



# **California Demand Response Business Network Architecture Overview and Demonstration Workshop**


**Sacramento, CA**

**April 20, 2005**

**Gaymond Yee**

**CIEE, DR ETD Project Manager**

# Agenda

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- 10:00 am Introduction of DR ETD Project
  - 10:15 am Executive Overview of DRBizNet
  - 11:30 am Lunch
  - 12:30 pm Demonstration of the DRBizNet  
Architecture
  - 2:30 pm Question and Answers
  - 3:00 pm Adjourn

- Laurie ten Hope (CEC)
  - Team Lead, Energy Systems Integration (PIER)
  
- David Michel (CEC)
  - DR ETD Contract Manager (ESI/PIER)
  
- Ron Hofmann (CEC Consultant)
  - DR Program Advisor

# Purpose of the Workshop

- Present the results of the California Demand Response Business Network (DRBizNet) Project
  - 14-month project funded by Demand Response Enabling Technology Development Project (DR ETD)
- Executive Overview of the DRBizNet Architecture
  - Requirements
  - Concepts
  - Components
  - Use Cases
- Demonstration of the DRBizNet Architecture
  - Technically oriented
  - Prototype software

# DR ETD Project

- CEC Public Energy Research (PIER) Funding
  - Presently \$5.5M to March 31, 2007
- Funds research to develop enabling technologies for a state-wide demand responsive electric power delivery system with “10 x 10” objectives
  - 10 times the capabilities and 1/10<sup>th</sup> the cost
  - Create disruptive technology
  - Leverage R&D spending by other institutions
  - Multi-disciplinary and collaborative research

- California Institute for Energy and Environment
  - Office of the President, University of California
  - Located in Downtown Oakland, CA
  
  - Provide technical coordination, project and contract management of funded research

- Research Opportunity Notices (RON)  
(Solicitations for Proposals)
  - Meters (10/2002)
  - Thermostats (10/2002)
  - Network Management (6/2003)
  - System Integration (6/2003)
  - Control and Communications Integration (6/2004)
- Posted on the Project Website
  - <http://ciece.ucop.edu/dretd/>
- Proposals are reviewed by the Technical Advisory Committee (TAC)



Name	Affiliation	Expertise
Don Aumann	California Lighting Technology Center	Lighting, HVAC, and power supplies
Charles Glorioso	Davis Instruments	Radios, thermostats, home automation
Joe Hughes	EPRI	Industry standards
Roger Levy	CEC Consultant	Business processes
Belvin Louie	PG&E	Utility meters
Mark Martinez	SCE	Load control programs
Terry Mohn	SDG&E	Communications, industry standards
Steve Phillips	PG&E	IT systems and integration
Mary Ann Piette	LBNL	Buildings, energy monitoring

## Four Projects

1. New Thermostat, New Temperature Node, and New Meter
2. **California Demand Response Business Network**
3. Network Security Architecture
4. Service Based Universal Application Interface for Energy Systems

## DR ETD Annual Workshop

- June 2, 2005 – Berkeley, CA

# What is DR?

- DR is the action required to reduce load when:
  - Contingencies occur that threaten supply-demand balance, and/or
  - Market conditions occur that raise supply costs
  
- DR typically involves peak-load reductions
  - DR strategies are different from energy efficiency, i.e., transient vs. permanent