

GREEN POWER

THE VIEW FROM AUSTIN

Roger Duncan, Vice President

Austin Energy

November 3, 2003

ACCELERATING EPHEMERALIZATION

- Buckminster Fuller

**We are getting greater
and greater productivity
from less and less
material.**

**And we are learning
how to do this in
ever decreasing
increments
of
time.**

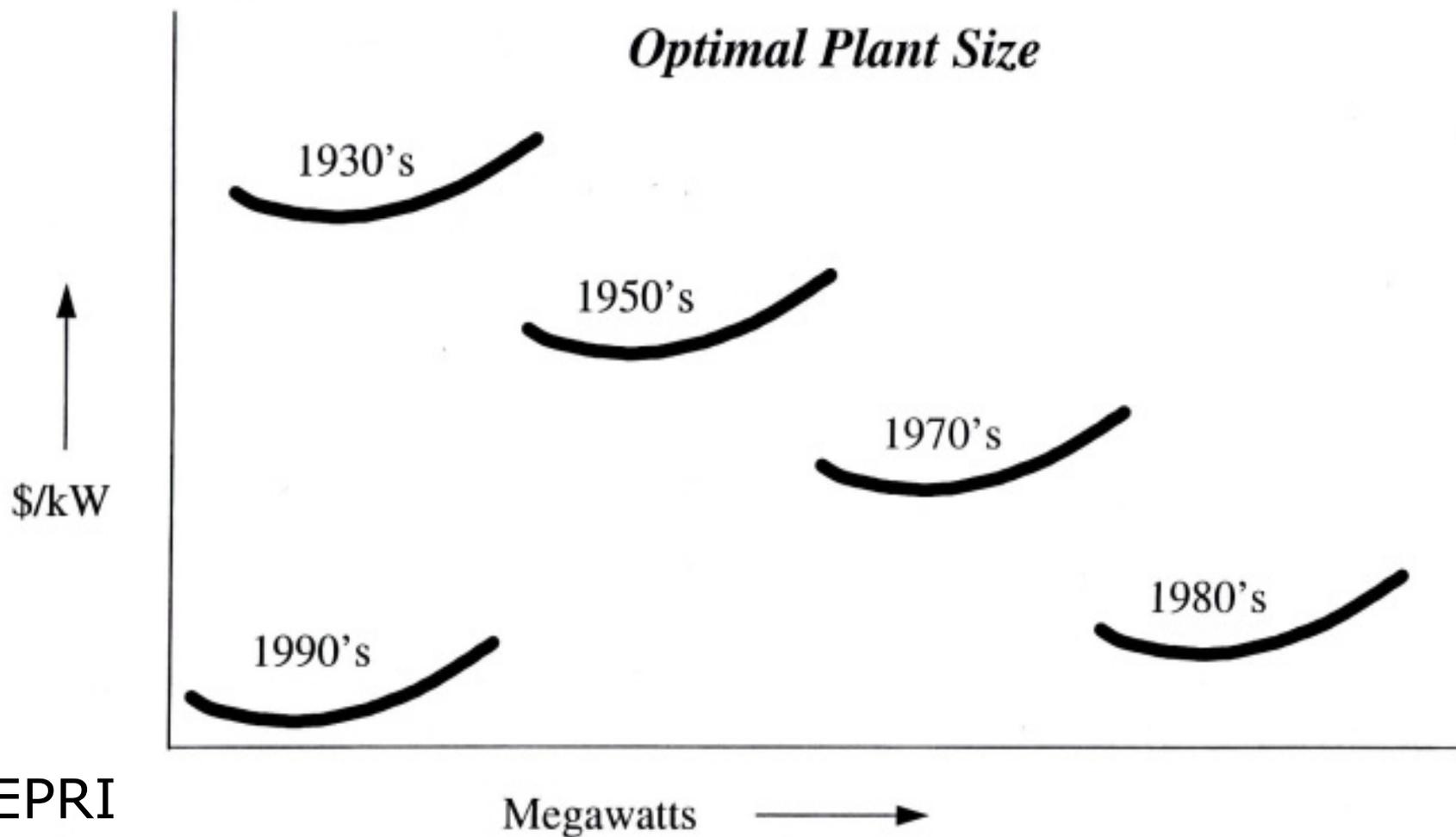
EXAMPLES

- Telecommunications
- Computers
- Transportation

**THE
ACCELERATING
EPHEMERALIZATION
OF
POWER GENERATION**

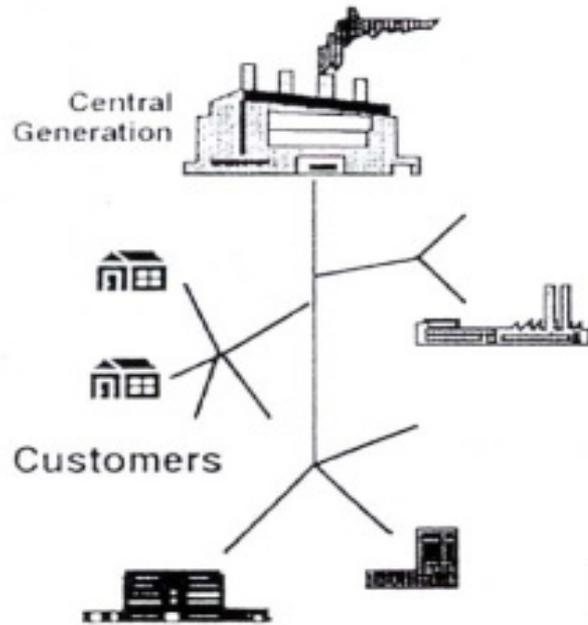
Fundamental Change in Economy of Scale

Optimal Plant Size

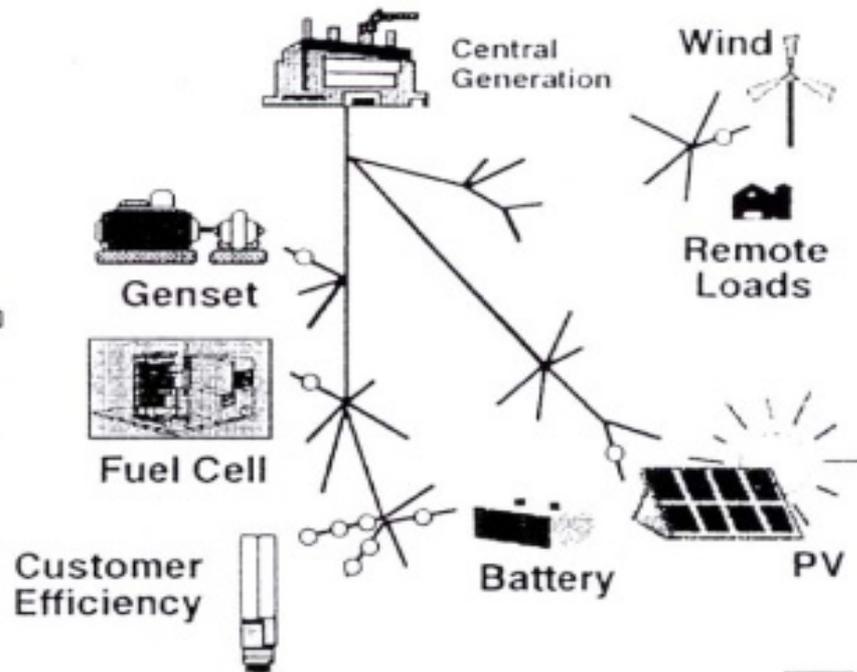


EPRI

Today's Central Utility



Tomorrow's Distributed Utility?



EPRI

NANOTECHNOLOGY

**An anticipated technology
giving thorough control
of the structure
of matter at the
molecular level.**

MOLECULAR MANUFACTURING

**Materials and products are
fabricated by the precise
positioning of molecules
in accord with explicit
engineering design.**

FUTURE ENERGY TECHNOLOGY

- Solar
 - Nano Solar Cells
 - Power Plastic
 - Power Paint
- Other
 - Low-Speed Wind
 - Advanced BioMass
 - New Forms of Energy

SB 7: TEXAS RENEWABLE PORTFOLIO STANDARD

- Goal for State - 2000 MW by 2009
- Intermediate Goals
 - 400 MW by end of 2002
 - 850 MW by end of 2004
 - 1400 MW by end of 2006
 - 2000 MW by end of 2008

TEXAS RPS

- Applies equally to all retail providers
- Features a tradable renewable energy credit (REC) provision and effective penalties for non-compliance
- Credits can be banked for three years
- All new renewables have a minimum of 10 years of credits to recover market costs

HOW DO RECs WORK?

- MW goal translated into MWHs - then RECs
- State-wide REC requirement distributed among retail electric energy providers
- Each retail electric energy provider required to possess Tradable Renewable Energy Credits (TRECs) by 2002
- Renewable energy generators have two sources of revenue:
 1. Sale of Energy
 2. RECs

AUSTIN ENERGY

- City-owned Electric Utility
- Revenues \$850 million
- Meters 380,000
- Population served 800,000
- 4% of Texas (ERCOT) load
- Nationally recognized Conservation Programs
- Green Power Program: GreenChoice (2001)

GENERATING SOURCES

- 3 gas and oil-fired plants 1570 MW
- 1 coal-fired plant 570 MW
- 1 nuclear plant 400 MW

- Purchase of 185 MW of wind
- Purchase of 11 MW landfill methane power
- Purchase of 1 MW Hydro

GreenChoice BACKGROUND

- City Council 1999 Resolution
 - Goal of 5% Renewable by 2005
- Formula for paying for renewable energy

HOW GreenChoice WORKS

- All Austin Energy customers eligible
- Subscribers pay a fixed GreenChoice charge, **locked in for 10 years**, in place of an adjustable fuel charge
- Green Choice charge = 2.85 cents per kWh
- Residential Fuel Charge = 2.265 cents per kWh
(2.796 cents by January 1, 2004)
- Commercial Fuel Charge = 2.198 cents per kWh
(2.712 cents by January 1, 2004)

GreenChoice SALES

- 251,000,000 kWh in 2002
 - First in Nation
- Current Contracts total
 - 355,000,000 kWh

SUCCESS OF GreenChoice

- Utility Investment
- Fixed Cost Component
- Recognition Advertising
- Full Time Sales Staff
- Inclusion in Generation Plan



Sung Lee, President, Samsung Austin Semiconductor

The Power to Choose **GreenChoice**[™]

Samsung Lights the Way as Austin's First GreenChoice Corporate Champion

When Austin Energy called for local corporations to champion Austin's newest renewable energy program, Samsung Austin Semiconductor was first to step forward and choose electricity from the clean sources of sun, wind, and biogas.

Samsung has committed to purchase 12 million kilowatt-hours of renewable energy each year. That's enough to power the needs of 1,000 homes year round. Austin Energy applauds Samsung for its demonstrated leadership as our city's first corporate green power member.

Enroll in GreenChoice today, and help Austin build one of America's largest renewable energy programs. Call 499-7827 or apply online at www.austinenergy.com.



Austin Energy
Austin's Community-Owned Electric Utility



Wind Power Puts the Sizzle in Our Cuisine

At the Iron Cactus we deliver traditional cuisine with a twist that reflects Austin's unique mixture of Southwestern roots and cosmopolitan flavors.

Now our two restaurants are powered by clean, renewable energy that delivers extra sizzle to both our fajitas and our community's quality of life. Join us and sign up for GreenChoice today by visiting www.austinenergy.com or calling 505-3651.

GreenChoice[™]



Austin's Community-Owned Electric Utility



**More than 100 Austin businesses
use clean power from GreenChoice,
and the list keeps growing!**

Alori Property Management

Club de Ville

Cutler Automotive

Dirty Martin's Hamburgers

Fire Island Hot Glass Studio

Good Flow Honey & Juice Company

Isle Temple Healing Arts Gallery

James M. Shultz, MD

Mojo's Daily Grind

Pink Hair Salon & Gallery

Planned Parenthood

Public Citizen

Quickie Pickie

Sharp Properties

MARKETING GreenChoice

- Addressing Premium
 - Provide hedge for customer
 - Remove fuel charge
 - Replace with GreenChoice charge
 - GreenChoice charge stays fixed for contract term
 - Current GreenChoice charge fixed through 2011
 - Manage premium through investment
 - Up to 5% of net income annually in supply management

REPLICATING AUSTIN'S SUCCESS

- Green Power as Fuel Hedge
- Business Focus
- Sales Staff / Marketing
- Technology Focus