

National Security Environmental Health Personal Safety

D2.6 Renewable Energy EUEC 2006
Monday January 23, 2005 3:30 pm to 6 pm

Eileen M. Smith, M.Arch.

Founder & CEO Since 1992

SOLAR DEVELOPMENT COOPERATIVE

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recently founded Kansas Solar Electric Co-operatives

not-for-profit renewable energy cooperative under House Bill 2018

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**National Security
Environmental Health
Personal Safety**

- I. Historic Overview 1600s to 2000
- II. The Momentum of Energy Commerce,
the Abolition of Antitrust and
Suppression of Demand-site
Renewable Energy 1976 to 2006
- III. America's Answer in the 21st Century
**Solar BI-PV for Managing the Modern
Momentum of Energy Commerce**

**National Security
Environmental Health
Personal Safety**

- I. Historic Overview 1600s to 2000**
 - A. UK Industrial Coal Pollution 1600's**
 - B. Energy Crisis 1920s**
 - C. America's Answer 1930s**
 - D. World War II to the American Dream**
 - E. Space Exploration Resizing Our World**
 - F. Energy Crisis and Earth Day 1970s to 2000**

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- II. The Momentum of Energy Commerce,
Abolition of Antitrust and Suppression of
Demand-site Solar Electricity
 - A. Multinational Conglomerates 1986-2006
 - B. [De]Regulation and Collapse of Enron
 - C. Photovoltaics and the *Partisan Pendulum*
 - D. Captured Consumers and the Internet

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- III. America's Answer for the 21st Century
Renewable BI-PV Solar Co~operatives
to Manage the Momentum of
Modern Electricity Commerce
- A. **National Security = A #1 Priority**
 - B. **Environmental Health = A #1 Priority**
 - C. **Personal Safety = A #1 Priority**

Conclusion: Co~operative Cooperation

National Security ~ Environmental Health ~ Personal Safety Historic Overview from the 1600s to the 1970s

The first Air Pollution Control Laws were passed in Great Britain during the height of the industrial age of the 1600s to mitigate deadly clouds of coal dust over many inner cities.

Less than seventy-five years after the use of oil and gas was developed for automated vehicles in the United States, Energy Crisis of the 1920s predicted the depletion of oil.

America's Answer of the 1930's electricity distribution was a massive electric network of wires from coast to coast supplied primarily by coal, followed by large hydro and then nuclear.

National Security ~ Environmental Health ~ Personal Safety Historic Overview from the 1600s to the 1970s

World War II was primarily a war to determine control of fossil fuel resources and their distribution in the global market.

America's strategic isolationist policy at the outset provided an advantageous role in ending World War II with our eventual intervention after Pearl Harbor initiating an unprecedented holocaust in Japan that ended Hitler's holocaust in Europe.

The two decades that followed issued forth the American Dream centered around family values and new electronics. Private air travel evolved alongside space travel that resulted in the ready access and resizing of our shared world.

National Security ~ Environmental Health ~ Personal Safety Historic Overview from the 1600s to the 1970s

Energy Crisis of the 1970's reminded us of the eventual depletion of fossil fuel resources and broadcast the scientific concern about energy-related pollution and monopolies.

Earth Day was initiated in the 1970s to encourage consumers to consider our role in evolving the global environmental challenges being created by the *massive vacuum of modern energy commerce*. In contrast, coal consumption doubled in America during the first thirty years of Earth Day and is today growing rapidly despite global warming, scientific outcry and the availability of *demand-side non-polluting fuel-free alternatives*.

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The Momentum of Energy Commerce, the Abolition of Antitrust and Suppression of Demand-site Electricity

Multinational Conglomerates 1984-2005

Energy Crisis 1970s brought new awareness of solar energy and the promise of building-integrated photovoltaics [BI-PV]. The Solarex Corporation was founded in 1974 by Dr. Joseph Lindmayer and Dr. Peter Varadi. 1983, completed their first *PV Breeder Factory* Frederick, Maryland.

- 1984 Solarex completed historic 30,000 SF Building-Integrated Photovoltaic [BI-PV] solar roof installed on the Georgetown University Intercultural Center in Washington, DC
- 1984 Amoco Oil pulled Solarex's factory loan, took over their company and reduced production
- 1984 to 1991 most PV manufacturing companies put out of business and tax credits pulled
- 1988 to 1991 Amoco Oil sued Arco Solar out of business
- 1970s founder Bill Yerkes partnered with Atlantic Richfield to create Arco Solar
- 1992 Solar Development Cooperative founded by Eileen M. Smith, M.Arch.
- 1998, SDC demanded an antitrust investigation before Cal PUC Rulemaking 98-12-015 citing Amoco, Enron and British Petroleum's market power suppression of BI-PV from the mainstream market since 1984 R.98-12-015 Opening Comments March 1999 Response Comments May 1999
- Jan. 1999 OC DA Rackaukas filed suit against Arco claiming *potential* ground water contamination
- April 2, 1999 BP Amoco made \$26.8 billion takeover of Arco or Atlantic Richfield.
- Jan.'05, OC DA Amoco paid \$1 in damages for Arco's alleged potential water contamination. Since 1914 Amoco's home offices on the west coast have been in Huntington Beach, CA where oil drilling causes subsidence even under the public library and groundwater contamination is rampant.
- 1990 to 2005 Japanese companies of Kyocera and Sharp became major players in PV industry.

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The Momentum of Energy Commerce, the Abolition of Antitrust and
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[De]Regulation and Collapse of Enron

In 1994, California invested \$1 billion in the Enron Corporation. With Kenneth Lay at helm, they prepared the framework for alleged *deregulation* of the California electricity generation industry focused on the massive growth of a *natural gas market* with related infrastructure improvements and profits.

Natural gas already dominated 64% of the California marketplace. Undercurrent tensions in the regulatory hearings on *distributed generation* are captured in the exorcism via a

poem I wrote April 2001 for a Laguna Beach Library Poetry Contest just as the alleged deregulated industry and Enron were collapsing. The poem is entitled:

'Solar Energy Soliloquy -Amid' . This poem is included as preface for my book "ElectriCity BEYOND THE CURVE OF DEREGULATION featuring Neighborhood Energy Watch Solution Groups and the Ethos of Commerce" released April 2005. ISBN 0-9741412-9-1
www.geocities.com/EthosOfCommerce

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The Momentum of Energy Commerce, the Abolition of Antitrust and
Suppression of Demand-site Electricity

The Internet ~ E-mail and *Captured Consumers*

Unprecedented opportunity for consumers

- consumers monitor energy agency decisions via Internet
- consumers may officially intervene via e-mail
- library computers allow literate consumer to educate themselves about solar BI-PV electricity beyond mainstream media and curriculums

2. *Captured ratepayers being used*

- as the prime financier for new coal plant deals
- to enhance corporate credit protection in *bad decisions*

3. Financial mechanisms using captured ratepayers increases legal standing and rights of consumers

- expands right to be easily informed of evidentiary hearing schedule
- assures right for consumers to officially intervene, individually

National Security ~ Environmental Health ~ Personal Safety
America's Answer in the 21st Century Renewable BI-PV Solar
Co-operatives to Manage the Momentum of Modern Electricity Commerce

National Security = A #1 Priority

1. From 1976 to 2006 *fossil fuel wars*
 - war in Middle East over fossil fuel resources
 - Desert Storm and Kosova war in the 1980s over fossil fuel resources
 - increasing tension between Korea, China and the United States
2. Terrorist Groups target *Remote-Site Power Plants*
 - 99.5% of electricity in US is remote-site generation
 - 70% of US electricity dependent on fossil fuels
 - LA blackout in 2005 blamed on rate dispute in media
3. 10% BI-PV Solar for *Emergency Preparedness*
 - hurricanes, earthquakes, tsunamis, tornados, floods, forest fires and *Global Warming* basis of need *demand-side BI-PV*
4. 10% BI-PV Solar Electricity for *Homeland Security*
 - use of demand-side fuel-free solar BI-PV electricity increases security
 - focus on space travel in lieu war could ease global fossil fuel tensions
 - since 1970s we have discovered Earth is unique paradise in universe
 - will put in motion phasing out of *fossil fuels* without dangerous total depletion

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Environmental Health = A #1 Priority

- 1. Kansas ranks 18th in US for Mercury toxins**
 - 1. 72.5% of electricity consumed in Kansas coal-fired
40% increase coal-fired plants in Kansas proposed**
 - 2. 50% of new plants preliminarily approved 2005 to
generate electricity for other states**
- 2. Kansas is an agricultural center of the US**
 - Coal pollution damages air, crops and waterways**
 - Coal-fired plants cause numerous health hazards**
 - ✓ Mercury causes fetal damage and mental retardation**
 - ✓ Particulate matter attacks immune system and kidneys
while increasing occurrence of respiratory diseases**

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Personal Safety = A #1 Priority

1. **President Bush 2002 installed Solar BI-PV on White House = an *unprecedented endorsement***
 - *Homeland Security and Emergency Preparedness*
 - *10% Demand-site Fuel-free Electricity in @ State*
2. **Homeowners Demand Solar BI-PV #1 Choice**
 - *Kansas Solar Electric Co-operatives relieve venerable homeowners and businesses from risks of pioneering BI-PV system management and grid negotiations*
3. **10% BI-PV Solar *Emergency Preparedness and Security* for Kansas hospitals and medical centers to reduce graft**
 - *KCP&L used Kansas Hospitals Association as one of the two signatories to initiate coal deal without notifying members*
 - *KCP&L used *captured ratepayers* as prime financier and credit security while increasing risks to their health and safety*

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CO~OPERATIVE COOPERATION

Value & Cost Comparisons Must Be Accurate

- Consumer-owned high-end retail price of solar BI-PV product installations produced primarily by oil cartels does not honestly compare *market value of BI-PV w/low-end wholesale cost of coal produced by utilities and energy cartels that sell related electricity.*
- Wholesale *price of coal* at 72.5% of Kansas market and 55% of national market is deceptively compared with *consumer retail price of BI-PV* at 0.003% of market; using market penetration ratios BI-PV is least expensive technology on market without mentioning *externality benefits*
- Computer-grade Silicon must be refined billion-to-one purity PV-grade Silicon need only be refined a million-to-one purification and is thereby *900% cheaper but supply is suppressed*
- Non-profit cooperatives produce raw materials and benefits of 10% BI-PV with limited impact on the market; if proposed coal plants go online Kansas will still have 76% coal
- In Westar rate hearing October 2005, it was brought up in testimony that appropriations for dismantling aged coal plants had historically been placed in accounts for five years and then absorbed as income without dismantling plants. There was debate as to why appropriations were not returned to ratepayers, but nothing was formally done about the problem. The penalty should be that any new coal introduced in Kansas should have an equal amount fully dismantled until Kansas ranks 50 or less in the nation for coal-fired pollution. Coal companies should bear full cost of pollution abatement and environmental protection.
- The cost of coal pollution and related toxins are being passed back to the captured ratepayer in lieu of energy companies like Westar and their investors or stockholders, thus causing deceptive market signals about the costs of coal-fired electric plants. Consumers are not making the irrational decision to increase coal-fired plants, and should not be penalized.
- John Grimwade a witness from KCP&L claimed in sworn testimony that there was not enough sunshine in Kansas to use the sun for solar electricity. There is more sun in Kansas than Washington, DC where the Georgetown University BI-PV roof generates \$57,000 a year.

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CO~OPERATIVE COOPERATION

Kansas Solar Electric Co~operatives

- 1,000 MWp BI-PV in Kansas by 2016
- 1,000 MWp BI-PV for Rebuilding from Hurricanes
- Via Ten 20 MWp BI-PV Manufacturing Museums
- 600 Jobs for Rural Kansas Communities = 10 years
- 300 Jobs for Kansans = 30 Years
- 10 MWp BI-PV in 100 Counties of Kansas by 2016
 - ✓ 1,000 Residential BI-PV Systems 500 SF Each
 - ✓ 200 Commercial BI-PV Systems 2,500 SF Each
- Most Raw Materials Available in Kansas

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30,000 SF BI-
PV Solar
Array

Georgetown
University
Washington,
DC installed
1984

*Poly-crystalline
silicon
semiconductor
named
'Pretty Polly'
in energy
industry*



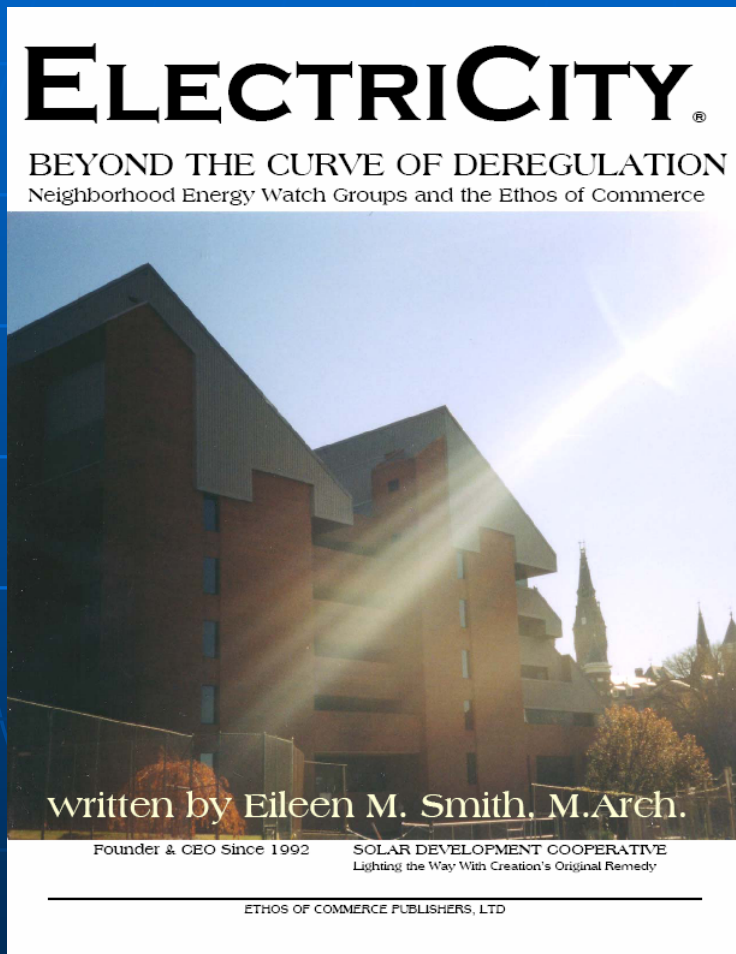
*Generates
\$57,000
demand-side
non-polluting
fuel-free*

*Building-
Integrated*

*Photovoltaic
Solar
Electricity a
year in dense
urban setting
of Nation's
capital*

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*To enhance your understanding
of the challenge and potential
benefit of the massive vacuum
of modern energy commerce*

refer to my book "ElectriCity"

*Released April 23, 2005 for
Earth Day with 300 original
documents photographs and
brochures.*

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