## INPUTS FOR ENERGY SYSTEMS

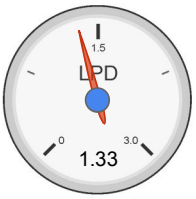
**HVAC EER** – the EER represents the energy efficiency and typical EnergyPlus default value is 9.28. More commonly the EER will be between 8.0 and 20.0 with very high EER typically reserved to represent district chilled water.


**Glass Type** – the Solar Heat Gain Coefficient (SHGC) is the measure of the window's ability to mitigate solar radiation and is between 0.0 and 1.0 with, for example, single pane clear glass at 0.86 for example.

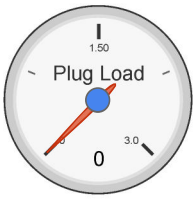

**Setbacks** – HVAC setbacks are the total heating and cooling setbacks represented as degree-hours. Typical setbacks of 7 degrees heating and cooling for 12 hours therefore would be 84 degree-hours.


**Infiltration** – Infiltration is the unintended non-fenestration exchange of outdoor air measured in CFM per square foot of exterior wall area ranging between 0.0 and 2.0 with typical values 0.10-0.50.


**LPD** – Lighting Power Density (LPD) represents the watts per square foot of floor space and includes all lighting represented in the simulation. Typical LPD can range from 0.5 to 2.0 depending on building type.




**Plug Load** – Plug Load represents plug and equipment electrical loads in the building, not just what is plugged into a wall socket. Typical plug load varies from 0.25 in a strip mall to over 2.0 in a hospital.

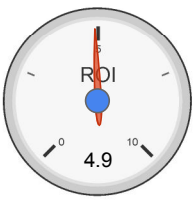



## RESULTS WITH THREE FILM TECHNOLOGY TYPES

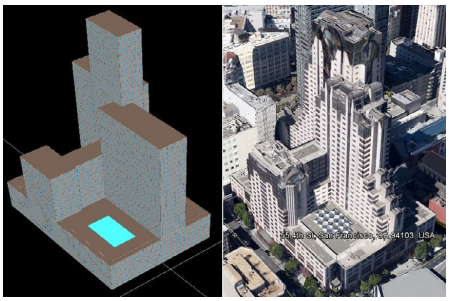
**Reflective Solar Control Film** – – Because of its low relative installed cost, reduction in total solar energy as high as 80%, and neutral color in when looking through it, reflective silver window film often has the best payback. The reflective films can bring much-needed uniformity to some facades.

**Ceramic Solar Control Film** – Ceramic window films and other nanotechnologies allow for less reflective appearance when compared to silver films but block less heat than silver films. Ceramic window films can be a good compromise between performance, appearance, and cost.

**Clearer Heat Control** – Clearer heat control films (also called 'spectrally selective' films) offer the appearance of the glass virtually unchanged while blocking over 50% of the total solar energy. These are typically used only when the existing glass is clear.





## Marriott Marquis San Francisco

- Space Type: High Rise Hospitality
- Existing Dual Pane Tinted Glass
- PACE District: Yes
- Economizer: Yes
- Hot Reset: Yes
- Cold Reset: Yes

## Conclusions / Next Steps

Based on the results of this report, this property has RESULTS that illustrate a significant expectation of quick payback.

Therefore, please contact us at 866-925-2083 or info@NationalGlazingSolutions.com.

Using a virtual auditing process and our engineering experience with energy systems, your simple payback, Net Present Value (NPV), and Internal Rate of Return (IRR) are expected to be very attractive as shown in the RESULTS section.

We have performed this service in order to determine whether your time working with us to refine our assumptions will be a good investment of your time. As you can see, your time with us refining our understanding of your building will result in an accurate and profitable investment.

eQUEST

## DOE eQuest Simulations

The DOE-2 software was developed in collaboration with Lawrence Berkeley National Laboratory (LBNL), with LBNL DOE-2 work performed mostly under funding from the United States Department of Energy (USDOE). Using the eQuest simulation engine and available satellite, property, and energy systems data, this Preliminary Assessment has been made without specific information regarding mechanical and other energy systems or actual window measurements. Rather, this is a tool that is developed to allow engineering, property management, and ownership an opportunity to consider whether the estimated investment is worth your time to sit down and provide site-specific information