



UNIT: O IMPERIAL METRIC O US CUSTOMARY

1 OF 14



### **GENERAL INFORMATION**

#### **HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD?**

NUMBER OF PEOPLE IN YOUR HOUSEHOLD \*





### WHAT IS THE TOTAL AREA OF YOUR LIVING SPACE?

LIVING SPACE (IN M2)\*

67





#### IN WHICH COUNTRY DO YOU LIVE?

Germany



We are constantly trying to expand the selection of countries.



#### **GENERAL INFORMATION**

Throughout the calculator, you can find information or fun facts for every page here.

Notices regarding specific questions or requested information can be found at the little black "information-i" right next to the text.

For some questions, you will see pre-filled answers.

Those are averages, adjusted to the size of your household.

Fields marked with a \* indicate that this information is required to calculate your carbon footprint.

#### SAVE PROGRESS →

#### YOUR FAMILY

2 People





UNIT: O IMPERIAL METRIC O US CUSTOMARY

2 OF 14



### **ELECTRICITY**

#### WHAT WAS YOUR ELECTRICITY CONSUMPTION LAST YEAR?

**ELECTRICITY CONSUMPTION (IN KWH)** 

7000





» use average

#### WHICH ENERGY SOURCE DOES THE ELECTRICITY COME FROM?\*

MIXED SOURCES

ECO POWER

HYDRO POWER

**SOLAR POWER** 

WIND POWER

UNKNOWN

#### DO YOU GENERATE YOUR OWN ELECTRICITY?

( YES

O NO

#### WHICH ENERGY SOURCE WAS USED TO GENERATE HOW MUCH **ELECTRICITY?**

SOLAR POWER (IN KWH)

WIND POWER (IN KWH)

33000











#### **FUN FACT**

The word "electricity" comes from the greek word "elektron" which means amber.

This goes back to the Greek mathematician Thales of Miletus, who had in 6000 AD already found out that amber can be electrostatically charged.

SAVE PROGRESS →

**YOUR FAMILY** 



CO2-CALCULATOR	<b>ર</b>	UNIT: O IMPERIAL	■ METRIC ○ US CUSTOMARY	3 OF 14
HEA	TING			
WHAT	ENERGY SOUR	CE DOES YOUR HEA	T COME FROM?	
O NATU	JRAL GAS	FUEL	O DISTRICT HEATING	
BIOG	AS	RENEWABLE ENERGIES wood pellets, geothermal heating,	ELECTRICITY	
OUNK	NOWN			
WHAT YEAR?		ATING ENERGY CON	ISUMPTION LAST	
HEATING	ENERGY CONSUMPTIO	N (IN KWH)		
o	0 0			
» use averag	<u>e</u>			
→ WE O	SENERATE ADDITIONAL	HEATING ENERGY WITH A SOL	LAR THERMAL SYSTEM.	

### NOTE

Added to heating, we also add emissions to your carbon footprint for construction, maintencance and disposal of your house or living space in relation to its size.

#### SAVE PROGRESS →

edi

#### YOUR FAMILY

2 People

9

Living Space **67** m<sup>2</sup>

The pre-filled values are ø values and result from your information about your family.



CO2-CALCULATOR



UNIT: O IMPERIAL METRIC O US CUSTOMARY

WATER CONSUMPTION (IN M3)

88,48

0



» use average





4 OF 14

### **DID YOU KNOW..?**

The average water consumption per person in Germany is 160 Billion cubic meters.

That is three times as much water as there is in Lake Constance!

SAVE PROGRESS →

YOUR FAMILY

**2** People

Living Space **67** m<sup>2</sup>

The pre-filled values are ø values and result from your information about your family.



UNIT: O IMPERIAL METRIC O US CUSTOMARY

5 OF 14



## NUTRITION

### WHICH OPTION BEST DESCRIBES YOUR REGULAR NUTRITION?

We			
0	EAT A LOT OF MEAT > 100g/0.22lb of meat per person and day	ARE VEGETARIAN	
0	REGULARLY EAT MEAT 50-99g/0.11-0.22lb of meat per person and day	○ ARE VEGAN	
•	RARELY EAT MEAT < 50g/0.11lb of meat per person and day		
	OW IMPORTANT ARE THE FOIR OCERY SHOPPING?	LOWING CRITERIA FOR YO	OUR
REG	SIONAL (IN %)		50
SEA	SONAL (IN %)		
			50
ORG	GANIC (IN %)		

### **DID YOU KNOW..?**

Already in 1892, the German Vegetarian Union was founded. Today, around 8 Mio. people in Germany are vegetarian and the numbers are rising.





50



## UNIT: O IMPERIAL METRIC O US CUSTOMARY 6 OF 14 CO2-CALCULATOR **FAMILY MOBILITY** WHICH MEANS OF TRANSPORT DO YOU USE? CAR **PUBLIC TRANSPORT BICYCLE** MOTORCYCLE **FERRY** TRAIN CAR **DETAILS ABOUT YOUR CAR** WHAT TYPE OF CAR DO YOU HAVE? ELECTRICAL **VEHICLE SIZE** LARGER THAN MIDDLE CLASS WHAT DISTANCE DO YOU TRAVEL PER MONTH IN THIS VEHICLE? DISTANCE (IN KM)

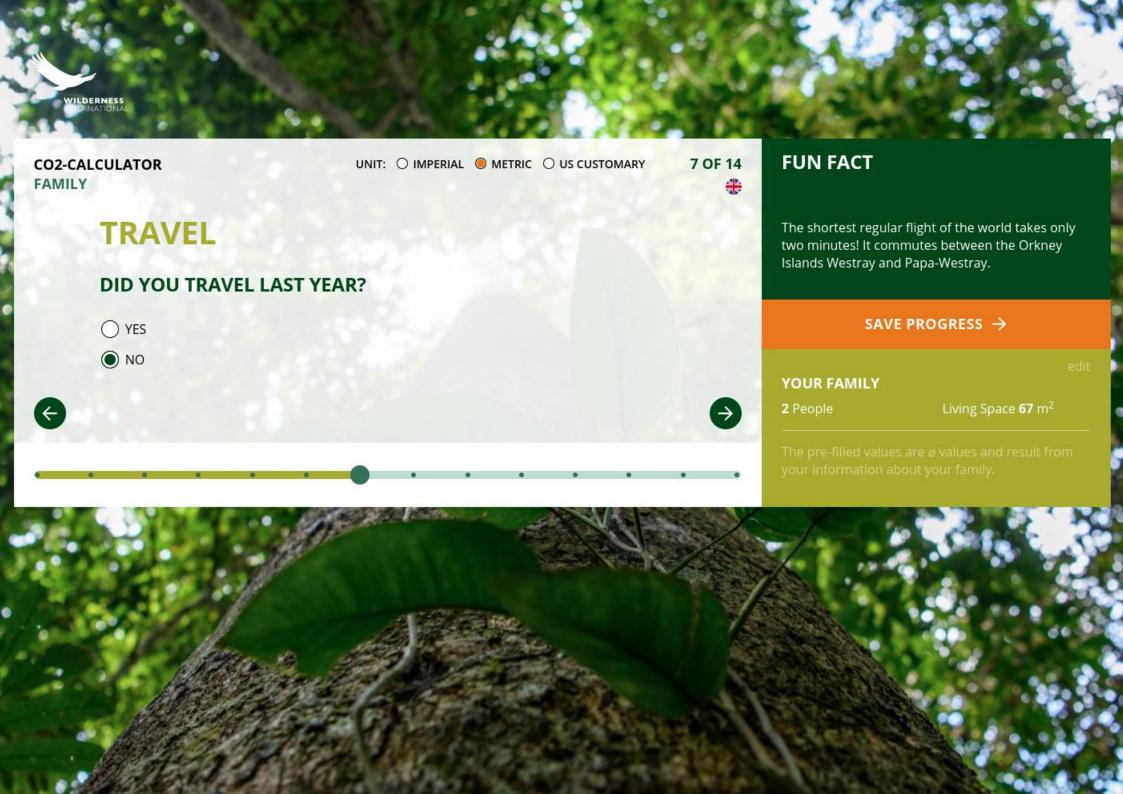
#### **FUN FACT**

The people of Copenhagen altogether travel 1.27 Mio. km by bike every day.

SAVE PROGRESS →

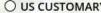


2000





UNIT: O IMPERIAL O METRIC O US CUSTOMARY



8 OF 14



## CONSUMPTION

#### CLOTHING

#### MY EXPENSES FOR CLOTHING LAST YEAR WERE...

**GENEROUS** 

We spent about \$1000 per person.

HIGH

We spent about \$700 per person.

MODERATE

We spent about \$500 Dollar per Person

O LOW

We spent less than \$350 per Person.

NONE

I did not spend any money on clothing.

#### **ONLINE SHOPPING**

#### HOW MANY ITEMS DO YOU ORDER PER MONTH ON AVERAGE?

NUMBER ITEMS

NUMBER RETURNS













# **VIDEOSTREAMING**



#### NOTE

In addition to the numbers you enter, we add emissions for public consumption to your footprint, such as those from health care and social welfare as well as administration and defense.

In Germany, those amount to a total of 1.06 tons per person every year.



UNIT: O IMPERIAL METRIC O US CUSTOMARY

9 OF 14



### WASTE

#### HOW MUCH WASTE DOES YOUR HOUSEHOLD PRODUCE PER MONTH?

NUMBER OF FULL RECYCLING BINS

11,8





NUMBER OF FULL PAPER BINS 1

5,6

» use average

» use average







NUMBER OF GARBAGE BAGS



NUMBER OF FULL ORGANIC WASTE BINS 1

6,8





» use average

### **DID YOU KNOW..?**

40% of what goes into the garbage is actually biodegradable waste! Another 27% could have been recycled.

SAVE PROGRESS →

YOUR FAMILY

2 People



UNIT: O IMPERIAL METRIC O US CUSTOMARY

10 OF 14



### **HOUSEHOLD APPLIANCES**

HOW MANY OF THE FOLLOWING APPLIANCES DO YOU HAVE AT HOME?

FREEZERS 1

DRYERS

DISHWASHERS













**DETAILED QUESTIONNAIRE** 



#### NOTE

If you do not fill out the detailed questionnaire, we include the following in our calculations:

- the number of freezers, dryers and dishwashers you entered, and
- one of each of the following items: microwave, oven, stove, washing machine, fridge/freezer combination, toaster, coffee machine and electric kettle

If you would like to enter the exact number of those appliances that you own, please use the detailed questionnaire.

SAVE PROGRESS →

YOUR FAMILY

2 People



UNIT: O IMPERIAL METRIC O US CUSTOMARY

11 OF 14



### **ENTERTAINMENT ELECTRONICS**

#### HOW MANY OF THE FOLLOWING DEVICES DO YOU HAVE?

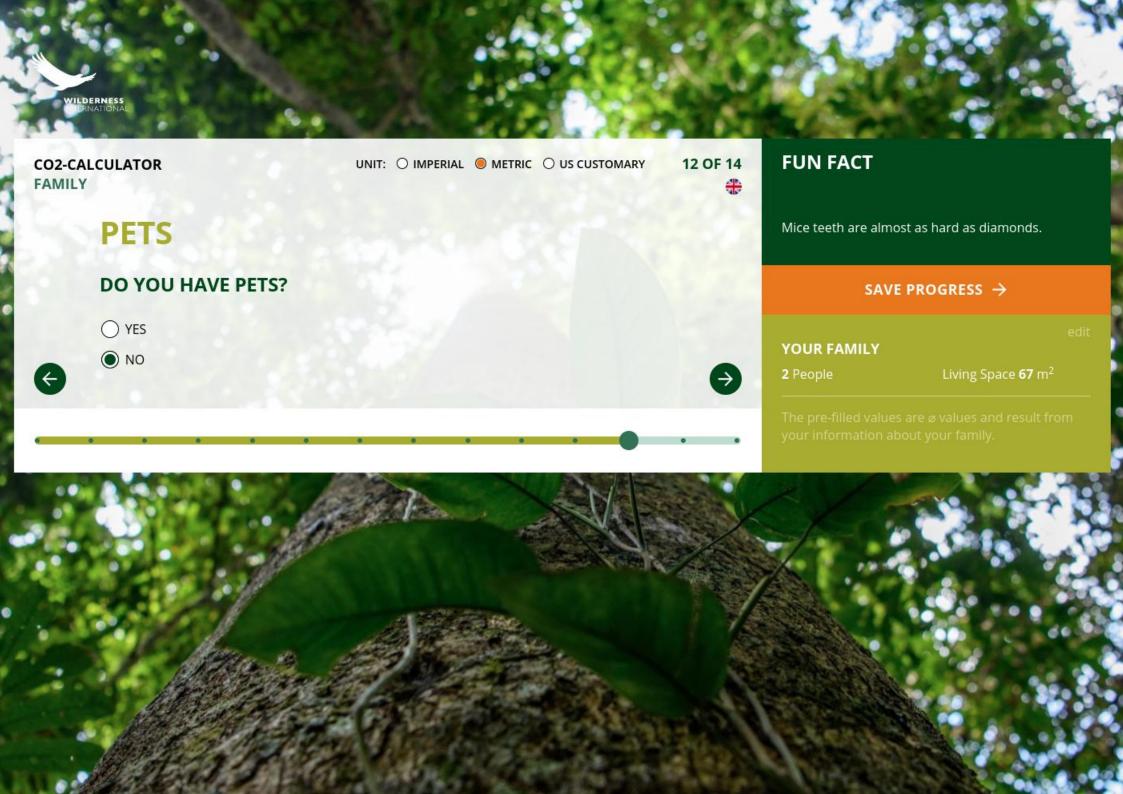
**SMARTPHONES TABLETS** LAPTOPS/NOTEBOOKS 2 PCS + ACCESSORY **SCREENS PRINTERS** TVS **GAMING CONSOLES STEREOS** E-BOOK READERS LANGUAGE ASSISTANTS OTHER SMALL DEVICES 1 **DID YOU KNOW..?** 

In Germany, on average, a smartphone is replaced after only 1.5 to 2 years.

SAVE PROGRESS →

YOUR FAMILY







#### **EVALUATION**

CO<sub>2</sub>-EMISSIONS

13.95 t CO2

THESE EMISSIONS CAN BE COMPENSATED WITH

232.5 m<sup>2</sup>

Rainforest



THIS AREA CAN BE PROTECTED WITH

232.50€

as a donation to Wilderness International

**CHANGE ENTRIES** 

Result PDF with suggestions and all background information will be sent after completion of the CO <sub>2</sub> compensation through forest protection!



#### **ANALYSIS**

#### 50.3% Mobility

21.4% Food and Drinks

18.9% Consumption

4.4% Electricity

2.5% Entertainment Electronics

2.4% Electronic Devices

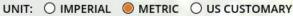


#### POSSIBLE SOLUTIONS MOBILITY

One way to reduce emissions originating from mobility would be to walk or bike more and at the same time become fitter! If you need a car, carsharing can free you from many responsibilities and reduce your costs. Many business trips can be replaced with online meetings and allow you to be more relaxed as well. If you do not want to or cannot stop flying, booking direct flights reduces emissions. You should also check for rail&fly offers of your airline which allow you to affordably and quickly get to the airport by train instead of having to take the plane or your car.







2 OF 14



### **ELECTRICITY**

#### WHAT WAS YOUR ELECTRICITY CONSUMPTION LAST YEAR?

**ELECTRICITY CONSUMPTION (IN KWH)** 

7000





» use average

#### WHICH ENERGY SOURCE DOES THE ELECTRICITY COME FROM?\*

MIXED SOURCES

ECO POWER

HYDRO POWER

**SOLAR POWER** 

WIND POWER

UNKNOWN

#### DO YOU GENERATE YOUR OWN ELECTRICITY?

( YES

O NO

#### WHICH ENERGY SOURCE WAS USED TO GENERATE HOW MUCH **ELECTRICITY?**

SOLAR POWER (IN KWH)

WIND POWER (IN KWH)













#### **FUN FACT**

The word "electricity" comes from the greek word "elektron" which means amber.

This goes back to the Greek mathematician Thales of Miletus, who had in 6000 AD already found out that amber can be electrostatically charged.

SAVE PROGRESS →

**YOUR FAMILY** 

2 People



#### **EVALUATION**

CO<sub>2</sub>-EMISSIONS

13.61 t CO<sub>2</sub>

THESE EMISSIONS CAN BE COMPENSATED WITH

226.81 m<sup>2</sup>

Rainforest



THIS AREA CAN BE PROTECTED WITH

226.81 €

as a donation to Wilderness International

**CHANGE ENTRIES** 

Result PDF with suggestions and all background information will be sent after completion of the CO <sub>2</sub> compensation through forest protection!

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#### **ANALYSIS**

#### 51.6% Mobility

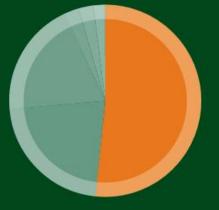
22.0% Food and Drinks

19.4% Consumption

2.5% Entertainment Electronics

2.5% Electronic Devices

2.0% Electricity



#### POSSIBLE SOLUTIONS MOBILITY

One way to reduce emissions originating from mobility would be to walk or bike more and at the same time become fitter! If you need a car, carsharing can free you from many responsibilities and reduce your costs. Many business trips can be replaced with online meetings and allow you to be more relaxed as well. If you do not want to or cannot stop flying, booking direct flights reduces emissions. You should also check for rail&fly offers of your airline which allow you to affordably and quickly get to the airport by train instead of having to take the plane or your car.





UNIT: O IMPERIAL METRIC O US CUSTOMARY

2 OF 14



### **ELECTRICITY**

#### WHAT WAS YOUR ELECTRICITY CONSUMPTION LAST YEAR?

**ELECTRICITY CONSUMPTION (IN KWH)** 

2800





» use average

#### WHICH ENERGY SOURCE DOES THE ELECTRICITY COME FROM?\*

MIXED SOURCES

ECO POWER

HYDRO POWER

**SOLAR POWER** 

WIND POWER

UNKNOWN

#### DO YOU GENERATE YOUR OWN ELECTRICITY?

( YES

O NO

#### WHICH ENERGY SOURCE WAS USED TO GENERATE HOW MUCH **ELECTRICITY?**

SOLAR POWER (IN KWH)

WIND POWER (IN KWH)











#### **FUN FACT**

The word "electricity" comes from the greek word "elektron" which means amber.

This goes back to the Greek mathematician Thales of Miletus, who had in 6000 AD already found out that amber can be electrostatically charged.

SAVE PROGRESS →

**YOUR FAMILY** 





UNIT: O IMPERIAL METRIC O US CUSTOMARY





6 OF 14



## **MOBILITY**

#### WHICH MEANS OF TRANSPORT DO YOU USE?

CAR

**PUBLIC TRANSPORT** 

**BICYCLE** 

MOTORCYCLE

TRAIN

**FERRY** 

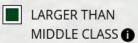
#### CAR

**DETAILS ABOUT YOUR CAR** 

WHAT TYPE OF CAR DO YOU HAVE?

COMBUSTION **ENGINE** 

**VEHICLE SIZE** 



WHAT DISTANCE DO YOU TRAVEL PER MONTH IN THIS VEHICLE?

DISTANCE (IN KM)

2000





#### **FUN FACT**

The people of Copenhagen altogether travel 1.27 Mio. km by bike every day.

SAVE PROGRESS →



#### **EVALUATION**

CO<sub>2</sub>-EMISSIONS

14.57 t co2

THESE EMISSIONS CAN BE COMPENSATED WITH

242.76 m<sup>2</sup>

Rainforest



THIS AREA CAN BE PROTECTED WITH

242.76€

as a donation to Wilderness International

**CHANGE ENTRIES** 

Result PDF with suggestions and all background information will be sent after completion of the CO <sub>2</sub> compensation through forest protection!

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#### **ANALYSIS**

#### 55.9% Mobility

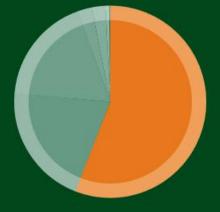
20.5% Food and Drinks

18.1% Consumption

2.4% Entertainment Electronics

2.3% Electronic Devices

0.7% Electricity



#### POSSIBLE SOLUTIONS MOBILITY

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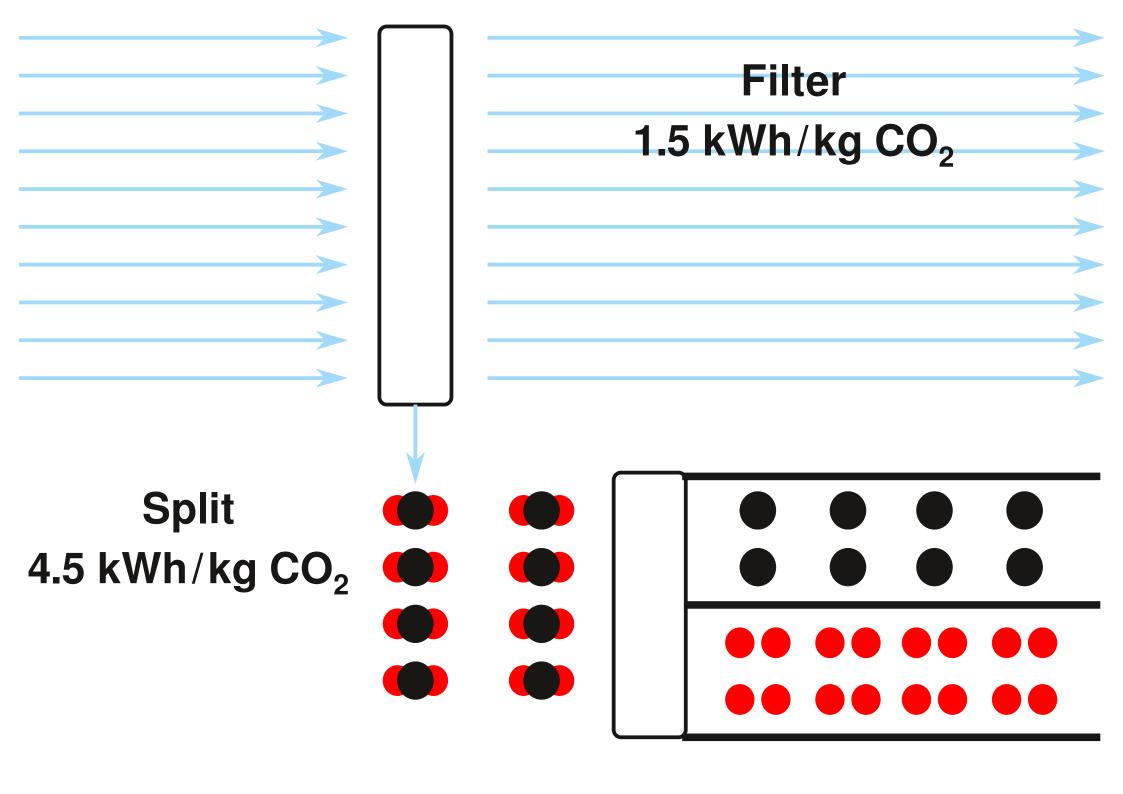
### CO2 calculator Energy balance calculator

Since there is not a single footprint calculator where you can enter the values of a GEMINI next generation, here is our CO2 energy balance calculator for housing and mobility.

### We do not have 37 million km<sup>2</sup> of growing forest

Footprint calculators assume that 1 m<sup>2</sup> of growing forest can absorb 1 kg CO2 per year. This would work very well with 1 to 2 billion tons of CO2 emissions per year. Creating 1 to 2 million km<sup>2</sup> of new forest would not be a feat.

But one thing is certain: we do not have 37 million km² for new forest areas. This fact is expressed with the saying "We need 2 Earths". Since we don't have 2 Earths, we need a more efficient method to reduce CO2. Filtering one kg of CO2 from the atmosphere and splitting it into carbon and oxygen requires 6 kWh of electricity. A square meter of photovoltaic can produce 360 kWh per year in a sunny desert and thus supply a facility with electricity that reduces 60 kg of CO2 with these 360 kWh. Instead of 37 million km² growing forest around 0.6 million km² photovoltaic in sunny deserts. We have them, that is feasible.



### **Energy balance calculator**

Our energy balance calculator evaluates every kWh of electricity you feed into the grid as 1 kWh positive in your balance and every kg of CO2 emission as 6 kWh negative.

The values come from Calculation of greenhouse gas (GHG) emissions from various energy sources Federal Environment Agency Austria as of 2019. The upstream chain is taken into account at the Federal Environment Agency Austria. For example, from the borehole via transport to the refinery and to the filling station. There are also information on air travel and other emissions.

Deviating from this, the CO2 default for electricity is 420 g/kWh according to Umweltbundesamt Deutschland 2021

Deviating from this, we do not believe that a tree that would stand for 300 years is CO2 neutral, we therefore calculate 50% of the carbon present in the wood for burning.

The preset values correspond to a GEMINI next Generation house between 47 and 50 degrees latitude with 33 kW peak photovoltaic, additional 10 kW photovoltaic on the garage and 20,000 km per year driving an electric car.

# Haus um 1970, Dieselauto 20.000 km pro Jahr

Other CO2 emissions  Your energy balance in electricity	<b>72408</b>	kg kWh
Wood	0	kg
Natural gas (10 kWh/m³ 13 kWh/kg)	0	kWh
Gasoline	0	Liter
Diesel	1200	Liter
Heating oil	2000	Liter
Electricity feed-in	0	kWh
Electricity mix	420	g CO2/kWh
Electricity purchasing	4000	kWh

# Extensive thermal refurbishment, 60% less heat demand

Electricity purchasing	4000	kWh
Electricity mix	420	g CO2/kWh
Electricity feed-in	0	kWh
Heating oil	800	Liter
Diesel	1200	Liter
Gasoline	0	Liter
Natural gas (10 kWh/m³ 13 kWh/kg)	0	kWh
Wood	0	kg
Other CO2 emissions	0	kg
Your energy balance in electricity	48576	kWh

# Oil heating out, heat pump in

Electricity purchasing	6000	kWh
Electricity mix	420	g CO2/kWh
Electricity feed-in	0	kWh
Heating oil	0	Liter
Diesel	1200	Liter
Gasoline	0	Liter
Natural gas (10 kWh/m³ 13 kWh/kg)	0	kWh
Wood	0	kg
Other CO2 emissions	0	kg
Your energy balance in electricity	37728	kWh

# Diesel car gone, electric car here

Electricity purchasing	9500	kWh
Electricity mix	420	g CO2/kWh
Electricity feed-in	0	kWh
Heating oil	0	Liter
Diesel	0	Liter
Gasoline	0	Liter
Natural gas (10 kWh/m³ 13 kWh/kg)	0	kWh
Wood	0	kg
Other CO2 emissions	0	kg
Your energy balance in electricity	23940	kWh

# 10 kW photovoltaic on the south roof

Electricity purchasing	6500	kWh
Electricity mix	420	g CO2/kWh
Electricity feed-in	7000	kWh
Heating oil	0	Liter
Diesel	0	Liter
Gasoline	0	Liter
Natural gas (10 kWh/m³ 13 kWh/kg)	0	kWh
Wood	0	kg
Other CO2 emissions	0	kg
Your energy balance in electricity	9380	kWh

## **GEMINI** next Generation house with electric car

Electricity purchasing	100	kWh
Electricity mix	420	g CO2/kWh
Electricity feed-in	26100	kWh
Heating oil	0	Liter
Diesel	0	Liter
Gasoline	0	Liter
Natural gas (10 kWh/m³ 13 kWh/kg)	0	kWh
Wood	0	kg
Other CO2 emissions	0	kg
Your energy balance in electricity	-25848	kWh

