



# Emerging Energy Efficiency Technologies – Data Center Demonstration Project

*Jon Livingston*  
*Sr. Program Manager*  
*PG&E Emerging Technologies Program*  
*Stephen Fok*  
*Sr. Program Engineer*  
*Technical Application Services Group*

Critical Facilities Round Table  
December 17, 2004



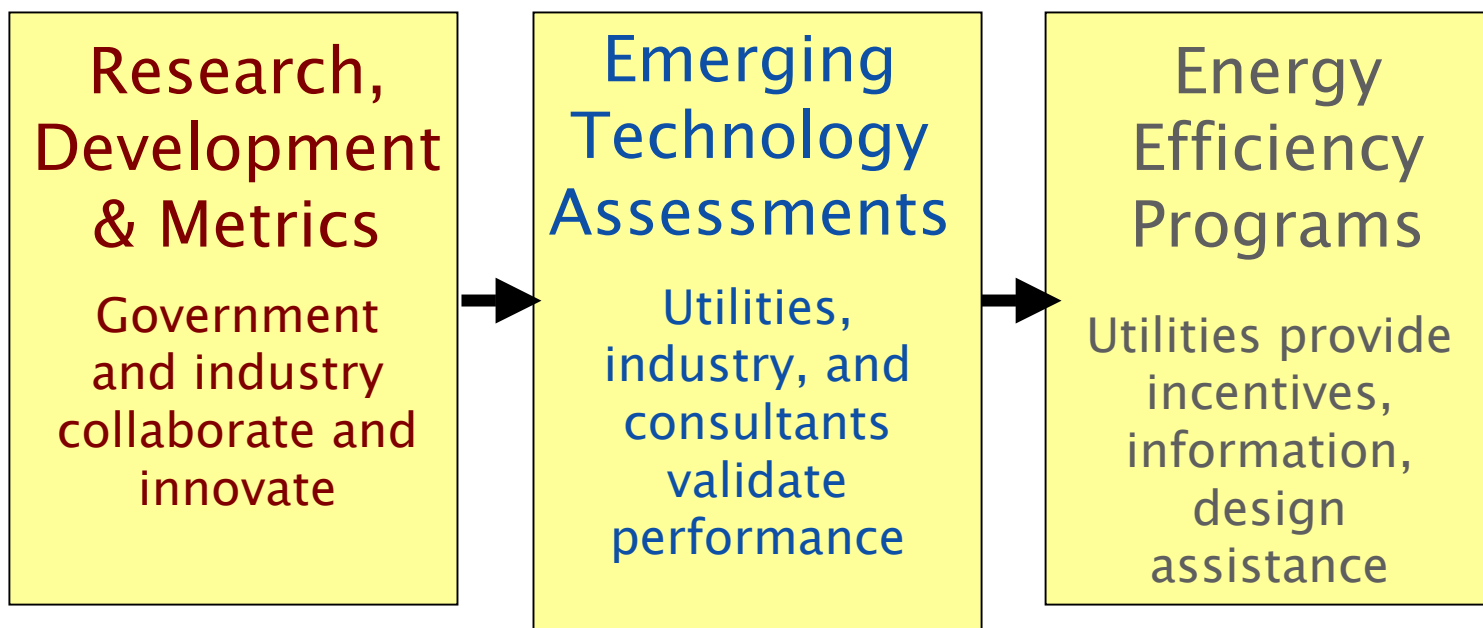
*Pacific Gas and  
Electric Company®*

# E.T. Program Overview

- Industry and Government / Labs
  - Support R&D and technology performance metrics development
  - Participate in energy efficiency programs
- Utilities (with Industry input)
  - Select and manage Emerging Technologies assessment projects
  - Move promising technologies into energy efficiency programs

# E.T. Program Impacts

Together, industry, government R&D programs, and utility implementers move energy-efficient products to the market and produce sustainable energy savings



# Project Overview

- Demonstration Scoping & Feasibility Study on [http://snipurl.com/ET\\_DataCenters](http://snipurl.com/ET_DataCenters)
- Demonstration at 2 sites
- Start Dec 2004, End Dec 2005
- Energy Efficiency ET examples
  - ❑ Air Management
    - Hot/cold aisle
    - Air leakage/rack bypass control
  - ❑ Operational strategies
    - VSD air handling system
    - HVAC air-side economization

# Contacts

## ❖ Jon Livingston

**Tel: 415-972-5970**

**E-mail: JLL5@pge.com**

## ❖ Steve Fok

**Tel: 415-973-4735**

**E-mail: SKF2@pge.com**

## ❖ Bruce Myatt or Jay Madden

**Tel: 415-975-0515**

**E-mail: bmyatt@eypmcf.com**

**jmadden@eypmcf.com**

