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Urban Land Institute Fall Meeting October 30, 2008 Miami, FL

Land Use & Energy: Current Challenges Bring About New Opportunities



OVERVIEW

Land Use & Energy



- Introduction
- Current Drivers for reducing energy use and incorporating renewable energy
- What are the major barriers the Utility encounters in influencing land use and energy practices
- Practical solutions
- Case Study
- Contact Information

CURRENT DRIVERS

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- Environment
 - Buildings and the building industry consume between one-third and one-half of the nation's energy
- Regulatory
 - Renewable Portfolio Standard (RPS) Requirements
 - Code requirements and initiatives
 - California
 - All new commercial buildings Zero Net Energy by 2030
 - All new residential buildings Zero Net Energy by 2020

CURRENT DRIVERS (cont.)

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- Policy
 - Integrated Energy Policy Report/Big Bold Energy Efficiency Strategies/Strategic Plan
 - Water/Energy Relationship
 - Land Use/Energy Relationship
 - Innovative Approaches to Incentive Program Design
 - Emerging Technologies
 - Current legislation addressing climate change and green house gas emissions
 - California Assembly Bill 32 – California Climate Change
 - Senate Bill 375 – Redesigning Communities to Reduce Green House Gas (GHG) Emissions

CURRENT BARRIERS

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- **Programmatic**
 - Narrow program approaches
 - Limited budget and scope
- **Lack of Communication**
 - Municipalities working in a vacuum
 - Developer/builder
 - Design Community
- **Regulatory**
 - Short program cycles
 - Measurement of cost effectiveness
 - Recognition of benefits
- **Technology**
 - Price of renewable energy resources
 - Cost effective

SOLUTIONS

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- **Policy**
 - Water/Energy Pilots
 - Land Use/Energy Pilots
- **Technology**
 - Advanced Metering Integration
 - Smart Meters/Smart Grid
 - Status Displays
- **Innovative Programs/Partnerships**
 - Local Govt./Statewide Partnerships
 - Case Studies
- **Regulatory**
 - Expanded Program Cycles
 - EM&V Process Changes

SOLUTIONS (cont.)

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- **Communication**
 - Developer/Utility Partnership Opportunities
 - Involving the Utility early in the development process
- **Regulatory**
 - Expanded Program Cycles
 - EM&V Process Changes

WILSHIRE CENTER CASE STUDY

- Gerding/Edlen Development
- Mixed-use Project
- Commercial with High Rise Residential
- 405 Dwelling Units
- Dual tower structure, 18 and 23 stories, over underground parking structure
- 39,000 ground floor retail space
- Green Space
- Transit Oriented Development
- Pursuing LEED-NC Gold Certification
- Los Angeles South Park re-development District



WILSHIRE CENTER CASE STUDY

- **High Performance Windows**
 - 220,079 kWh, 1,988 Therms
- **Water Savings Fixtures in dwellings**
 - 6,284 Therms
- **Energy Efficient Boilers**
 - 25,692 Therms
- **Solar Water Heating for Pool Area**
 - 1,095 Therms
- **Lighting Design**
 - 1,148,103 kWh
- **Day lighting**
 - 9,738 kWh
- **Micro turbines**
 - 1,024,920 kWh
- **Total Savings**
 - 3,812,751 kWh
- **Additional Load**
 - 13,551 Therms



Contact

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