



Interreg



2 Seas Mers Zeeën SOLARISE

European Regional Development Fund



Low-carbon
technologies

TOTAL PROJECT
BUDGET:

4.35 M €

INCLUDING AN
ERDF BUDGET OF:

2.61 M €

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www.interregsolarise.eu



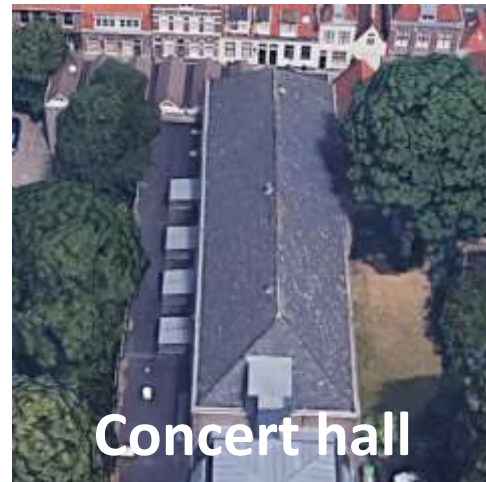
The energy transition challenge

- Where to put all the solar panels?
- How to maintain the aesthetic value?

Many buildings have been reviewed...



Many buildings have been reviewed... Three cases presented today



An aerial photograph of a residential street. A central building with a dark, gabled roof is the focal point. It is flanked by large, mature green trees. To the left, a row of red-brick houses with white window frames is visible. To the right, more houses and a small patch of grass are seen. The street is paved and has some parked cars. The overall scene is a typical urban residential area.

Concerthal

- 'Low hanging fruit'
- Roof not visible from the street
- Roof well suited for PV
- Total capacity 60 kWp



50.000

kWh generated
annually

60

kWp PV system
installed on the
roof



Proceed with
project execution!

150%

of the annual
electricity demand
covered by the PV

Not

visible from the
street, aesthetic
value preserved

The image shows the Zeeland Archives building, a historic brick structure with a modern glass extension. The building features a prominent arched entrance with a stone pediment and a large glass facade on the upper level. A brick wall with inscriptions runs along the side of the building. In the background, a church spire is visible. Several people are walking near the entrance, and bicycles are parked in the foreground.

Zeeland Archives

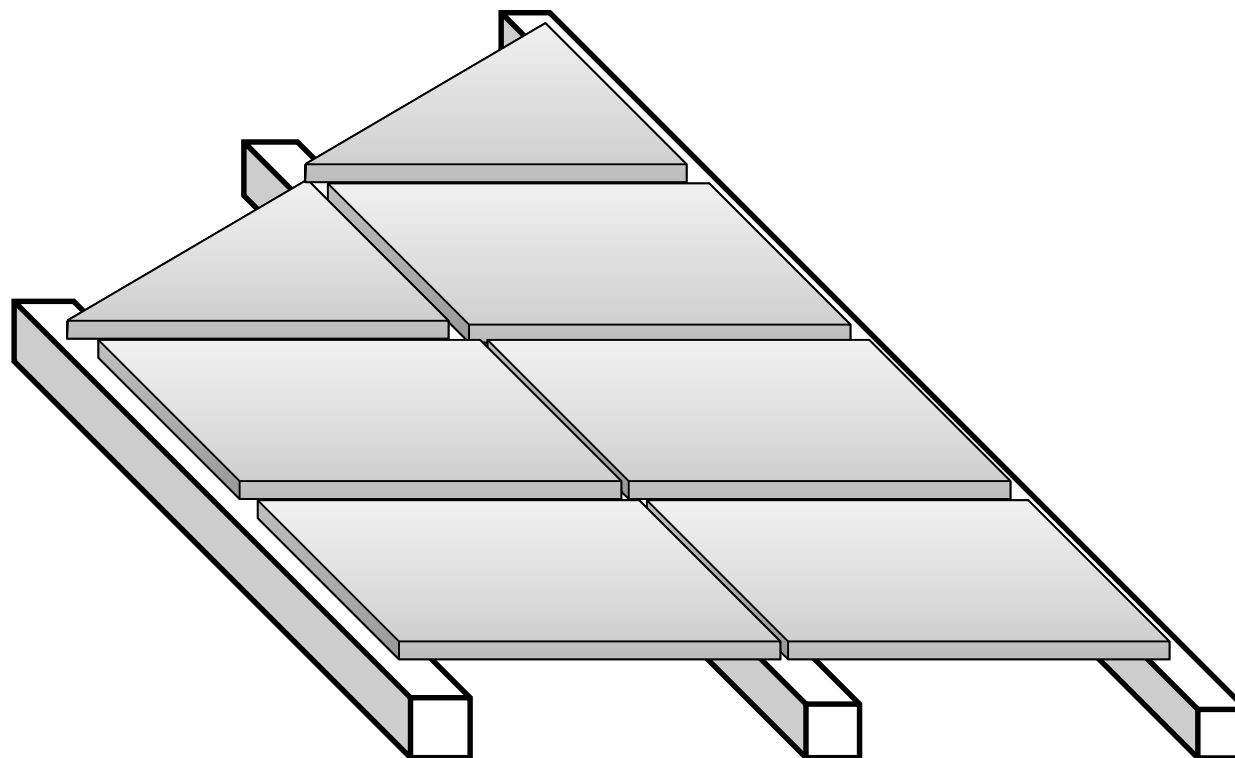
- Original building from 1765
- Renovation & expansion from 1999
- How to maintain aesthetics?
- How much energy could be harvested?
- How much energy can be used locally?

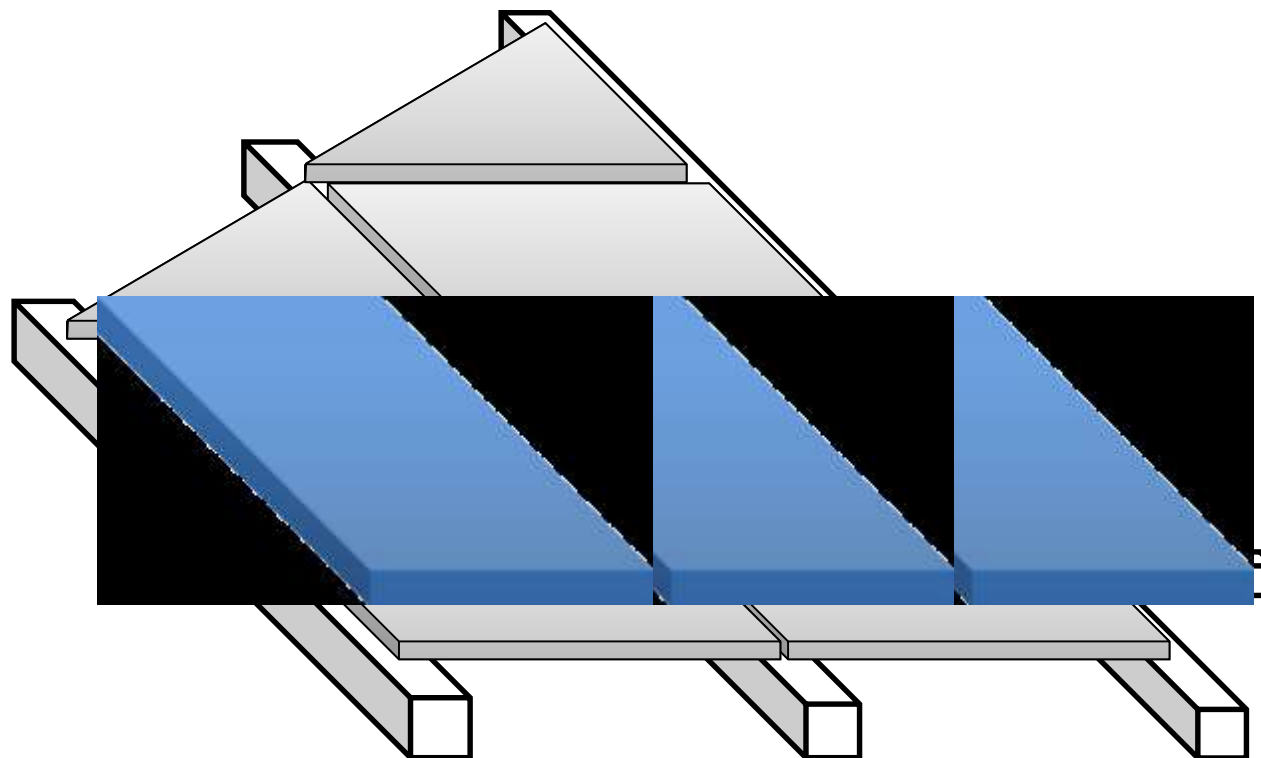


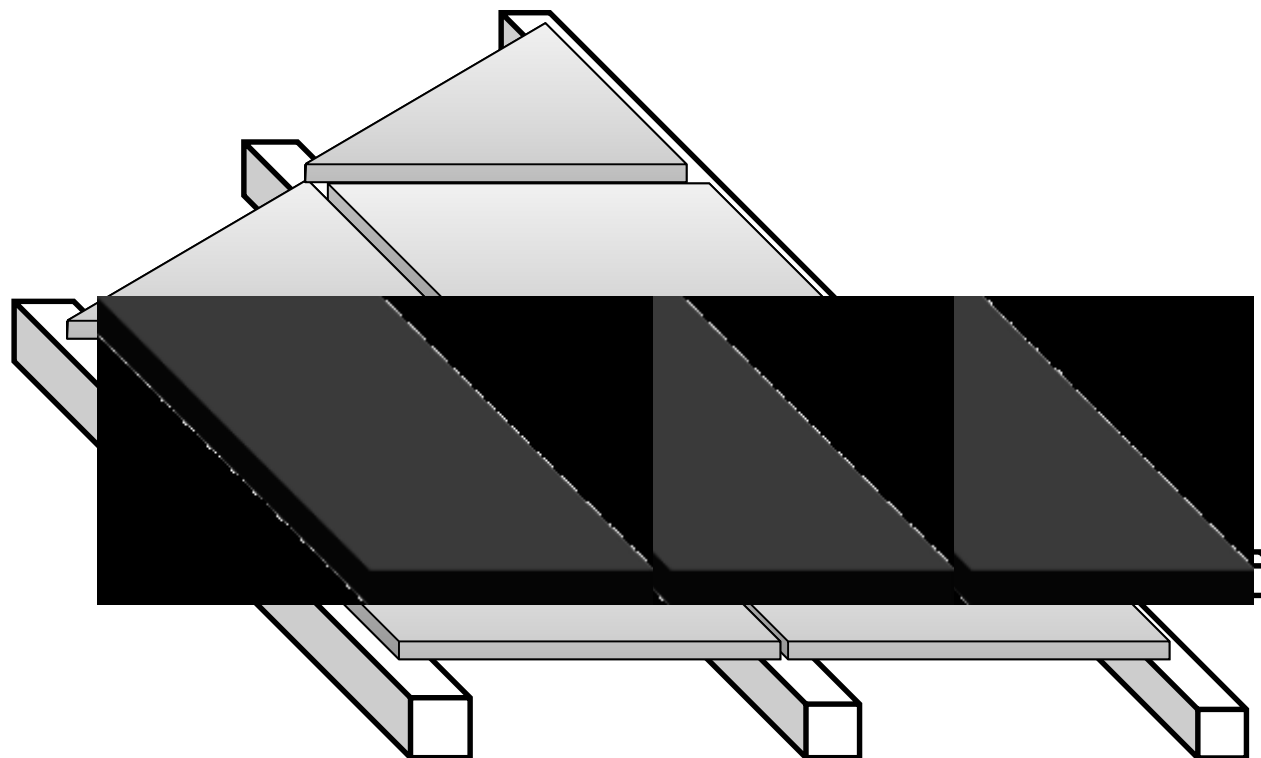
- Roof of 790 m²
- Orientation East
- Inclination 25°
- Partly shaded from two trees

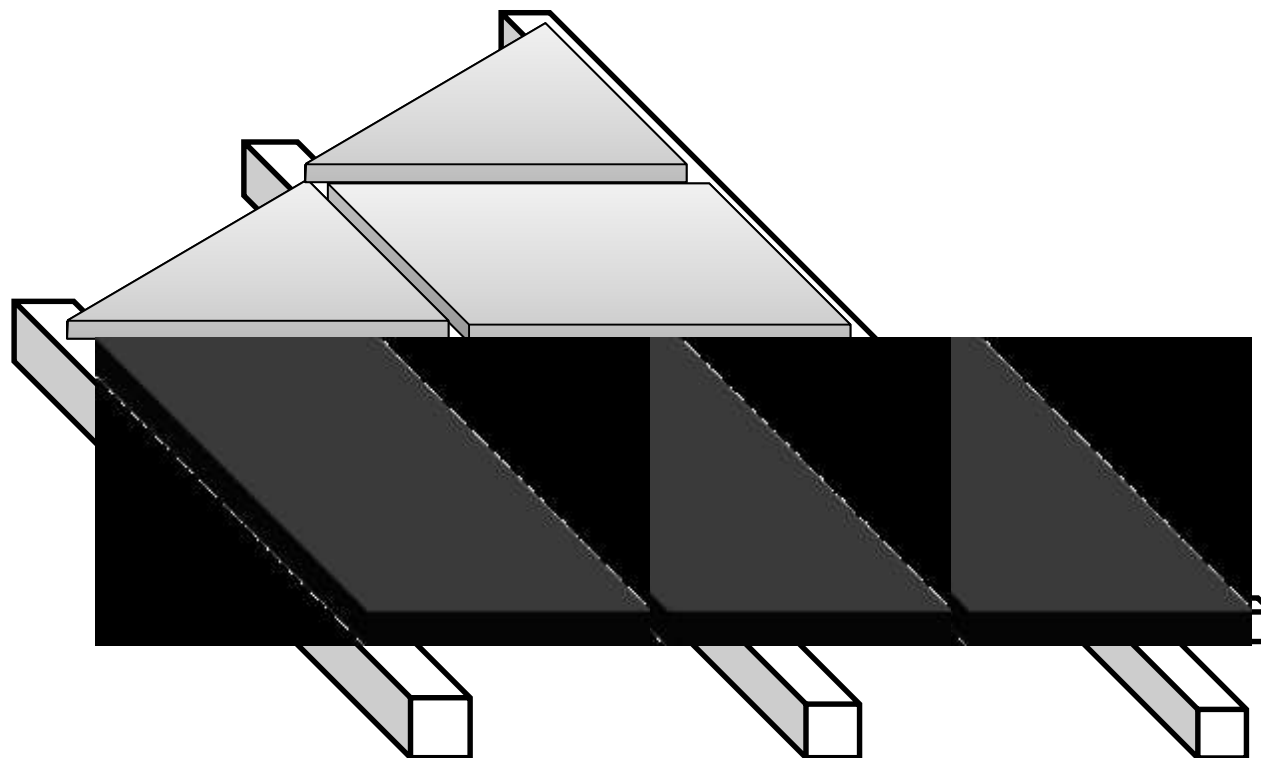


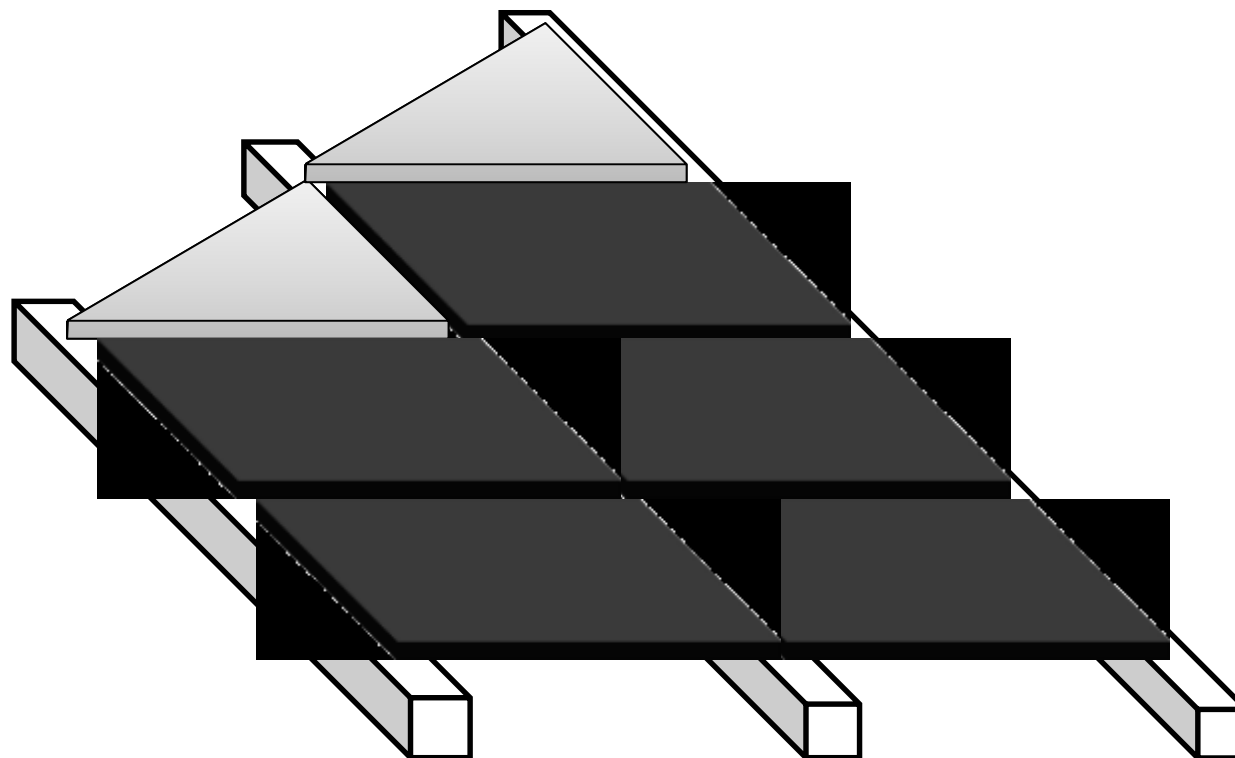


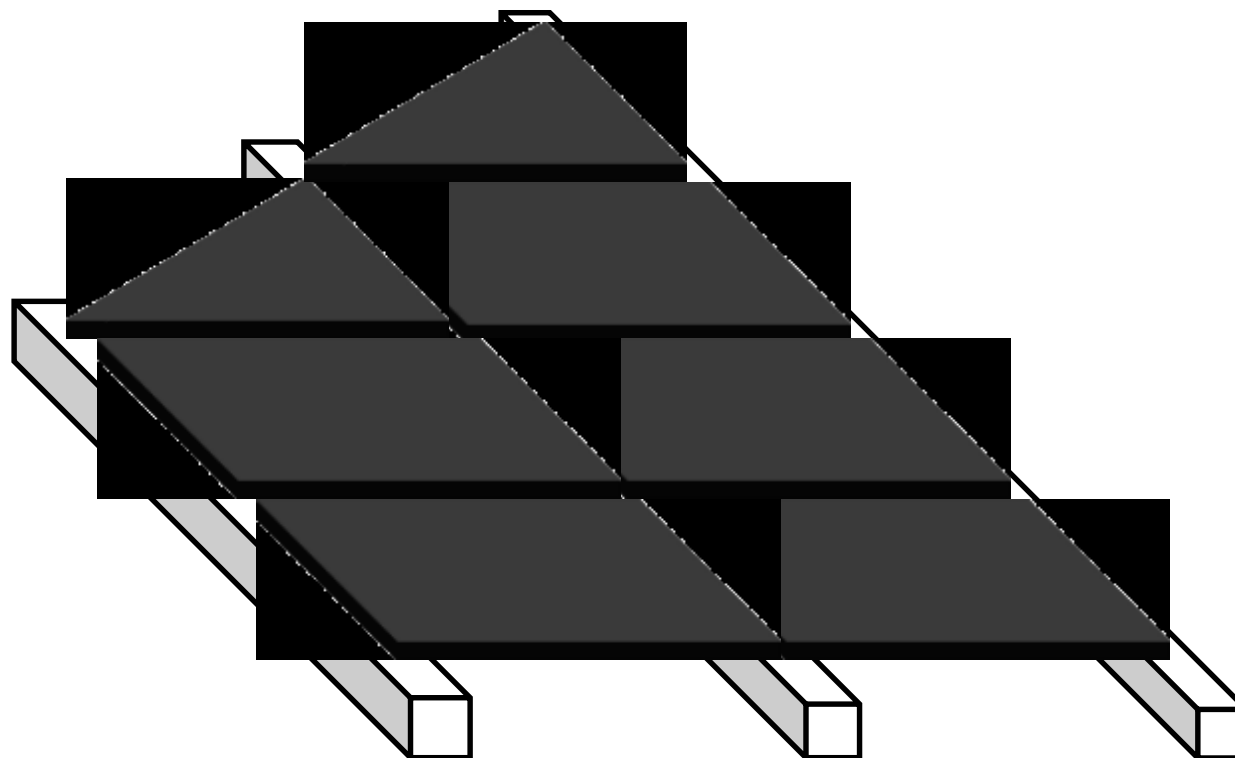






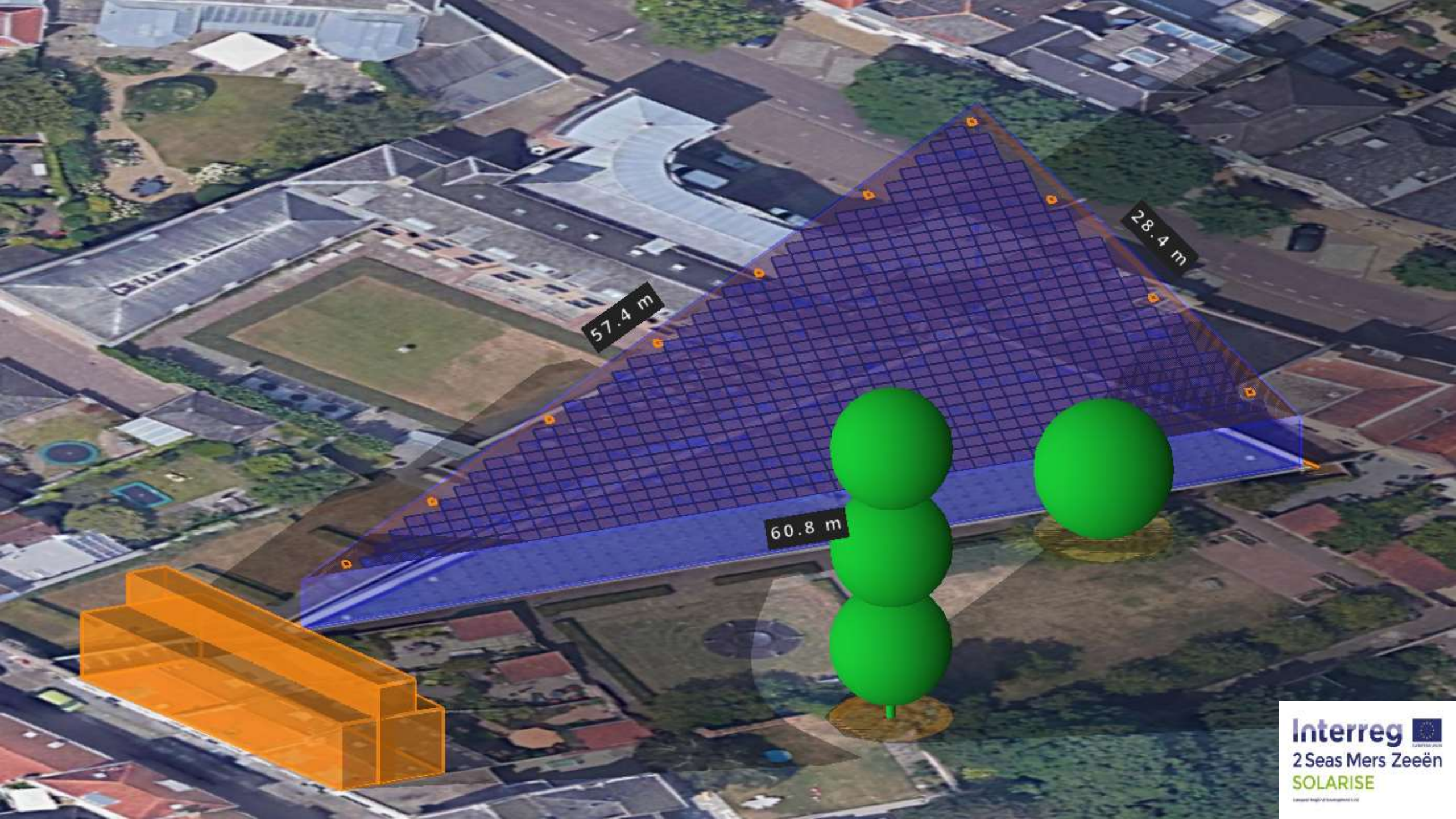




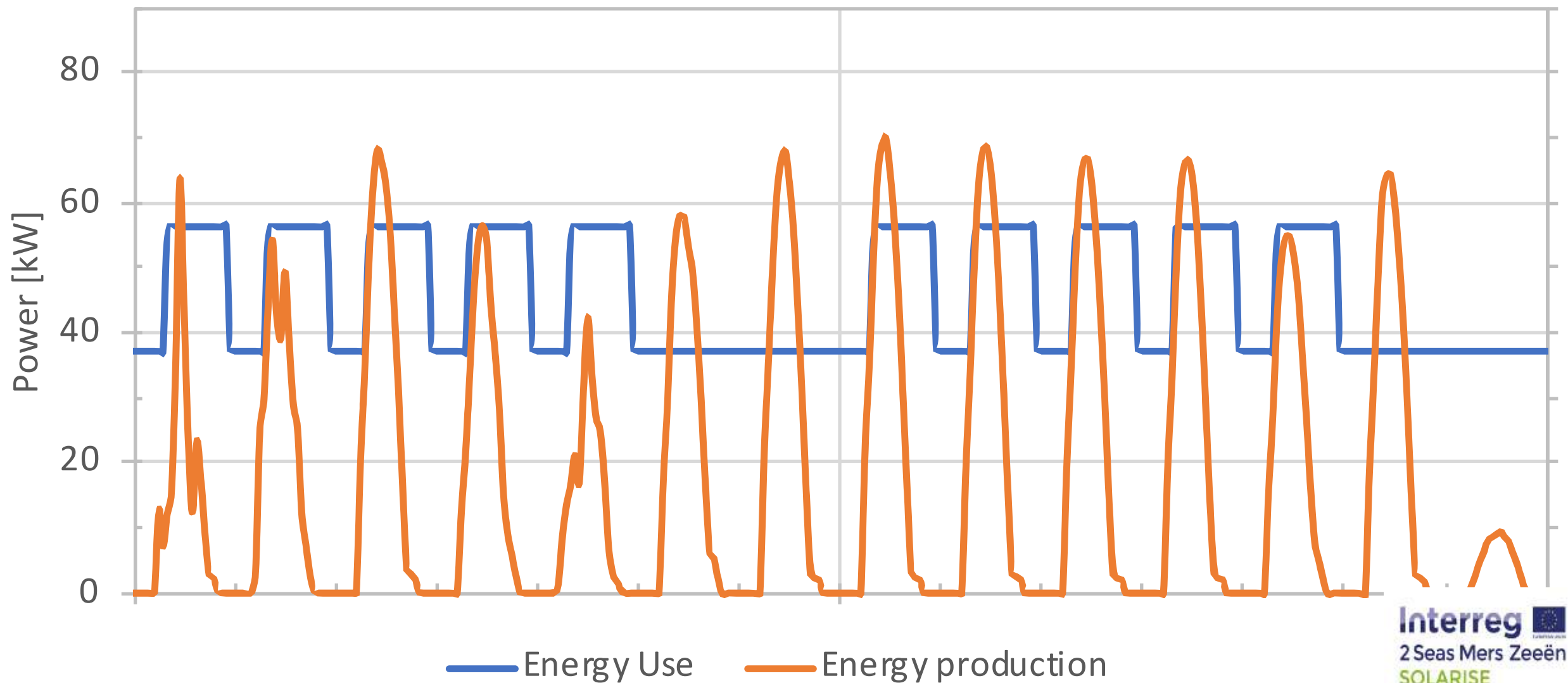


Can it be done?





Example energy use & energy production during two summer weeks



85.000

kWh generated
annually

100

kWp PV system
installed on the
roof



Proceed with
project execution!

95%

of the energy is
directly consumed
in the archives

19%

Of the annual
electricity demand
of the archives
covered

9

Years financial pay-
back time



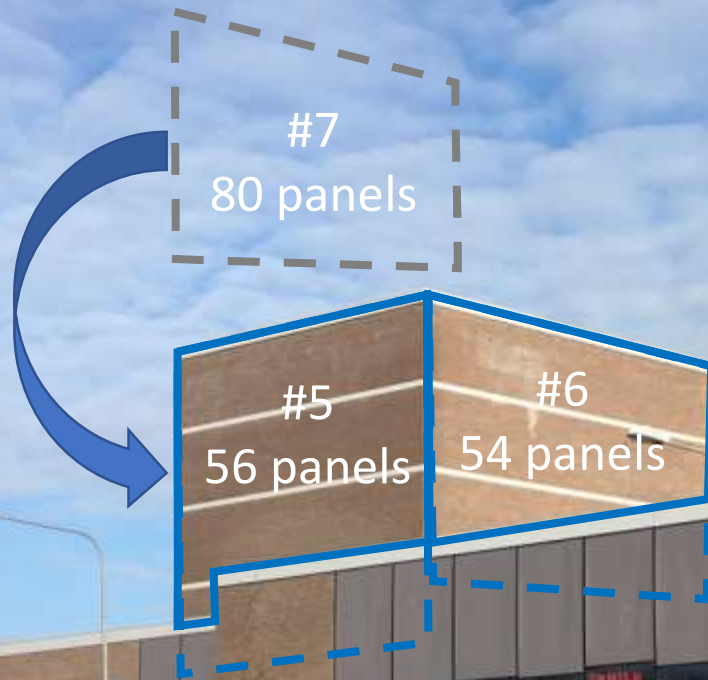
Theatre

- First theatre built in 1807 AD
- Most recent renovation from 2018



The challenge

- Roof already has PV – But limited applicability due to air treatment system
- What about the façadess?
- How to maintain aesthetics?
- How much energy could be harvested?
- How much energy could be used locally?



How much PV would fit?
→ Potential for 50 kWp PV system

Three levels of PV deployment

Conservative case:

“We don’t want to change the building - PV is only allowed on the roof”



Basic case:

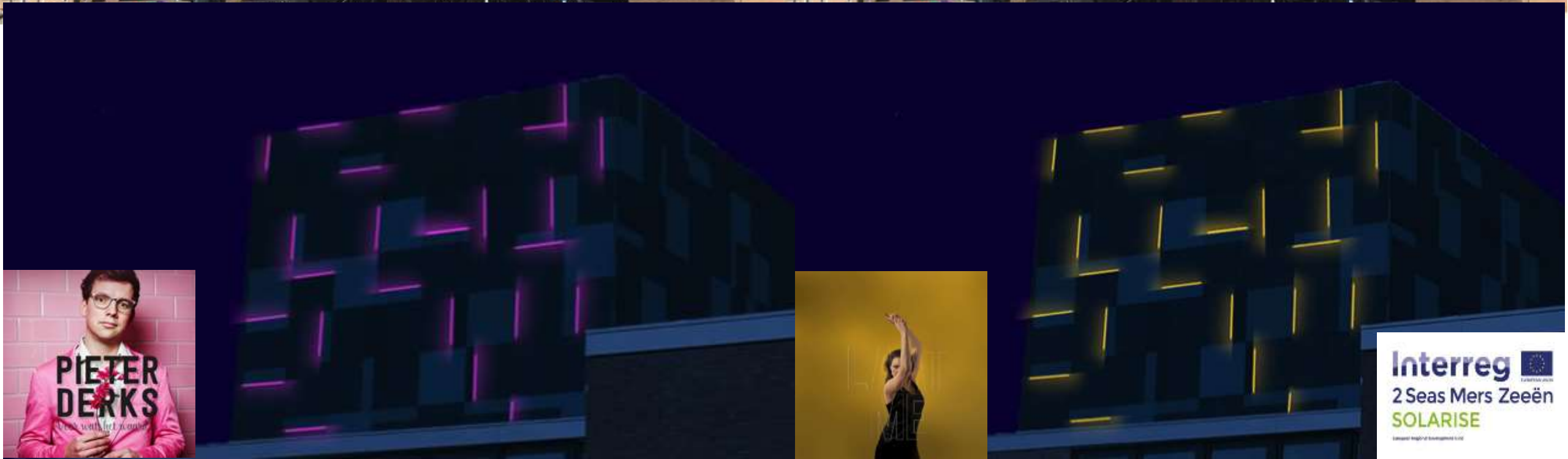
“PV is allowed – But the building should be kept as much as possible in the original shape”



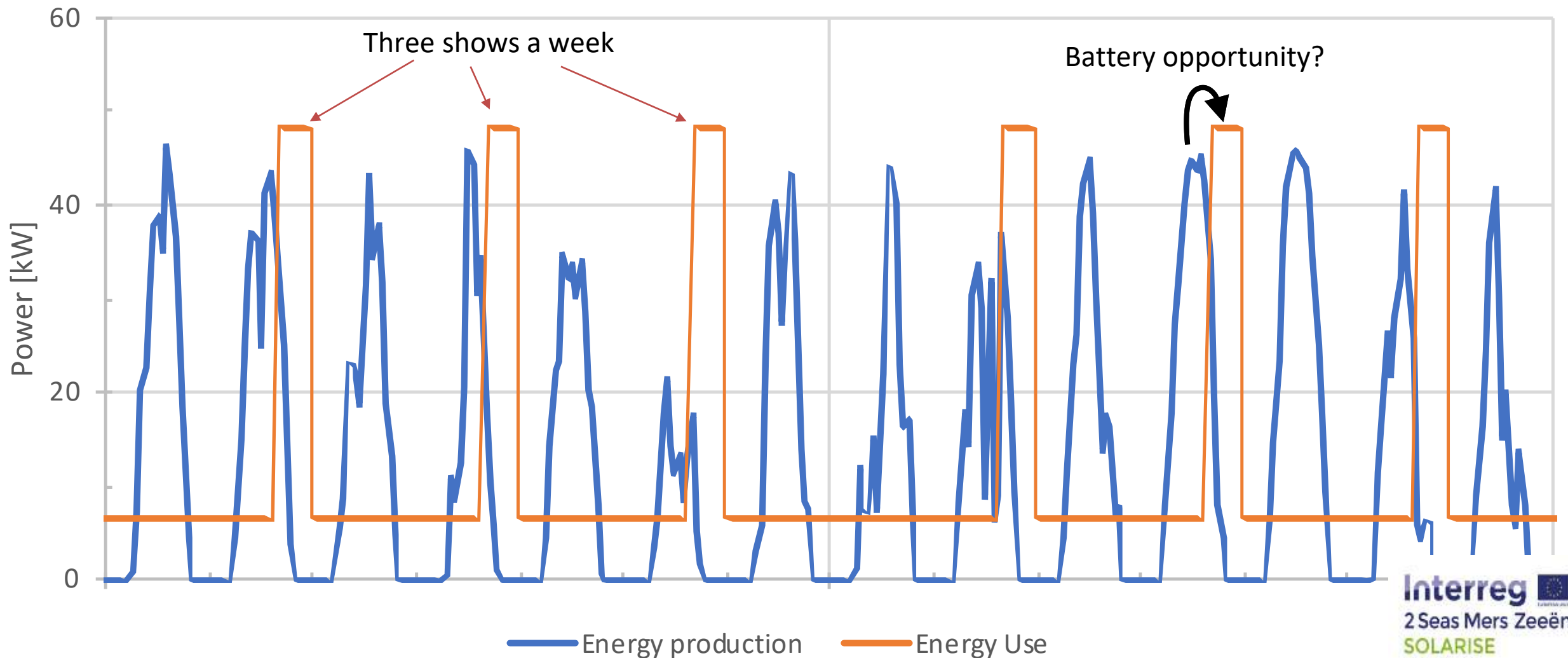
Ambitious case:

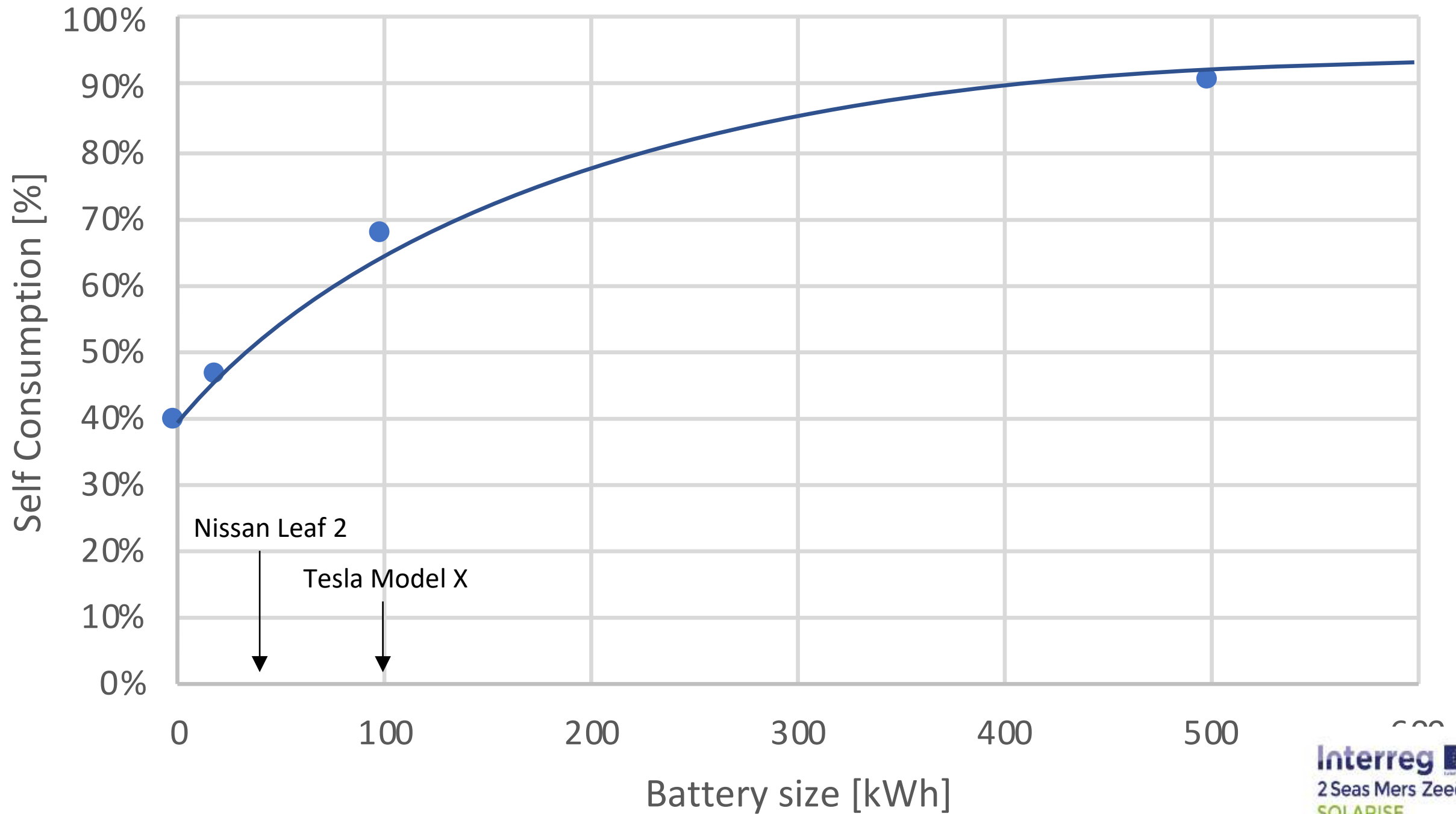
“PV is an opportunity to re-design the façade and improve the communication and aesthetics of the building!”





Example energy use & energy production during two spring weeks





75.000

kWh generated
annually

50 + 50

kWp PV system
installed on the
roof + façade

56%

of the annual
energy demand
covered

39%

of the energy is
directly consumed
in the theatre

>70%

of the energy is
consumed by the
theatre if a battery
is deployed

?

Project under
consideration

Three down... many more to go!



Thank you for your attention!

