

# CO<sub>2</sub> Report 2021

## 1. CO<sub>2</sub> balance sheet of PRIMES GmbH

### 1.1. Base year

Emissions were collected for the period January 01, 2021 to December 31, 2021.

The CO<sub>2</sub> balance is composed for the first time for 2021, so a comparison with previous years is not possible.

2021 was marked by the Corona pandemic and therefore does not represent an average year.

### 1.2. Location

Pfungstadt (Germany).

In the course of 2021, a second company building was put into operation at this location. This was taken into account in the calculation with an estimate.

### 1.3. Scope

This CO<sub>2</sub> report considers emissions from the following sources:

- Heating
- Electricity consumption (subtracting electricity generated by own solar systems)
- Business trips
- Company cars

Cooling for the lasers and heating and cooling of the buildings are largely provided by two cisterns outside the buildings in combination with a heat pump and concrete core activation of the ceilings. The heat recovery of the waste heat from the lasers saves heating. The remaining heating requirements are covered by gas heating. Consumption for additional air-conditioning units is included as electricity consumption.

Emissions from the upstream and downstream plant supply chain are not included in the balance sheet, as PRIMES has no direct influence on them. Nevertheless, PRIMES offers employees to participate in the "job bike" program and thus makes a further contribution to sustainable mobility.

### 1.4. Data sources

The data for the preparation of the balance sheet was determined or estimated from the gas and electricity invoices, bookings of business trips and mileage of the company cars.

## 2. CO<sub>2</sub> calculation

As source for the values of the CO<sub>2</sub> calculation we used the following homepage:

<https://www.klimaneutral-handeln.de/php/kompens-berechnen.php>

## 2.1. Heating

Description	Quantity, m <sup>3</sup>	kg CO <sub>2</sub> /m <sup>3</sup>	Total, kg CO <sub>2</sub>
Natural gas	7 000	2.0	14 000 kg CO <sub>2</sub>

## 2.2. Electricity consumption and generation

Description	Quantity, kWh	kg CO <sub>2</sub> /kWh	Total, kg CO <sub>2</sub>
Electricity consumption	150 000	0.401	60 150 kg CO <sub>2</sub>
Electricity generation (solar plants on company buildings)	-200 000	0.401	-80 200 kg CO <sub>2</sub>
<b>Electricity total</b>			<b>-20 050 kg CO<sub>2</sub></b>

## 2.3. Mobility

Description	Total, kg CO <sub>2</sub>
Air travel, train travel, bus travel, company cars	26 834.79 kg CO <sub>2</sub>

## 2.4. Total amount

Description	Total, kg CO <sub>2</sub>
Heating	14.000 kg CO <sub>2</sub>
Electricity	-20 050 kg CO <sub>2</sub>
Mobility	26 835 kg CO <sub>2</sub>
<b>Total</b>	<b>20 785 kg CO<sub>2</sub></b>

## 3. Summary

We compensate about 80 % of the emissions with the own electricity generation of the solar plants.

PRIMES GmbH had about 130 employees in 2021. We have an emission of less than 160 kg CO<sub>2</sub>/year per employee. On average, each German emits over 8 500 kg of CO<sub>2</sub> per year.