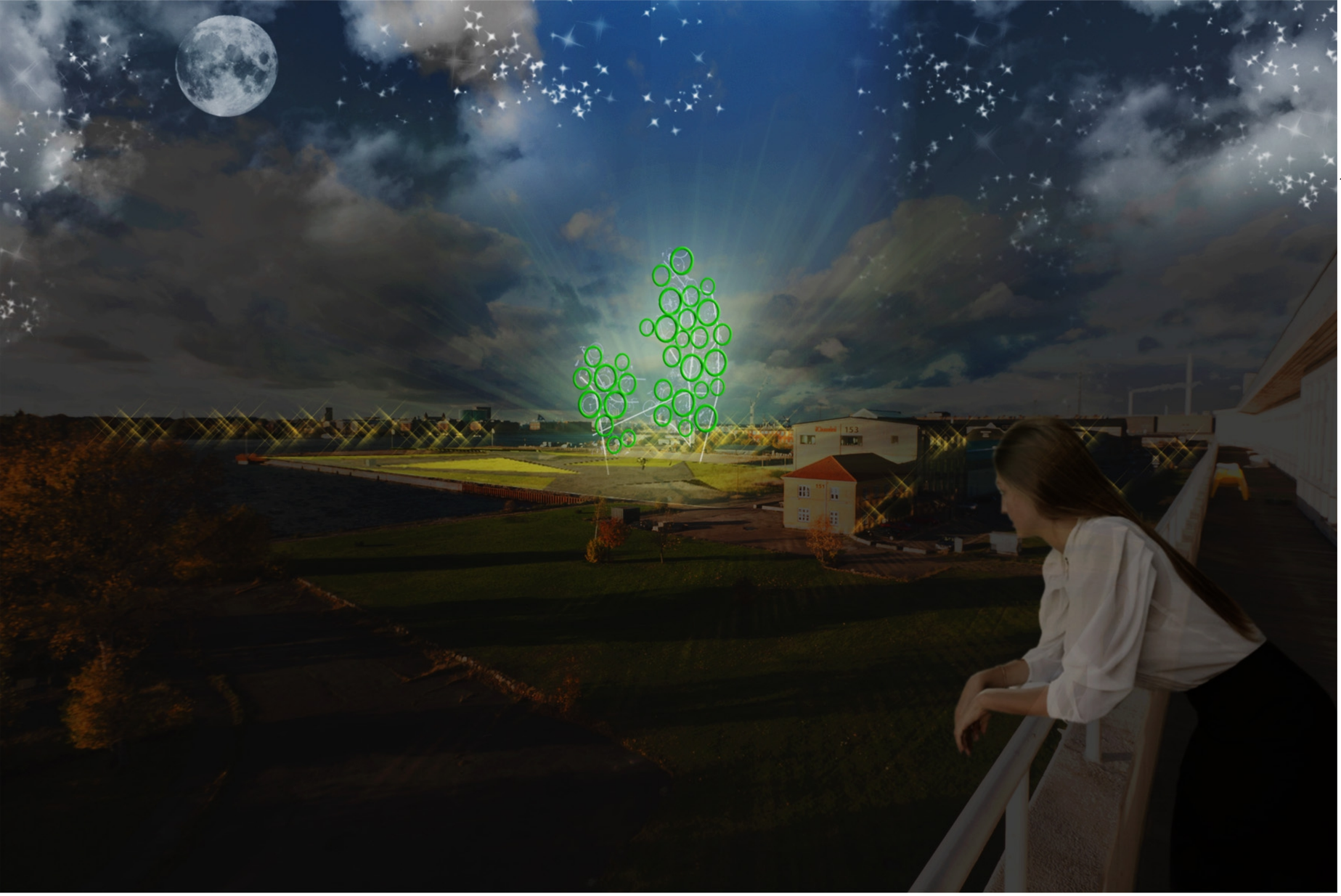
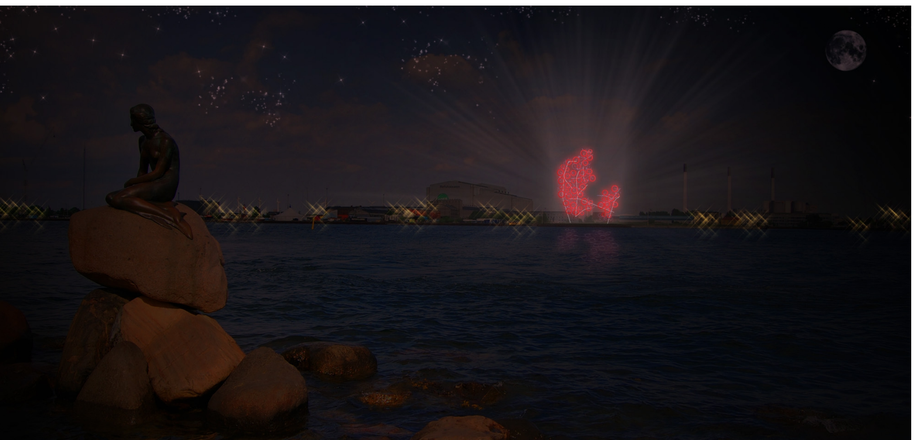
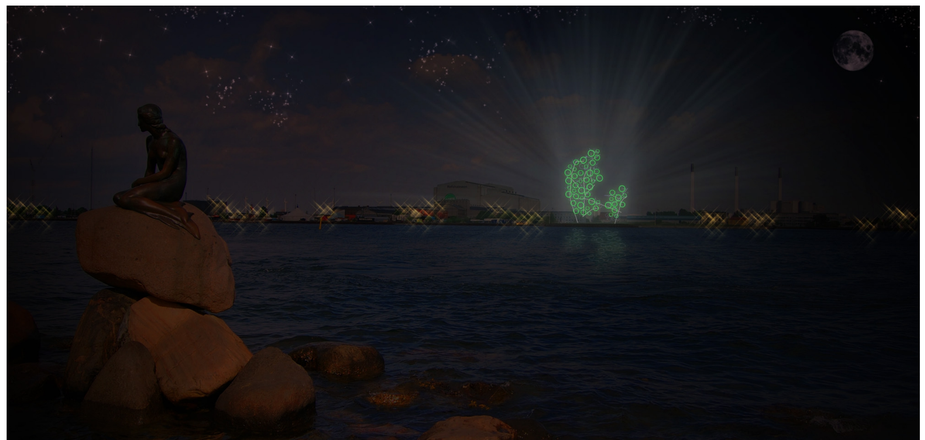


From across the sea, tourists that visit The Little Mermaid during the evening contemplate the amount of energy generated in Copenhagen during the day.

By night, the installation turns into green light if the amount of energy produced fulfills the minimum required. If it doesn't, the lighting will be red so the people is awarded to cicle a little bit more the next day.





CALCULATION OF WIND ENERGY GENERATION

Wind Turbines of 700W Power ⇢ Wind Speed 6m/seg = 131 Kwh per month ⇢ x 62 Wind Turbines = **8122 Kwh per month**

In Denmark 1 consumes... = 1,3 Kwh ⇢ x 4 people (traditional family) = 5,2 Kwh ⇢ x 30 days = 160 Kwh Consumption 1 per month

8122 Kwh Produced per month by the wind turbines ÷ **160 Kwh** consumption per month by each house = **51 HOMES** WILL OCCUPY THE ENERGY PRODUCED BY THE WIND TURBINES CONSIDERING THE SMALLEST DIAMETER.

Considering that the instalation has wind turbines three times biger than the ones we have consider for the calculation... ⇢ It is estimated a total supply of... **153 HOMES** THAT WILL OCCUPY ALL OF THE ELECTRICITY GENERATED

CALCULATION OF POWER GENERATED BY DYNAMO

DYNAMO ⇢ 1 hour of cycling = 100 W/h

100 people per hour using the bikes = 100 x 100 W/h = 10.000 W/h = 10 Kwh

⇢ If the bikes are rented 12 hours of every day... = 10 Kwh x 12 horas =

120 Kwh will be produced per day in total. ⇢ x 30 days (a month) = 120 Kwh x 30 days = **3600 Kwh per month**

3600 Kwh produced per month ÷ **160 Kwh** (1 home consumption per month) = **22 HOMES** WILL USE THE ENERGY GENERATED BY THE BIKES.

CALCULATION OF TOTAL ENERGY GENERATION

11722 Kwh - 10% of the energy is lost by transforming the direct current to alternating current in the inverter. = **10550 Kwh** TOTAL ENERGY AVAILABLE FOR CONSUMPTION = **66 HOMES** WILL USE THE ENERGY GENERATED BY THE WHOLE INSTALLATION.

This amount may change depending on the wind speed and the number of people using bicycles per hour, per day.