

# Meeting the Challenges of Multi-University Centers

## Panel:

Linda C. Caudill, WBCC Managing Director  
Virginia Polytechnic Institute

Krishna Kavi, NCSS Director  
University of North Texas – Dallas

Dennis Ray, PSERC Deputy Director  
University of Wisconsin – Madison

## Moderator:

Craig S. Scott, University of Washington

Linda Caudill, Managing Director  
Wood-Based Composite Center  
(WBC)

Founded as IUCRC in 2010

Two-Site: Phase I  
Two Partner Sites



# *About WBC*

## Mission

*Advance the science and technology of  
wood-based composite materials*

# *About our Center*

- Membership: 10 members representing:
  - Adhesive and additive suppliers to wbc industry
  - Manufacturers of wbc products
  - Government agencies (U.S., Australia)
  - European-based research laboratory
- Prior to the housing market collapse 18 members, evenly distributed between manufacturers and suppliers. Today, the majority are chemical producers.

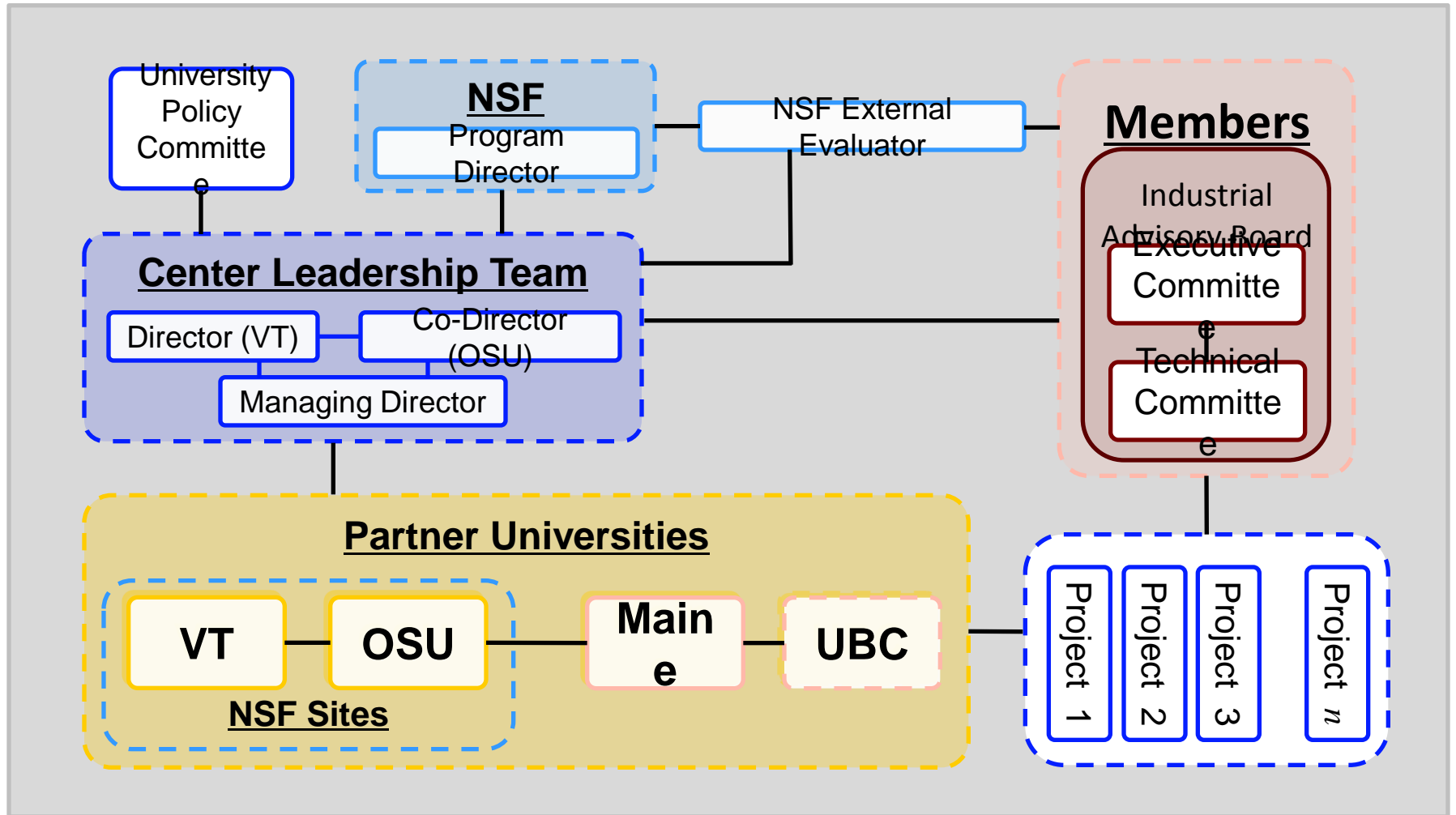
# About our Center

- Membership: 10 members representing:
  - Adhesive and additive suppliers to wbc industry
  - Manufacturers of wbc products
  - Government agencies (U.S., Australia)
  - European-based research laboratory
- Prior to the housing market collapse 18 members, evenly distributed between manufacturers and suppliers. Today, the majority are chemical producers.

# *Evolution of WBC*

- Established: 1999
- I/UCRC Panning Grant Awarded: 2009
- I/UCRC Center Awarded: 2010
- Two NSF Sites and Two Partner Universities
- No new Sites added

# WBC Organizational Structure



# *Novel Characteristics/Innovative Management*

## **Novel Characteristics:**

- Two Partner Universities (not Sites); subcontracted for research
- Each Site subcontracts to only one Partner University
- Collaborative recruiting efforts include Directors, members and partner universities
- In all WBC activities, a member's university affiliation is **not** considered

## **Innovative Management:**

- Managing Director serves both sites, presents united front
- All documentation is standardized across four universities
- Lead Site invoices the other for expenses, as necessary



# *Novel Characteristics/Innovative Management*

## **Novel Characteristics:**

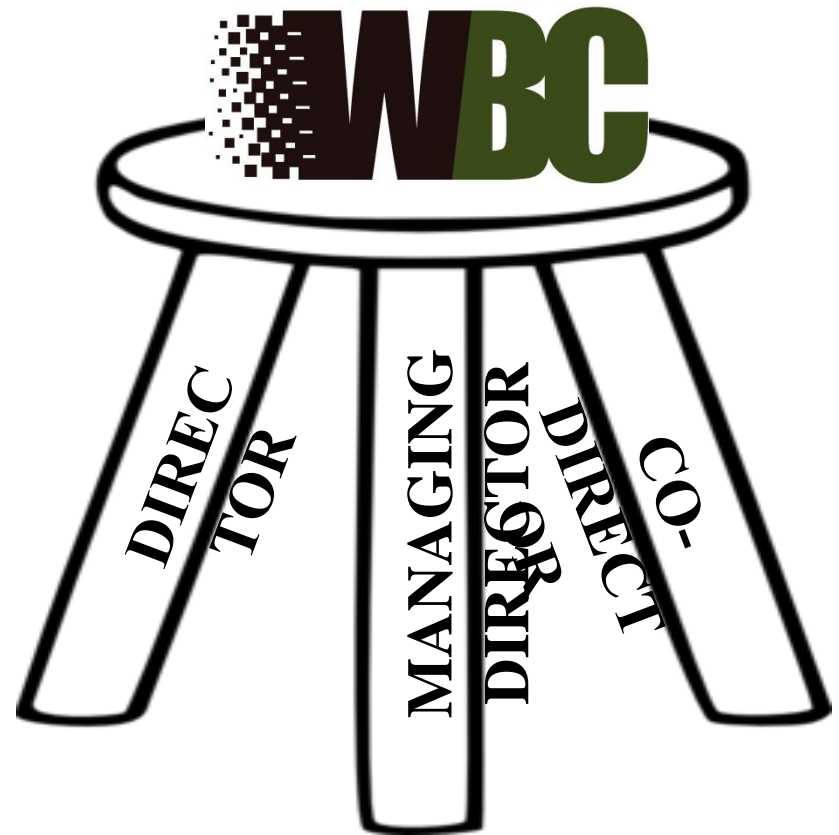
- Two Partner Universities (not Sites); subcontracted for research
- Each Site subcontracts to only one Partner University
- Collaborative recruiting efforts include Directors, members and partner universities
- In all WBC activities, a member's university affiliation is not considered

## **Innovative Management:**

- Managing Director serves both sites, presents united front
- All documentation is standardized across four universities
- Lead Site invoices the other for expenses, as necessary

**Thank you.**

**Questions for  
Linda?**



Krishna Kavi, Director  
Net-Centric Software and Systems (NCSS)  
Phase I, Four-Site Center

*NCSS MISSION: Advance research &  
development of net-centric and Cloud based  
computing environments*



# *About NCSS: Approximately 20 members*

- ✓ Defense and aerospace industries
- ✓ Electronics & computer systems manufacturers
- ✓ Software developers
- ✓ Healthcare application developers
- ✓ Cloud infrastructure & software service developers
- ✓ Governmental agencies

**Many multiple memberships**



# Evolution of the Center

2005-06: DFW  
universities form  
research consortium

2006: Working group: UNT,  
UTD, UTA, SMU, Raytheon,  
Lockheed Martin Aero, TI

2007: 1<sup>st</sup> IUCRC  
attempt

2007: 2<sup>nd</sup>  
attempt

2009: NSF Net-Centric IUCRC  
approved: UNT lead, UTD as site  
and SMU as affiliated site

2010: ASU  
becomes 3<sup>rd</sup> site

2012: MST  
becomes 4th site

2012: Purdue  
planning grant  
proposal

2006

2007

2008

2009

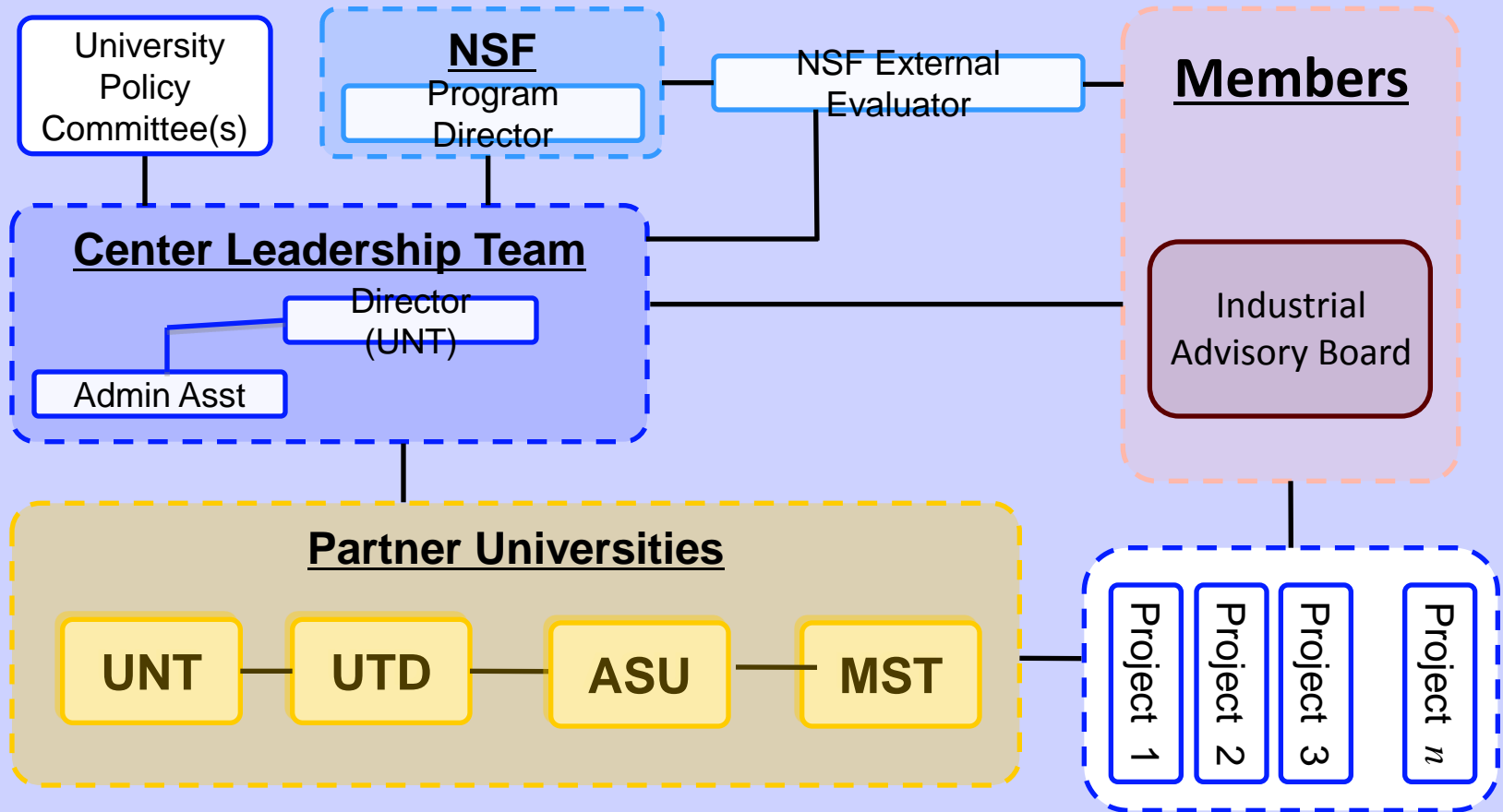
2010

2011

2012



# NCSS Organizational Structure



# *Novel Characteristics/Innovative Management*

## **Novel Characteristics:**

- Original university administrators waived indirect cost on memberships, provided the funds are used to support graduate students
  - One membership = one graduate student for approximately 1 year
- *Moving towards more collaborative recruiting efforts include Directors, members and partner universities*

## **Innovative Management:**

- Bi-monthly meetings for progress reporting & planning

# *Novel Characteristics/Innovative Management*

## **Novel Characteristics:**

- Original university administrators waived indirect cost on memberships, provided the funds are used to support graduate students
  - One membership = one graduate student for approximately 1 year
- *Moving towards more collaborative recruiting efforts include Directors, members and partner universities*

## **Innovative Management:**

- Bi-monthly meetings for progress reporting & planning



# *Ideas For Collaboration*

- Encourage members vote on more than one project, perhaps with strong preference for one
- Each site contributes funds to a pool that will support a competitive research project from any university site(s)
- Multiple sites propose larger joint project, supported by members from the different sites

# *Ideas For Collaboration*

- Encourage members vote on more than one project, perhaps with strong preference for one
- Each site contributes funds to a pool that will support a competitive research project from any university site(s)
- Multiple sites propose larger joint project, supported by members from the different sites

# *Ideas For Collaboration*

- Encourage members vote on more than one project, perhaps with strong preference for one
- Each site contributes funds to a pool that will support a competitive research project from any university site(s)
- **Multiple sites propose larger joint project, supported by members from the different sites**

**Thank you.**

**Questions for Krishna?**

Empowering minds to engineer the  
future electric energy system



Dennis Ray, Director  
Power Systems Engineering  
Research Center  
(PSERC)  
([www.pserc.org](http://www.pserc.org))

A National Science Foundation  
Industry-University Cooperative Research Center

## **Our core purpose:**

**Empowering minds to engineer  
the future electric energy system**

## **What is important to us:**

Pursuing, discovering  
and transferring knowledge

Producing highly qualified  
and trained engineers

Collaboration

## Our core purpose:

Empowering minds to engineer  
the future electric energy system

## What is important to us:

Pursuing, discovering  
and transferring knowledge

Producing highly qualified  
and trained engineers

Collaboration

## **What we're working toward:**

**An efficient, secure, resilient, adaptable, and economic electric power infrastructure serving society**

A new generation of educated technical professionals in electric power

Knowledgeable decision-makers on critical energy policy issues

Sustained, quality university programs in electric power engineering



## **What we're working toward:**

An efficient, secure, resilient, adaptable, and economic electric power infrastructure serving society

**A new generation of educated technical professionals in electric power**

**Knowledgeable decision-makers on critical energy policy issues**

Sustained, quality university programs in electric power engineering

## **What we're working toward:**

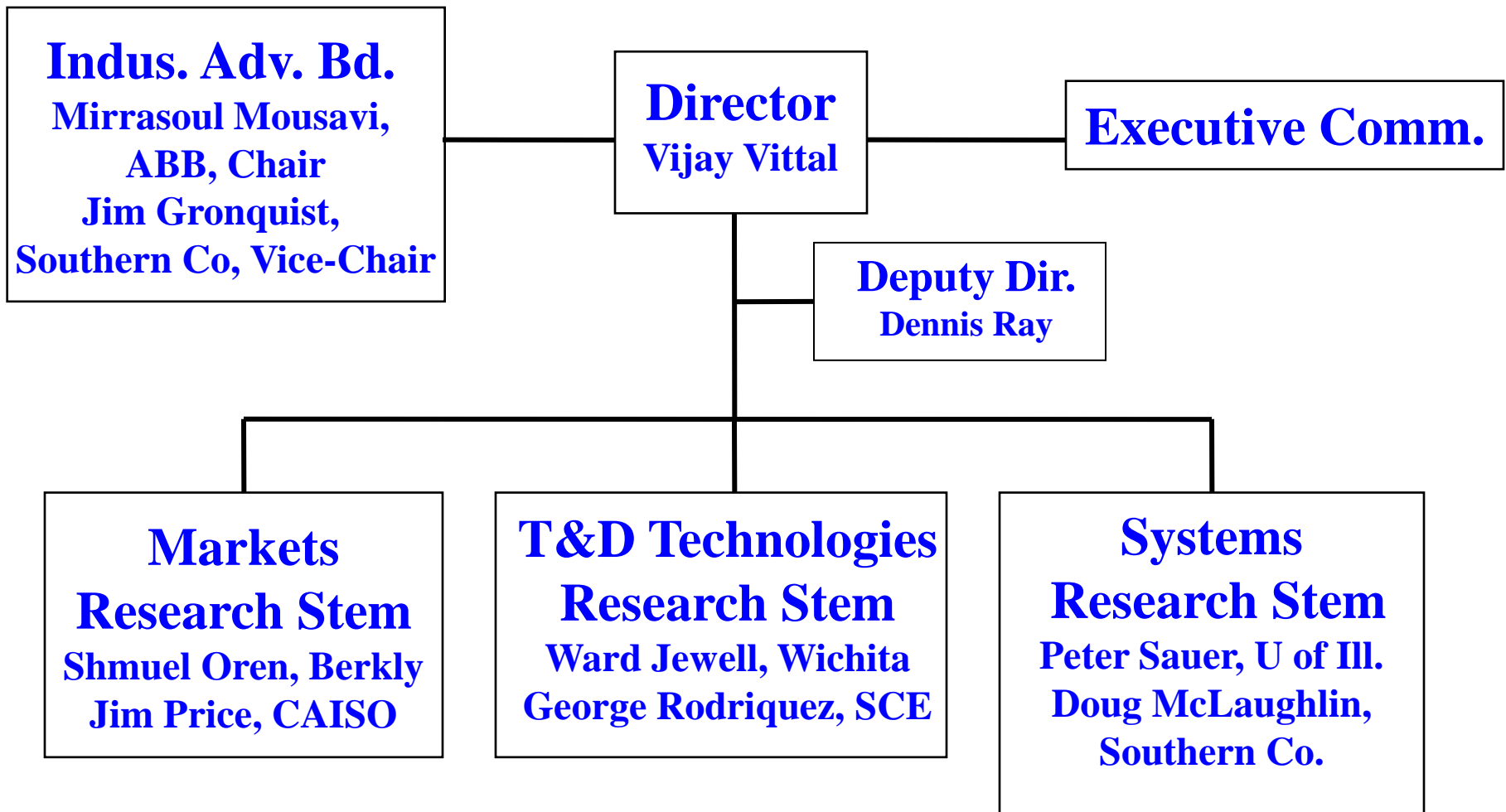
An efficient, secure, resilient, adaptable, and economic electric power infrastructure serving society

A new generation of educated technical professionals in electric power

Knowledgeable decision-makers on critical energy policy issues

**Sustained, quality university programs in electric power engineering**

# PSERC Organization



# 13 Collaborating Universities

- **Arizona State University** - Gerald Heydt
- **University of California at Berkeley** - Shmuel Oren
- **Carnegie Mellon University** - Marija Ilic
- **Colorado School of Mines** - P.K. Sen
- **Cornell University** - Lang Tong
- **Georgia Institute of Technology** - Sakis Meliopoulos
- **Howard University** - James Momoh
- **University of Illinois at Urbana** - Peter Sauer
- **Iowa State University** - Venkataramana Ajarapu
- **Texas A&M University** - Mladen Kezunovic
- **Washington State University** - Anjan Bose
- **University of Wisconsin-Madison** - Chris DeMarco
- **Wichita State University** - Ward Jewell

# Industry Members



ABB

American Electric Power

American Transmission Co.

ALSTOM Grid

Arizona Public Service

BC Hydro

Bonneville Power Admin.

California ISO

CenterPoint Energy

Duke Energy

EPRI

Exelon

GE Energy

FirstEnergy

Institut de recherche d'Hydro-Québec  
(IREQ)

ISO New England

ITC Holdings

Lawrence Livermore National Lab

Midwest ISO

Mitsubishi Elec. Research Lab

NASA

National Renewable Energy Lab.

National Rural Elec. Coop. Assn.

New York ISO

New York Power Authority

Pacific Gas and Electric

PJM Interconnection

PowerWorld Corp.

RTE (France)

Salt River Project

San Diego Gas & Electric

Southern California Edison

Southern Company

Southwest Power Pool

TVA

Tri-State G&T

U.S. DOE

Western Area Power Admin.

# PSERC Evolution



- 1986: Idea for PSERC
- 1994 & 1995: NSF ERC proposals
- 1996: NSF IUCRC planning meeting
- 1996: PSERC established w/ 4 universities
- 1998: Added one universities (total 5)
- 1999-2000: Added six universities (total 11)
- 2000: Added Executive Director
- 2001: Added two universities (total 13)
- 2006: Transition to new lead school
- 2012: Began Phase III

**Thank you.**

**Questions for Dennis?**





## HOW TO:

- Proactively foster MU center growth.
- Collaboratively recruit new MU sponsors.
- Accentuate the MU/IUCRC leveraging potential for sponsors.
- Market your MU center to universities.
- Strategies for adding sponsors & university sites.

## HOW TO:

Maintain positive collaborative relations between MU sites.

Center Maintenance: Avoiding loss of and/or dealing with terminated(ing) sponsors.

## HOW TO:

Orient new MU members.

Present one mind-set to industry  
when a new “center” sponsor  
joins through one MU site.

.

## HOW TO:

Promote “buy-in” to the EESSENTIAL role of collaborative project selection.

Develop and manage truly collaborative projects.

## HOW TO:

Manage/coordinate bi-annual meetings.

Keep the fire burning.