

Submitted Abstract

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Abstract

Austria has set itself the goal of being climate neutral by 2040. Tyrol aims to be independent of fossil fuels and sustainably energy-autonomous by 2050. By that time, the state Tyrol plans to reduce the energy consumption of transportation by almost a quarter and to keep the same level of economic activity.

Tourism plays an important role in the economy of Tyrol. The direct and indirect value added of tourism in Tyrol amounts to almost 17% of the total gross value added of Tyrol in 2018. The other side of Tyrol's popularity as a recreational location is that it causes a huge energy consumption due to the arrival of tourists by car. In 2016, tourists traveling by car used about 9 000 TJ of energy during arrival, and approx. 300 TJ on-site in form of gasoline and diesel. To compare, the local population consumes about 17 000 TJ of energy for mobility during one whole year.

If the pre-pandemic touristic trend continues, it may result in even bigger energy consumption in the future, which does not correspond to the energy autonomy goal of the state. Though it may comply with climate neutrality targets if tourists' mobility will be carbon-free, meaning cars of tourists will use electricity or hydrogen as fuel. Because climate neutrality does not mean the reduction of energy consumption. It refers to the issue of greenhouse gases (GHG) and means according to UNFCCC removing the same amount of GHG that has been emitted. However, in the production process of fuel or electricity for carbon-free mobility carbon dioxide and its equivalents may be emitted. Consequently, it requires bigger efforts in balancing it to zero.

To conclude, the achievement of the aimed climate neutrality and energy autonomy has to consider tourism and it requires changing the mobility of guests for arrival and on-site in Tyrol.

The presentation will show the current relevance of tourism in energy consumption and GHG emissions and its scenarios of development and give policy recommendations.