

**Application Documentation
For Normal Users**

PROGRAM DOCUMENTATION



DEVELOPED BY JOHAN NEL

Contents

Signing up	3
Instructions:	3
Other buttons.....	3
• Login Option:	3
• Reset Button:	4
Frequently Asked Questions (FAQs):	4
Logging in	5
The Login Form is used to sign into the Carbon Footprint Calculator program.	5
Instructions:	5
Other buttons.....	5
• Signup Option:	5
• Reset Button:	5
Frequently Asked Questions (FAQs):	5
User Dashboard	6
Understand what you see:.....	6
• Carbon Footprint:	6
• Average Carbon Footprint:.....	6
• Rich Edit: Carbon Footprint Entries:.....	6
• Graph: Carbon Footprint Visualization:	6
Other buttons:.....	6
• "Expand Graph" Button:	6
• "Tips" Button:	6
Frequently Asked Questions (FAQs):	7
Calculating your Carbon Footprint	8
Panel 1: Main Grid Electricity:	8
Panel 2: Other Electricity source:	8
Add a Generator (Optional):	8
Save your Carbon Footprint:	9
Other button:	9
• Reset (↺) Button::	9
Frequently Asked Questions (FAQs):	9
What is the Date of Submission?	10
Frequently Asked Questions (FAQs):	10
What is the Generation Method?	11
Instructions for Changing the Date:	11
Frequently Asked Questions (FAQs):	11

Signing up

The Signup Form allows you to create an account for the Carbon Footprint Calculator.

Instructions:

- 1. Enter a Unique Username:**
Enter a unique username that hasn't been used by others. Your username will be used to log in.
- 2. Enter a Strong Password:**
Enter a password of medium or high strength. Your password must have at least: 2 Lowercase characters, 2 Uppercase characters, 1 Number, 1 Special character, and is 8 characters or longer. Then, re-enter your password in the confirmation edit box to ensure accuracy. It will turn green if it matches your original password.
- 3. Enter a First and Last Name:**
Provide your first and last name for program personalization.
- 4. Select your Country:**
Choose your country from the dropdown list. A default country may already be selected.
- 5. Enter your Contact Number:**
Enter a 10-digit contact number without spaces. Only numbers are allowed.
- 6. Enter your Email Address:**
Enter your email address. It should include an "@" symbol and a "." character. Then, re-enter your email address in the confirmation edit box to ensure accuracy. It will turn green if it matches your original email address.
- 7. Select your Date of Birth:**
Use the date time picker to select your date of birth. You must select a date that has already passed. If you're younger than 13, ask an adult to sign up for you.
- 8. Select your Gender:**
Choose your gender from the dropdown list.
- 9. Click the Sign up button**

Other buttons

- Login Option:**

If you already have an account, you can return to the Login Form by clicking the blue "Click here to Login" text.

- **Reset Button:**

If you need to clear the entered information and start over, you can use the "Reset" button. This will reset all the fields on this form.

Frequently Asked Questions (FAQs):

1. **Can I change my username later?**

No, your username is not changeable after signup. Make sure to choose it wisely.

2. **What if I forget my password?**

Contact an administrator to reset your password; you can't change it on your own.

3. **Can I edit my personal information later?**

No, you cannot update your personal information after signup on your own. If you need to change your personal information, you can do so by contacting an administrator.

Logging in

The Login Form is used to sign into the Carbon Footprint Calculator program.

Instructions:

1. **Enter your Username and Password:**

Enter your username and password in the respective edit boxes. Make sure to type them correctly to ensure a successful login.

2. **Press the Login Button:**

After entering your username and password, click the "Login" button to validate your username and password and access the Carbon Footprint Calculator.

Other buttons

- **Signup Option:**

If you don't have an account yet, you can sign up by clicking the blue "Click here to Sign Up" text. This will take you to the Signup Form, where you can create a new account.

- **Reset Button:**

If you need to clear the entered information and start over, you can use the "Reset" button. This will reset both the username and password fields.

Frequently Asked Questions (FAQs):

1. **What if I forget my password? Can I change my password?**

Contact an administrator to reset your password. Unfortunately, You cannot change your password on your own.

2. **Can I change my username?**

No, your username is not changeable after sign up. Make sure to choose it wisely.

User Dashboard

In the User Dashboard, you can explore your carbon footprint journey and take steps towards reducing your environmental impact. This interface provides valuable insights and tools to help you track and manage your carbon emissions.

Understand what you see:

- **Carbon Footprint:**

- "Carbon Footprint" is the sum of all your recorded entries, indicating your environmental impact.
- "Your Status" gives you a quick understanding of how your carbon footprint compares to other users.
- The colored square represents your carbon footprint status, ranging from dark green (super low) to dark red (super high). Click on the square to refresh the page and get the latest data.

- **Average Carbon Footprint:**

- This value showcases the average carbon footprint of all users with a carbon footprint above 0. It provides context on how you're doing compared to others.

- **Rich Edit: Carbon Footprint Entries:**

- This section displays each entry you've saved in the database, sorted in ascending order based on submission date.
- Information included for each entry: Entry No, Date Submitted, CO2e Emitted, Emission Type, and Total Carbon Footprint up to that point.

- **Graph: Carbon Footprint Visualization:**

- The "Total" series visually illustrates your total carbon footprint over time.
- The "Individual" series demonstrates your carbon footprint for each entry.
- Use the right mouse button to navigate within the graph.

Other buttons:

- **"Expand Graph" Button:**

- Click this button to maximize the graph's view, allowing you to focus on the visual representation of your carbon footprint journey.

- **"Tips" Button:**

- Access a new panel that summarizes your carbon footprint data and offers personalized tips based on your carbon footprint status.
- Tips are tailored to help you reduce your carbon footprint based on your performance compared to other users.

Frequently Asked Questions (FAQs):

1. **Can I edit or delete my entries?**

No, you cannot edit or delete any of your entries after they have been submitted.

2. **How often should I update my carbon footprint entries?**

Regularly updating your entries provides an accurate reflection of your carbon emissions.

Aim for consistency, by doing it on a regular schedule (e.g. Every week on Sunday)

Calculating your Carbon Footprint

This form consists of TWO main panels.

Panel 1: Main Grid Electricity:

1. **Enter Electricity Units:**

Enter the amount of electricity units used. 1 Unit = 1 KWh. Alternatively, you can use the provided button to calculate it.

2. **Select Electricity Generation Method:**

[What is the Generation Method?](#)

Choose the electricity generation method from the combo box. This indicates how your electricity is sourced.

3. **Choose Date (Optional):**

[What is the Date of Submission?](#)

If you know how it works, you can select a date from the date-time picker to associate with this calculation. If not, today's date will be used.

4. **Click "Calculate":**

After entering the necessary information, click the "Calculate" button to calculate and display your carbon footprint based on your electricity usage.

Panel 2: Other Electricity source:

1. **Select Generator:**

Choose a generator from the combo box. The generator's information will appear in the rich edit. If your generator is not listed, you can add one (more information below)

2. **Enter Fuel Consumption:**

Enter the amount of fuel consumed by the generator. Alternatively, you can use the provided button to calculate it.

3. **Choose Date (Optional):**

[What is the Date of Submission?](#)

If you know how it works, you can select a date from the date-time picker to associate with this calculation. If not, today's date will be used.

4. **Click "Calculate":**

After entering the necessary information, click the "Calculate" button to calculate and display your carbon footprint based on your electricity usage.

Add a Generator (Optional):

1. **Click "Add or":**

On Panel 2, you have the option to add a new generator. Click the "Add or" button to initiate

this process.

2. Enter Generator's Information:

- Enter the Generator Name and Brand.
- Select the generator's fuel type.
- Specify the generator's capacity in kVA or KWh.
- Enter the amount of CO2e emitted per litre of fuel consumed.

3. Click "Add":

After entering the required information, click "Add" to save the generator details. The added generator will now be available for selection for all users. It will automatically be selected when you are taken back to Panel 2.

Save your Carbon Footprint:

1. Click "Submit":

On both Panel 1 and 2, after calculating and viewing your calculated carbon footprint, click the "Submit" button to save the calculated data to the database.

Other button:

• **Reset (↺) Button::**

→ If you need to clear the entered information and start over, you can use the "Reset" button. This will reset all the fields on the panel where the button is clicked.

Frequently Asked Questions (FAQs):

1. Can I calculate my carbon footprint without changing the date?

Yes, you can calculate your carbon footprint without changing the date. The date field is today's date by default. Click the "?" next to the field for more information.

2. Is adding a generator mandatory for the calculation?

No, adding a generator is optional. It's only required if you want to include a generator's emissions in your carbon footprint calculation that isn't already listed in the combo box.

3. Can I edit/delete my submitted calculation later?

No, you cannot edit or delete any of your entries after they have been submitted.

What is the Date of Submission?

The Generation Method is an important element in the Carbon Footprint Calculator, allowing you to specify how (or from where) your electricity is sourced. Each generation method has a different environmental impact, measured in terms of CO₂e (carbon dioxide equivalent) emissions. Here's what you need to know about the Generation Method:

The Generation Method refers to the process by which your electricity is produced. Different methods have varying levels of CO₂e emissions associated with them. By selecting the correct method, you can ensure an accurate calculation of your carbon footprint.

Choosing the Right Generation Method:

1. Carefully review the available generation methods in the combo box.
2. Select the one that most closely aligns with the source of your electricity.
3. The amount of CO₂e emitted by the selected source (per unit) will appear beneath the combo box.

Understanding CO₂e Emissions:

Each generation method has a unique CO₂e emissions value associated with it. This value reflects the amount of carbon dioxide equivalent emissions produced per unit of electricity consumed. Choosing the accurate method helps ensure precise carbon footprint calculations.

Missing Generation Methods:

If you believe a generation method is missing from the list, please contact an administrator. They can consider adding missing generation methods.

Frequently Asked Questions (FAQs):

1. **What if my electricity source doesn't fit any available generation method?**
Choose the closest option, or contact an administrator to add a missing generation method.
2. **Can I change the generation method later?**
No, you cannot modify the Generation Method for a certain calculation at all after you clicked the Submit button.

What is the Generation Method?

The Date of Submission is an important element in the Carbon Footprint Calculator. It represents the date on which you submitted your carbon footprint calculation. Here's what you need to know about the Date of Submission:

The Date of Submission is the specific date when you provided data to the calculator, and then submitted it. It helps track the timeline of your carbon footprint, and how it changes over time.

Recommended: Keep it Today's Date

It is recommended to set the Date of Submission as today's date, especially if you're submitting your carbon footprint on the same day. This ensures accurate and up-to-date record keeping.

Modifying the Date: Past or Future

In some cases, you might want to set the Date of Submission to a past or future date. For example, if you forgot to submit your carbon footprint data on a specific day but still want to include it, you can adjust the Date of Submission accordingly.

Instructions for Changing the Date:

4. Click on the Date of Submission field.
5. A date picker will appear.
6. Select the desired date, whether it's in the past, present, or future.

Important Considerations:

- Make sure to set the Date of Submission accurately to reflect the correct timeline of your carbon footprint and how it changes.
- Only select a past or future date if you know what you're doing.

Frequently Asked Questions (FAQs):

3. **Can I change the Date of Submission later?**
No, you cannot modify the Date of Submission for a certain calculation at all after you clicked the Submit button.
4. **Will the Date of Submission affect my previous calculations?**
Yes, if you select a past or future date, it will affect when your carbon footprint is changed.