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## Research for Workforce Development

California Energy Commission  
IEPR Committee Workshop  
July 21, 2010

Real-time Data to Advance Community Colleges

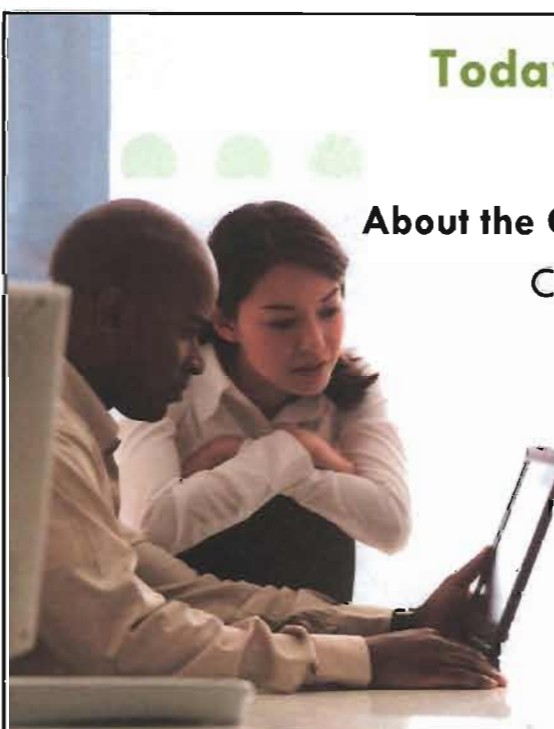


## Today's Presentation

About the Centers of Excellence

Clean Energy Research

Upcoming Projects



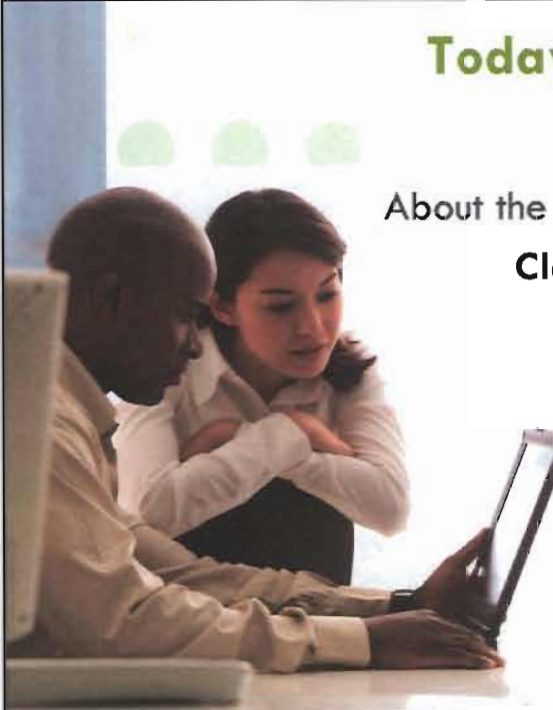
## Centers of Excellence Mission

The COE, in partnership with business and industry, delivers regional workforce research customized for community college and workforce system decision making and resource development.



## 5 Regional Centers of Excellence

- Northern California  
Theresa Milan &  
Laura Coleman  
Los Rios CCD, Sacramento
- Bay Region  
John Carrese,  
City College of San Francisco
- Los Angeles Region  
Audrey Reille,  
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- Central Valley  
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Modesto Junior College
- Inland Empire  
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San Bernardino CCD



## Today's Presentation

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- Clean Energy Research**
- Upcoming Projects

## Clean Energy Research

- Research projects include energy efficiency, renewable energy, and transportation.
- Identify emerging or evolving occupations with relevance to community college education and training programs.
- Form partnerships with industry & conduct employer surveys.
- Inform community colleges on the workforce needs & challenges of employers in the region(s).

## Energy Efficiency

- Broad industry definition includes public/private utilities and agencies, building design and construction, building operations and maintenance.
- 8 occupations identified as having community college relevance.
- Partnerships with state and regional entities, including LBNL, PG&E, SoCal Edison, California Building Performance Contractors Association, USGBC regional chapters and more.
- More than 2,100 employers participated in the 2009 survey.
- Research utilized by community colleges in different ways:
  - \$100k energy grant awarded to Southwestern College
  - Los Medanos College revised existing HVAC program
  - Narco College (Riverside) developing several for-credit electrician programs, including a renewable energy specialty

## Renewable Energy

Research projects include solar, wind, and water

- Solar study conducted in 2008
  - Multiple regions
  - 5 target occupations
  - Colleges leveraged information for ARRA grant applications and for curriculum development
    - City College of San Francisco awarded a Department of Energy grant to train faculty to teach solar curricula
    - Skyline College added a for-credit Solar Design, Estimation and Sales program
    - Fresno City College created a non-credit Solar Installer program

## Renewable Energy

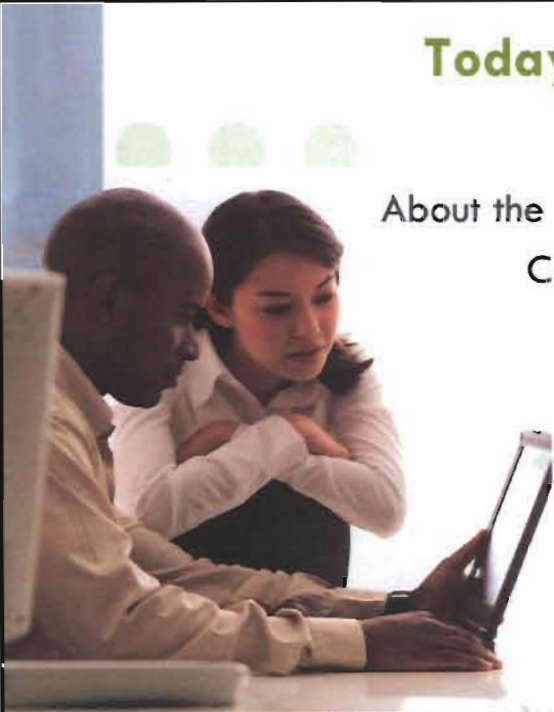
- Wind Turbine Technicians study conducted in 2009
  - Regional emphasis on regions where wind energy is already established as an employer
  - Recommendations to colleges
    - Limit program development to colleges within a 20-mile radius of wind farms
    - Utilize existing non-credit curricula to meet immediate employer needs



## Renewable Energy

- Bay Region Water and Wastewater study, 2009-10
  - Multi-county study of water and wastewater utilities/agencies
  - Partnership with BAYWORK, Bay Area water/wastewater workforce development collaborative
  - 7 occupations identified
  - Emphasis on retirement rates, need for replacement workers
  - Informed workforce education and planning efforts
    - BAYWORK member agencies utilized the survey results and analysis for workforce planning
    - Survey research duplicated in other areas by industry and regional planning agencies
    - Columbia College – new for-credit wastewater operator program
    - Cuyamaca College – revised existing water/wastewater technology program





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## Transportation

### Past, Present and Future

- In the past, COE research on transportation has focused on traditional occupations, such as motorcycle mechanics, railway, and logistics
- Currently, the Bay Region COE is conducting a hybrid vehicle study
  - Emphasis on maintenance and repair occupations
  - Survey of employers in Alameda, Contra Costa and Solano counties
  - Pilot for additional hybrid vehicle studies in other regions

## Transportation

### Past, Present and Future

- Looking forward, the COE, on behalf of the CEC, will be conducting statewide and regional research
  - Research objectives include:
    - Thorough inventory of existing transportation programs offered by community colleges
    - Statewide industry assessment to determine regional concentrations of transportation employers
    - Regional research of industry trends and related occupations
  - Align transportation education and training development to labor market needs

## Related Research

In 2010-11, COE staff will also be ...

- Contributing to the California Workforce Education & Training Needs Assessment for Energy Efficiency, Demand-Side Management and Distributed Generation
- Conducting preliminary research into utility-scale solar
- Partnering with EDD's Labor Market Information Division (LMID) to conduct in-depth research of the skills, tasks, and abilities needed for green occupations

## Thank You!

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