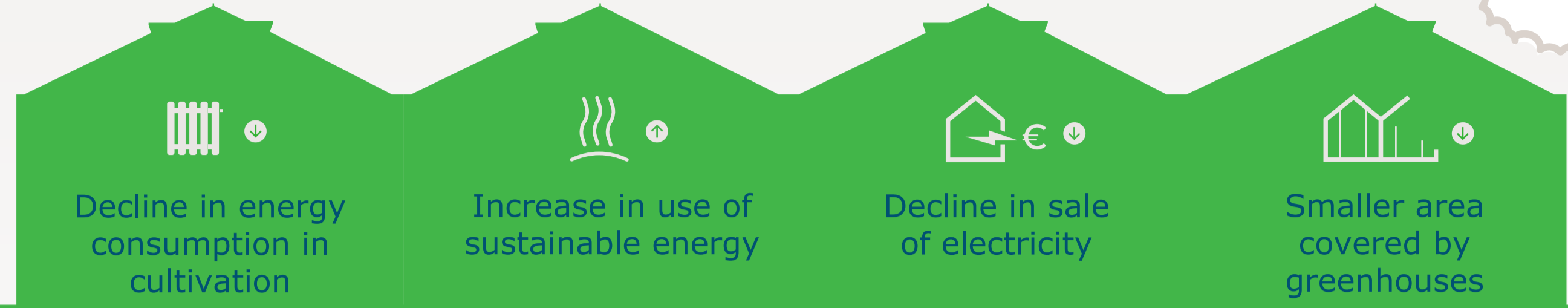


CO<sub>2</sub> emissions in greenhouse horticulture sector have remained stable in 2015 following a sharp decrease in 2010-2014

2020 objective

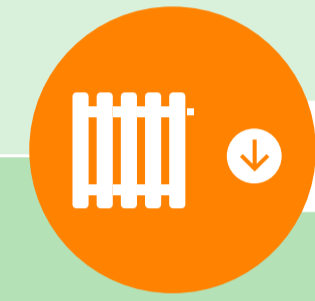
2010  
8,1 Mtonnes

2015  
5,7 Mtonnes



The Dutch greenhouse horticulture sector is on course to achieve its objectives for CO<sub>2</sub> emissions in 2020. In the period 2010-2015, emissions declined by 30% from 8.1 to 5.7 Mtonnes. Consequently, the CO<sub>2</sub> emissions are 8% below the maximum emissions of 6.2 Mtonnes in 2020. Even if this is corrected for the higher outside temperatures in 2015, the emissions are still below the target for 2020.

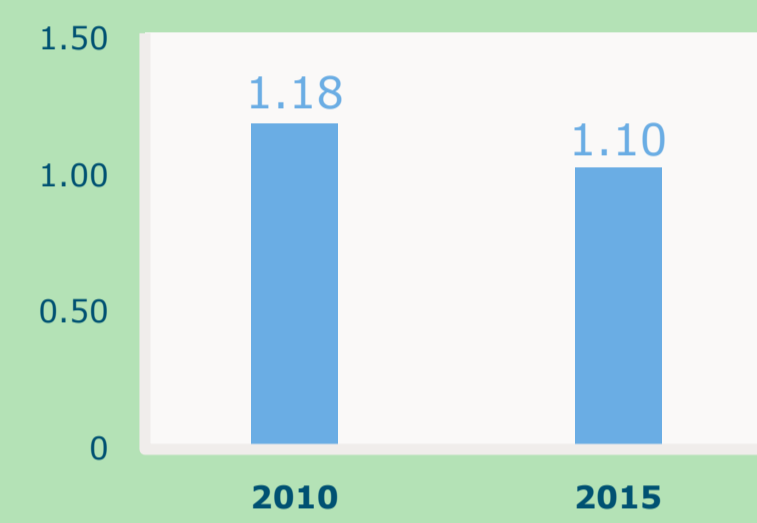
Since 2010, CO<sub>2</sub> emissions have declined by 2.0 Mtonnes, corrected for the outside temperatures. The total CO<sub>2</sub> emissions in 2015 are 16% below the level of 1990. This means that greenhouse horticulture is ahead of the national developments (+9%). This is clear from the Energiemonitor Glastuinbouw (greenhouse horticulture energy monitor) published by Wageningen Economic Research, formerly LEI Wageningen UR.



Decline in energy consumption in cultivation

In the greenhouses, energy is primarily required for heating (warmth) and lighting (electricity). Energy consumption rose through the increase of lighting (amongst other things), but at the same time energy was saved. On balance, between 2010 and 2015 energy consumption per m<sup>2</sup> of greenhouse declined by 7% and horticultural production per m<sup>2</sup> increased by 8%. Due to the reduction in overall energy consumption per m<sup>2</sup>, CO<sub>2</sub> emissions decreased by 0.41 Mtonnes.

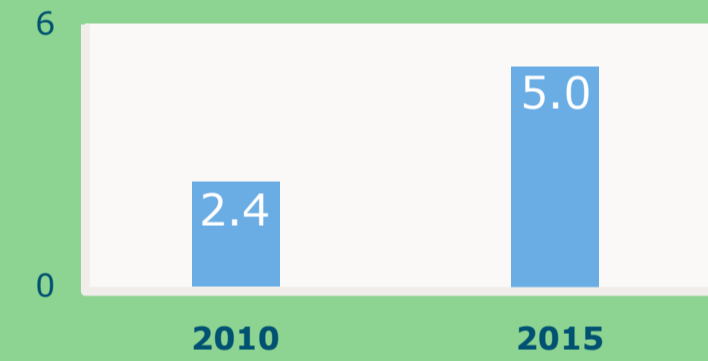
Decline in energy consumption per m<sup>2</sup> of cultivation area (GJ)



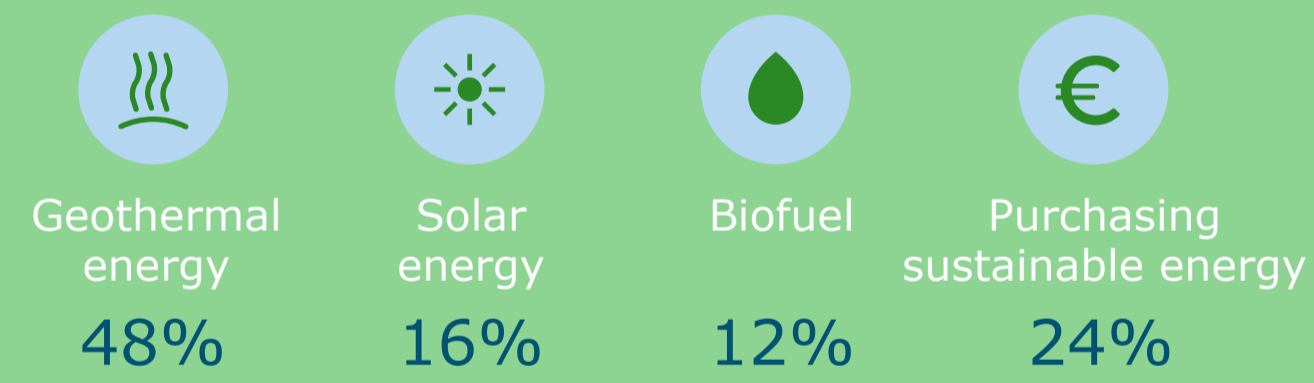
Increase in use of sustainable energy

In the period 2010-2015, the use of sustainable energy in Dutch greenhouse horticulture increased by 110%. As a result, CO<sub>2</sub> emissions declined by 0.15 Mtonnes. Sustainable energy consists of geothermal heat, solar energy, biofuels and the purchase of sustainable energy. Geothermal heat is the largest sustainable source and its use has greatly increased thanks to projects on large-scale greenhouse horticultural holdings and within growers' collectives.

Increase in use of sustainable energy (PJ)



Sustainable energy comprises:



Decline in sale of electricity

The Dutch greenhouse horticulture sector produces warmth and electricity on a large scale using gas-fuelled combined heat and power installations. For this form of electricity production, the heat that is released is used to heat the greenhouses. Besides use within the greenhouses, a lot of electricity produced is sold. Due to the low electricity prices, producing electricity has become less attractive. Consequently, in the period 2010-2015 the number of kilowatt hours sold by growers declined from 8.4 to 5.2 billion. This resulted in a reduction in CO<sub>2</sub> emissions from greenhouse horticulture by 0.88 Mtonnes.

Decline in sale of electricity (in billion kWh)



Smaller area covered by greenhouses

In the period 2010-2015, the total area covered by greenhouses declined from 10,307 to 9,206 hectares, mainly due to the economic situation. This decline of around 11% led to a reduction in CO<sub>2</sub> emissions by 0.56 Mtonnes.

Smaller area covered by greenhouses

