

IDRC-Firms 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				
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		1=Yes; 2=No	If no (=2), end interview

	<p>renewable energy and its impact on the firms' economy and productivity in "Egypt, Morocco, Tunisia, Sudan, Jordan" for the purpose of scientific research, and we want to ask you some questions.</p> <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>			
COR4	Do you agree to be recorded for quality control purposes?		1=Yes; 2=No	
COR5	Currently, How many workers were working in your firm including yourself (paid and unpaid)?	Less than 5	1	if 100+ , end the interview
		6 to 19	2	
		20-99	3	
		100+	4	
RESP	What is your role in the business?	Owner	1	From 1 to 4, skip to COR6 If 5, try to reschedule with someone who can
		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?		<input type="checkbox"/> no.	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	
		Services (electricity)	15	
		Services (water, gas)	16	
		Other Manufacturing or services (specify)	17	
COR7	In which governorate is your business located?	01. Ariana 02. Béja 03. Ben Arous 04. Bizerte 05. Gabès 06. Gafsa 07. Jendouba 08. Kairouan 09. Kasserine 10. Kébili 11. Le Kef 12. Mahdia 13. La Manouba 14. Médenine 15. Monastir 16. Nabeul 17. Sfax 18. Sidi Bouzid 19. Siliana 20. Sousse 21. Tataouine 22. Tozeur 23. Tunis 24. Zaghouan		

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 domestic 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? Interviewer: use 998 if "Don't Know", 999 if "Refused".		[] Year	
COR12	What percentage is owned by females? Interviewer: if there are no females among owners please write 0 Interviewer: use 998 if "Don't Know", 999 if "Refused".		[] percent	
COR13	How many years of experience working in this sector 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	
		DK	6	
COR16	What is the last educational level that the top manager completed successfully?	Less than primary education	1	
		Basic education (including middle school)	2	
		Secondary (all streams)	3	
		Higher technical education (ISET / BTS)	4	
		University (Licence / Maîtrise)	5	

		Master's level or higher	6	
		Don't know	7	
COR16_2	Does the owner/ top manager possess any of the following entrepreneurial competencies? (Please select all that apply	Does the owner/general manager have the ability to recognize market opportunities and seize them for the firm's development?	1	
		Does the owner/general manager have the ability to innovate by creating or improving products, services or processes for the firm?	2	
		Does the owner/general manager have the ability to make crucial business decisions, such as expanding into new markets or investing in new technologies?	3	
		Does the owner/general manager have the ability to identify, assess and manage the risks facing the firm?	4	
		Does the owner/general manager have the ability to manage a team effectively and motivate employees to achieve the firm's objectives?	5	
COR17	On average, what is the share of Highly educated workers in the total workforce in this establishment last month) 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 the establishment have a tax registration (formal registration)?	Yes	1	Skip COR18
		No	2	
COR18	In what year was this establishment formally (Taxes Registration) registered? Interviewer: use 998 if "Don't Know", 999 if "Refused".	<input type="text"/> Year		
COR19		Yes	1	
		No	2	

	Does this establishment have an internationally recognized quality certification?	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?	[] Number		If the answer is one, skip to FIR1
EMP2	How many workers are between 18-29 years old?		[] number	
EMP3	<p>"How many permanent individuals work full-time at this establishment, and how many are part-time? Please include all workers and managers *Interviewer: Make sure to include the person being interviewed in the number, and make sure that the total is added to the total number of workers in EMP1. *For the Interviewer: Use 998 if he does not know, 999 if he does not know *For the Interviewer: Permanent full-time workers are defined as all employees who are continuously employed for an indefinite period and who typically work the specified number of hours defined as full-time by the organization or labor law. *For the Interviewer: Part-time workers are defined as all workers who are employed for fewer hours than a standard full-time job, usually without the long-term job security of full-time jobs. 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 employed last fiscal year	EMP3_2 : [] Total Number	EMP3_2_2: [] Number of Females
EMP4	<p>How many permanent, full-time production workers are there at this establishment currently? For the interviewer: Use 998 if he does not know, 999 if he refuses It's asked if COR6 = [2 to 6] or other [15]. (Manufacturing)</p>	Production workers	[] Total number	EMP4_1: [] Number of Females
EMP6	Have any of your employees/managers been trained in: energy saving or ISO certification?	Yes	1	
		No	2	
Firms Sales & Supplies				Notes

FIR1_0	I am aware of my competitors	Yes	1	
		No	2	
		Not Applicable	3	
FIR2_0	Competition in my field is less intense	Yes	1	
		No	2	
		Not Applicable	3	
FIR3_0	Did the firm export in [2022]?	Yes	1	
		No	2	*If no or NA, Skip to FIR4
		Not Applicable	3	
FIR3	What was the share of exports over sales in [2022]? Interviewer: Use 998 if "Don't Know", 999 if "Refused", 997 if "Not Applicable". Interviewer: If there are no Exports please write 0		[] percent	
Firms Revenue				Notes
FIR4	What category was the establishment's total annual sales/revenue In fiscal year 2022? Enumerator: read all the options except refuse and don't know	500,000 TND or more	1	
		200,000 to less than TND 500,000	2	
		100,000 to less than TND 200,000	3	
		50,000 to less than TND 100,000	4	
		0 to less than 50,000 TND	5	
		Refuse	9	
		Don't know	10	

Establishment's Present Situation				Notes
L4	Is Access to financing / credit a problem	Yes	1	
		No	2	
Financial inclusion				
L5	Do you have internet access in your enterprise?	Yes	1	
		No	2	
L11	Do you sell/buy any firm products online?	Yes	1	
		No	2	

Connection to the grid			
G6	In the last month, how much did you spend on electricity? (cost in tunisian dinar) Interviewer: Use 9998 if "Don't Know", 9999 if "Refused".	<input type="text"/> Amount in tunisian dinar	
G7	What was that as a share of your establishment operation cost (in percentage)? Interviewer: use 998 if "Don't Know", 999 if "Refused".	<input type="text"/> percentage	
G8	What are the worst months for service from the grid? (It allows for multiple choices except for last answer)	January	1
		February	2
		March	3
		April	4
		May	5
		June	6
		July	7
		August	8
		September	9
		October	10
		November	11
		December	12
			All months are the same
G9	How many hours of electricity do you use in day from the grid? (cannot exceed 24 hours)	<input type="text"/> Hours of use	
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 G11
G11	On average , what is the total duration of all the outages/blackouts (Daily / Weakly / Monthly)? Interviewer: (Daily / Weakly / Monthly) Based on the answer in G10	<input type="text"/> Number of hours	
G13	What is your main back-up source of electricity during outages from the grid?	Generator	1
		Batter or storage device	2
		Solar home system	3
		Solar lantern/lighting system	4
		Kerosene lamp	5
		Candle	6
		Torch/flashlight	7

		Other (specify)	8	
		Nothing	9	
G14	During the last power outage, what were the main ways the establishment was affected? (Allow for multiple responses)	damaged goods\ products (such as food products, etc.)	1	
		Machines/appliances were damaged	2	
		Could not operate establishment	3	
		Could not serve customers	4	
		No problems	5	
		Other (specify)	8	
G15	In the last 12 months, did any of the establishment's appliances get damaged because of voltage fluctuations?	Yes	1	
		No	2	
		Don't know	3	
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	4	
		Too expensive	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				
O1	In the last 12 months, did the establishment use a generator to supply electricity?	Yes	1	
		No	2	
O2	In the last 12 months, did the establishment use any rechargeable batteries, such as car batteries, for electricity?	Yes	1	
		No	2	

	Awareness of Energy transition			
AW_1	Are you familiar with the following terms			
AW1	Clean Energy	Yes	1	If the ansewer is No then skip questions in AW_2
		No	2	
AW2	Renewable energy	Yes	1	
		No	2	
AW3	Energy intensity	Yes	1	
		No	2	
AW4	Energy transition	Yes	1	
		No	2	
AW5	Energy efficiency	Yes	1	
		No	2	
AW6	Energy saving	Yes	1	
		No	2	
AW_2	Are you familiar with the following benefits of clean energy			
AW21	Reduction of carbon emissions	Yes	1	
		No	2	
AW22	Air quality improvement	Yes	1	
		No	2	
AW23	Energy independence	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?	Yes	1	only for those answered 3 in W1
		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	Only asked to those who answered 4 in W3
		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 Model				
	<p>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."</p> <p>So that it will be for the Interviewer:</p> <p>1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree</p>			
TAM1	Adopting renewable energy technologies would improve our overall energy efficiency.		<input type="checkbox"/> Scale of 1 to 5	
TAM2	The use of renewable energy technologies would enhance our daily operations.		<input type="checkbox"/> Scale of 1 to 5	
TAM3	Renewable energy technologies would make a positive impact on the environment.		<input type="checkbox"/> Scale of 1 to 5	
TAM4	Renewable energy technologies would reduce our energy costs.		<input type="checkbox"/> Scale of 1 to 5	
Perceived Ease of Us				
TAM5	Our staff finds renewable energy technologies easy to understand and operate.		<input type="checkbox"/> Scale of 1 to 5	
TAM6	The installation and maintenance of renewable energy technologies seem hassle-free to our company.		<input type="checkbox"/> Scale of 1 to 5	
TAM6_2	The transition to renewable energy technologies would be smooth and straightforward for our organization.		<input type="checkbox"/> Scale of 1 to 5	
TAM6_3	The training required for our staff to use renewable energy technologies is minimal.		<input type="checkbox"/> Scale of 1 to 5	
Social Influence				
TAM7	Recommendations from other businesses in our industry would encourage us to adopt renewable energy technologies.		<input type="checkbox"/> Scale of 1 to 5	

TAM8	Media coverage and public opinion on renewable energy play a role in shaping our perceptions.		<input type="checkbox"/> Scale of 1 to 5	
TAM9	Government incentives and policies that support the adoption of renewable energy influence our decision-making.		<input type="checkbox"/> Scale of 1 to 5	
TAM9_2	Our stakeholders (clients, suppliers, partners) express a preference for companies adopting renewable energies.		<input type="checkbox"/> Scale of 1 to 5	
Facilitating Condition				
TAM10	We have access to the necessary infrastructure and resources to adopt renewable energy technologies.		<input type="checkbox"/> Scale of 1 to 5	
TAM11	The cost of implementing renewable energy technologies is within our financial means.		<input type="checkbox"/> Scale of 1 to 5	
TAM12	We have the technical knowledge required to utilize renewable energy technologies.		<input type="checkbox"/> Scale of 1 to 5	
TAM13	We are aware of government incentives and policies that support the adoption of renewable energy technologies.		<input type="checkbox"/> Scale of 1 to 5	
Behavioral Intention				
TAM15	We plan to invest in renewable energy technologies.		<input type="checkbox"/> Scale of 1 to 5	
TAM16	We are motivated to learn more about renewable energies and their benefits.		<input type="checkbox"/> Scale of 1 to 5	
TAM17	Our company intends to adopt renewable energy technologies in the near future.		<input type="checkbox"/> Scale of 1 to 5	
TAM18	We are actively exploring options to integrate renewable energy technologies into our operations.		<input type="checkbox"/> Scale of 1 to 5	

Socio-political context			Notes	
	In a scale from 1 to 5, where 1 is "Completely Not Satisfied" and 5 is "Completely Satisfied". So that it will be to the interviewer: 1) Completely Not Satisfied 2) Not Satisfied 3) Neutral 4) Satisfied 5) Completely Satisfied			
M1	To what extent are you satisfied with the electricity service provided by the government?		<input type="checkbox"/>	

M2	To what extent are you satisfied with the bill based on the service you receive		[]	
M3	Do you have access to weather early warning information?	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 electricity price changes?	Yes	1	
		No	2	
M6	Do you have access to information regarding additional/backup production technologies?	Yes	1	
		No	2	
M8_1	Do you know how much a 20 kW solar PV system costs?	Yes	1	
		No	2	Skip to M9
		Don't know	3	Skip to M9
M8_2	Please give us an estimate of how much you think a 20 kW solar PV system costs. Interviewer: Use 9998 if he does not know, 9999 if he refuses	[] Amount in Tunisian Dinar		
M9	What information would be useful to you to help you manage, and make better decisions regarding, your energy consumption? (Interviewer: Read all the options. It is possible to have more than one answer)	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 subsidised?	Yes	1	
		No	2	Skip M12
		Don't know	3	Skip M12
M12	If yes, should the subsidy be universal or targetted?	Universal	1	
		Targetted	2	
		Don't know	3	

M13	Should electricity from renewable sources be subsidised?	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 creation	1	
		Making sure the country has strong defence 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	