

Transition to Clean Energy survey				Notes
COR1	Telephone #			
COR2_1	Result of call	Phone disconnected/ busy	1	Try for up to 3 times
		Not in service	2	
		Did not answer	3	Try for up to 3 times
		Picked up and refused	4	
		Incomplete and refused	5	
		Incomplete and call returned	6	Try for up to 3 times
		Complete	7	
		ineligible	8	
Time_1	Time for first result of call			
Date_1	Date for first result of call			
COR2_2	Result of call	Phone disconnected/ busy	1	Try for up to 3 times
		Not in service	2	
		Did not answer	3	Try for up to 3 times
		Picked up and refused	4	
		Incomplete and refused	5	
		Incomplete and call returned	6	Try for up to 3 times
		Complete	7	
Time_2	Time for second result of call			
Date_2	Date for second result of call			
COR2_3	Result of call	Phone disconnected/ busy	1	Try for up to 3 times
		Not in service	2	
		Did not answer	3	Try for up to 3 times
		Picked up and refused	4	
		Incomplete and refused	5	
		Incomplete and call returned	6	Try for up to 3 times
		Complete	7	
Time_3	Time for third result of call			
Date_3	Date for third result of call			

Consent			Notes	
COR3	Good morning/ afternoon/ evening, I am from for Economic Research and on behalf of Economic Research Forum. We are trying to study the possibility of using the renewable energy and its impact on the firms' economy and productivity in "Egypt, Morocco, Tunisia, and Jordan" for the purpose of scientific research, and we want to ask you some questions.	Yes	1	
	<p>It will take a few minutes to complete this survey.</p> <p>We guarantee to maintain the confidentiality of the data and use it only for scientific research, and not to share with any party</p> <p>If you have questions, concerns, or complaints, or think the research has hurt you, please contact [01002510883].</p> <p>Do you agree to participate in this survey?</p>	No	2	If no (=2), end interview
COR4	Do you agree to be recorded for quality control purposes?	Yes	1	
		No	2	
COR5	Currently, how many workers were working in your firm including yourself (paid and unpaid)?	Less than 5	1	
		6 to 19	2	
		20-99	3	
		100+	4	if 100+ , end the interview
RESP	What is your role in the business?	Owner	1	
		General Manager	2	
		Other senior manager (HR/CFO)	3	
		Other person who can tell you about the business earnings and employees	4	
		Someone who cannot tell you about the business earnings and employees	5	
ALT_TEL NUM	At what number can we reach someone knowledgeable about the firm?	[] number		Ask only if 5 in RESP, then end the interview

COR6	What is the establishment's main sector of operation?	Agriculture, fishing or mining	1	
		Textile & Garments	2	
		Industry of Food	3	
		Industry of mechanics or electronics or Vehicles or Services of Motor Vehicles	4	
		Leather / Chemical / Petroleum /Plastics / Rubber / metallic Products	5	
		Wood Products, Furniture, Paper & Publishing	6	
		Construction or utilities	7	
		Retail	8	
		Wholesale	9	
		Transportation and storage	10	
		Accommodation and food services	11	
		Information and communication or IT	12	
		Financial activities or real estate	13	
		Education or Health	14	
		Other Manufacturing or services (specify)	15	
COR7	In which governorate is your business located?	Oman	1	
		Balkka	2	
		El Zarkaa	3	
		Madba	4	
		Erbd	5	
		Elmafrk	6	
		Gersh	7	
		Agloon	8	
		El Kark	9	
		EL Tofila	10	
		Maan	11	
		El akba	12	
COR8	Is the head office of this establishment located in Urban/Rural?	Urban	1	
		Rural	2	
COR9	Who are the owners/ Top Managers of this establishment? INTERVIEWER: READ EACH CATEGORY	private Jordanian individuals, companies or organizations	1	
		private foreign individuals, companies or organizations	2	
		government/state	3	End the interview
		other (specify)	4	
COR10	Is the establishment's premises owned or rented	Owned	1	
		rented	2	
		Other (specify)	3	

COR11	In what year did your establishment begin operations? ENUMERATOR: Use 998 if don't know, 999 if refuse	[] Year		
COR12	What percentage is owned by females? INTERVIEWER: if there are no females among owners please write 0 ENUMERATOR: Use 998 if don't know, 999 if refuse	[] percent		
COR13	How many years of experience working in this field does the Top Manager have? Interviewer: if less than a year, please write 0. Interviewer: use 98 if "Don't Know", 99 if "Refused".	[] Year		
COR14	Is the Top Manager Male or Female	Male	1	
		Female	2	
COR15	How old is top manager?	18-29	1	
		30-39	2	
		40-49	3	
		50-59	4	
		60+	5	
		Don't Know	6	
COR16	What is the last educational level that the top manager completed successfully?	Less than primary	1	
		Primary/ Preparatory	2	
		General secondary / vocational	3	
		Diploma (Intermediate Institute / Higher Institute)	4	
		University	5	
		Above university level	6	
		I don't know	7	
COR17	On average, what is the share of Highly educated workers in the total workforce in this establishment in 2023? (ENUMERATOR: Highly educated means Intermediate Institute/ Higher Institute, or University, or Above university level)	25% or less	1	
		26% to 50%	2	
		51% to 75%	3	
		more than 75%	4	
COR18_0	Does this establishment have taxes registration	Yes	1	
		No	2	
		Tax-free	3	
		Non-Applicable	4	
		Refused	5	
COR18	In what year was this establishment formally (Taxes Registration) registered? ENUMERATOR: Use 998 if don't know, 999 if refuse	[] Year		Ask only if COR18_0=1
COR19	Does this establishment have an internationally recognized quality certification?	Yes	1	
		No	2	
		STILL IN PROCESS	3	
		Don't know	4	

Firms Labor			Notes		
EMP1	How many workers in total (paid/unpaid, or full time/part time) does this establishment have including yourself [Insert last complete fiscal year]?	[] number	If the answer is one, skip to FIR1		
EMP2	How many workers are between 18-29 years old? including the owner/top manager	[] number			
EMP3	<p>At the end of fiscal year [Insert last complete fiscal year], how many permanent, full-time individuals worked in this establishment , and how many part-time workers? Please include all workers and managers.</p> <p>INTERVIEWER: INCLUDE INTERVIEWEE IF APPLICABLE and make sure that the sum add to the total number of workers in EMP1.</p> <p>ENUMERATOR: Use 998 if don't know, 999 if refuse</p> <p>For interviewer: Permanent, full-time workers who are hired continuously for an indefinite period and who typically work the standard number of hours defined as full-time by the organisation or by labour law.</p> <p>Part-time workers hired for fewer hours than a standard full-time job, usually without the long-term job security of full-time positions. They may also be seasonal or contract workers.</p>	Permanent, full-time workers	EMP3_1:[] Total number	EMP3_1_1 : [] number of females	
		Part-time workers	EMP3_2: [] Total number	EMP3_2_2 : [] number of females	
EMP4	<p>ASK IF MANUFACTURING</p> <p>At the end of fiscal year [Insert last complete fiscal year], how many permanent, full-time production workers in this establishment were:</p> <p>Ask only if COR6 =[from 2 to 6] or other [15]. (Manufacturing)</p>	[] Total number	EMP4_1 : [] number of females		

EMP5	How many permanent, full-time workers in this establishment were: Interviewer: Use 998 if "Don't Know", 999 if "Refused".	In highly skilled jobs For interviewer: That is, professionals or technicians whose tasks require extensive theoretical and technical knowledge	EMP5_1: [] number	
		in semi-medial Skilled jobs For interviewer: That is, jobs whose tasks require some level of mechanical or technical knowledge	EMP5_2: [] number	
		In low-skilled jobs For interviewer: That is, jobs whose tasks do not require specialized knowledge	EMP5_3: [] number	
Firms Sales & Supplies				Notes
FIR1	In fiscal year [2022], what percentage of this establishment's purchases of material inputs or supplies were: ENUMERATOR: Use 998 if don't know, 996 if refuse	Of domestic origin	FIR1_1: [] Percentage	
		Of foreign origin	FIR1_2: [] Percentage	
FIR3	What was the share of exports over sales in [2022]? INTERVIEWER: if there are no exports, please write 0 ENUMERATOR: Use 998 if don't know, 999 if refuse, 997 if not applicable	[] percent		

Establishment's Present Situation				Notes
L1	At this time, does this establishment have a checking (current) or savings account?	Yes	1	
		No	2	
		Don't know	3	
L2	Does this establishment have a line of credit or a loan from a financial institution? INTERVIEWER: READ the categorizes	Yes, a loan only	1	
		Yes, a line of credit only	2	
		Yes, both a line of credit and a loan	3	
		No	4	Skip to L4
		Don't know	5	Skip to L4
L3	Did this financing require collateral?	Yes	1	
		No	2	
		Don't know	3	
L4	Is Access to financing / credit a problem?	Yes	1	
		No	2	

Financial inclusion				Notes
L5	Do you have internet access in your enterprise?	Yes	1	
		No	2	
L7	Do you use cash as part of your business transactions?	Yes	1	
		No	2	
L9	Do you use mobile money to send/receive money?	Yes	1	
		No	2	
L11	Do you sell/buy any firm products online?	Yes	1	
		No	2	Skip to G2
L12	How do you receive payment for online sales? (Allow for multiple responses)	Mobile banking app	1	
		E-wallets (Ex: Zain cash / Orange Money)	2	
		Cash	3	
		Other (specify)	4	

Connection to the grid				Notes
G2	How much did the establishment pay for the grid connection fees when it started its work? (in JOD) Use 9998 if don't know, 9999 if refuse, and "9995" if it was already connected when the establishment started.	[] Amount in Jordanian Dinar		
G4	How do you make your electricity bill payment? (Allow for multiple responses)	Bill Collector	1	
		E-wallets (Zain Cash, Dinarak, Orange Money Jordan)	2	
		Mobile payments app (PayPal)	3	
		Pay at the utility office	4	
		Pay at the bank/post office	5	
		Other (specify)	6	
G6	In the last month, how much did you spend on electricity? (Cost in Jordanian Dinar) ENUMERATOR: Use 9998 if don't know, 9999 if refuse	[] Amount in Jordanian Dinar		
G7	What was the percentage of that cost as a share of your establishment operation cost? ENUMERATOR: Use 998 if don't know, 999 if refuse	[] percent		
G10	In a typical month, how many outages/blackouts of the grid happen?	Daily	1	
		Once/Twice a Week	2	
		Once/Twice a Month	3	
		Never	4	skip next question G11
G11	On average, what is the total duration of all the outages/blackouts? Interviewer: Based on your answer in G10	[] Number of hours		

G12	Are the majority of outages in your area announced ahead of time?	Mostly announced	1	
		Mostly unannounced	2	
		Don't know	3	
G13	What is your main back-up source of electricity during outages from the grid?	Generator	1	
		Battery or storage device	2	
		Solar home system	3	
		Solar lantern/lighting system	4	
		Kerosene lamp	5	
		Candle	6	
		Torch/flashlight	7	
		Other (specify)	8	
G14	During the last power outage, what were the main ways the establishment was affected? (Allow for multiple responses)	Wasted perishable products/discarded damaged goods	1	
		Machines/appliances were damaged	2	
		Could not operate establishment	3	
		Could not serve customers	4	
		No problems	5	
		Other (specify)	8	
G16	What is the most serious problem you experience with electricity from the grid?	Supply shortage/not enough hours of electricity	1	
		Voltage fluctuations	2	
		Unpredictable interruptions	3	
		Unexpectedly high bills (in irregular form)	4	
		Too expensive (in irregular form)	5	
		Do not trust the supplier	6	
		Cannot power large appliances	7	
		Maintenance/service problems	8	
		Other (specify)	9	
	No problems	10		
Electricity Other Sources				Notes
O1	In the last 12 months, did the establishment use a generator to supply electricity?	Yes	1	
		No	2	
O2	During the last 12 months, did the establishment use any stored electricity (such as car batteries)?	Yes	1	
		No	2	

Awareness of new energy sources				Notes
Are you familiar with the following terms				
AW1	Clean Energy	Yes	1	
		No	2	
AW2	Renewable energy	Yes	1	
		No	2	
Willingness to pay for a solar PV system				Notes
W1	Have you personally considered using clean energies for your business	Yes	1	
		No	2	
		I am using it	3	
		I know nothing about it	4	
W2	If you employ renewables, do you pay any tariffs on the final product or spare parts? only for those answered 3 in W1	Yes	1	Ask only if w1=3
		No	2	
W3	If you were offered the establishment of a solar energy system to meet your electricity needs at the same price as electricity today, and you were given the option to complete the payments in monthly installments. On how many monthly installments accept the offer Interviewer: Don't read the options	six months	1	
		12 months	2	
		24 months or more	3	
		I won't accept	4	
W4	Why are you not willing to pay this amount? (Main reason)	Cannot afford the payment	1	Ask only if w3=4
		Do not need electricity	2	
		Electricity service is unreliable	3	
		Monthly fee is too expensive	4	
		The landlord won't accept	5	
		Other (specify)	6	
TAM-UTAUT				Notes
Perceived Usefulness				
Please rate the following statements on a scale of 1 to 5 about willingness to use clean renewable energy, such as solar energy / wind energy / hydro energy, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree."				
So that it will be to the interviewer:				
1) Strongly Disagree				
2) Disagree				
3) Neutral				
4) Agree				
5) Strongly Agree				
TAM1	Adopting renewable energy technologies would improve our overall energy efficiency.		<input type="checkbox"/>	
TAM2	The use of renewable energy technologies would enhance our daily operations.		<input type="checkbox"/>	
TAM3	Renewable energy technologies would make a positive impact on the environment.		<input type="checkbox"/>	
TAM4	Renewable energy technologies would reduce our energy costs.		<input type="checkbox"/>	

Perceived Ease of Use			
TAM5	Our staff finds renewable energy technologies easy to understand and operate.	<input type="checkbox"/>	
TAM6	The installation and maintenance of renewable energy technologies seem hassle-free to our company.	<input type="checkbox"/>	
Social Influence			
TAM7	Recommendations from other businesses in our industry would encourage us to adopt renewable energy technologies.	<input type="checkbox"/>	
TAM9	Government incentives and policies that support the adoption of renewable energy influence our decision-making.	<input type="checkbox"/>	
Facilitating Conditions			
TAM10	We have access to the necessary infrastructure and resources to adopt renewable energy technologies.	<input type="checkbox"/>	
TAM11	The cost of implementing renewable energy technologies is within our financial means.	<input type="checkbox"/>	
TAM13	We are aware of government incentives and policies that support the adoption of renewable energy technologies.	<input type="checkbox"/>	
TAM14	The availability of renewable energy technology providers in our area is sufficient.	<input type="checkbox"/>	
Behavioral Intention			
TAM15	We plan to invest in renewable energy technologies.	<input type="checkbox"/>	

Business Environment			Notes
<p>In a scale of 1 to 5, where 1 is “completely not satisfied” and 5 is “completely satisfied.” So that it will be to the interviewer: 1- Not satisfied at all 2- Not satisfied 3- Neutral 4- Satisfied 5- Completely satisfied</p>			
M1	To what extent are you satisfied with the official electricity service?	<input type="checkbox"/>	
M2	To what extent are you satisfied with the bill based on the service you receive	<input type="checkbox"/>	
Access to information			Notes
M3	Do you have access to information from an early warning weather system?	Yes	1
		No	2
M4	Do you have access to information regarding fuel price changes?	Yes	1
		No	2
M5	Do you have access to information regarding changes in electricity tariffs?	Yes	1
		No	2
M6	Do you have access to information regarding back-up generation technologies?	Yes	1
		No	2
M9	What information would be useful to you to help you manage, and make better decisions regarding, your energy consumption? (Interviewer: Read each choice). Allow for multiple choices.	Information on electricity outages/load shedding schedule	1
		Information on changes in fuel prices	2
		Information on changes in electricity tariffs	3
		Information on prices for back-up generation	4
		Information on financing options	5
		Information on scheduled maintenance for the grid	6
		Other (specify)	7

Expectations from the government				Notes
M11	Should the cost of electricity be subsidized?	Yes	1	
		No	2	skip M12
		Don't know	3	skip M12
M12	If yes, should the subsidy be universal or targeted?	Universal	1	
		Targeted	2	
		Don't know	3	
M13	Should electricity from renewable sources be subsidized?	Yes	1	
		No	2	
		Don't know	3	
Post-materialism index				Notes
Regarding the goals of this country for the next 10 years, below are some of the objectives that people consider as top priority				
First list				
M16	Which one of these do you consider the most important? INSTRUCTOR: READ ALL OPTIONS EXCEPT "Don't know"	High level of economic growth and job opportunities creation	1	
		Making sure the country has strong defense forces	2	
		Seeing that people have more say about how things are done in their jobs and their communities	3	
		Trying to make our cities and countryside more beautiful	4	
		Don't know	6	
Second list				
M17	Which one of these do you consider the most important? INSTRUCTOR: READ ALL OPTIONS EXCEPT "Don't know"	Maintaining order in the nation	1	
		Giving people more say in important government decisions	2	
		Fighting rising prices	3	
		Protecting freedom of speech	4	
		Don't know	6	
Third list				
M18	Which one of these do you consider the most important? INSTRUCTOR: READ ALL OPTIONS EXCEPT "Don't know"	A stable economy	1	
		Progress toward a less impersonal and more human society	2	
		Progress toward a society in which ideas count more than money	3	
		The fight against crime	4	
		Don't know	6	
Firms Revenue				Notes
FIR4	What category was the establishment's total annual sales/revenue In fiscal year [Insert last complete fiscal year]? Enumerator: read all the options except refuse and don't know Note: It would be preferable to list these brackets in an ascending order	150,000 JOD or more JOD	1	
		30,000 JOD to less than 150,000 JOD	2	
		15,000 JOD to less than 30,000 JOD	3	
		5,000 JOD to less than 15,000 JOD	4	
		0 to less than 5,000 JOD	5	
		Prefer not to say.	9	
		Don't know	10	