Retail Energy Efficiency Education Program

Rate Your Space

Use your electricity and gas bills to calculate the carbon emissions from your business' energy consumption, and find your carbon star rating.

We will use the example bills to the right. You should use your own electricity and gas bills for this exercise.

There are two ways to calculate your emissions.

METHOD 1

For method 1, you will need:
- The daily usage amount in kilowatt-hours (kWh) or megajoules (MJ) (circled in red)
- For electricity only - the carbon emissions factor for your state, shown in table 1 below.

METHOD 2

Or, for method 2, you will need:
- the indicative greenhouse gas emissions total (circled in green), AND
- the number of days your gas or electricity bill covers (circled in blue).

BOTH methods also need:
- The Net Lettable Area (NLA) of your retail space, in m²

Note: There are slight differences between the results gained from these methods, due to the differences in carbon emissions factors between individual providers, and the national and state averages. Using method 2 will give a slightly more accurate result.

Table 1: Electricity Grid Carbon Emissions Factors by State

State	$kgCO_2$-e/ kWh
NSW/ACT	0.89
VIC	1.09
QLD	0.93
SA	0.52
WA	0.7
TAS	0.17
NT	0.7

Source: Department of Industry, Science, Energy and Resources, 2020, *National Greenhouse Accounts Factors*, pp. 71-74, accessed online at: https://www.industry.gov.au/sites/default/files/2020-10/national-greenhouse-accounts-factors-2020.pdf

Your electricity bill

30 May 20 - 31 Aug 20

12 SAMPLE STREET, SAMPLETOWN NSW 2160

Amounts include GST unless otherwise specified

YOUR ACCOUNT DETAILS

Account number
123 456 789 012

Tax invoice
100 000 000 000

Issue date
1 Sep 20

Total amount due
See the Account Summary on page 2

DUE DATE

15 Sep 20

DIRECT DEBIT: 15 Sep 20

AMOUNT DUE

$298.73

YOUR USAGE SUMMARY

Average cost per day	$3.18
Average daily usage	7.86 kWh
Same time last year	13.24 kWh

Your indicative greenhouse gas emissions

Total for this bill	0.7 tonnes
Same time last year	1.2 tonnes
Saved with GreenPower	N/A

For more information on greenhouse gas emissions visit **originenergy.com.au**.

YOUR AGREEMENT

Origin Basic

Your natural gas bill

24 Dec 19 - 24 Mar 20

12 SAMPLE STREET, SAMPLETOWN NSW 2160

Amounts include GST unless otherwise specified

YOUR ACCOUNT DETAILS

Account number
123 456 789 012

Tax invoice
100 000 000 000

Issue date
30 Mar 20

Total amount due
See the Account Summary on page 2

DUE DATE

15 Apr 20

AMOUNT DUE

$145.47

YOUR USAGE SUMMARY

Average cost per day	$1.58
Average daily usage	23.28 MJ
Same time last year	25.35 MJ

Your indicative greenhouse gas emissions

Total for this bill	0.1 tonnes
Same time last year	0.2 tonnes
Saved with Green Gas	N/A

For more information on greenhouse gas emissions visit **originenergy.com.au**.

YOUR AGREEMENT

Origin Basic

Continue to the next worksheet to complete the calculation.

EXAMPLE CALCULATION

On the following worksheet, you can enter the information from your bills to calculate your carbon emissions. Below is an example using the bills to the right. This retail tenancy is 30m² NLA and is located in NSW. There are two different billing periods.The bill was entered in the orange squares, and produced the results shown in the green boxes.

Electricity

Method 1:

Enter your daily usage amount in kWh	7.86	1
Enter your state's carbon emissions factor	0.81	
Enter your store's NLA in m²	30	
Your store's carbon emissions from electricity:	77.5	$kgCO_2$-e per year, per m²

Method 2:

Enter the greenhouse gas emissions total from your bill, in tonnes	0.7	2
Enter the number of days your bill covers	94	3
Enter your store's NLA in m²	30	
Your store's carbon emissions from electricity:	90.6	$kgCO_2$-e per year, per m²

Gas

Method 1:

Enter your daily usage amount in MJ	23.28	1
Enter your store's NLA in m²	30	
Your store's carbon emissions from gas:	14.6	$kgCO_2$-e per year, per m²

Method 2:

Enter the greenhouse gas emissions total from your bill, in tonnes	0.1	2
Enter the number of days your bill covers	92	3
Enter your store's NLA in m²	30	
Your store's carbon emissions from gas:	13.2	$kgCO_2$-e per year, per m²

Method 1 total	92	$kgCO_2$-e per year, per m²
Method 2 total	104	$kgCO_2$-e per year, per m²

Your electricity bill

12 SAMPLE STREET, SAMPLETOWN NSW 2160

3 30 May 20 - 31 Aug 20

Amounts include GST unless otherwise specified

YOUR ACCOUNT DETAILS

Account number
123 456 789 012

Tax invoice
100 000 000 000

Issue date
1 Sep 20

Total amount due
See the Account Summary on page 2

DUE DATE

15 Sep 20

DIRECT DEBIT: 15 Sep 20

AMOUNT DUE

$298.73

YOUR USAGE SUMMARY

Average cost per day	$3.18
Average daily usage	7.86 kWh
Same time last year	13.24 kWh

Your indicative greenhouse gas emissions

Total for this bill	0.7 tonnes
Same time last year	1.2 tonnes
Saved with GreenPower	N/A

2

For more information on greenhouse gas emissions visit **originenergy.com.au**.

1

13.24 kWh — LAST YEAR

7.86 kWh — THIS YEAR

YOUR AGREEMENT

Origin Basic

Your natural gas bill

12 SAMPLE STREET, SAMPLETOWN NSW 2160

3 24 Dec 19 - 24 Mar 20

Amounts include GST unless otherwise specified

YOUR ACCOUNT DETAILS

Account number
123 456 789 012

Tax invoice
100 000 000 000

Issue date
30 Mar 20

Total amount due
See the Account Summary on page 2

DUE DATE

15 Apr 20

AMOUNT DUE

$145.47

YOUR USAGE SUMMARY

Average cost per day	$1.58
Average daily usage	23.28 MJ
Same time last year	25.35 MJ

Your indicative greenhouse gas emissions

Total for this bill	0.1 tonnes
Same time last year	0.2 tonnes
Saved with Green Gas	N/A

2

For more information on greenhouse gas emissions visit **originenergy.com.au**.

1

25.35 MJ — LAST YEAR

23.28 MJ — THIS YEAR

YOUR AGREEMENT

Origin Basic

THE FOOTPRINT CALCULATOR™

REAP
Retail Energy Assessment Program

Retail Energy Efficiency Education Program

Enter your data in the orange boxes. Your results will automatically populate in the green boxes

Electricity

Method 1

Enter your daily usage amount in kWh	
Enter your state's carbon emissions factor	
Enter your store's NLA in m²	
Your store's carbon emissions from electricity:	#DIV/0! kgCO_2-e per year, per m²

Method 2

Enter the greenhouse gas emissions total from your bill, in tonnes	
Enter the number of days your bill covers	
Enter your store's NLA in m²	
Your store's carbon emissions from electricity:	#DIV/0! kgCO_2-e per year, per m²

Gas

Method 1

Enter your daily usage amount in MJ	
Enter your store's NLA in m²	
Your store's carbon emissions from gas:	#DIV/0! kgCO_2-e per year, per m²

Method 2

Enter the greenhouse gas emissions total from your bill, in tonnes	
Enter the number of days your bill covers	
Enter your store's NLA in m²	
Your store's carbon emissions from gas:	#DIV/0! kgCO_2-e per year, per m²
Method 1 total	#DIV/0! kgCO_2-e per year, per m²
Method 2 total	#DIV/0! kgCO_2-e per year, per m²