

ELECTRICITY COST CALCULATOR

Convert Python Script to .exe File

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1. Objective

Converting a Python script to a standalone executable (.exe) file allows it to be run on Windows systems without requiring a Python installation.

2. Steps to follow

2.1. Step 1: Install PyInstaller

Open a terminal (Command Prompt, PowerShell, or Anaconda Prompt) and run:

```
pip install pyinstaller
```

2.2. Step 2: Navigate to Your Script's Directory

Go into the directory where your '.py' file is located. (In this example – Electricity Cost Cal.py)

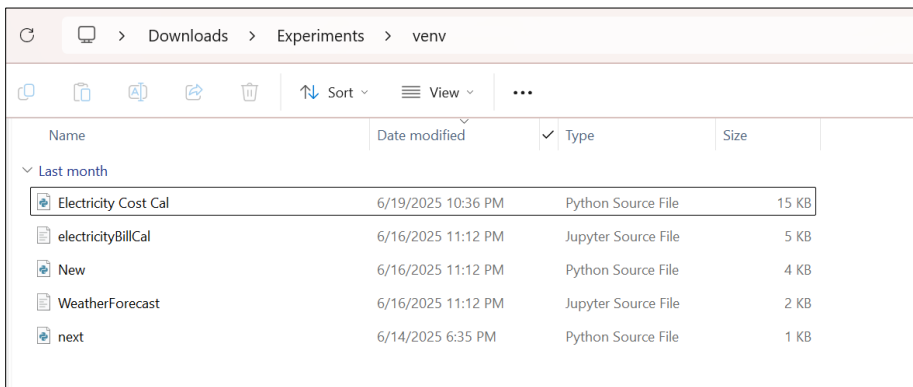


Figure 01

2.3. Step 3: Open Command Prompt

Right click on the screen and click '**Open in terminal**' action from the list. You will get a window shown below.

E.g. C:\Users\UserName\Downloads\Experiments\venv



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

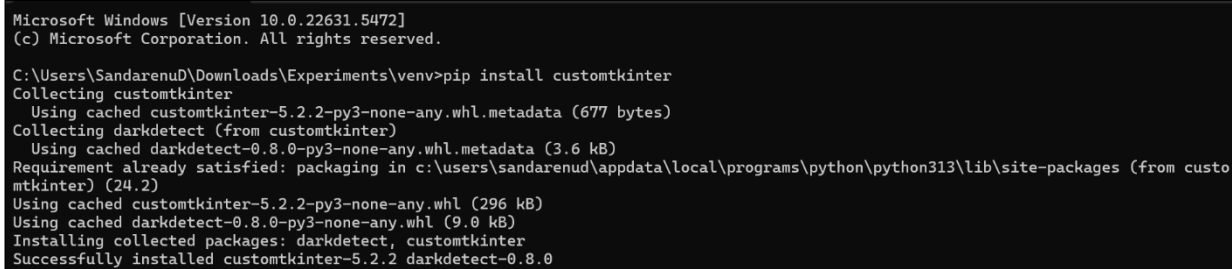
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\SandarenuD\Downloads\Experiments\venv>
```

Figure 02

2.4. Step 4: Ensure the libraries that used is Installed in python environment.

```
pip install customtkinter
pip install tkinter
```



```
Microsoft Windows [Version 10.0.22631.5472]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SandarenuD\Downloads\Experiments\venv>pip install customtkinter
Collecting customtkinter
  Using cached customtkinter-5.2.2-py3-none-any.whl.metadata (677 bytes)
Collecting darkdetect (from customtkinter)
  Using cached darkdetect-0.8.0-py3-none-any.whl.metadata (3.6 kB)
Requirement already satisfied: packaging in c:\users\sandarenuD\appdata\local\programs\python\python313\lib\site-packages (from custo
mtkinter) (24.2)
Using cached customtkinter-5.2.2-py3-none-any.whl (296 kB)
Using cached darkdetect-0.8.0-py3-none-any.whl (9.0 kB)
Installing collected packages: darkdetect, customtkinter
Successfully installed customtkinter-5.2.2 darkdetect-0.8.0
```

Figure 03

2.5. Step 5: Run PyInstaller

To create a .exe file:

pyinstaller --onefile --noconsole your_script.py

```
pyinstaller --onefile --noconsole 'Electricity Cost Cal.py'
```

Type the command given above in that command prompt window.

To stop the console window from opening (for GUI apps like Tkinter or customtkinter), use the `--noconsole` flag.

The `--onefile` option ensures that PyInstaller creates a single executable file rather than a directory with multiple files. Here the '.py' file name is '**Electricity Cost Cal.py**'.

After typing the command press the Enter key. It will take some time to finish the process depending on the size of the file and how big your project is. After the processing has been finished, the window will look as below:

```

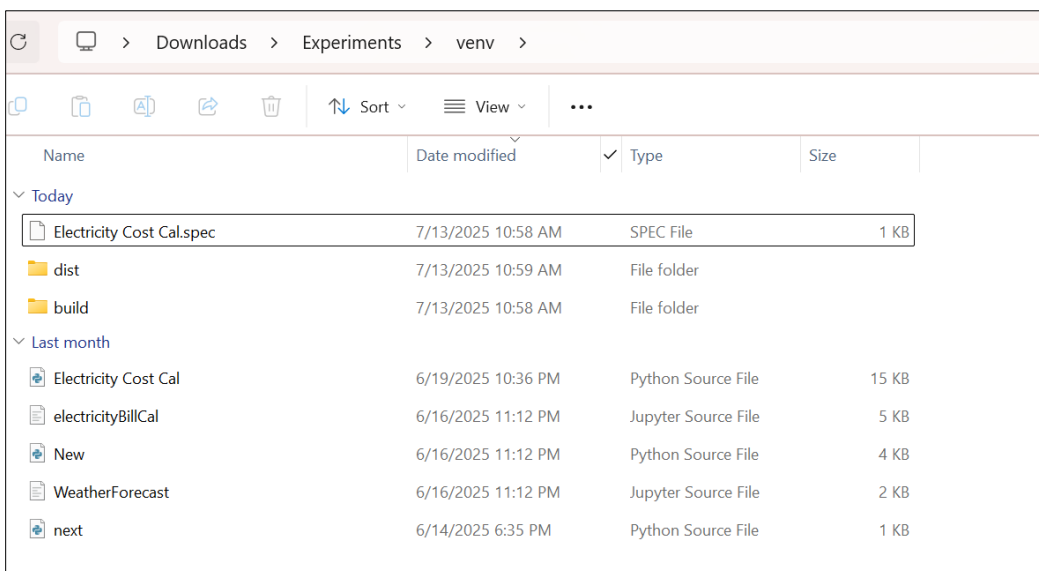
C:\Users\SandarenuD\Downloads\Experiments\venv>pyinstaller --onefile --noconsole "Electricity Cost Cal.py"
981 INFO: PyInstaller: 6.14.2, contrib hooks: 2025.5
981 INFO: Python: 3.13.3
1106 INFO: Platform: Windows-11-10.0.22631-SP0
1107 INFO: Python environment: C:\Users\SandarenuD\AppData\Local\Programs\Python\Python313
1114 INFO: wrote C:\Users\SandarenuD\Downloads\Experiments\venv\Electricity Cost Cal.spec
1128 INFO: Module search paths (PYTHONPATH):
['C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313\\Scripts\\pyinstaller.exe',
'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313\\python313.zip',
'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313\\DLLs',
'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313\\Lib',
'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313',
'C:\\Users\\SandarenuD\\AppData\\Roaming\\Python\\Python313\\site-packages',
'C:\\Users\\SandarenuD\\AppData\\Roaming\\Python\\Python313\\site-packages\\win32',
'C:\\Users\\SandarenuD\\AppData\\Roaming\\Python\\Python313\\site-packages\\win32\\lib',
'C:\\Users\\SandarenuD\\AppData\\Roaming\\Python\\Python313\\site-packages\\Pythonwin',
'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313\\Lib\\site-packages',
'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313\\Lib\\site-packages\\setuptools\\_vendor',
'C:\\Users\\SandarenuD\\Downloads\\Experiments\\venv']
3092 INFO: checking Analysis
3093 INFO: Building Analysis because Analysis-00.toc is non existent
3094 INFO: Running Analysis Analysis-00.toc
3094 INFO: Target bytecode optimization level: 0
3095 INFO: Initializing module dependency graph...
3103 INFO: Initializing module graph hook caches...
3372 INFO: Analyzing modules for base_library.zip ...
7440 INFO: Processing standard module hook 'hook-heapq.py' from 'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313\\
Lib\\site-packages\\PyInstaller\\hooks'
7848 INFO: Processing standard module hook 'hook-encodings.py' from 'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python3
13\\Lib\\site-packages\\PyInstaller\\hooks'
17555 INFO: Processing standard module hook 'hook-pickle.py' from 'C:\\Users\\SandarenuD\\AppData\\Local\\Programs\\Python\\Python313
\\Lib\\site-packages\\PyInstaller\\hooks'

```

Figure 04

2.6. Step 6: Locate the Executable

See the directory it should look like this:



Name	Date modified	Type	Size
Today			
Electricity Cost Cal.spec	7/13/2025 10:58 AM	SPEC File	1 KB
dist	7/13/2025 10:59 AM	File folder	
build	7/13/2025 10:58 AM	File folder	
Last month			
Electricity Cost Cal	6/19/2025 10:36 PM	Python Source File	15 KB
electricityBillCal	6/16/2025 11:12 PM	Jupyter Source File	5 KB
New	6/16/2025 11:12 PM	Python Source File	4 KB
WeatherForecast	6/16/2025 11:12 PM	Jupyter Source File	2 KB
next	6/14/2025 6:35 PM	Python Source File	1 KB

Figure 05

'**build**' folder and '**Electricity Cost Cal.spec**' are of no use. You can delete these if you want, it will not affect your '.exe' file.

2.7. Step 7: Test the Executable

Open '**dist**' folder above. Here you will get your '.exe' file. (E.g. Electricity Cost Cal.exe)

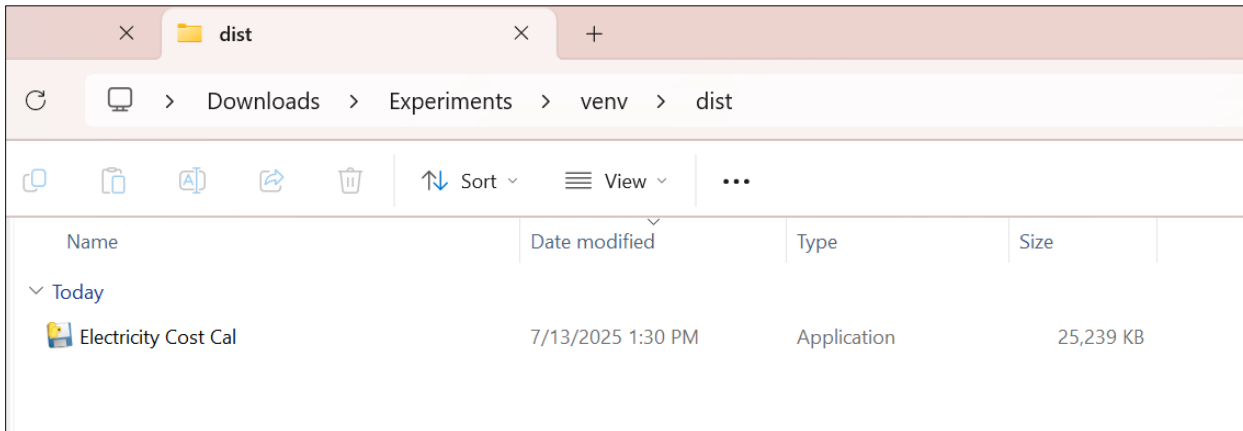


Figure 06

Double click on the file and the window will open as below.

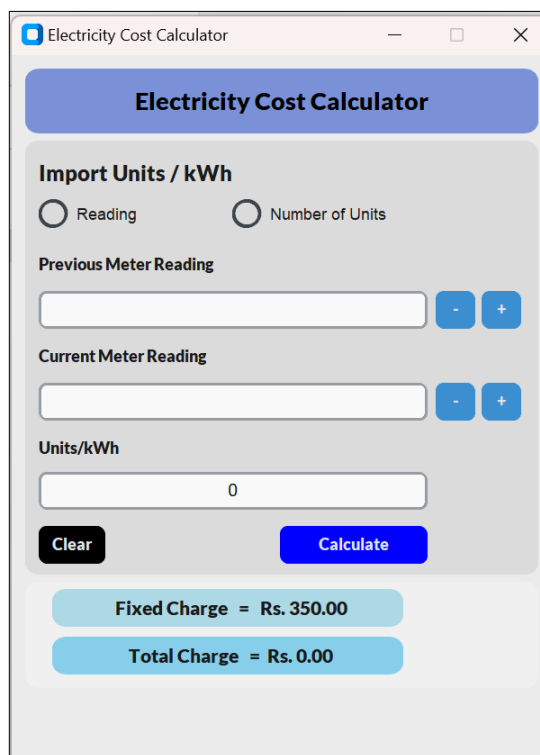


Figure 07

You can share this to set up the solution on other computers easily.

3. Additional PyInstaller Options

PyInstaller provides several options to customize the build process:

- **--onefile:** Bundles the script and all dependencies into a single executable.
- **--noconsole , --windowed:** Suppresses the console window (useful for GUI applications).
- **--icon:** Allows you to specify an icon for the executable.