

# Solarity: Solar Clarity for Swiss Households

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**A D A**

APPLIED DATA ANALYSIS

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**(EPFL)**

ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE

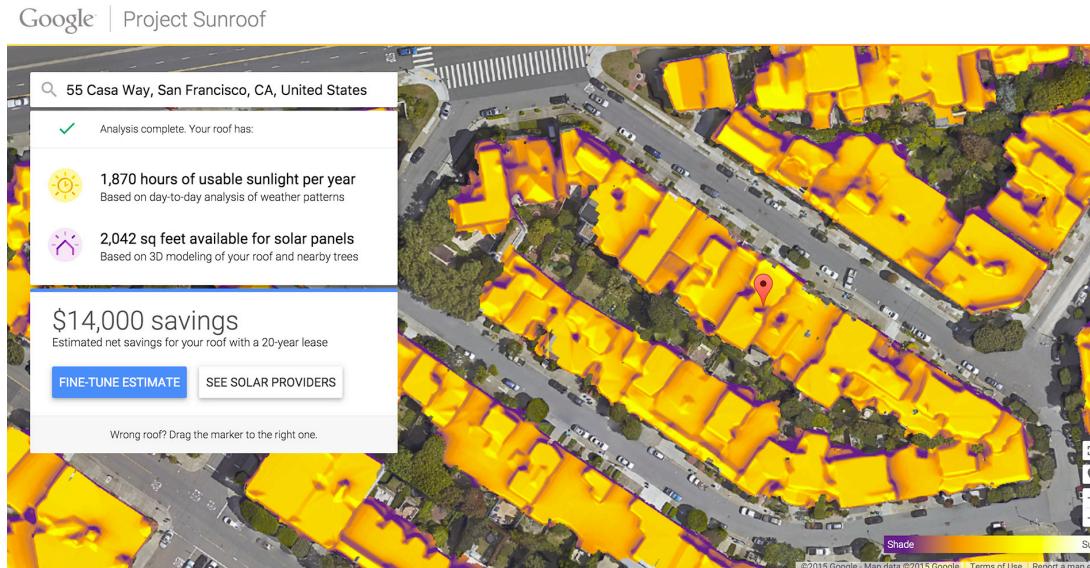
# What is Solarity?



- How many **solar panels** do I need?
- How much does it **cost** me?
- How much would I **save**?
- How long till I **break-even**?



# Solarity vs Project Sunroof



## Project Sunroof

Uses proprietary Google Earth data

Only works for some US states

## Solarity

Uses publicly available weather data

Reproducible results for other countries

# Under the Hood

## Data Acquisition

- Solar Irradiance ( $\text{W/m}^2$ ) 
- Temperature ( $^\circ\text{C}$ ) 
- Wind Speed (m/s) 



200 Weather Stations

2000-2016



No API

Solar production at EPFL (W)



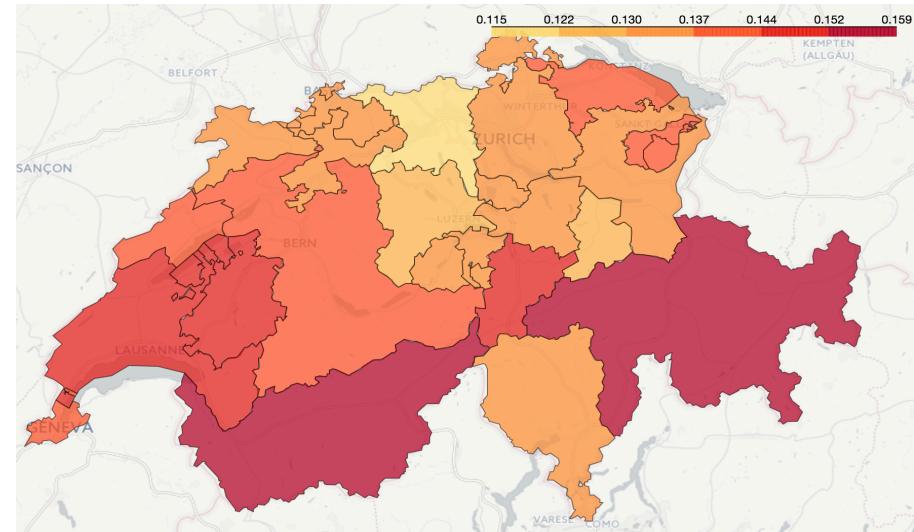
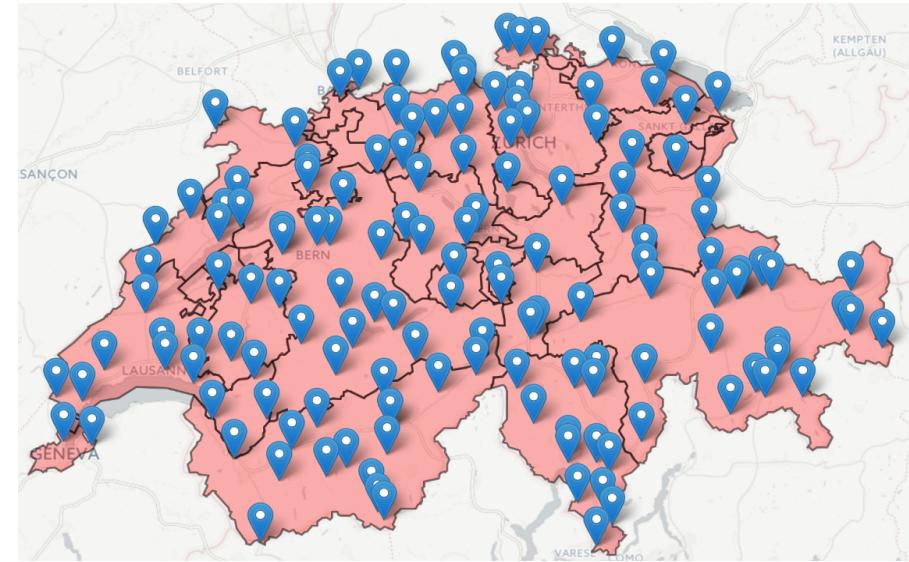
In-house measurements

Electricity and Solar tariffs (CHF)



From Utilities and Vendors

**ADA**  
APPLIED DATA ANALYSIS



Enter an address | Badenerstrasse 172, 8036 Zurich

What's your average monthly electric bill?

35 CHF

What's your roof area?

40 m<sup>2</sup>

**Ready**

