



EPRI

ELECTRIC POWER
RESEARCH INSTITUTE



The Electric Power Research Institute

Together...Shaping the Future of Electricity



NICARAGUAN ENERGY INSTITUTE (INE) / NARUC visit
September 18, 2009



Our History...

- Founded by and for the electricity industry in 1973
- Independent, nonprofit center for public interest energy and environmental research
- **Collaborative** resource for the electricity sector
- Major offices in Palo Alto, CA; Charlotte, NC; Knoxville, TN
 - Laboratories in Knoxville, Charlotte and Lenox, MA



Chauncey Starr
EPRI Founder

Our Members...

- 450+ participants in more than 40 countries
- EPRI members generate more than 90% of the electricity in the United States
- International participation provides more than 15% of EPRI's research, development and demonstration funding



Sampling of Recent EPRI Clients in Europe/Mideast/Africa

“NORTHERN” EUROPE

- Barseback Kraft AB
- British Petroleum
- British Energy
- Dong Energy
- EdF
- E.ON UK
- EnBW Kraftwerke
- Elect. Supply Board of Ireland
- Forsmarks Kraftgrupp AB
- IEA Greenhouse R&D Prog.
- Institute fur Energietechnik
- IntelligeNDT Systems
- KEMA
- Nat. Grid Elect. Transmission
- Nat. Grid Property Holdings
- OKG Aktiebolag
- Rolls Royce Marine Power
- RWE Npower plc
- RWE Power AG
- Swedish Nucl. Pwr. Inspectorate
- Vattenfall AB
- VGB PowerTech

“SOUTHERN” EUR.

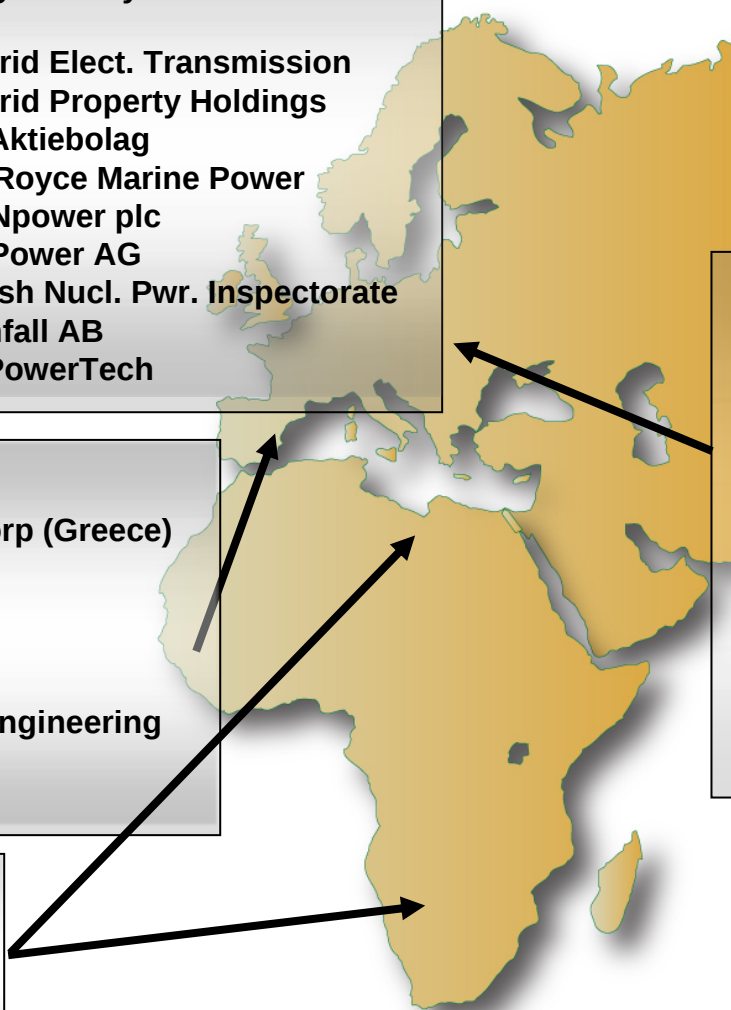
- Ansaldo Energia
- Electrabel N.V.
- ELIA SA
- ENDESA
- ENEL
- ENRESA
- ENUSA
- Iberdrola
- Labelec
- Public Power Corp (Greece)
- Red Electrica
- Sogin
- Technatom
- TERNA
- Tractebel Ene. Engineering
- UNESA
- Union Fenosa

MIDEAST/AFRICA

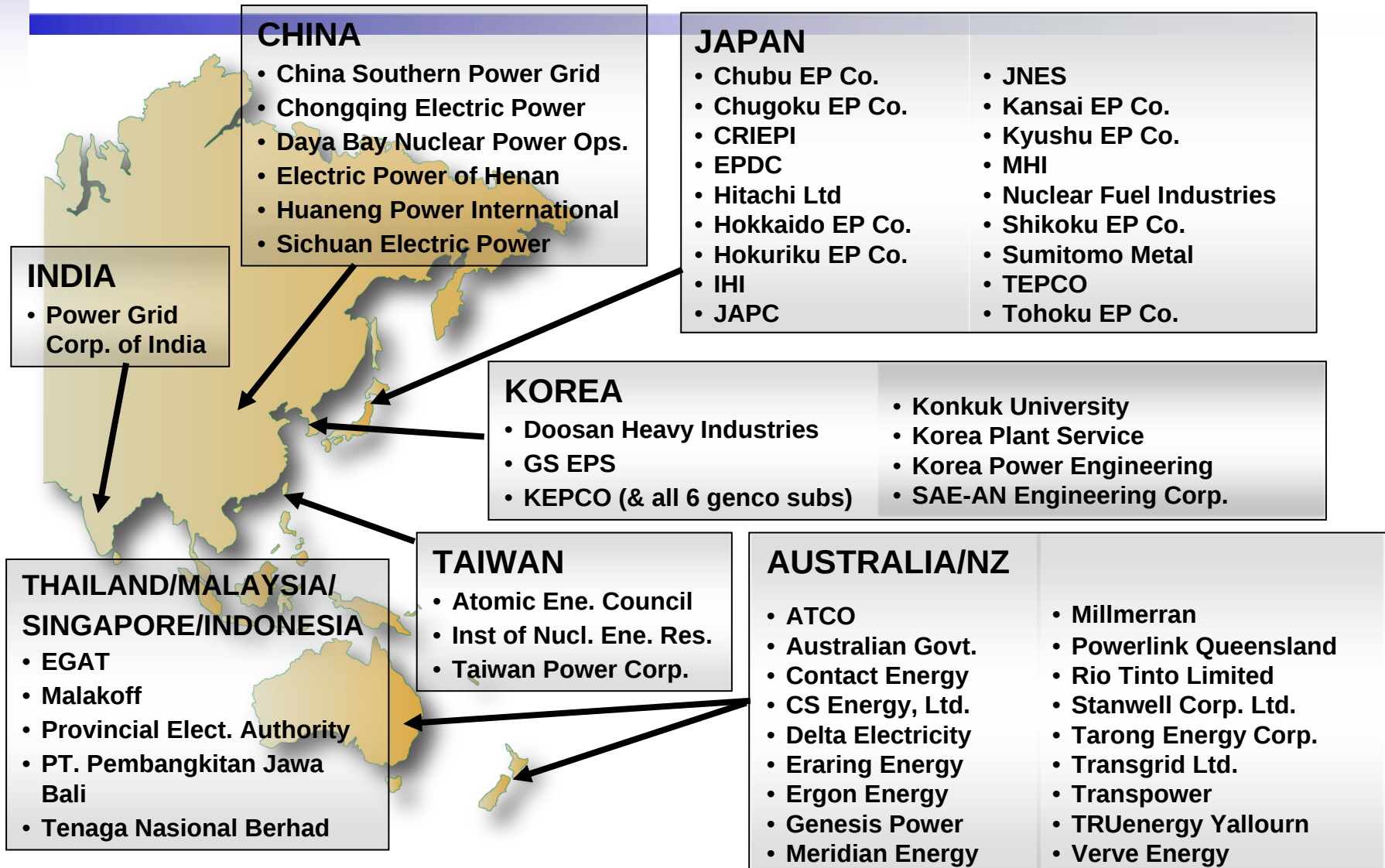
- Saudi Aramco
- ESKOM
- Kahramaa Qatar Gen. Electricity
- NamPower

“CENT./EASTERN” EUROPE

- ABB Limited
- BKW FMB Energie AG
- Kernkraftwerk Goesgen-Daeniken
- Kernkraftwerk Leibstadt
- Krsko Nucl. Power Plant
- NOK
- Nucl. Res. Inst. REZ
- Paul Scherrer Institute
- PSE-Operator S.A
- Slovenske Elektrarne AS



Sampling of Recent EPRI Clients in Asia/Pacific Region



Sampling of Recent EPRI Clients in the Americas

USA (partial – coal related)

- AES Corporation
- Allegheny Energy
- Alliant Energy
- Ameren
- AEP
- Basin Electric
- Buckeye Power, Inc.
- Constellation Energy
- Consumers Energy
- CPS Energy
- Dairyland Power
- Detroit Edison
- Dominion
- Duke Energy
- Dynegy
- E.ON US
- Exelon
- FirstEnergy
- Great River Energy
- JEA
- Luminant
- Midwest Generation
- Mirant
- NRG Energy
- Oglethorpe Power
- PG&E
- PacifiCorp
- PPL Corporation
- Progress Energy
- Reliant Energy, Inc.
- Salt River Project
- Sierra Pacific
- SCE
- Southern Co.
- Sunflower
- Tampa Electric Co.
- TVA
- We Energies
- Xcel Energy
- Many others

CANADA

- Nova Scotia Power, Inc.
- Ontario Power Generation, Inc.
- SaskPower
- TransAlta Energy Corp.

MEXICO

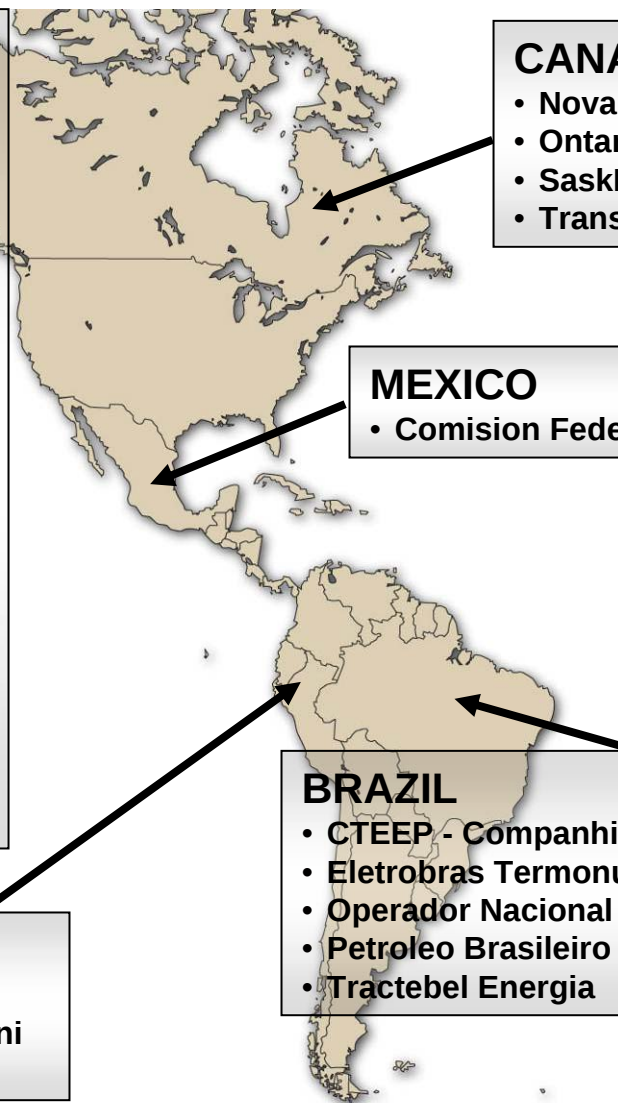
- Comision Federal de Electricidad (CFE)

BRAZIL

- CTEEP - Companhia de Transmissao
- Eletrobras Termonuclear S.A.
- Operador Nacional do Sistema Eletrico (ONS)
- Petroleo Brasileiro S.A. (Petrobras)
- Tractebel Energia

PERU/VENEZUELA

- COES-SINAC
- C.V.G. Electrificacion Del Caroni
- C.A. (EDELCA)



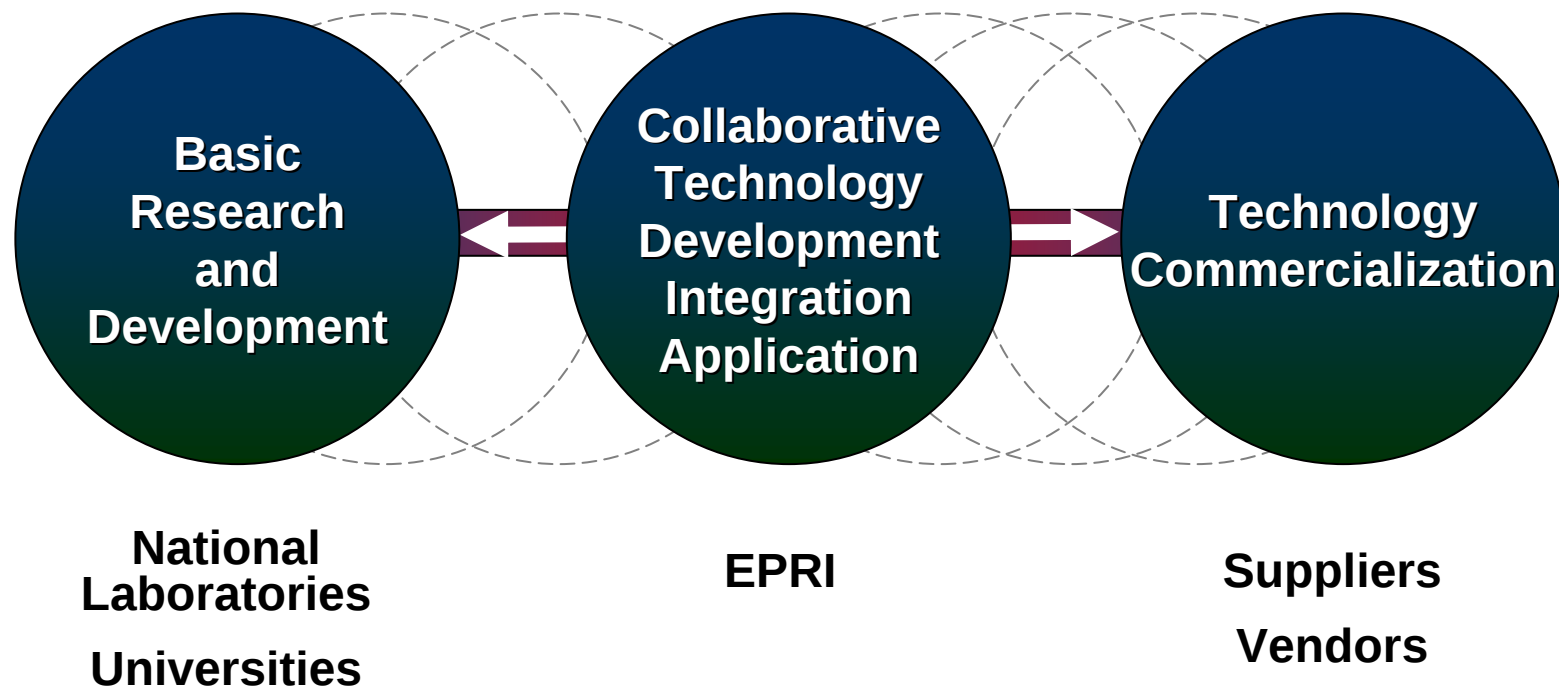
Our Mission...

To conduct research on key issues facing the electricity sector...on behalf of its members, energy stakeholders, and society.



Our Role...

Help Move Technologies to the Commercialization Stage...



Technology Accelerator!

Portfolio Spans the Entire Electricity Sector



Generation

- Advanced Coal Plants, Carbon Capture and Storage
- Combustion Turbines
- Environmental Controls
- Generation Planning
- Major Component Reliability
- Operations and Maintenance
- Renewables



Nuclear Power

- Material Degradation/Aging
- Fuel Reliability
- High-Level Waste and Spent Fuel Management
- Nondestructive Evaluation and Material Characterization
- Equipment Reliability
- Instrumentation and Control
- Risk and Safety Management
- Advanced Nuclear Technology
- Low-Level Waste and Radiation Management



Power Delivery & Utilization

- Distribution
- Energy Utilization
- Grid Operations and Planning
- Substations and Asset Planning
- Transmission and Increased Power Flow



Environment

- Air Quality
- Global Climate Change
- Land and Groundwater
- Occupational Health and Safety
- T&D Environmental Issues
- Water and Ecosystems

EPRI...the Power of Collaboration...

Delivering greater value for our members' investment...

- Helps reduce the associated costs and risks of technology development, delivery, and commercialization
- Collaborative model shares the ideas, expertise, and valued experiences of EPRI membership
- Costs and benefits are shared among EPRI members
- Ultimate goal is to ensure society's energy needs are met cleanly, efficiently, and economically

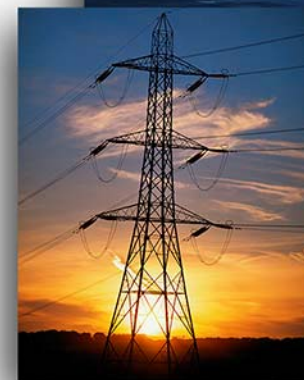
EPRI...

Working to...

*...know the **industry challenges**...*

*...understand our **members' needs**...*

*...to help provide the **best solution!***



“Together...Shaping the Future of Electricity”

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