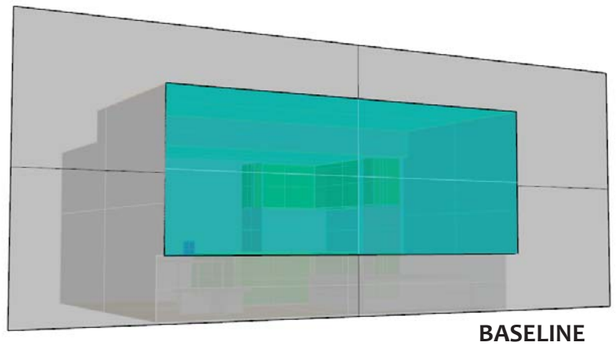
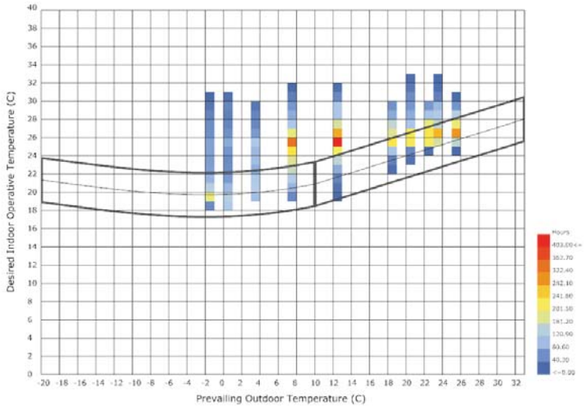
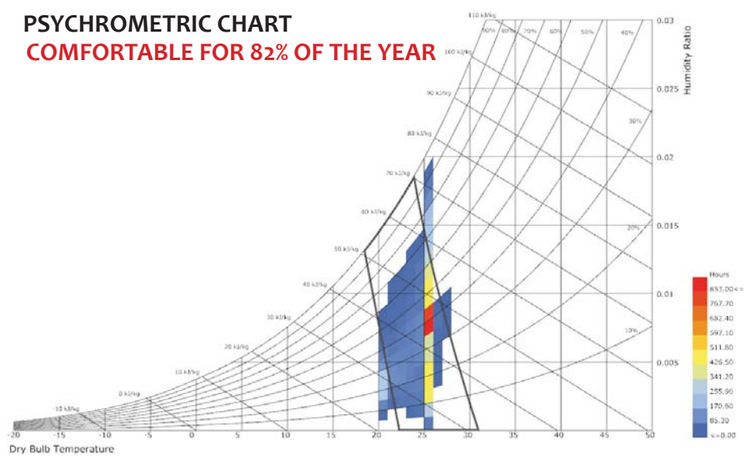


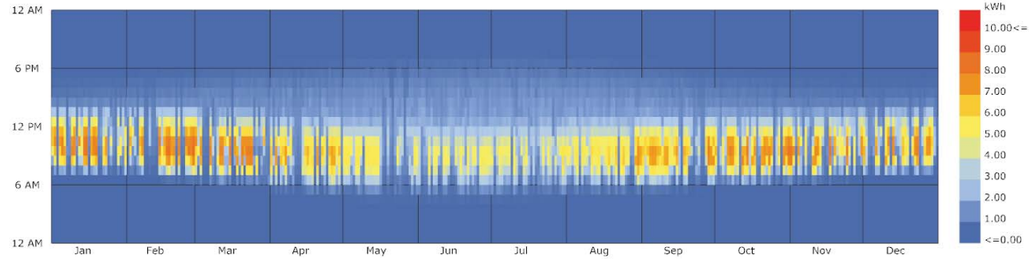
BASELINE



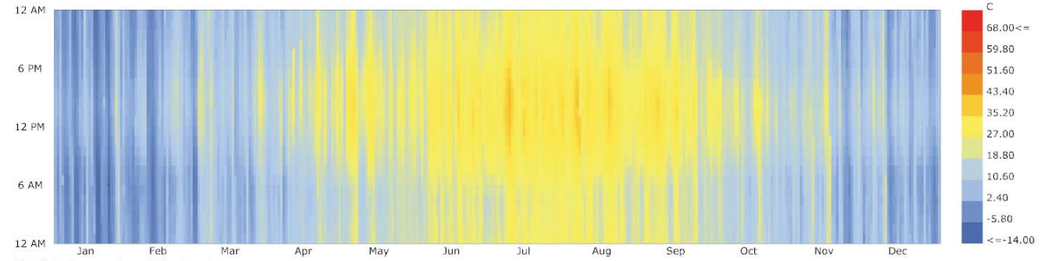
ADAPTIVE COMFORT CHART
COMFORTABLE FOR 46% OF THE YEAR

PSYCHROMETRIC CHART
COMFORTABLE FOR 82% OF THE YEAR

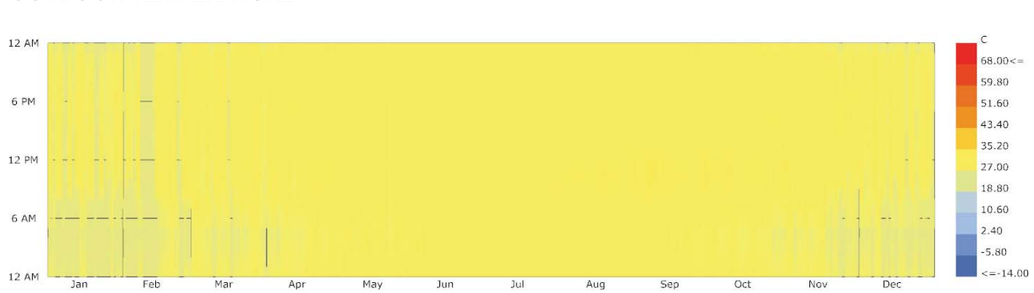




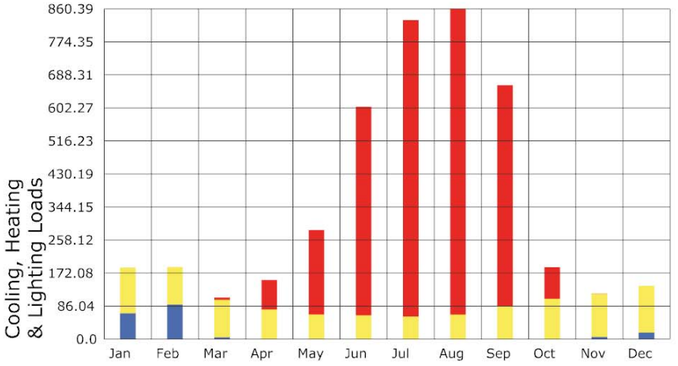
INTERNAL SOLAR GAIN



OUTDOOR TEMPERATURE

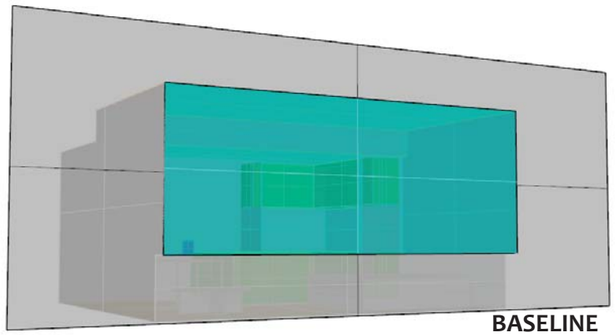


INDOOR TEMPERATURE



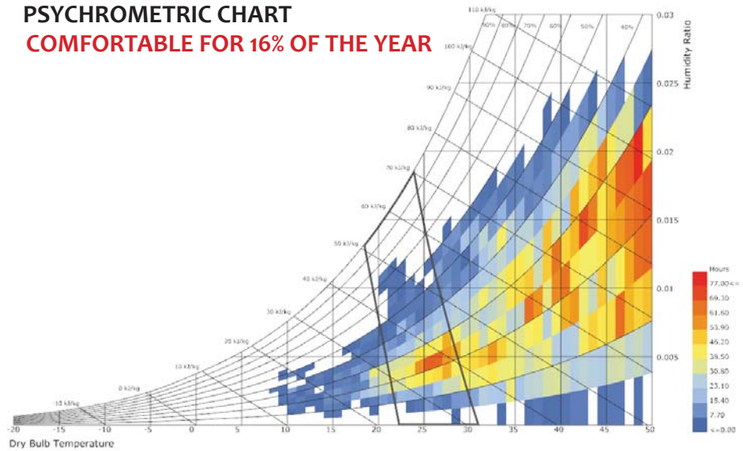
COOLING : 3076 kWh
LIGHTING : 1063 kWh
HEATING : 185 kWh

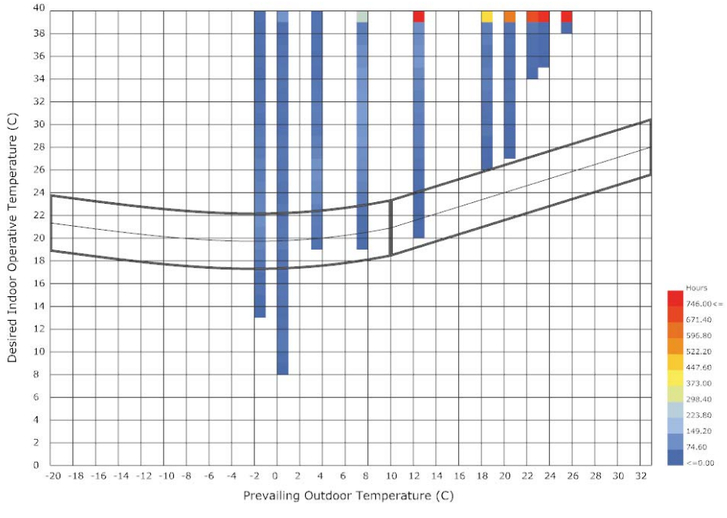
ENERGY USE LOADS



BASELINE

PSYCHROMETRIC CHART
COMFORTABLE FOR 16% OF THE YEAR

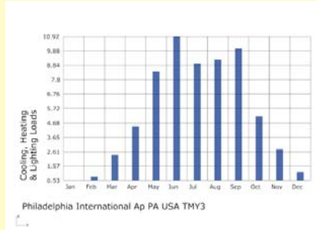




ADAPTIVE COMFORT CHART
COMFORTABLE FOR 6% OF THE YEAR

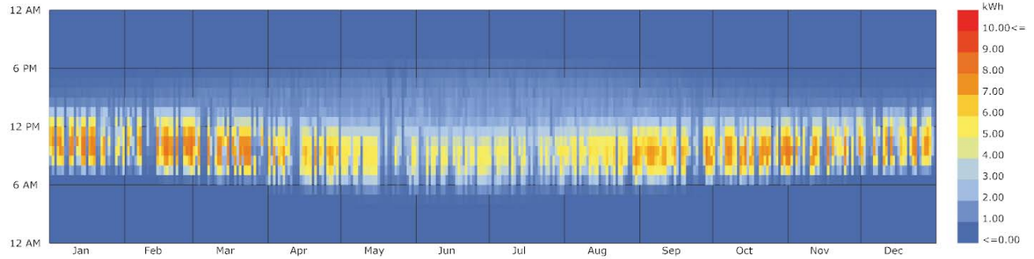
INTRODUCTION OF NATURAL VENTILATION WHEN INTERNAL TEMPERATURE REACHES 24°C AND MAXIMUM OUTDOOR TEMPERATURE IS 28°C

1. WINDOW BASED: 58%
2. CUSTOM CHIMNEY OBJECT: 54%
3. FAN-DRIVEN WITH NIGHT FLUSH: 24%

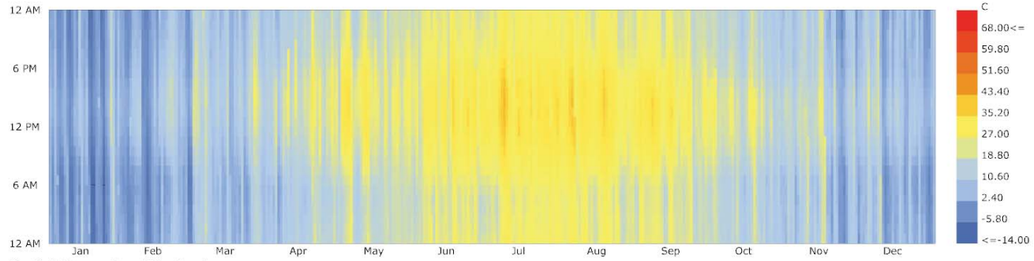


FAN POWER
+64 kWh

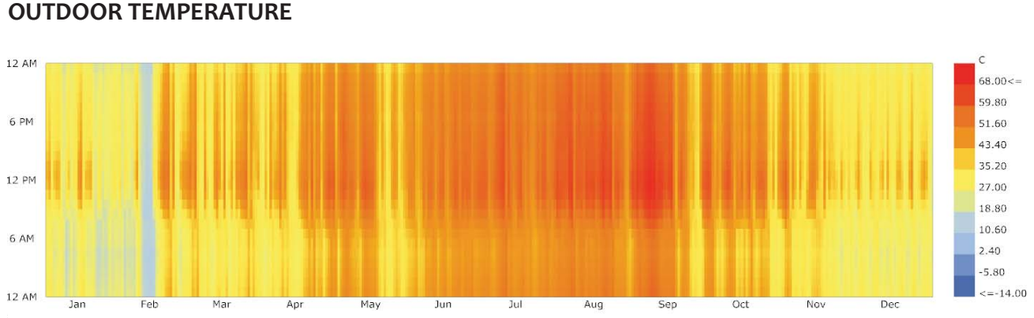
1. WINDOW BASED: 68%
2. CUSTOM CHIMNEY OBJECT: 58%
3. FAN-DRIVEN WITH NIGHT FLUSH: 30%



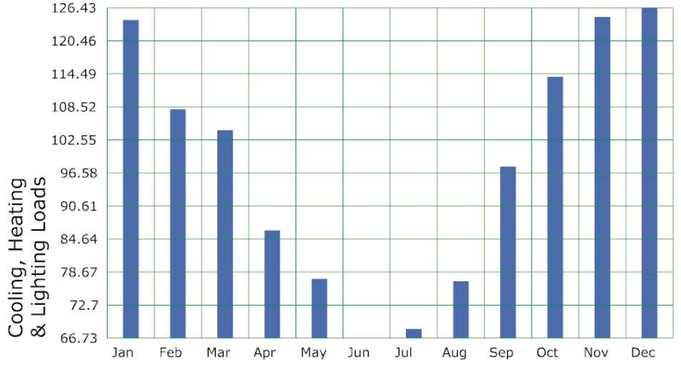
INTERNAL SOLAR GAIN



OUTDOOR TEMPERATURE

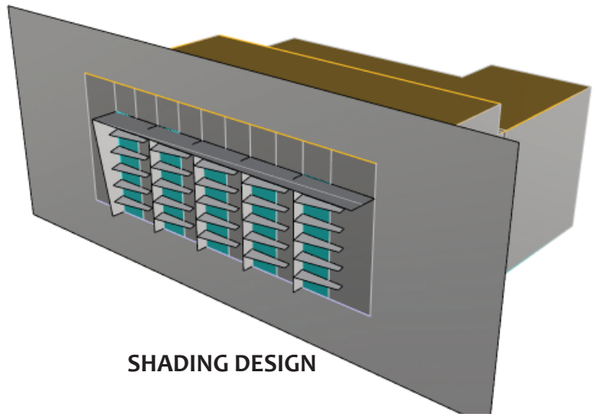


INDOOR TEMPERATURE



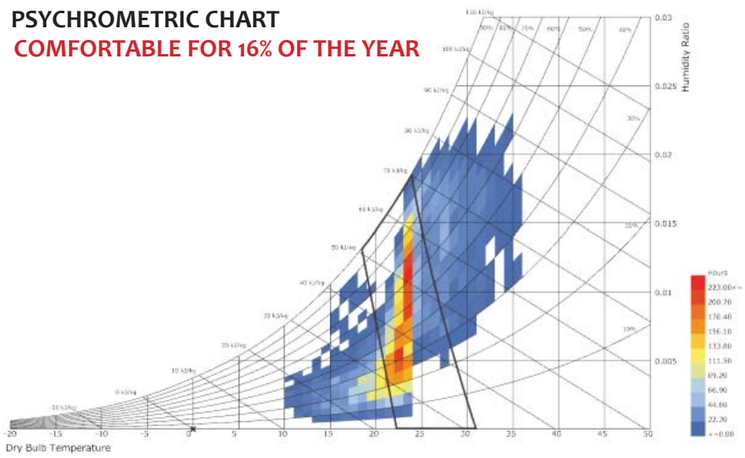
LIGHTING : 1175 kWh

ENERGY USE LOADS



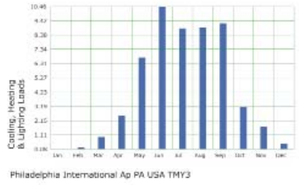
SHADING DESIGN

PSYCHROMETRIC CHART
COMFORTABLE FOR 16% OF THE YEAR

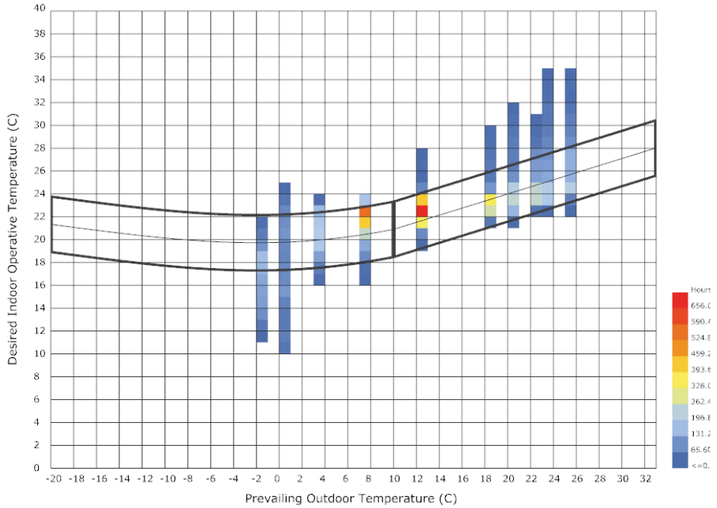


INTRODUCTION OF NATURAL VENTILATION WHEN INTERNAL TEMPERATURE REACHES 24°C AND MAXIMUM OUTDOOR TEMPERATURE IS 28°C

1. WINDOW BASED: 64%
2. CUSTOM CHIMNEY OBJECT: 62%
3. FAN-DRIVEN WITH NIGHT FLUSH: 47%

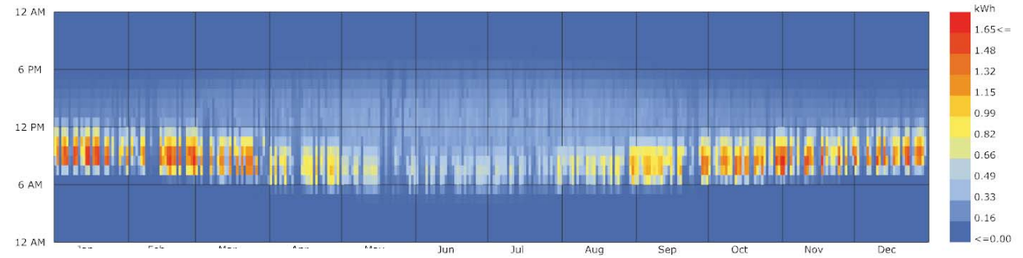


FAN POWER
+53 kWh

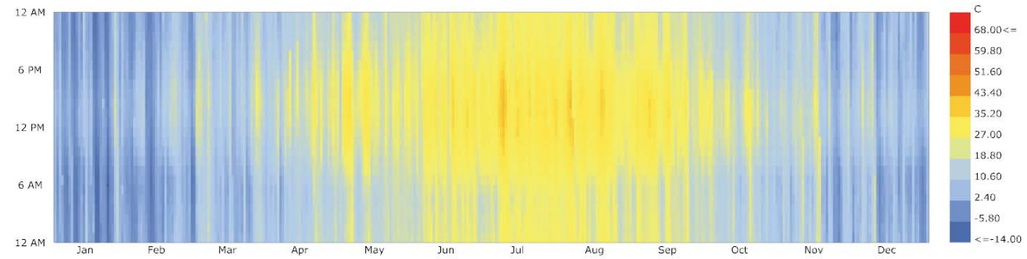


1. WINDOW BASED: 81%
2. CUSTOM CHIMNEY OBJECT: 79%
3. FAN-DRIVEN WITH NIGHT FLUSH: 31%

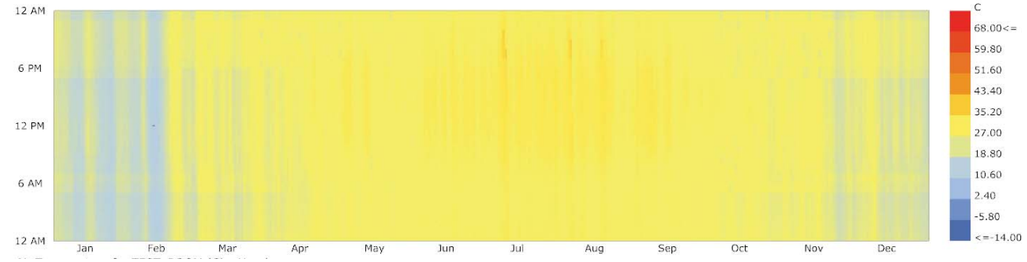
ADAPTIVE COMFORT CHART
COMFORTABLE FOR 6% OF THE YEAR



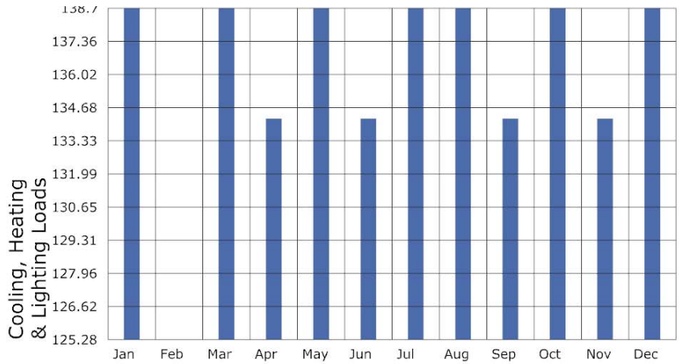
INTERNAL SOLAR GAIN



OUTDOOR TEMPERATURE

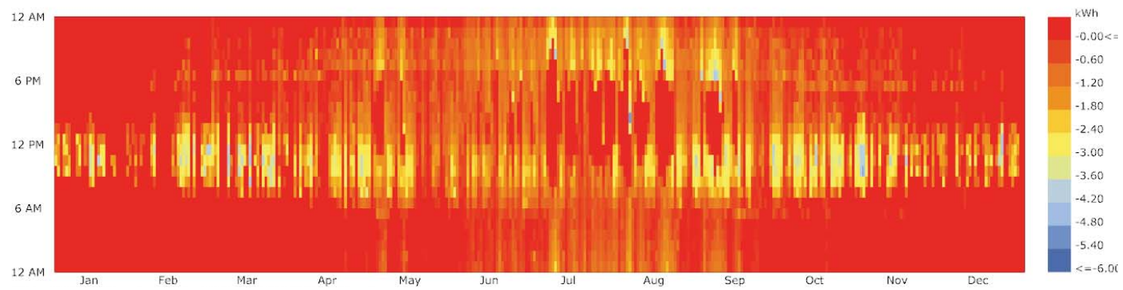


INDOOR TEMPERATURE

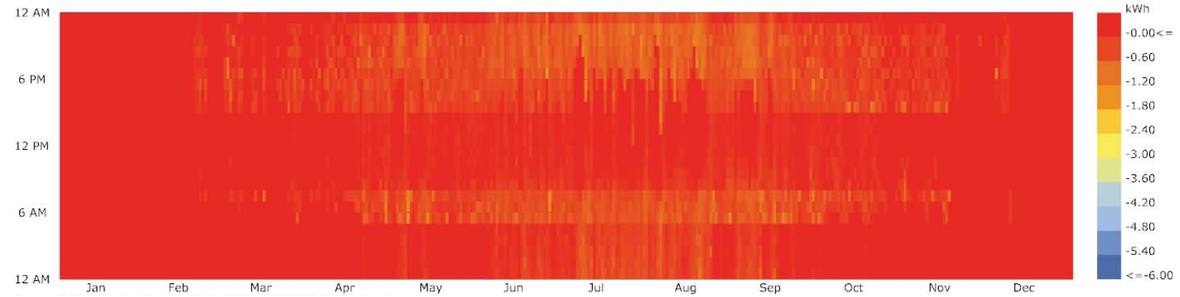


LIGHTING : 1163 kWh

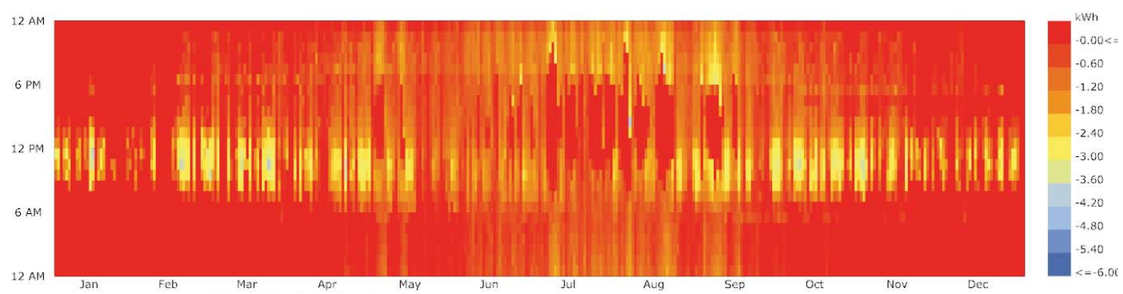
ENERGY USE LOADS



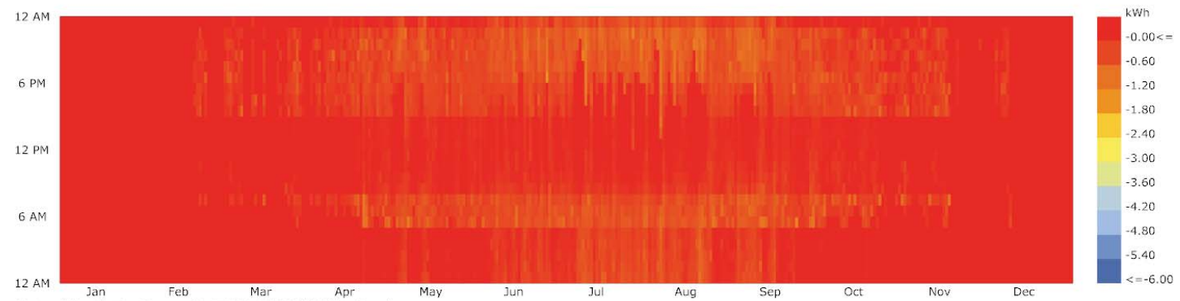
1. WINDOW BASED:
PMV: 58%
ADAPTIVE: 68%



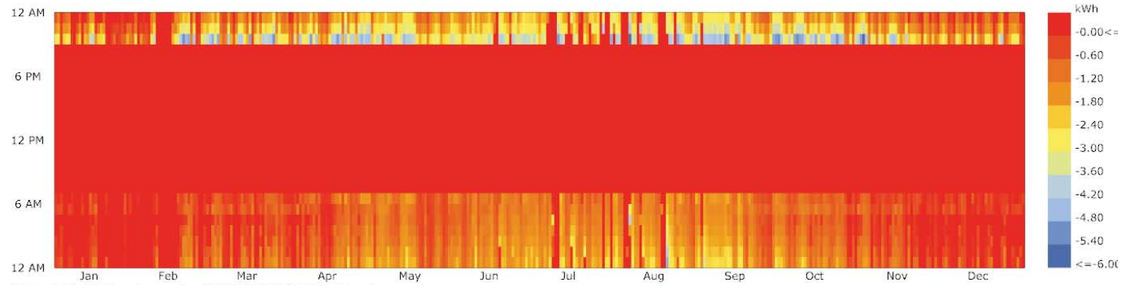
1. WINDOW BASED:
PMV: 64%
ADAPTIVE: 81%



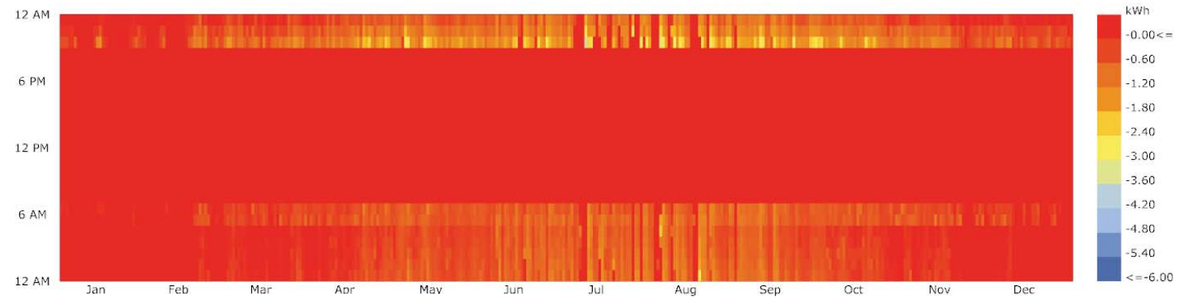
2. CUSTOM CHIMNEY OBJECT:
PMV: 54%
ADAPTIVE: 58%



2. CUSTOM CHIMNEY OBJECT:
PMV: 62%
ADAPTIVE: 79%



3. FAN-DRIVEN WITH NIGHT FLUSH
PMV: 24%
ADAPTIVE: 30%



3. FAN-DRIVEN WITH NIGHT FLUSH
PMV: 31%
ADAPTIVE: 47%