

Enabling Technology Development (ETD) Project

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Purpose of This Workshop

- ◆ **Introduce the ETD Project to researchers and interested individuals who are not familiar with the project**
- ◆ **Present the progress and results of current and recently completed research projects**
- ◆ **Present commercialization efforts of prior research**

California Institute for Energy and Environment (CIEE)

URL: <http://uc-ciee.org>

- ◆ **Administered by the University of California at Berkeley**
- ◆ **Independent and serves all of the University of California**
- ◆ **Mission: Support public-interest energy and environmental research in California**
 - ◆ Planning
 - ◆ Project and contract administration
 - ◆ Technical coordination
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ETD Project

- ◆ **CEC PIER Funded Project**
 - ◆ Approved in June 2002 to fund DR research
 - ◆ 1st DR project (UCB) funded in June 2003
 - ◆ Project expanded beyond DR to Distribution Grid and Legacy Buildings Research (January 2008)
- ◆ **Purpose of funding is to develop enabling technologies in the areas Demand Response, Distribution Grid, and Legacy Buildings**
 - ◆ 10 times the capabilities and 1/10th the cost
 - ◆ Create disruptive technology
 - ◆ High-risk – but winners will also have high impact
- ◆ **Multi-disciplinary and collaborative research**
- ◆ **Leverage R&D spending by other institutions**

Enabling Technologies

- ◆ **Wireless communications**
- ◆ **MEMS sensors**
- ◆ **Energy scavenging and storage**
- ◆ **Low-cost packaging**
- ◆ **Real-time operating systems**
- ◆ **Network management**
- ◆ **Systems integration**
- ◆ **Control and Communications Integration**

Research Opportunity Notices (RON)

DR-Related

1. Electric Metering
2. Temperature Measurement
3. Network Management
4. System Integration
5. Control and Communications Integration
6. Enabling Technologies for the Distribution Grid
7. Enabling Technologies for Legacy Buildings

Posted on <http://uc-ciee.org/dretd/dretd.html>

Current State of ETD Project

◆ 7 Active Projects

- ◆ UC Berkeley (since June 2003)
- ◆ One near completion (December 2009)
- ◆ Five new projects started this summer

◆ 6 Completed Projects

- ◆ One recently completed (results will be presented today)

◆ Future Research Projects

- ◆ Funding will be limited to the University of California