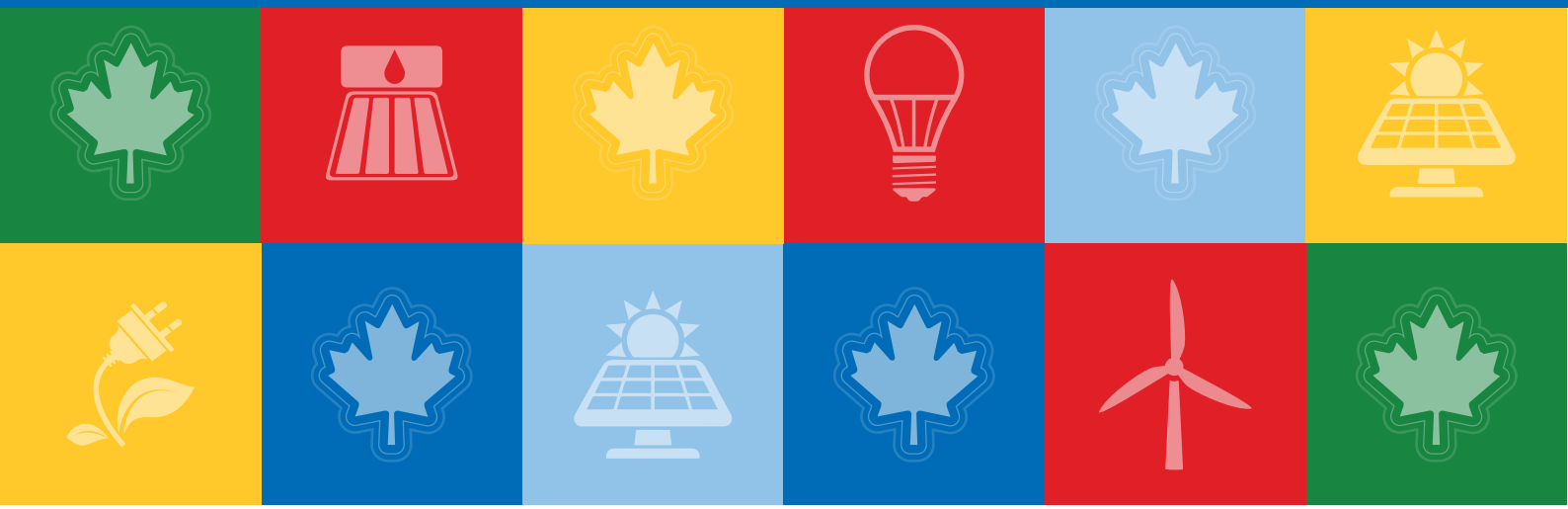
SEED

مشروع التنمية الاقتصادية والطاقة المستدامة في الأردن

Sustainable Energy and Economic Development Project in Jordan



PV & Savings Calculator User Manual

Canada

Cowater International

JREEEF

Jordan Renewable Energy & Energy Efficiency Fund

صندوق تشجيع الطاقة المتجددة وترشيد الطاقة

MINISTRY OF ENERGY AND MINERAL RESOURCES

وزارة الطاقة والثروة المعدنية

PV & Savings Calculator User Manual

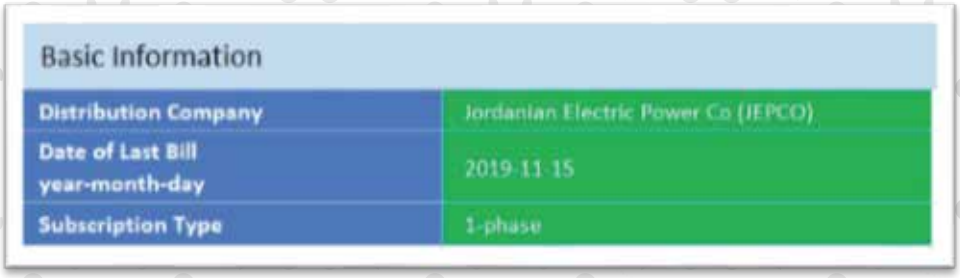
The economic analysis tool is a tool targeted to help you estimate photovoltaic system requirements based on your electricity bills over the last 12 months, and quantify electrical energy savings if a photovoltaic system is installed.
This tool was developed using Microsoft Excel; therefore, in order to use it, Microsoft Excel must be installed on your device. You also have the option to use free spreadsheet online editors such as Google Sheets and Microsoft Excel Online.

The excel file contains one worksheet named "Electricity Saving Calculation", whereby historical electricity bills and electricity consumption data are to be inputted for calculation purposes.

To use this tool efficiently, please follow the steps outlined below.

Note: for a more user-friendly experience, cells in the spreadsheet requiring user input are colored green.

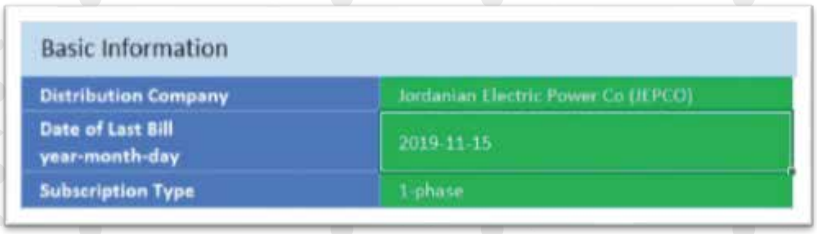
Step 1: Inputting Basic Information



There are three main pieces of information to be filled in:

1) The distribution company issuing your bill; select the distribution company relevant to your subscription from the drop-down menu.

2)The date of the last issued bill; type in the date for the last issued bill in the form off year-month-day.



3) Select your subscription type (1-phase or 3-phase) from the drop-down menu.

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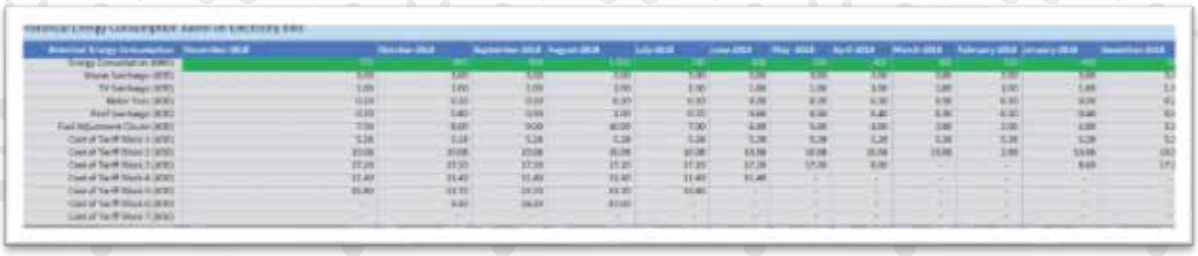
Step 2: Inputting Historical Energy Consumption Data Based on Previous Electricity Bills



In the cell named "Energy Consumption (kWh)", fill in the amount of electricity consumption for the last 12 months based on previously issued electricity bills. The tool will automatically calculate the value of each monthly bill in JOD and provide details on the value for each item included in your bill, including the cost of consumption per tariff block.

In addition, the tool will also automatically calculate the photovoltaic system specifications required to fully cover the electricity consumption based on your historical data. These specifications will appear in the section named "PV System Specifications Required to Fully Cover Electricity Consumption". These specifications will aid in identifying the required photovoltaic system capacity in kWp and its estimated cost based on prevalent local market prices in the year 2019. Such prices range between 500 to 800 JOD/kWp, depending on factors like photovoltaic module and mounting structure types.

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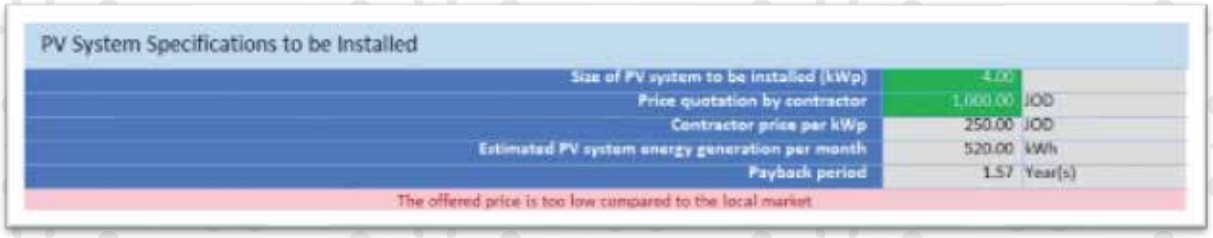
Step 3: PV System Specifications to be Installed

Based on the information provided in the "PV System Specifications Required to Fully Cover Electricity Consumption" section, the photovoltaic system capacity you actually intend on installing can be inputted in the section "PV System Specifications to be Installed". At this stage, photovoltaic system installation companies/contractors can be contacted to inquire about the estimated cost of the photovoltaic system.



PV System Specifications to be Installed

Size of PV system to be installed (kWp)	4.00	
Price quotation by contractor	1,000.00	JOD
Contractor price per kWp	250.00	JOD
Estimated PV system energy generation per month	520.00	kWh
Payback period	1.57	Year(s)

The offered price is too low compared to the local market

After inquiring about costs, you can input the estimated costs provided by the contractor in the appropriate cell. The tool will then calculate the price per kWp and will compare this price with prevalent local market prices. A recommendation will be issued about the reasonability of the photovoltaic system price.

From thereon, the tool will calculate estimated future electricity bills based on the capacity of the photovoltaic system intended to be installed and the historical electricity consumption previously inputted. This will appear in the table shown below.