



# Zero Net Energy (ZNE) Homes Education Series

## TIME:

Registration: 8:00 a.m.

Workshop: 8:30 a.m. – 3:30 p.m.  
with lunch

## LOCATION:

Energy Education Center – Irwindale  
6090 N. Irwindale Ave.  
Irwindale, CA 91702

## COST:

Free

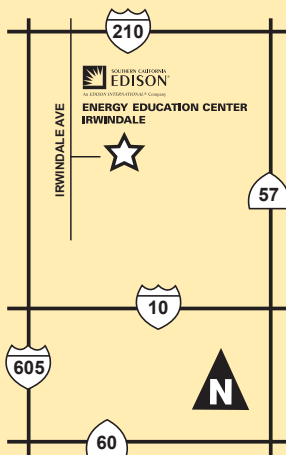
**PRE-REGISTRATION IS SUGGESTED  
DUE TO LIMITED SEATING**

**FOR MORE INFORMATION  
OR TO REGISTER CALL:**

800.336.2822 or 626.812.7537



6 AIA/HSW Learning Units



Southern California Edison's Energy Education Centers are set to launch a new 6-course education series on Zero Net Energy (ZNE) Homes. The series was designed for architects, builders, engineers, building performance contractors, and consultants to complete in order as the information provided builds on itself. Attendees of this intermediate to advanced series will receive a copy of *Energy Free: Homes for a Small Planet*, by Ann Edminster.

## September 9, 2011 - Event # 29168

### Zero Net Energy Homes "Design Fundamentals" - Part I

Part I - Design Fundamentals covers Zero Net Energy (ZNE) definitions and their implications for setting goals and priorities for ZNE home projects. Real case studies will introduce and illustrate passive and climate-responsive design fundamentals including; heating, cooling, daylighting, form, mass, orientation and renewable energy generation. This seminar will also discuss the economics of zero net energy from varying perspectives.

## September 30, 2011 - Event # 29169

### Zero Net Energy Homes "Integrated Project Delivery" - Part II

Part II - Integrated Project Delivery addresses the significance and mechanics of integrated project delivery. With effective energy modeling being central to integrated design, this course will discuss the difference between conventional modeling and how it is used in an integrated process. Explore how modeling outcomes can help design teams target low cost, high impact strategies by assessing the cost-effectiveness of ZNE strategies and features.

# Zero Net Energy (ZNE) Homes Education Series

**October 14, 2011 - Event # 29170**

## **Zero Net Energy Homes “Enclosures and Assemblies” - Part III**

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Part III – Enclosures & Assemblies will provide guidance for overcoming barriers to achieving high thermal resistance and low air leakage in ZNE home enclosures. Topics discussed include choice of assemblies and implications regarding learning curves, immunity to installation defects, sound building science, and performance over time. Learn about key window properties including operating types, quality of construction, U-factor, solar heat gain coefficient, and the significant link between enclosure performance and effective mechanical systems.

**October 28, 2011 - Event # 29171**

## **Zero Net Energy Homes “Mechanical Systems” - Part IV**

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Part IV – Mechanical Systems focuses on the mechanical approaches to ZNE including a discussion of mechanical system types, design, sizing issues, and opportunities for integrating and combining systems. Topics covered also include envelope performance, new technologies and how to assess their value for ZNE projects, water heating and distribution, ventilation strategies and the necessary steps to assure a ZNE home’s performance is optimized.

**November 17, 2011 - Event # 29182**

## **Zero Net Energy Homes “Renewable Energy” - Part V**

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Part V – Renewable Energy covers the cost-effectiveness, selection and design of major types of renewable energy systems including solar hot water, solar electricity, and wind power. In this course attendees will walk through the options and decision making process and discuss the important linkages to the mechanical system designs covered in part 4.

**December 2, 2011 - Event # 29172**

## **Zero Net Energy Homes “People and Plug Loads” - Part VI**

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Part VI – People and Plug Loads addresses the role of occupant choices and behaviors in energy use, and outlines strategies that can be designed and built into homes to support ZNE goals. Topics to discuss include the relationship between water and energy use, water conservation strategies, plug loads and how to curb them, home automation, energy monitoring, education, and home energy management.