



REPUBLIC OF ZAMBIA

NATIONAL ENERGY SURVEY 2023

INSTITUTIONAL QUESTIONNAIRE

SECTION A : PUBLIC INSTITUTION IDENTIFICATION PARTICULARS	CODE NUMBER
A1. PROVINCE NAME	<input type="text"/> <input type="text"/>
A2. DISTRICT NAME	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
A3. CONSTITUENCY NAME	<input type="text"/> <input type="text"/> <input type="text"/>
A4. WARD NAME	<input type="text"/> <input type="text"/>
A5. EA NUMBER	<input type="text"/>
A6. RURAL.....1 URBAN..... 2	<input type="text"/>
A7. INSTITUTIONAL NUMBER	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
A8. VILLAGE OR LOCALITY NAME	
A9. CHIEF'S/CHIEFTAINNESS' AREA (RURAL AREAS ONLY) FOR URBAN AREAS RECORD 888	<input type="text"/> <input type="text"/> <input type="text"/>
A10. TYPE ENUMERATED PUBLIC INSTITUTION SCHOOL-----001 HEALTH FACILITY---- 002 COURT-----003 POST OFFICE-----004 PUBLIC MARKET-----005 POLICE POST/STATION-----006 AGRICULTURE CAMP-----007 OTHER.....008	<input type="text"/> <input type="text"/> <input type="text"/>
A11. Name of Public facility.....Physical Address.....	
A12. NAME OF MAIN RESPONDENT A13. DESIGNATION OF MAIN RESPONDENT A15. PHONE NUMBER OF MAIN RESPONDENT	<input type="text"/> <input type="text"/>
A16. DATA COLLECTORS NAME..... DATE OF INTERVIEW	<input type="text"/> <input type="text"/> DD <input type="text"/> <input type="text"/> MM <input type="text"/> <input type="text"/> YY
A17. MASTER TRAINERS NAME..... DATE OF CHECKING	<input type="text"/> <input type="text"/> DD <input type="text"/> <input type="text"/> MM <input type="text"/> <input type="text"/> YY

No.	SECTION A: HEALTH FACILITY DETAILS		
A1	Type of health facility	Hospital	1.
		Mini Hospital	2.
		Clinic	3.
		Health Centre	4.
		Health Post	5.
A2	Health services offered by the health facility (List) (Multiple Response)	1. Maternity 2. Dental 3. Ophthalmology (Eyes) 4. Surgery 5. Oncology 6. Circumcision 7. ART (VCT) 8. Antenatal 9. Other specify	
A3	Catchment Population	Total:	
		Male:	
		Female:	
A4	Number of personnel employed at the institution	Total:	1.
		Males:	2.
		Females	3.
A5	Average patients per day		
A6	Does the facility operate at night?	1. Yes 2. No >>>>>Skip to section B	
A7	What is the main source of energy for lighting?	Kerosene	1.
		LPG	2.
		Solar	3.
		Dry Batteries (e.g. torch batteries)	4.
		Externally rechargeable batteries e.g. (Car, solar etc.)	5.
		Candles	6.
		Generator	7.
		National grid	8.
		Biogas	9.
		Local Mini-grid	10.
		Other specify	11.

No.	SECTION B: EDUCATION FACILITY DETAILS		
B1.	Type of education facility	Tertiary Institution	1.
		Secondary School	2.
		Pre/Primary School	3.
		Combined School	4.
B2.	Number of learners enrolled	Total: Female: Male:	
B3.	Number of personnel employed at institution:	Total: Female: Male:	
B4.	Do learners use the facility to study at night?	1. Yes 2. No >>>>>Skip to section C	
B5.	What is the main source of energy for lighting?	Kerosene	

		LPG	
		Solar	
		Dry Batteries (e.g. torch batteries)	
		Externally rechargeable batteries e.g. (Car, solar etc.)	
		Candles	
		Generator	
		National grid	
		Biogas	
		Local Mini-grid	
		Other specify	

No.	SECTION C: Court, Post Office, Police Post/Station, Agriculture Camp, Vet Camp, Public Market		
<b>C1.</b>	<b>Type of Facility</b>	<ol style="list-style-type: none"> <li>1. Post Office</li> <li>2. Police Post</li> <li>3. Court</li> <li>4. Market</li> <li>5. Agriculture Camp</li> <li>6. Vet Camp</li> </ol>	
<b>C2.</b>	Service offered by facility	<ol style="list-style-type: none"> <li>1. Legal services (Court)</li> <li>2. Postal Services (Post office)</li> <li>3. Law and Order (Police)</li> <li>4. Agriculture/Vet extension services</li> <li>5. Trading Services (Market)</li> </ol>	
<b>C3</b>	Number of personnel employed at institution:	<i>Total:</i> <i>Female</i> <i>Male:</i>	
<b>C4</b>	Does the facility operate at night?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No &gt;&gt;&gt;&gt;&gt;Skip to section D</li> </ol>	
<b>C5</b>	What is the main source of energy for lighting?	Kerosene LPG Solar Dry Batteries (e.g. torch batteries) Externally rechargeable batteries e.g. (Car, solar etc.) Candles Generator National grid Biogas Local Mini-grid Other specify	
<b>SECTION D: ENERGY ACCESS AND UTILIZATION</b>			
<b>D1.</b>	What are the sources of energy that your facility uses <b>Multiple response</b>	<i>Electricity from the National Grid</i> <i>Electricity from a Local Mini Grid (Off grid)</i> <i>Electricity from a Generator</i> <i>Solar Home System</i> <i>Rechargeable batteries</i> <i>Dry Batteries</i>	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> </ol>

		<i>Kerosene</i>	7.
		<i>Liquefied Petroleum Gas (LPG)</i>	8.
		<i>Fire wood</i>	9.
		<i>Charcoal</i>	10.
		<i>Coal</i>	11.
		<i>Biogas</i>	12.
		<i>Candles</i>	13.
		<i>Other specify</i>	14.
		<i>None&gt;&gt;&gt;&gt;&gt;end interview</i>	15.
	<b>Electricity from National Grid (Only for facility that entered code 1 in D1)</b>		
<b>D2.</b>	How long have you had this grid connection? Enter zero(0) if less than a month	1. <input type="checkbox"/> Months 2. <input type="checkbox"/> Years	
<b>D3.</b>	How much did the facility pay for the grid connection in ZMW?	ⓧ.....	
<b>D4.</b>	How long after you applied for the grid connection did your facility get connected?	1. <input type="checkbox"/> Weeks 2. <input type="checkbox"/> Months 3. <input type="checkbox"/> Years	
<b>D5.</b>	How is your facility billed for electricity? <b>Read options aloud</b>	<i>Postpaid (meter reading)</i> <i>Prepaid</i> <i>Fixed monthly fee</i> <i>Other, specify</i> <i>No bill for electricity (free electricity)</i>	1. 2. 3. 4. 5.
<b>D6.</b>	How does your facility mainly pay for the electricity bill?	<i>Cash</i> <i>mobile money</i> <i>Bank transfer</i> <i>Other, specify</i>	1. 2. 3. 4.
<b>D7.</b>	<b>Ask if the facility pays the energy company or has a record of the electricity payment, ask to see the electricity bill/invoice, and use it</b>	<i>Respondent has energy bill and shows it</i> <i>Respondent has energy bill but refuses to show it or could not locate it</i> <i>Respondent does not have an energy bill</i>	1. 2. 3.
<b>D8.</b>	In the last month, how much did your facility spend on the electric bill? <b>Calculate amount paid from the last bill.</b>	K.....	
<b>D9.</b>	In the last month, how much electricity did your facility use? Calculate usage from the last bill.	<i>Quantity in Kilowatt Hour (kWh)</i> <i>Don't Know...</i>	888
<b>D10.</b>	In a typical month, how many hours of electricity are available to your facility each day from the grid?	<i>Hours of supply</i> <i>Don't know</i>	888
<b>D11.</b>	In the last 30 days, out of the nighttime hours your facility is usually open, how many hours on average of electricity are available from the grid? (06 PM to 06:00AM)	<i>Hours of supply</i> <i>Don't know</i>	888
<b>D12.</b>	In the last 30 days, how many hours of electricity were available to your facility each evening on average, from 6:00 pm to 10:00 pm	<i>Hours of supply</i> <i>Don't know</i>	888
<b>D13.</b>	In the last 7 days, how many times were there unscheduled outages or blackouts from the electricity system?	..... <i>Don't know</i>	888
<b>D14.</b>	What is the total duration of all the unscheduled outages or blackouts in the last 7 days <i>Enter zero (0) if less than 1 hour</i>	..... <i>Number of hours</i> <i>Don't know / unsure</i>	888
<b>D15.</b>	In a typical month, how many outages/blackouts does the facility experience each week?	..... <i>Number of outages/blackouts</i>	
<b>D16.</b>	During a typical month, what are the three main ways your facility was affected by an electricity power outage? <b>Multi response</b>	<i>Continue all operations on backup supply</i> <i>Continue reduced operations on backup supply</i> <i>Had to turn clients away</i> <i>Had to send workers home for the day without pay</i> <i>Had to send workers home for the day with pay</i>	1. 2. 3. 4. 5.

		<i>Wasted perishable products/discarded damaged goods</i>	6.
		<i>Machines/appliances were damaged in the process</i>	7.
		<i>Used more expensive alternate energy sources</i>	8.
		<i>Meetings/transactions were delayed</i>	9.
		<i>Provided backup electricity to others</i>	10.
		<i>Stop operations and waited for power to return</i>	11.
		<i>Not affected by last outage</i>	12.
		<i>Other Specify</i> 13	
<b>D16.</b>	What are the back-up sources for lighting for the facility? (Multiple responses possible)	<i>Generator</i>	1.
		<i>Battery and Storage Devices (e.g.: car battery)</i>	2.
		<i>Solar Lighting product</i>	3.
		<i>Kerosene lamp</i>	4.
		<i>Candle</i>	5.
		<i>Battery powered Torch/flashlight</i>	6.
		<i>No backup sources</i>	7.
		<i>Other Specify</i>	8.
			9.
<b>D17.</b>	In the last 12 months, did any appliances get damaged because of poor electricity quality such as voltage fluctuations in the electricity system?	<i>Yes</i>	1.
		<i>No</i>	2.
<b>D18.</b>	In the last 12 months, did anyone while using electricity system die or have permanent limb (bodily injury) damage?	<i>DEATH -Yes</i>	1.
		<i>-No</i>	2.
		<i>limb damage-Yes</i>	3.
		<i>-No</i>	4.
<b>D19.</b>	How does your facility request for repairs in electricity service or file a complaint?  Adopt changes from HH questionnaire	<i>Call/SMS utility</i>	1.
		<i>Visit</i>	2.
		<i>Call a local technician</i>	3.
		<i>Send a letter/email</i>	4.
		<i>Social media</i>	5.
		<i>Talk to community representative</i>	6.
		<i>No system to request repairs/ file complaint</i>	7.
		<i>Other specify</i>	8.
<b>D20.</b>	The last time you reported a problem, how long did it take to be rectified? Adopt changes from HH questionnaire	<i>Less than 24 hours</i>	1.
		<i>More than one day but less than 7 days</i>	2.
		<i>More than 7 days</i>	3.
<b>D21.</b>	<b>Local Mini Grid (Only for facility that entered code 2 in D1)</b>		
<b>D22.</b>	<b>Interviewer/CAPI check:</b> Is the electricity connection for the facility local mini grid response 2 from D1)?	<i>Yes</i>	1.
		<i>No</i>	2.
<b>D23.</b>	What is the name of the local mini grid?		
<b>D24.</b>	What type of fuel is used to generate electricity from the mini grid?	<i>Diesel/petrol</i>	1.
		<i>Hydro</i>	2.
		<i>Biomass</i>	3.
		<i>Solar</i>	4.
		<i>Other, specify</i>	5.
<b>D25.</b>	Who owns the mini grid?	<i>ZESCO Limited</i>	1.
		<i>Rural Electrification Authority</i>	2.
		<i>Private Energy Company</i>	3.
		<i>Community/village cooperative</i>	4.
		<i>Other Specify</i>	5.
<b>D26.</b>	Is there a limit for the load and/or appliances you are allowed to power from this mini-grid connection?	<i>Yes....</i>	1.
		<i>No...</i>	2.
		<i>Don't know</i>	3.
<b>D27.</b>	How much did your facility pay for the mini grid connection in ZMW?		
<b>D28.</b>	How long after you applied for the mini-grid connection did your facility get connected?	1. <input type="checkbox"/> <i>Weeks</i>	
		2. <input type="checkbox"/> <i>Months</i>	
		3. <input type="checkbox"/> <i>Years</i>	

D29.	Who received the payment for your facilities mini grid connection?	<i>Energy company</i>	1.
		<i>Pre-paid meter card seller</i>	2.
		<i>Community/village/municipality</i>	3.
		<i>No one</i>	4.
D30.	How are you billed for electricity? <b>Read options aloud</b>	<i>Prepaid</i>	1.
		<i>Postpaid</i>	2.
		<i>Fixed monthly fee</i>	3.
		<i>Pay based on lights and appliances used</i>	4.
		<i>Utility estimates consumption</i>	5.
		<i>Other, specify</i>	6.
		<i>No bill for electricity</i>	7.
D31.	What is the most common way to make your electricity bill payment?	<i>Cash</i>	1.
		<i>mobile money</i>	2.
		<i>Other, specify</i>	3.
D32.	How many hours of electricity are available each day from the mini grid?	<i>.....hours</i>	
D33.	How many outages occur in the last one month?	<i>.....</i>	
D34.	What is the total duration of all the outages/blackouts in a week?	<i>.....hours</i>	
D35.	How do you request for repairs in electricity service or file a complaint?	<i>Call/Visit/ SMS utility</i>	1.
		<i>Call a local technician</i>	2.
		<i>Send a letter/email</i>	3.
		<i>Social media</i>	4.
		<i>Talk to community representative</i>	5.
		<i>No system to request repairs/ file complaint</i>	6.
		<i>Other specify</i>	7.
D36.	The last time you reported a problem, how long did it take for it to be rectified?	<i>Less than one day</i>	1.
		<i>One day</i>	2.
		<i>more than one day but less than 7 days</i>	3.
		<i>more than 7 days</i>	4.
D37.	What are the most serious problems you experience with your mini grid electricity?	<i>Supply shortage/not enough hours of electricity</i>	1.
		<i>Low/high voltage problems or voltage fluctuations</i>	2.
		<i>Unpredictable interruptions</i>	3.
		<i>Unexpected high bills</i>	4.
		<i>Too expensive</i>	5.
		<i>Do not trust the supplier</i>	6.
		<i>Cannot power large appliances</i>	7.
		<i>Maintenance/service problems</i>	8.
		<i>Unpredictable bills</i>	9.
		<i>Other, specify</i>	10.
		<i>No problems</i>	11.
D38.	<b>Generator (Only for facility that entered code 3 in D1)</b>		
D39.	<b>Interviewer/CAPI check:</b> Is the electricity connection for the facility Generator 3 from D1)?		
D40.		<i>No</i>	1.
D41.	How many generators does your facility use to supply electricity? <b>If multiple generators, ask following questions about main generator.</b>	<i>Number of generators</i>	
D42.	What does your facility use the generator for?  <b>(MULTI-RESPONSE)</b>	<i>1=Lighting</i>	
		<i>2=Television</i>	
		<i>3=Radio</i>	
		<i>4=Water Pumping</i>	
		<i>5=Economic productive use</i>	
		<i>6=Cooking</i>	
		<i>7=Other, specify</i>	
D43.	Do you share this generator with other facilities?	<i>Yes</i>	1.

		No >>>>>>>D47	2.
D44.	How many facilities or facility are sharing electricity from this generator?	Number of facilities Don't know	888
D45.	Enumerator Observation: What is the capacity of the generator? <b>Read name plate of the generator.</b>	KW/KVA Don't know	
D46.	How many days did you typically use this generator in the past 30 days?	Number of days Don't know	888
D47.	How many years has the institution been using this generator? Record in years, if less than 1 year record 0	Number of years Don't know	888
D48.	Does your facility own the generator?	Yes>>C58 No	1. 2.
D49.	Who owns the generator?	1. Another institution 2=Rental company 3=NGO, Community 4=Other specify	1. 2. 3. 4.
D50.	Do you rent the generator or use it for free?	Yes>> No	1. 2.
D51.	How do you pay for electricity services from the generator?	Fixed payment (per month or week Charge by number of lights/appliances Charge per hour Pay for fuel only Other specify	1. 2. 3. 4. 5.
D52.	In the months that you use it, how much did you pay to use the generator each month? Do not include any cost of fuel, only fee for using the GENERATOR.	ZMW Don't know	888
D53.	How much did you pay to purchase the generator?	ZMW Don't know	888
D54.	In the last 12 months, how much did you pay for repairs/parts/maintenance of the generator?	ZMW Don't know	888
D55.	What fuel is used to power the generator?	Diesel Gasoline/petrol Other, specify Don't know	1. 2. 3. 4.
D56.	In the last 30 days, what was the total quantity of fuel used to power the generator?	Liters Don't know	888
D57.	In the last 12 months, did any of your appliances get damaged because the voltage was going up and down from the generator?		
D58.	<b>Solar Home System</b>		
D59.	<b>Interviewer/CAPI check:</b> Is the electricity connection for the facility Standalone Solar PV system 4 from D1)?		
D60.	What type of Standalone Solar PV systems do you use for your facility?	Solar Home System Solar Lantern Other Specify	1. 2. 3.
D61.	How many Solar Home Systems does your facility use?		
D62.	What is the cumulative size in watts of the Solar Home Systems?	If unknown indicate '888'	
D63.	What is the capacity of the solar panels for this solar home systems?	Watt peak (Wp) Don't know	
D64.	How long (in months) have you had the Solar Home System?		
D65.	How much did you spend to purchase the Solar Home System?		
D66.	What do you use the Solar Home System for? <b>Multiple responses possible</b>	Lighting Cell phone charging – for the facility Operating laptop/computer/tablet Operate photocopy machine/scanner Providing entertainment (e.g., playing movies) Refrigeration Powering other appliances – please list specifically (e.g. solar pump, milling machine, electric hair dryer, sewing machine etc.). Others Specify	1. 2. 3. 4. 5. 6. 7.
D67.	How many times has your Solar Home System broken down since you bought it?		

D68.	When the system had broken down, which of the following parts broke down?	Battery	1.
		Lamp (light bulb/tube)	2.
		Solar panel	3.
		Inverter	4.
		Charge Controller	5.
		Not Applicable (for Lanterns)	6.
D69.	If Solar Home System breaks down, how do you have it repaired?	Technician/repair person comes to our house to repair.	1.
		Take it to repair shop	2.
		Other, specify	3.
D70.	What is the average cost of repair?	Battery	
		Lamp (light bulb/tube)	
		Solar panel	
		Inverter	
D71.	How many Solar Lanterns does your facility use?		
D72.	How long (in months) have you had the Solar Lantern?	Months	
D73.	How much did you spend to purchase the Solar Lantern?		
D74.	<b>Rechargeable Batteries</b>		
D75.	What do you use the rechargeable batteries for in your facility?	Radio	1.
		Lighting	2.
		Television	3.
		Flashlight	4.
		Other, specify	5.
D76.	How much is the acquisition cost of the battery?		
D77.	How often do you have to recharge the battery?	Two days	1.
		Every three days	2.
		Every four days	3.
		Every five days	4.
		Other, specify	5.
D78.	How much do you pay per each charge?		
D79.	What is the primary charging source?	Solar	1.
		Commercial source	2.
		Other, specify:	3.
D80.	How many days does one charge last?		
D81.	Does your facility have an inverter that allows you to use AC appliances?	Yes....1	
		No....2	
D82.	What is the capacity of the inverter?	kW	
D83.	What is the capacity of the rechargeable batteries in Ampere Hour (AH)?		
D84.	What is the voltage of the rechargeable batteries?		
D85.	How much did you pay for the rechargeable batteries?		
D86.	What are the most serious problems you experience with the vehicular/rechargeable batteries?	Limited power supply	1.
		Cannot power large appliances	2.
		Too expensive to use	3.
		Availability of fuel	4.
		Hard to maintain/service	5.
		Loud/Noisy	6.
		Unpredictable interruptions	7.
		Other specify?	8.
		No problems	9.
D87.	<b>Dry Cell Batteries</b>		
D88.	What specific activities were dry cells batteries used for in your facility?	Lighting	1.
		Entertainment	2.
		Other specify	3.
D89.	How many times per month do you usually purchase dry cell batteries?		
D90.	During your last purchase, how many batteries did you buy?		
D91.	How much did you spend during your last purchase?		
D92.	How many total days did this purchase last?		
D93.	<b>Kerosene</b>		
D94.	What specific activities was kerosene used for in your facility?	Lighting	1.
		Water Heating	2.

		<i>Cooking</i>	3.
		<i>Other specify</i>	4.
<b>D95.</b>	How many litres of kerosene do you use per month?		5.
<b>D96.</b>	During the last 30 days, did this household use Kerosene for the following purposes?	<i>Cooking and boiling water for drinking Y/N</i> <i>Heating water (e.g. for bathing) Y/N</i> <i>For home business Y/N</i>	6.
<b>D97.</b>	During your last purchase, how many litres of kerosene did you buy?		
<b>D98.</b>	How much did you spend during your last purchase?		
<b>D99.</b>	How many total days will this purchase last?		
<b>D100.</b>	<b>Liquefied Petroleum Gas (LPG)</b>		
<b>D101.</b>	During the last 30 days, did this household use LPG for the following purposes?	<i>Cooking</i> <i>Water Heating</i> <i>Refrigeration</i> <i>Other specify</i>	1. 2. 3. 4.
<b>D102.</b>	What size of LPG tank (in kg) does your facility usually use?	<i>1=2.5 Kg tank</i> <i>2=3 Kg tank</i> <i>3=5 Kg tank</i> <i>4=7 Kg tank</i> <i>5=9 Kg tank</i> <i>6=15 Kg tank</i> <i>7=17.5 Kg tank</i> <i>8=19 Kg tank</i> <i>9=29 Kg tank</i> <i>10=48 Kg tank</i> <i>Other specify .....</i>	
<b>D103.</b>	How many LPG tanks do you have?		
<b>D104.</b>	How long have you been using the LPG for facility activities?		
<b>D105.</b>	How do you purchase LPG for use in your facility?	<i>Walk to the suppliers' outlet</i> <i>Delivered by supplier</i> <i>Get on a bus/taxi to the supplier</i>	
<b>D106.</b>	How much do you spend on transport to purchase LPG for facility use?		
<b>D107.</b>	How much did you spend during your last purchase?		
<b>D108.</b>	How much do you spend on LPG in a month?		
<b>D109.</b>	<b>Firewood</b>		
<b>D110.</b>	What is the households main source of firewood?	<i>Self-produced/collect.....1&gt;&gt;Q6</i> <i>Purchased.....2</i> <i>Receive it as gift.....3</i> <i>Other.....4</i>	
<b>D111.</b>	How much did your household spend on firewood in the last 30 days?		
<b>D112.</b>	What quantity of purchased fire wood did your household use in the last 30days?	<i>One cord (scotch cart)</i> <i>One head lot (9kg bundles)</i> <i>Man lot (12 kg bundle)</i> <i>One cord (scotch cart)</i>	
<b>D113.</b>	During your last purchase, how many units of firewood did your household buy?		
<b>D114.</b>	What is the quantity of fire wood used by your facility Purchased per month?		
<b>D115.</b>	What quantity of collected fire wood is used by your household per month?	<i>One cord</i> <i>One head lot (9kg bundles)</i> <i>Man lot (12 kg bundle)</i>	
<b>D116.</b>	Who mainly collects this fire wood that is used by your household?	<i>(Roster)</i>	
<b>D117.</b>	did this person experience any injury while collecting or transporting the firewood?	<i>Yes....1 No....2</i>	
<b>D118.</b>	How much firewood was collected on the last collection?	<i>One cord</i> <i>One head lot (9kg bundles)</i> <i>Man lot (12 kg bundle)</i>	
<b>D119.</b>	How many days did your household use this firewood?		

D120.	What is the distance from your home stead to the place where you collect firewood? ( <i>within homestead premises put zero</i> )	.....in Kilometers	
D121.	How much time do you or any member of your household spend to collect firewood? (including both travel to and from and actual collection) (Hours)		
D122.	<b>Charcoal</b>		
D123.	Does your facility use charcoal for cooking?	Yes.....1 No.....2	
D124.	What is the facility's main source of charcoal?	Self-produced Purchased Receive as gift Other Self-produced	
D125.	How much did you spend on charcoal during your last purchase? (ZMW)		
D126.	How many days in total did this purchase last ?		
D127.	How much does your household spend on charcoal in a month? (ZMW)		
D128.	During the last production, how many units did you produce?	Quantity	
D129.		Unit	
D130.	How much did you spend to produce this charcoal?		
D131.	How many days in total did this own-produced charcoal last?		
D132.	Of the charcoal produced, what quantity did you sell?	Quantity Unit	
D133.	On the largest transaction ( <i>quantity</i> ), at what price did you sell each unit of this own-produced charcoal?	Price in ZMW Unit	
D134.	During the last 30 days, did this household use charcoal for the following purposes?	Cooking and boiling water for drinking (Yes/No) Heating water (e.g. for bathing) (Yes/No) For home business (Yes/No) Other, specify	
D135.	What is the quantity of charcoal used by your household per month?	Quantity Unit	
D136.	<b>Coal</b>		
D137.	What is your main source of coal?	Purchased	
D138.		Receive it as gift	
D139.		Other Specify	
D140.	What specific activities was coal used for in your facility?	Cooking	
D141.		Water Heating	
D142.		Brewing	
D143.		Other specify	
D144.	How much did your facility spend on coal in the last 30 days?		
D145.	How many total days did this purchase last?		
D146.	<b>Biogas</b>		
D147.	During the last 30 days, did this facility use Biogas for the following purposes?	Cooking Heating water Brewing Refrigeration Other, specify	
D148.	What size of Biodigester (in cubic meters) does your facility usually use?	1=4 Cubic meters 2=6 Cubic meters 3=9 Cubic meters 4=14 Cubic meters	
D149.	What was the cost of constructing the Biogas digester?		
D150.	Does your facility use Biogas for Lighting?	1=Yes 2=No	
D151.	<b>Candle</b>		

<b>D152.</b>	What do you use candles for?	<i>Lighting</i>	<i>1.</i>
		<i>Religious rites</i>	<i>2.</i>
		<i>Other, specify</i>	<i>3.</i>
<b>D153.</b>	How many candles do you use per month?		
<b>D154.</b>	On the last purchase, how many sticks of candles did you buy?		
<b>D155.</b>	How much did this purchase cost?		
<b>D156.</b>	How many days did this purchase last?		