

## Utilizing the sun's power



## Solar Cadastre

A solar cadastre is a solar inventory of each roof in a town, commune or region. For each roof surface, it contains the orientation, inclination and irradiation as well as the corresponding solar potential.

### Based on Meteonorm



[www.meteonorm.com](http://www.meteonorm.com)

In the field of irradiation data, **METEOTEST** has developed the worldwide leading climatology database **meteonorm**. This software allows retrieving irradiation data for a typical year for any location worldwide.

Due to the high density of the measurement station network as well as the inclusion of satellite data, data quality is especially high in Switzerland. Since 25 years, **meteonorm** has been an excellent base to determine the solar potential.

## GIS Modeling

We offer solar cadastres for towns, communes and regions based Swisstopo's high resolution digital terrain model DOM (or a 3D town model). For each point on every roof, we calculate local shadowing (trees, neighboring buildings) as well as the topographic horizon.

Genossenschaft METEOTEST  
Fabrikstrasse 14, CH-3012 Bern  
Phone +41 (0)31 307 26 26  
Fax +41 (0)31 307 26 10  
[office@meteotest.ch](mailto:office@meteotest.ch), [www.meteotest.com](http://www.meteotest.com)

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# Which part of our electricity demand can we cover with solar power?



The terrain model's high resolution even allows taking complex roof structures into account.

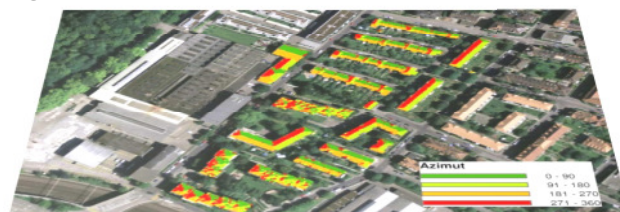
## Benefits

Our solar cadastres can be utilized to assess a town's or region's potential for the production of solar power. Additionally, the data can be combined with additional information, e.g. protected historical buildings, in order to further refine the potential analysis. Furthermore, a yearly solar power production can be calculated for single houses and even single roof areas.

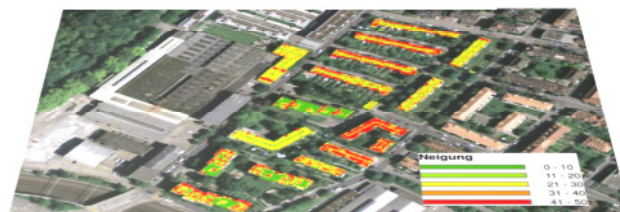
This information can be used internally (authorities, power companies) or published in a web application in order to sensitize house owners and citizens.



Digital surface model DOM



Orientation of each roof surface



Inclination of each roof surface



Yearly irradiation of each roof surface

