



## EDDY SANTOSA

DIRECTOR OF SUSTAINABILITY

### ABOUT DBR

DBR provides an alternative to traditional MEP consulting firms by providing better opportunities for our people and as a result, better expertise for our clients.

We hold ourselves accountable to preserve non-renewable resources with our ability to design innovative solutions at the leading edge of building sciences.

### CONTACT

Eddy Santosa  
AIA, CBCP, LEED AP BD+C, BEMP  
Director of Sustainability  
Esantosa@dbrinc.com  
713.914.0888



# INTEGRATIVE DESIGN PROCESS

## & EARLY MODELING FOR DESIGNING HIGH PERFORMANCE ENVELOPES

### DESCRIPTION

Envelope design is a key component to creating sustainable, high-performing buildings. There are many strategies and design methods for buildings that can be applied from design through construction to improve envelope design. The presentation will discuss specifically, the implementation of an Integrative Design Process using LEED and new ASHRAE 209. Better envelope design will have a direct impact on occupant performance by providing better thermal comfort, daylight and a healthy overall environment conducive to learning. The presentation will first describe the integrative design process, including the requirements of this process and various performance simulations that can be conducted to assess overall building performance. The presentation will also showcase the important strategies and key components that designers and performance modelers must focus on to develop a better envelope design. The implementations and case studies will be presented to illustrate how to improve envelope performance using energy model and daylight simulation.

### LEARNING OBJECTIVES

- Understand integrated design process requirement in LEED and ASHRAE 209.
- Discuss collaboration between disciplines and building systems that affect envelope performance.
- Implement early design energy model and how the result can influence the design.
- Apply “simple box” modeling in energy model and daylight simulation to design ultra low energy efficiency or net zero ready buildings.

### LEARNING UNITS

1 LU | HSW

