

## Ex6 IHC-Office

- Target variable:  $Q$  [kwh/m<sup>2</sup>] (summer + winter)
- Input variables:
  - IHC
  - To act on IHC play with density values
- Noise variables (to be set randomly according to a gaussian distribution):
  - People/occupancy (consider 4w/mq 24h/day)
- Scenario variables:
  - 3 configurations are assumed by modifying the same reference building: not insulated (e.g. envelopes of 50-60's), insulated (current U-value limits for Piedmont Region), highly insulated building (U value walls = ...; U value windows = ...)
  - To change the U-value, change insulating layer (0-35cm) in Energy plus for opaque surfaces and change the windows (0.8-5)
  - Use design builder to get a translation to U-value or you can use the formula in the lectures directly inside the python script
  - CNV on/off (in summer) (on mode = 6 ACH with external temperature from 24 to 10°C during night (18:00-7:00), while a critical difference between building temperature and external one is set to 3 K for effective convection)