



50.18%
Energy Savings

Passive Design Strategy

Reduce Windows to Wall Ratio
WWR to 25.56%

1.14%
Energy Savings



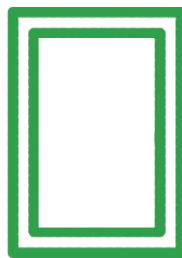
External Shading Device
AASF 0.48

3.25%
Energy Savings



Natural Ventilation

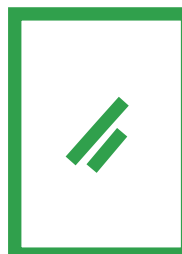
5.02%
Energy Savings



Active Design Strategy

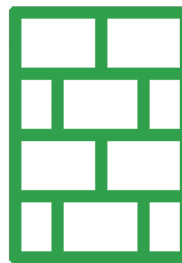
Low-E Coated Glass
U-Value: 1.6 W/m².K
& SHGC: 0.24

10.18%
Energy Savings



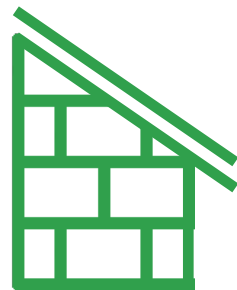
Reflective Paint for External Walls
Solar Reflectivity 0.9

0.87%
Energy Savings



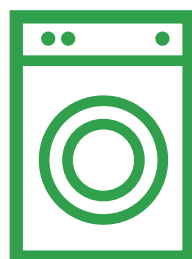
Reflective Paint for Roof
Solar Reflectivity 0.8

1.75%
Energy Savings



Energy Savings Home Appliances
Washing Machines, etc

4.26%
Energy Savings



Energy Savings Light Bulbs
Internal Spaces

13.15%
Energy Savings



Energy Savings Light Bulbs
External Spaces

1.47%
Energy Savings



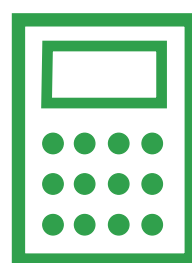
Solar Photovoltaic
25% of Total Energy Demand

18.35%
Energy Savings



Smart Meters

3.77%
Energy Savings



33.67%
Water Savings



37.35%
Water Savings

Green Apartment

AR 6054: Topik Khusus
Green Building Design for Greater Efficiency

Yuninda Mukty Ardyanny - 25217009

Final Energy Use 180.81 → **89.94**
kWh/Month/Unit

Final Water Use : **9.13** kL/Month/Unit

Operational Co₂ Savings : **0.53** tCO₂/Year/Unit

Embodied Energy Savings : **66,912.63** MJ/Unit

Base Case Utility Cost : **1,442.77** PhP/Month/Unit

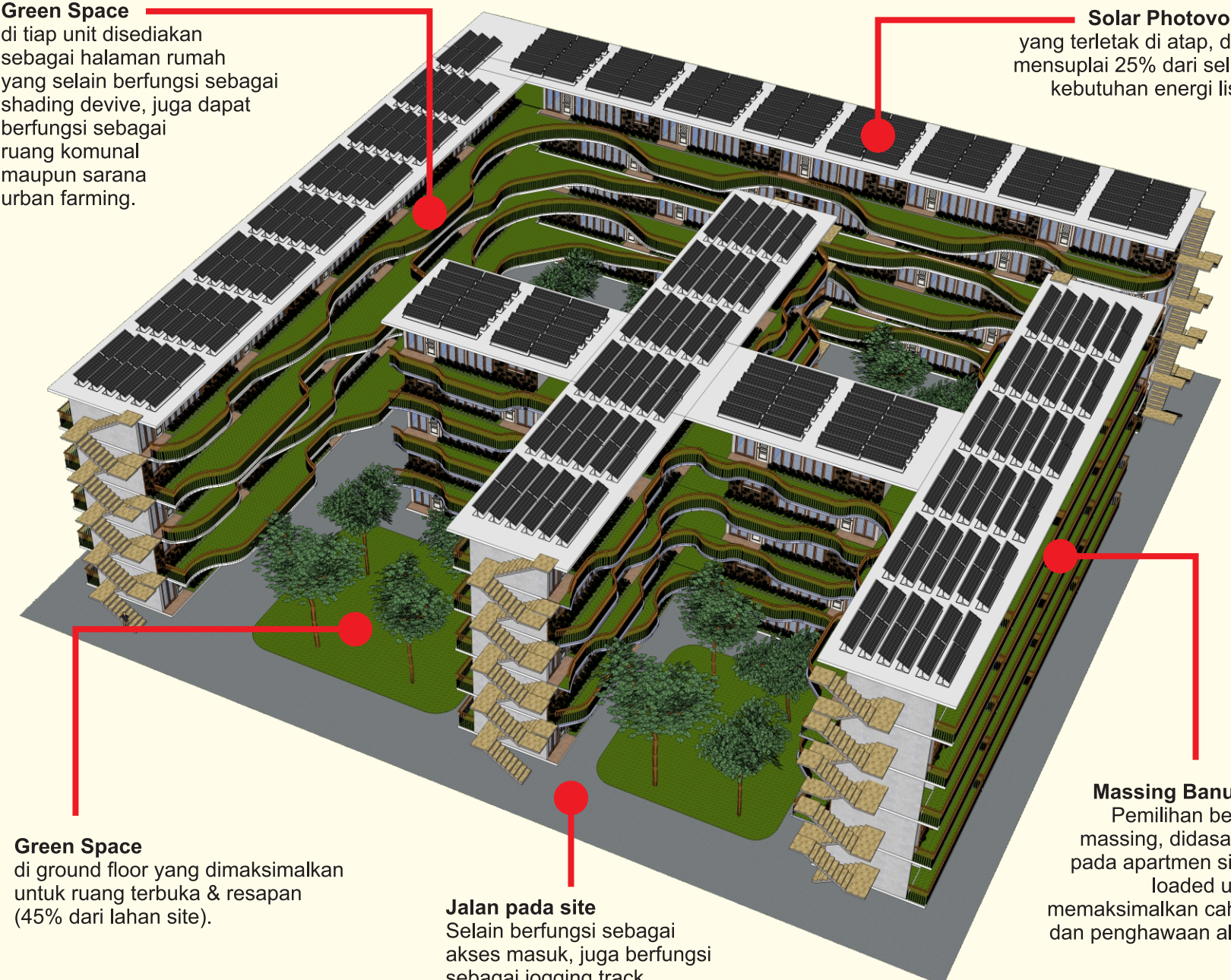
Utility Cost Reduction : **638.93** PhP/Month/Unit

Incremental Cost : **22,923.85** PhP/Mth/Unit

Payback in Years : **2.99** Years

Green Space
di tiap unit disediakan sebagai halaman rumah yang selain berfungsi sebagai shading devive, juga dapat berfungsi sebagai ruang komunal maupun sarana urban farming.

Solar Photovoltaic
yang terletak di atap, dapat mensuplai 25% dari seluruh kebutuhan energi listrik.



Green Space
di ground floor yang dimaksimalkan untuk ruang terbuka & resapan (45% dari lahan site).

Jalan pada site
Selain berfungsi sebagai akses masuk, juga berfungsi sebagai jogging track.

Massing Banunan
Pemilihan bentuk massing, didasarkan pada apartmen single loaded untuk memaksimalkan cahaya dan penghawaan alami.