use the grid? [**SELECT ALL THAT APPLY**]~~

~~1 Cannot afford it (or do not earn enough)~~
~~2 Don't need electricity~~

3 Could not get a connection

4 Grid electricity is not good/reliable

5 Voltage fluctuation

6 Power supply is inadequate

7 Don't know how to get the connection

8 The grid is too far

9 Other. SPECIFY: _____

IF YES

44.2. How many hours is grid electricity usually available per day? _____ [0-24 HOURS]

44.3. How many hours on a typical day of last week do you use grid electricity for your firm? _____ [0-24 HOURS]

44.4. How many days in the last month has there been no grid power throughout the day for your firm? _____ [0-30 DAYS]

IF MORE THAN ZERO DAYS:

44.4.1. How much revenue do you think you lose per month because grid electricity was not available? _____[RUPEES/MONTH]

44.4.2. If there were outages, what is the average duration of a typical electrical outage _____ [HOURS]

44.5. How many days in a month have you experienced that electric equipment suffered because of voltage fluctuation from the grid? _____ [0-30 DAYS]

44.6. How many days in a month have you experienced that voltage of electricity from the grid was too low to run appliances? _____ [0-30 DAYS]

44.7. Does your firm make less money when electricity from the grid is cut and unavailable?

1 Yes 0 No

44.8. When the grid goes down, do you produce the same amount of goods and services or less than when the grid is working? 0 Same amount 1 Less

44.9. What does your firm do when the grid is not working?

0 Shuts down production/closes the shop

1 Uses a backup generator

2 Uses a microgrid/minigrid

3 Use a standalone solar device

4 Continue working without electricity

5 Other. SPECIFY _____

44.10. How many years ago was your firm connected to the grid? _____ [YEARS AGO]

44.11. What was the connection fee? _____ [RUPEES]

44.12. Does your firm have a meter? 1 Yes 0 No

44.13. What is your firm's ~~typical~~ total grid electricity spending per month last month?

_____ [RUPEES/MONTH]

~~44.14. Do you think your firm's electricity bill is generally accurate?~~

~~1 Yes 0 No NB No bill~~

~~**IF 1 OR 0: ASK TO SEE THE ELECTRICITY BILL AND TAKE A PICTURE**~~

~~44.14.1. Month/Year of the bill: _____/_____ [MM/YY]~~

~~44.14.2. Number of billing days: _____ [DAYS]~~

~~44.14.3. Billed amount: _____ [RUPEES]~~

~~44.14.4. Number of units of consumption: _____ [UNITS in kWh]~~

~~44.15. Did your firm ever have to pay a bribe to keep or obtain its grid connection?~~

~~1 Yes 0 No~~

~~44.16. Do any of your competitors use an unmetered grid connection?~~

~~1 Yes 0 No~~

44.17. Do any of your competitors steal their grid connection?

1 Yes 0 No

~~What kind of services do you use grid electricity for?~~

~~44.18. Lighting? 1 Yes 0 No~~

~~44.19. Phone / Small Radio? 1 Yes 0 No~~

~~44.20. Space Cooling? 1 Yes 0 No~~

~~44.21. Computer / IT / Music System? 1 Yes 0 No~~

~~44.22. Refrigeration / Cold Storage 1 Yes 0 No~~

~~44.23. Mechanical Work (electric motors, etc.) 1 Yes 0 No~~

~~44.24. Thermal Work (ironing, welding, etc.). 1 Yes 0 No~~

Solar Standalone Systems

(Skip if Q43 == 1 or 3 or 4 or 5 or 6)

45. Do you use solar standalone systems for your business? 1 Yes 0 No

~~**IF NO**~~

~~45.1. Has your firm ever had a solar standalone system in the past? 1 Yes 0 No~~

~~**IF YES**~~

~~Why did your firm stop using it?~~

~~45.1.1. It was too expensive 1 Yes 0 No~~

~~45.1.2. It was too unreliable 1 Yes 0 No~~

~~45.1.3. Alternatives like the grid were or became better 1 Yes 0 No~~

~~45.2. Why doesn't your firm use solar standalone systems?~~

~~1 Cannot afford it (or do not earn enough)~~

~~2 Don't need electricity~~

3 Unable to find a shop selling solar standalone systems
4 Power supply from solar standalone systems is inadequate
5 Already have adequate power supply from another source
6 Other. SPECIFY: _____

IF YES

45.3. Why does your firm use a solar standalone system? **[CHECK ALL THAT APPLY]**
1 It is cheaper than the other sources
2 It is more reliable (longer duration or fewer blackouts) than other sources
3 It is more stable (less voltage fluctuation) than other sources
4 It is quicker to repair when it breaks down
5 My firm needs a backup when the primary electricity source doesn't work
6 Other. SPECIFY: _____

45.4. How many hours on a typical day last week do you use electricity from the solar standalone system for your firm? _____ [0-24 HOURS]

45.5. What is the total capacity of the standalone solar system PV panel(s)? _____ [WATTS]

45.6. What is the total capacity of the standalone solar system batteries? _____ [Total Ampere-Hours]

45.7. How many days in the last month has there been no power from the solar standalone system throughout the day for your firm? _____ [0-30 DAYS]

45.8. Do you own or rent your solar standalone system? 1 Own 2 Rent

IF *1 Own*

45.8.1. How much did you pay to buy your solar standalone system? _____ [RUPEES]

IF *2 Rent*

45.8.2. How much do you pay per month for the rent? _____ [RUPEES/MONTH]

What kind of services do you use the solar standalone system for?

45.9. Lighting? 1 Yes 0 No
45.10. Phone / Small Radio? 1 Yes 0 No
45.11. Space Cooling? 1 Yes 0 No
45.12. Computer / IT / Music System? 1 Yes 0 No
45.13. Refrigeration / Cold Storage 1 Yes 0 No
45.14. Mechanical Work (electric motors, etc.) 1 Yes 0 No
45.15. Thermal Work (ironing, welding, etc.). 1 Yes 0 No

45.16. Is the solar standalone system of sufficient capacity for your firm's needs? 1 Yes 0 No

IF NO

~~44.6.1 What size standalone solar system would you prefer, in terms of PV panel capacity? _____ [Total Watts]~~

Microgrids/minigrid [ENUMERATOR: ALL QUESTIONS BELOW ARE TO BE ASKED WHETHER IT IS A MINIGRID OR A MICROGRID. WE ONLY WRITE 'MICROGRID' FOR CONVENIENCE.]
(Skip when Q43 == 1 or 2 or 4 or 5 or 6)

46. Do you use microgrids for your business? 1 Yes 0 No

~~**IF NO**~~

~~46.1. Has your firm ever had a microgrid in the past? 1 Yes 0 No~~

~~**IF YES**~~

~~Why did your firm stop using it?~~

~~46.1.1. It was too expensive 1 Yes 0 No~~

~~46.1.2. It was too unreliable 1 Yes 0 No~~

~~46.1.3. Alternatives like the grid were or became better 1 Yes 0 No~~

~~46.2. Why doesn't your firm use a microgrid?~~

~~1. Cannot afford (or do not earn enough)~~
~~2. Do not need electricity~~
~~3. There is no micro/minigrid nearby~~
~~4. Power supply from the micro/minigrid is inadequate~~
~~5. Already have adequate power supply from another source~~
~~6. Don't know how to get the connection to the micro/minigrid~~
~~7. The micro/minigrid is expensive~~
~~8. The micro/minigrid service is not good/reliable~~
~~9. Other. SPECIFY: _____~~

IF YES

~~46.3. Why does your firm use a microgrid? **[CHECK ALL THAT APPLY]**~~

~~1 It is cheaper than the other sources~~
~~2 It is more reliable (longer duration or fewer blackouts) than other sources~~
~~3 It is more stable (less voltage fluctuation) than other sources~~
~~4 It is quicker to repair when it breaks down~~
~~5 My firm needs a backup when the primary electricity source doesn't work~~
~~6 Other. SPECIFY: _____~~

46.4. What kind of microgrid is it?

1 Solar
2 Diesel
3 Solar/Diesel Hybrid
4 Other. SPECIFY: _____

46.5. What was the initial cost of getting the microgrid connection? _____ [RUPEES]

46.6. Do you have a meter installed for the microgrid connection?
1 Yes 0 No

46.7. Do you get fixed or variable bill? 1 Fixed 0 Variable

46.8. Do you have your mini-grid electricity bill? 1 Yes 0 No

IF THE BILL IS AVAILABLE AND VARIABLE: request the respondent to see the latest mini-grid electricity bill. If the bill is available, note down the units of electricity consumed, the bill amount and other details below]

46.8.1. Month/Year of the bill: _____ MM/201Y

46.8.2. Number of billing days: _____[DAYS]

46.8.3. Billed amount: _____[RUPEES]

46.8.4. Number of units of consumption: _____ [UNITS in kWh]

46.9. What is your average monthly expense on microgrid electricity? _____ [RUPEES/MONTH]

46.10. How many hours is electricity from the microgrid usually available per day? _____ [0-24 HOURS]

46.11. How many hours per days ~~do~~ did you typically use last week electricity from the microgrid for your firm? _____ [HOURS/DAY]

46.12. How many days in the last month has there been no microgrid power throughout the day for your firm? _____ [0-30 DAYS]

IF MORE THAN ZERO:

46.12.1. How much revenue do you think you lose per month because microgrid electricity was not available? _____[RUPEES/MONTH]

46.13. How many days in a month have you experienced that electric equipment suffered because of voltage fluctuation from the microgrid? _____ [0-30 DAYS]

46.14. How many days in a month have you experienced that voltage from the microgrid was too low to run appliances? _____ [0-30 DAYS]

What kind of services does your firm use microgrid electricity for?

46.15. Lighting? 1 Yes 0 No

46.16. Phone / Small Radio? 1 Yes 0 No

46.17. Space Cooling? 1 Yes 0 No

46.18. Computer / IT / Music System? 1 Yes 0 No

46.19. Refrigeration / Cold Storage 1 Yes 0 No

46.20. Mechanical Work (electric motors, etc.) 1 Yes 0 No

46.21. Thermal Work (ironing, welding, etc.). 1 Yes 0 No

46.22. Are you able to draw sufficient power from the micro/minigrid for your firm's needs? 1 Yes 0 No

Diesel generators

(Skip when Q43 == 1 or 2 or 3 or 5 or 6)

47. Do you use a diesel generator for your business? 1 Yes 0 No

~~**IF NO**~~

~~47.1. Has your firm ever had a diesel generator in the past? 1 Yes 0 No~~

~~**IF YES**~~

~~Why did your firm stop using it?~~

~~47.1.1. It was too expensive 1 Yes 0 No~~

~~47.1.2. It was too unreliable 1 Yes 0 No~~

~~47.1.3. Alternatives like the grid were or became better 1 Yes 0 No~~

~~Why doesn't your firm use a diesel generator?~~

~~47.2. We cannot afford it (or do not earn enough) 1 Yes 0 No~~

~~47.3. We don't need electricity 1 Yes 0 No~~

~~47.4. We are unable to find a shop selling diesel generators 1 Yes 0 No~~

~~47.5. Power supply from diesel generators is inadequate/insufficient 1 Yes 0 No~~

~~47.6. Already have adequate power supply from another source 1 Yes 0 No~~

~~47.7. Other. SPECIFY: _____~~

IF YES

~~47.8. Why does your firm use a generator? **[CHECK ALL THAT APPLY]**~~

~~1 It is cheaper than the other sources~~

~~2 It is more reliable (longer duration or fewer blackouts) than other sources~~

~~3 It is more stable (less voltage fluctuation) than other sources~~

~~4 It is quicker to repair when it breaks down~~

~~5 My firm needs a backup when the primary electricity source doesn't work~~

~~6 Other. SPECIFY: _____~~

47.9. How many generators do you use? _____ [GENERATORS]

~~47.10. What is the average capacity of your generator(s)? _____ [kVA]~~

47.11. How many hours per day ~~do~~ did you typically last week use a generator for your firm? _____ [HOURS/DAY]

~~47.12. Do you own or rent your diesel generator? 1 Own 2 Rent~~

~~***IF 1 Own***~~

~~47.12.1. How much did you pay to buy a generator? _____ [RUPEES]~~

~~***IF 2 Rent***~~

~~47.12.2. How much do you pay for rent per month? _____ [RUPEES/MONTH]~~

47.13. How much diesel does your firm buy per month? _____ [LITRE/MONTH]
47.14. At what price does your firm purchase diesel? _____ [RUPEES/LITRE]
47.15. How much does your firm spend on repair/maintenance of the diesel generator? _____ [RUPEES/MONTH]

~~What kind of services do you use your diesel generator for?~~
~~47.16. Lighting? 1 Yes 0 No~~
~~47.17. Phone / Small Radio? 1 Yes 0 No~~
~~47.18. Space Cooling? 1 Yes 0 No~~
~~47.19. Computer / IT / Music System? 1 Yes 0 No~~
~~47.20. Refrigeration / Cold Storage 1 Yes 0 No~~
~~47.21. Mechanical Work (electric motors, etc.) 1 Yes 0 No~~
~~47.22. Thermal Work (ironing, welding, etc.). 1 Yes 0 No~~

47.23. Is the diesel generator of sufficient capacity for your firm's needs? 1 Yes 0 No

IF NO

~~44.6.1 What size diesel generator would you prefer? _____ [kVA]~~

Solar lanterns

(Skip if Q42 not equals to 5)

48. Does your firm use solar lanterns? 1 Yes 0 No

~~IF NO:~~

~~48.1. Has your firm ever had solar lanterns in the past? 1 Yes 0 No~~

~~IF YES~~

~~Why did your firm stop using it?~~
~~48.1.1. It was too expensive 1 Yes 0 No~~
~~48.1.2. It was too unreliable 1 Yes 0 No~~
~~48.1.3. Alternatives like the grid were or became better 1 Yes 0 No~~

~~IF YES:~~

~~48.2. Why does your firm use solar lanterns? **[CHECK ALL THAT APPLY]**~~
~~1 It is cheaper than the other sources~~
~~2 It is more reliable (longer duration or fewer blackouts) than other sources~~
~~3 It is more stable (less voltage fluctuation) than other sources~~
~~4 It is quicker to repair when it breaks down~~
~~5 My firm needs a backup when the primary electricity source doesn't work~~
~~6 Other. SPECIFY:_____~~

48.3. How many solar lanterns does your firm use? _____ [SOLAR LANTERNS]

48.4. Do you own or rent these solar lanterns? 1 Own 0 Rent

IF OWN:

48.4.1. How much did you pay per solar lantern? _____ [RUPEES/SOLAR LANTERN]

IF RENT

48.4.2. How much do you spend on rent per month for each solar lantern?
_____ [RUPEES/SOLAR LANTERN/MONTH]

Electrified firms

49. Does this firm have any kind of electric connection, whether through the grid or off-grid technology? ~~**[ENUMERATOR: DON'T ASK – JUST FILL OUT]**~~ 1 Yes 0 No

IF YES: I will now ask you about your firm's access to electricity.

49.1. Do you find electricity cheap or expensive? 0 Cheap 1 Expensive

49.2. Do you find your electricity access to be reliable or unreliable?
0 Unreliable 1 Reliable

49.3. Do you find that your electricity access allows you to use the appliances your firm needs or is supply insufficient? 0 Insufficient 1 Sufficient

49.4. Does your firm face any of the following problems?

49.4.1. Timely payment by customers
0 Not a problem 1 Minor problem 2 Major problem

49.4.2. Find good employees
0 Not a problem 1 Minor problem 2 Major problem

49.4.3. Find affordable raw materials/raw goods
0 Not a problem 1 Minor problem 2 Major problem

49.4.4. Find good equipment
0 Not a problem 1 Minor problem 2 Major problem

49.4.5. Be able to borrow money at an affordable rate
0 Not a problem 1 Minor problem 2 Major problem

49.4.6. Having to deal with corrupt bureaucrats
0 Not a problem 1 Minor problem 2 Major problem

49.4.7. Access to reliable electricity
0 Not a problem 1 Minor problem 2 Major problem

Grid or mini/microgrid connected firms

Assuming that electricity became cheaper in the next 12 months, would your firm…?

49.5.	Hire more full-time employees?	1 Yes	0 No
49.6.	Hire more part-time employees?	1 Yes	0 No
49.7.	Buy more machines and other items needed to make your product?	1 Yes	0 No
49.8.	Buy more electric appliances?	1 Yes	0 No
49.9.	Borrow more money to invest in your firm?	1 Yes	0 No

Assuming that electricity became more reliable (fewer blackouts), would your firm…?

49.10.	Hire more employees?	1 Yes	0 No
49.11.	Buy more machines and other items needed to make your product?	1 Yes	0 No
49.12.	Buy more electric appliances?	1 Yes	0 No
49.13.	Borrow more money to invest in your firm?	1 Yes	0 No

All firms

50. In the past month, how satisfied have you been with the electricity situation in your firm?

1 Unsatisfied 2 Neutral 3 Satisfied

51. In the past month, how satisfied have you been you with the lighting situation in your firm?

1 Unsatisfied 2 Neutral 3 Satisfied

~~**Conjoint**~~

~~**[ENUMERATOR: GO OVER THE FOLLOWING CHOICES 5 TIMES. USE A BLACKBOARD TO VARY THE CHOICES.]**~~

~~Next, I will present you with two scenarios, and I will ask you which one you prefer from the perspective of your firm.~~

~~**Scenario A**~~	~~**Scenario B**~~
~~Electricity is available [6, 12, 18, 24] hours per day~~	~~Electricity is available [6, 12, 18, 24] hours per day~~
~~There are [0, 1, 5, 10, 15] blackouts per month~~	~~There are [0, 1, 5, 10, 15] blackouts per month~~
~~Voltage fluctuation happens [0, 1, 5, 10, 15] days per month~~	~~Voltage fluctuation happens [0, 1, 5, 10, 15] days per month~~
~~Electricity is strong enough to power [lights and phone charging only, any appliance you need]~~	~~Electricity is strong enough to power [lights and phone charging only, any appliance you need]~~
~~Electricity is provided from [the grid, a~~	~~Electricity is provided from [the grid, a~~

~~microgrid]~~	~~microgrid]~~
~~Electricity costs [1, 5, 10, 15, 20, 25, 30] rupees per kWh~~	~~Electricity costs [1, 5, 10, 15, 20, 25, 30] rupees per kWh~~

~~52. Which of the two scenarios do you prefer? 0 Scenario A 1 Scenario B~~

~~53. How strongly do you feel about your choosing this scenario?~~

~~0 Not strongly 1 Somewhat strongly 2 Very strongly~~

54. Next, we want to ask you about the electric appliances that your firm are using.

List of appliances	How many of these appliances do you use? [NUMBER]	IF MORE THAN 0 APPLIANCES: What is the primary electricity source for this appliance? 1=Grid electricity 2=Solar standalone system 3=Solar or diesel microgrid/minigrid 4=Diesel generator 5=Other. SPECIFY.	IF MORE THAN 0 APPLIANCES: For how many hours does your firm power each of these appliances with the primary electricity source in a typical day? [0,24 HOURS]	IF MORE THAN 0 APPLIANCES: Does it happen frequently that your firm uses another electricity source to run this appliance? Frequently means once or more in a typical week. 1=yes 0=no	IF YES TO PREVIOUS: What is the secondary source of electricity for this appliance? 1=Grid electricity 2=Solar standalone system 3=Solar or diesel microgrid/minigrid 4=Diesel generator 5=Other. SPECIFY.	IF APPLICABLE: For how many hours does your firm power each of these appliances with the secondary electricity source in a typical day? [0,24 HOURS]
54.1. Incandescent bulbs						
54.2. CFL bulbs						
54.3. LED lights						
54.4. Tube light						
54.A Lights/bulbs (any type)						
54.5. Mobile phones						
54.6. Small radios						
54.7. Table fans						
54.8. Ceiling fans						
54.9. Air cooler						
54.10. Air conditioner						
54.11. Music System						
54.12. Laptop / Computer						
54.B Printer						
54.13. Television						
54.14. Refrigerator						
54.15. Washing machine						

	54.16. Electric Water Pump						
	54.17. Grinder/mixer						
	54.18. Air compressor						
	54.19. Flour / Oil Mill						
	54.20. Other Electric Motor (>1kW)						
	54.21. Electric stove						
	54.22. Electric iron						
	54.23. Soldering iron						
	54.24. Welding machine						
	54.25. Hot air gun						
	54.26. Lamination machine						
	54.27. Other Thermal Work (>1kW)						
	54.28. Inverter						
	54.29. Other. SPECIFY_____						

E. Reforms

IF FIRM USES GRID ELECTRICITY

55. Suppose that grid electricity prices increased by 10%. How would this affect your firm's profits?

1 Decrease a lot
2 Decrease
3 Stay the same
4 Increase
5 Increase a lot

56. If grid electricity prices increased by 10%, would your firm:

56.1.	Increase the prices of the products and services you sell?	1 Yes	0 No
56.2.	Decrease production of the goods and services you sell?	1 Yes	0 No
56.3.	Reduce the number of full-time employees?	1 Yes	0 No

IF YES:

56.3.1. How many full-time employees would be left? _____ [FULL-TIME EMPLOYEES]

56.4.	Reduce the number of part-time employees?	1 Yes	0 No

IF YES:

56.4.1. How many part-time employees would be left? _____ [PART-TIME EMPLOYEES]

56.5.	Invest in a diesel generator?	1 Yes	0 No
56.6.	Invest in a solar standalone system or solar rooftop?	1 Yes	0 No

57. Suppose that grid electricity prices doubled. How would this affect your firm's profits?

1 Decrease a lot
2 Decrease
3 Stay the same
4 Increase
5 Increase a lot

58. If grid electricity prices doubled, would your firm:

58.1.	Increase the prices of the products and services you sell?	1 Yes	0 No
58.2.	Decrease production of the goods and services you sell?	1 Yes	0 No
58.3.	Reduce the number of full-time employees?	1 Yes	0 No

IF YES:

58.3.1. How many full-time employees would be left? _____ [FULL-TIME EMPLOYEES]

58.4.	Reduce the number of part-time employees?	1 Yes	0 No

IF YES:

58.4.1. How many part-time employees would be left? _____ [PART-TIME EMPLOYEES]

58.5.	Invest in a diesel generator?	1 Yes	0 No

58.6. Invest in a solar standalone system or solar rooftop? 1 Yes 0 No

***** NEW QUESTIONS *****

Ask all firms

D. How long can your firm survive if the COVID crisis continues?
____ ☐ weeks ☐ months ☐ years

E. Did your firm change any of the following because of the COVID crisis?
1. Number of employees? 0 Reduce 1 Stay the same 2 Increase
2. Employees' wages? 0 Reduce 1 Stay the same 2 Increase
3. Spending on raw inputs? 0 Reduce 1 Stay the same 2 Increase
4. Spending on electricity? 0 Reduce 1 Stay the same 2 Increase

F. Do you think that your firm will make the same amount of profits after the COVID crisis ends? 1 Yes 0 No

G. Have you received any financial support from the Government to deal with the COVID crisis? 1 Yes 0 No
1. IF YES: What did you spend most of this support on?
1 Paying suppliers
2 Paying firm wages
3 Paying firm electricity bills
4 Own consumption
5 Other. SPECIFY: _____

H. If the government provided you with a loan or credit in the next 3 months, what would you mainly spend this on?
1 Paying suppliers
2 Paying firm wages
3 Paying firm electricity bills
4 Own consumption
5 Other. SPECIFY: _____

I. Have you heard of a credit-guarantee program for small firms?
1 Yes 0 No
IF YES:
1. How did you hear about it?
1 Family members
2 Friends
3 Work colleagues/competitors
4 Government announcement
5 Newspaper article (paper or online)
2. Did you use it to borrow money? 1 Yes 0 No