

## Green roof artificial neural network (ANN)

### Step 1 - Database creation

#### Parametric analysis



Hourly simulations throughout the year

252 different green roofs



### Step 2 - ANN training and optimization

#### ANN design

Number of neurons

Number of hidden layers

Training database: 180 different green roofs

#### Inputs and outputs



### Step 3 - ANN validation

#### ANN accuracy

#### ANN validation



Validation database: 72 different green roofs



# The Heat Island Group's Green Roofs

United States

A series of research-based green roof designs that reduce the urban heat island effect and improve energy efficiency in buildings.

Affordable and Clean

Sustainable Cities a

Climate Action

7 AFFORDABLE AND  
CLEAN ENERGY



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AND COMMUNITIES



13 CLIMATE  
ACTION

