Sempra Energy utilities
Technology Equity Investment Program

David Berokoff
Manager of Technology Development

Background

- Venture program slowly evolved with a couple of small investments in early 1990's
- Funded by ratepayers
- 'Budget': $2 - $5 million/year
- Total investments: 12 companies, $30 million
- Performance: 2 successful exits, 3 losses
- Current equity holding: 8 companies, $15 million

Purpose

- Accelerate the development of innovative energy related technologies to the marketplace
- Maintain balance between customer, business, company business needs
- Leverage resources
- Aggressively pursue funding from external sources
- Form strategic partnerships
- Deliver financial performance

Process

- Opportunities identified and screened
  - Potential value to customers or operations
  - Value as a strategic partner
  - Earlier stage of development
  - Impact on technology is revolutionary, not evolutionary
- High level review of selected business plans
- Due diligence
- Financial model
- Negotiations
- Internal stakeholder review
- Management approval

People

- Technology Development Team
  - David Berokoff – Team Manager
  - Randy Brown – Portfolio Manager
  - Kate Zeng – Financials, Business Case Analysis
  - Ron Kent – Strategic Technologies Manager
- Internal Stakeholders
  - Accounting and Finance
  - Tax
  - Legal
  - Client Sponsor
- Executive Technology Steering Committee

Partners

- Energy VC's, Angels
- Strategic Investors
- Utilities
- Inventors
- Manufacturers
- Universities
- Government Agencies: CEC, DOE
- Universities
- Incubators

Performance

- Availability of new, innovative, clean technologies in the marketplace
- Perception of utility being viewed as innovative and responsive to customer needs
- Strategic partnerships with key stakeholders
- Building a more innovative culture
- Financial performance

Portfolio Companies

- Unitary – small gas cooling and heat pump systems
- Pentadyne – high speed flywheels
- Direct Drive Systems – high speed efficient electric motors
- H2Gen – modular, hydrogen production
- Clean Energy Systems – oxy fueled, zero emissions power plant
- HID Labs – electronic ballasts for high intensity lighting
- Dais-Analytic – fuel cells, HVAC controls
- Alzeta – combustion products

Areas of Interest

- Utility Operations and Automation
- Renewable Generations (Wind, Solar, Biofuels, etc)
- EE/DR (Energy Efficiency/Demand Response)
- Energy Management, Control and Security
- Alternative Fuel Vehicle
- GHG/CO2 Capture and Storage
- Smart Premises
- Smart Grid
- Distributed Energy Resources (DER)