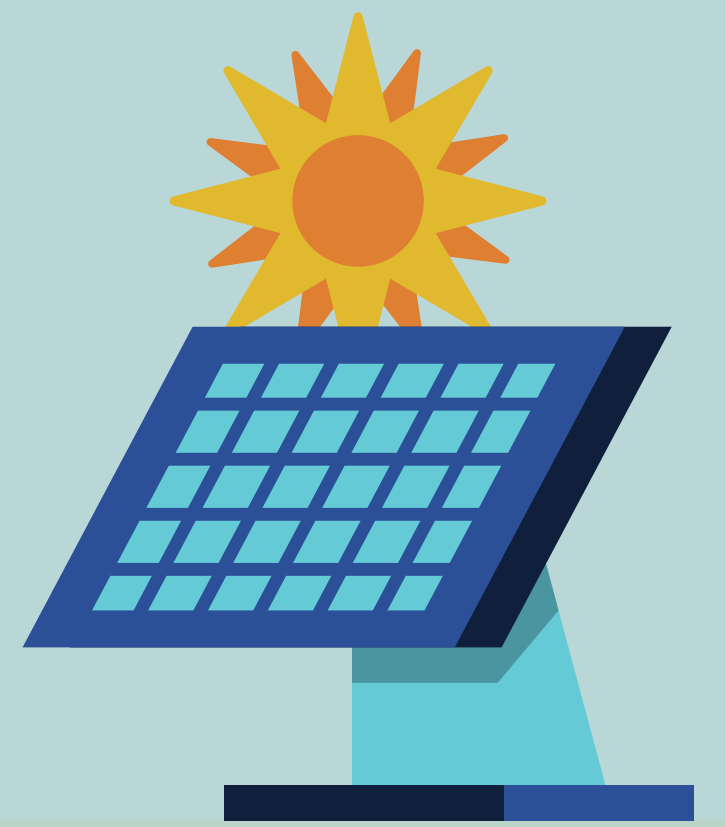
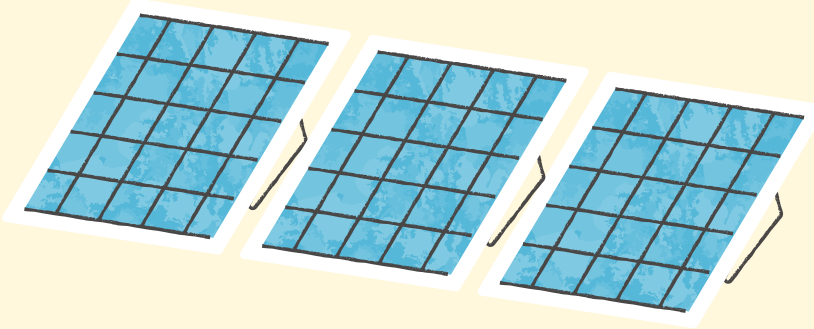


SOLAR PANELS IN ELBASAN

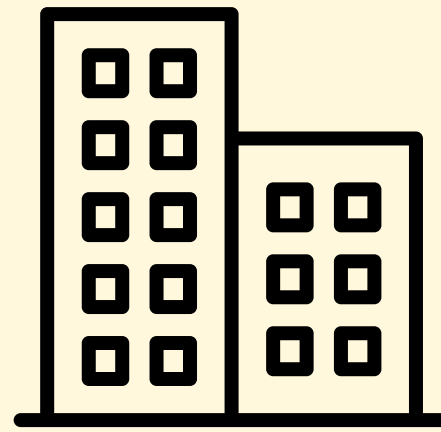
GIZ PILOT PROGRAM



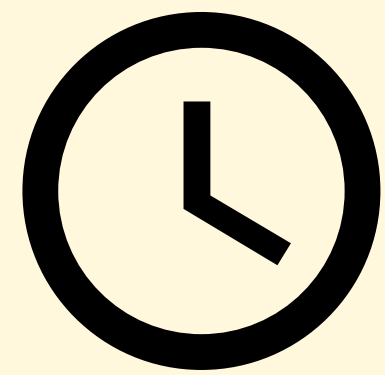
The Elbasan PV System



36 Solar panels



Installed at
**Ymer Tola
Dormitory**

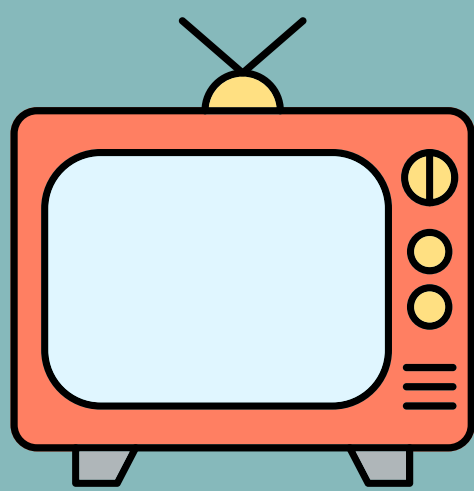


Installation took **6**
days and **4**
engineers

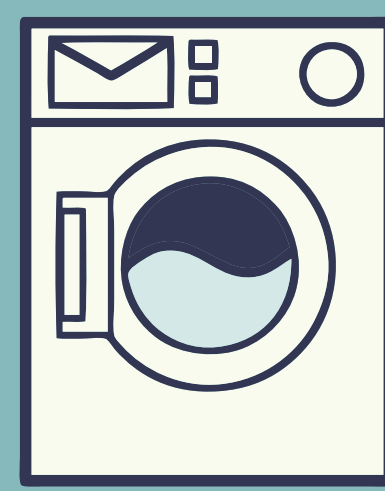
Power Production



1 Year, this system is projected to produce **20,000kWh**



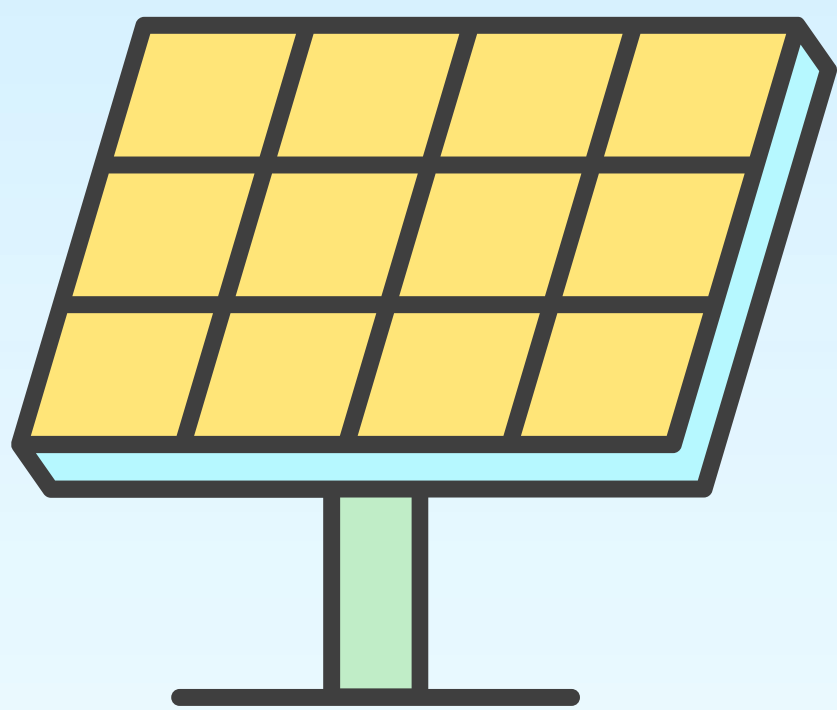
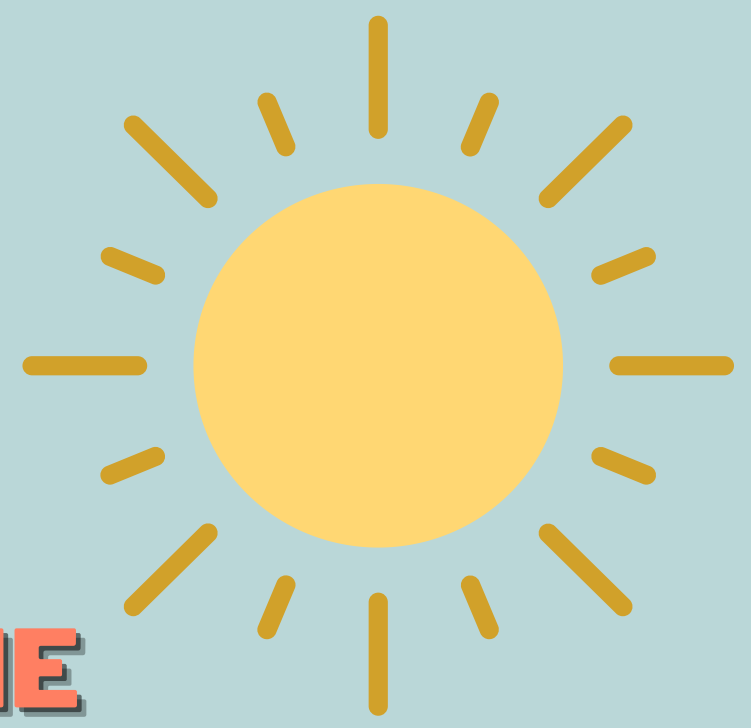
Equivalent to the
energy (kWh)
required to **watch
television**
nonstop for
almost **2,340** days
(**56,160** hours) on
a **50 inch** TV



Equivalent to the
energy (kWh)
required to run over
340
loads of laundry

GIZ PILOT PROGRAM IN ELBASAN

SAVINGS PROJECTIONS TO THE
CITY



New Energy Efficient bulbs save **€14,330/year**
compared to regular high-pressure mercury bulbs

New solar panels generate 20,000 kWh/year,
saving **€1,856/year** in municipal energy expenses

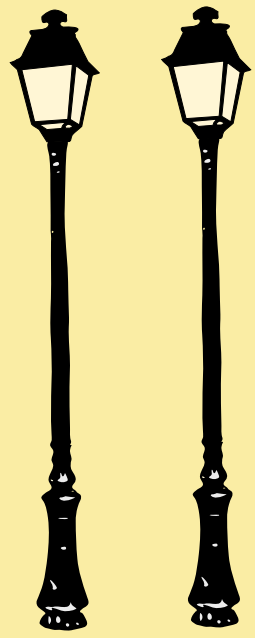
Total energy from pilot programs
(150,000kWh/year) is equivalent to **106 metric tons**
of CO₂ not emitted into the atmosphere

ENERGY EFFICIENT BULBS IN ELBASAN

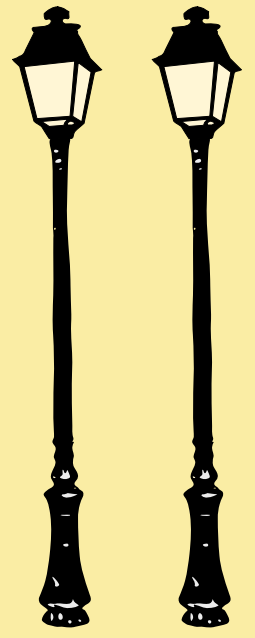
GIZ PILOT PROGRAM



Energy Efficient (EE) bulbs use
80% less energy
than high-pressure mercury bulbs

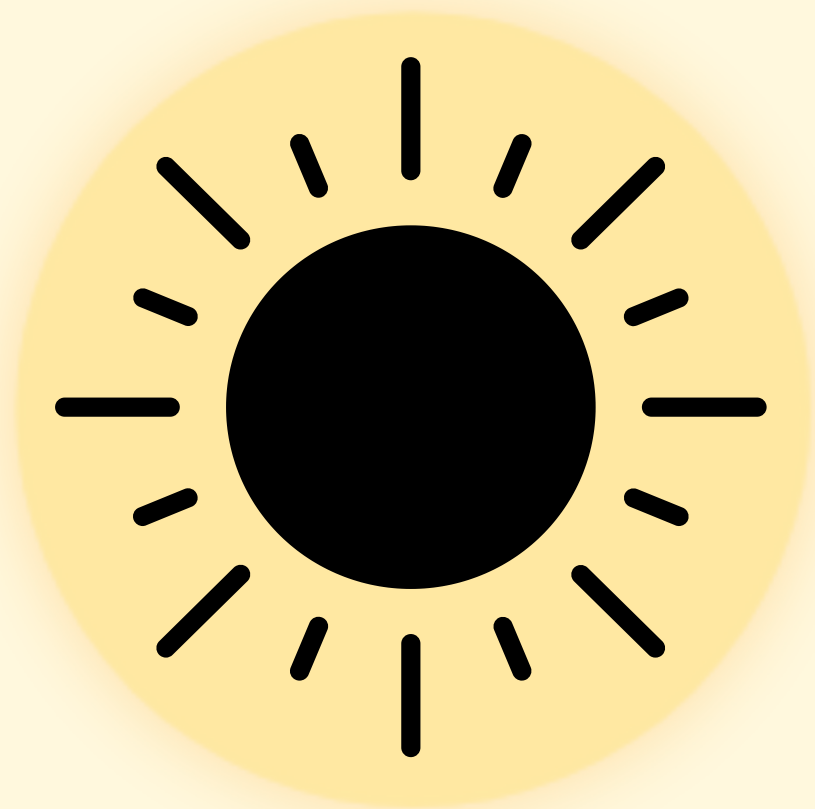


EE bulbs
save 125,000 kWh/year
equivalent to the electricity
consumption of 70 people/year



EE bulbs save the
Municipality of Elbasan
€14,330/year





COMBINED SAVINGS FROM THE PV + EE PROGRAM

BEFORE EE BULBS

The Municipality of Elbasan spent **€18,000/year** on streetlights for Rruga Rinia and Rruga Unaza

The Municipality of Elbasan is projected to **SAVE €14,000/year**

AFTER EE BULBS

REAL-TIME PV DATA

During the rainy month of November, PV at Ymer Tola dormitory produced energy equivalent to **€40** in savings

The dormitory PV is expected to produce energy savings equivalent to **€2,250** each year

PV ENERGY PRODUCTION

**TOTAL MUNICIPAL SAVINGS:
€16,580/YEAR**

CLIMATE CHANGE & HYDROPOWER IN ALBANIA

Climate Crisis

Albania is in a *State of Energy Emergency*

Climate change causes extreme fluctuations in precipitation, which threaten the reliability of hydropower. Albania is overly reliant on hydropower, making the country especially vulnerable to shortages and outages.



Droughts Endanger Hydro



Drought-induced low water levels in hydropower plant (HPP) reservoirs reduce pressure on turbine blades.

HPPs produce energy when water pressure spins these turbines.



Lower pressure reduces the ability of the plants to generate energy.

Precipitation Decreases

In 2021, annual precipitation in Albania was

14 cm less than in 1901.

This drop in precipitation represented approximately

37% of the annual rainfall in 1901.



2050 Projections

Annual rainfall is projected to decrease by up to **6%**.

Summer rainfall is projected to decrease by **23%**.



Large hydropower plants are projected to produce **15%** less electricity

Small HPPs are projected to produce **20%** less electricity.