

AGL Carbon Calculator

Case Study

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Calculate carbon emissions for a household or business

Project Summary:

The AGL carbon calculator is an online survey that has been created using flex and runs as a flash application in a web browser that calculates carbon emission production for a household or business.

The calculator use extensive algorithms and parameter tables in determining carbon emission factors. Calculations are browser based. This calculator can work as a widget.

View the calculator online at: <http://www.aglcarboncalculator.com.au/>

Client:

AGL

<http://www.agl.com.au/Pages/AGLHome.aspx>

Client Business Background:

AGL Energy is Australia's largest integrated renewable energy company with a wide range of renewable generation, meeting the energy needs of more than three million customer accounts.

AGL was the first Australian energy company to provide an accredited Green energy product, and was the first Australian company to join the Chicago Climate Exchange, the world's first carbon trading exchange.

Project Challenge:

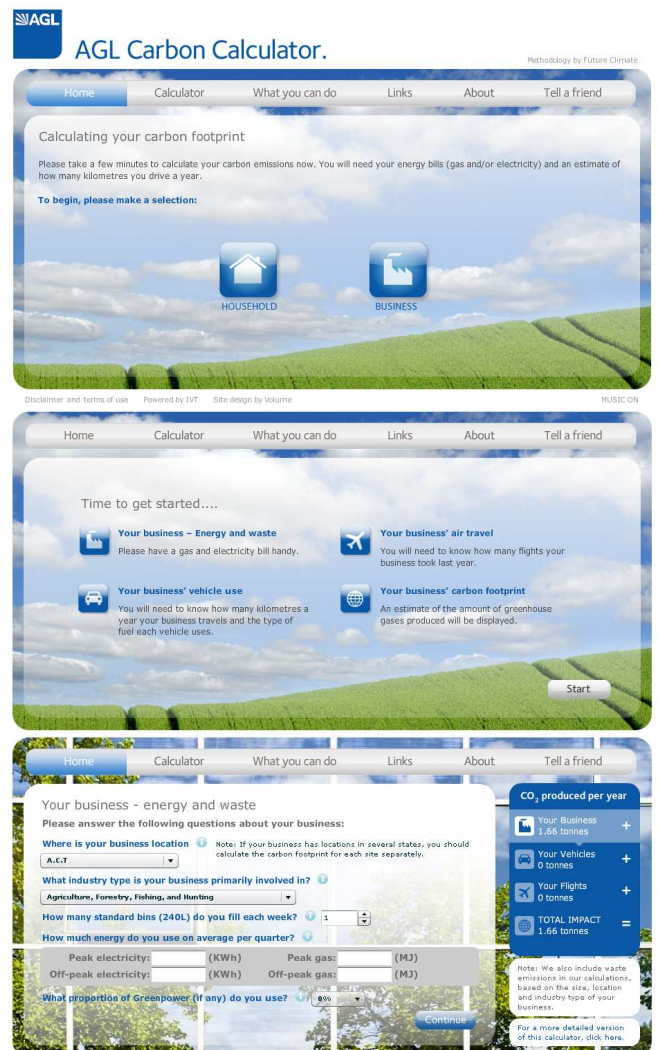
AGL wanted to be able to provide an accurate, intuitive and user friendly online application to enable clients to enter relevant details to calculate their carbon emission footprint.

By being able to calculate their carbon footprint, users can have an understanding of their impact to the environment. The ultimate goal of AGL is to encourage clients to purchase green power.

Actions:

Development of a web application with the following functionality:

- Live updating forms
- Full graphic Flash interface
- Links to AGL service provider details and signup



Outcomes:

The AGL Carbon Calculator is a simple and effective Flash application that uses data entered by the user, to calculate the carbon emission production of a household or business based on energy consumption, vehicle use, and international travel (airplane). The results are weighed against the worldwide average and information is available via the calculator to reduce personal carbon emissions and switch to green energy.

Technology Used:

The AGL Carbon Calculator was created using Adobe Flex and runs as a Flash Application.

Adobe Flex:

Adobe Flex is a software development kit released by Adobe Systems for the development and deployment of cross-platform rich Internet applications based on the Adobe Flash platform. Rich Internet applications (RIAs) are web applications that have some of the characteristics of desktop applications. The advantage of Flex is that it doesn't rely on page reloads, can have animations, interactive graphs and handles large datasets.

Adobe Flash:

Adobe Flash (previously called Macromedia Flash) is a multimedia platform originally acquired by Macromedia and currently developed and distributed by Adobe Systems. Since its introduction in 1996, Flash has become a popular method for adding animation and interactivity to web pages. Flash is commonly used to create animation, advertisements, and various web page components, to integrate video into web pages, and more recently, to develop rich Internet applications.

Screenshots:

The screenshot shows the 'AGL Carbon Calculator' interface. At the top, there is a navigation menu with 'Home', 'Calculator', 'What you can do', 'Links', 'About', and 'Tell a friend'. The main content area is titled 'Your business vehicle use' and contains two vehicle input sections, 'Vehicle 1' and 'Vehicle 2'. Each section has dropdown menus for 'What kind of vehicle do you use?' (set to 'V8 or large 4WD') and 'Fuel Type?' (set to 'Diesel' for Vehicle 1 and 'Petrol' for Vehicle 2). Below these are text input fields for 'Average kilometres travelled per week:' (200 for Vehicle 1, 330 for Vehicle 2). Navigation buttons include 'Previous Vehicle', 'Next Vehicle', 'Back', and 'Continue'. On the right, a sidebar titled 'CO₂ produced per year' lists: 'Your Business 9.9 tonnes', 'Your Vehicles 12.24 tonnes', 'Your Flights 14.38 tonnes', and 'TOTAL IMPACT 36.52 tonnes'. A note mentions waste emissions and a link for a more detailed version. Footer text includes 'Disclaimer and terms of use', 'Powered by IVT', 'Site design by Volume', and 'MUSIC ON'.

The screenshot shows the 'AGL Carbon Calculator' results page. The navigation menu is the same as in the previous screenshot. The main content area is titled 'Your business' impact' and features a large blue box displaying 'Your business' carbon footprint is: 36.52'. Below this, it states 'This figure is above 4.5 tonnes for the average global citizen'. A 'World Comparison (tonnes)' bar chart shows 'You' at 36.52 and 'World Average' at 4.5. A 'What you can do' section suggests signing up online or calling 131 245 for AGL Green Choice, with a 'Switch to AGL Green Energy' button and 'Back'/'Start over' options. The right sidebar is identical to the previous screenshot, showing the breakdown of CO₂ production and a pie chart for 'Energy', 'Vehicles', and 'Flights'. Footer text is the same as in the previous screenshot.