

KS RANKS #1 RENEWABLE RESOURCES

'...goal to help ensure that Kansans have low cost, reliable and sustainable energy, produced in-state, to fullest extent possible'

KANSAS SOLAR ELECTRIC CO~OPERATIVES

K-SEC

PHASE I = 1 % SOLAR IN KS
Building-Integrated Photovoltaic
BI-PV DEMONSTRATION 2006 to 2009
10 MWp BI-PV SOLAR CAPACITY

105 COUNTIES X 10,000 SF = 1 M SF BI-PV
105 KS COUNTIES INSTALL 100 kWp BI-PV

Produce + Install + Monitor + Maintain
10.5 MWp BI-PV Solar Systems in KS
Latest High Tech BOS Components

BOS = Balance of System Components
Inverter - Conduit - Monitor + Back-up

PHASE I BI-PV SOLAR DEMONSTRATION NON-PROFIT BUDGET

\$21 Million Solar Systems Installed
Materials for Modules and BOS

✓ \$1 watt PV

✓ \$.25 watt BOS

Labor and Management

✓ \$.25 Watt Production Labor

✓ \$.50 Watt Management 30 Years

BOS & Battery Replacements 50 Yrs

✓ \$9 Million 3 Inverters in Fifty Years

✓ \$12 M 3 Battery Back-Up Systems

Homeland Security to Subsidize Batteries

Kansas Solar Electric Buildings Registry

PHASE I DEMONSTRATION QUESTIONS

1. HOW MANY BUILDINGS = 100 kWp

Answer: This depends on system sizes.
GOALS FOR 1% SOLAR IN COUNTIES
MAY VARY~POSSIBILITIES INCLUDE:
(a) One Building 10,000 SF BI-PV Solar

30,000 SF BI-PV Solar Roof

Georgetown University in Washington, DC

Solar BI-PV
*Natural
Clean*
30,000 SF
BI-PV Roof
Installed on
Intercultural
Center 1984



Generates
One MWh
Demand-
site ~ Non-
polluting
Fuel-Free
Electricity
Daily
\$57,000
Yearly

(b) 1% BI-PV Solar Electricity KS DEMO
+ 20 Home Solar Systems 250 SF BI-PV
+ 5 Commercial Solar Systems 1,000 SF BI-PV
= 100 kWp X 105 Counties = 10.5 MWp

Residential Photovoltaics

Design | Build Business Magazine

By Eileen M. Smith, M.Arch. Dec. 2003

<http://www.rdbmagazine.com/FEATURES/2003-12/residential-photovoltaics.asp>

Kansas Solar Electric CO~OPERATIVES

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DONATIONS NEEDED AND WELCOME TODAY!

KANSAS



SOLAR ELECTRIC CO~OPERATIVES

N.E.W.S. Letter Vol. 2 No. 4 Sept. 2006

1,000 MWp Solar BI-PV by 2018
Phase I Demonstration Program
100 kWp Solar BI-PV Each County of
Kansas by December 2009

REVITALIZE

RURAL KANSAS

COMMUNITIES WITH
JOB OPPORTUNITIES

*Building-Integrated
Photovoltaics [BI-PV]*

MANUFACTURING MUSEUMS

Reduce Dependency on Fossil Fuels
Increase Expertise in Silicon
Semiconductor Solar Technology

CD BOOK 2005: 'ElectriCity® BEYOND
THE CURVE OF DEREGULATION' \$21
ISBN # 0-9741412-9-1 LOC CN 2004098882

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**WHY FORM LOCAL
Neighborhood Energy
Watch Solution
Groups
N.E.W.S. Groups**

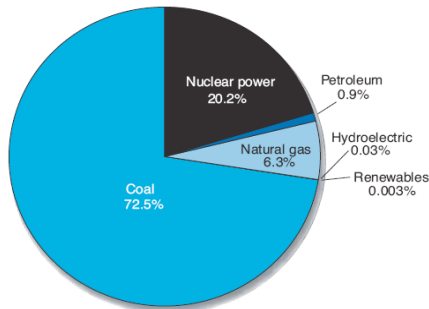


Figure 6—Kansas electricity production by fuel source, 2000 (EIA, *Electric Power Annual 2000*, vol.1, DOE/EIA-0348(2001/1), August 2001).

Kansas State Energy Resources Coordination Council
<http://www.kansasenergy.org/2003EnergyPlan2.pdf> pg14
 0.003% electricity consumed in KS is renewable.
 ➤ **72.5% of electricity consumed in KS today is generated by coal-fired steam plants located within the state.**
 ➤ **KS RANKS 18th US COAL MERCURY TOXINS**
 ➤ **WESTAR'S JEFFREY CTR RANKS 5TH USA**
 ➤ **2005 SIX NEW COAL PLANTS PROPOSED**
 ➤ **FIVE [5] IN KS ONE [1] IN MO = 45% ENVIRONMENT & COAL-RELATED DECISIONS**
http://www.kansasenergy.org/coal_projects.htm

MONITOR KS CORP. COMMISSION [KCC] DECISIONS VIA INTERNET
<http://www.kcc.state.ks.us/>



Burning Coal = Mercury Toxins

- ✓ Fetal Damage
- ✓ Brain Damage in Children
- ✓ Crop & Water Pollution

CARBON PARTICULATES

Contribute to Respiratory Ailments,

Asthma, Heart Disease, Kidney Disease, Cancer, Birth Defects, Acid Rain & Global Warming!

KANSAS SOLAR ELECTRIC BUILDINGS REGISTRY

Solar_Cooperatives@yahoo.com

- Each KS County ESTABLISH Solar Registry
- Registry Library+County Seat+City Hall
- Put Homes and Office or Public Buildings on Registry to REVEAL SOLAR CAPACITY
- 100 to 1,000 SF South to SW or Flat Roof
- Small Commercial and Residential BI-PV
- Large Commercial 1,000 to 50,000 SF Roof
- Include the following information:

(1) A description of the property with a title of the structure, if any. _____

(2) Street Address of structure when known. _____

(3) Other descriptive information about the location including cross streets, important features. _____

(4) Approximate size of SW, south-facing or flat rooftop to accommodate BI-PV solar system. _____

(5) Contact Name, Address, Phone and/or E-mail. _____

(6) If Available, Property occupant's name, address, phone and/or E-mail. _____

(7) If Available, Property owner's name, address, phone and/or E-mail. _____

(8) Donations, Expertise and/or Comments Are Needed Locally and Statewide to Manage Solar Buildings Registry. **GIS List Being Developed.**

KANSAS SOLAR ELECTRIC CO~OPERATIVES

FORM K-SEC IN YOUR COUNTY

KS House Bill 2018 passed 2003

Takes Five (5) people to incorporate

<http://www.dsireusa.org/documents/Incentives/KS04Rb.pdf>

Not-for-Profit Cooperative List of Forms

<http://www.kssos.org/main.html>

SEPT. 2006 MESSAGE FROM FOUNDER

Summer 2006, we were busy with a variety of tasks to protect the original documents and reputation of the Kansas Solar Electric Co~operatives [K-SEC]. When one makes progress in important transformations, turbulence occurs. The K-SEC program is a *new* format for solar electricity deployment. With the non-profit manufacturing wholesale solar electricity focus, consumers may further the benefits of renewable electricity *free-of-charge* by joining and/or allowing local K-SEC renewable cooperative to lease their rooftop and install a BI-PV solar generator.

Recap K-SEC program:

- Local county advocates establish K-SEC co~ops
- Key = *KS Solar Electric Buildings Registry*
- Incorporate local renewable cooperative
- Takes five board members to incorporate
- Commitment to install 100 kWp BI-PV
- 100 kWp BI-PV translates to 10,000 SF
- KS House Bill 2018 Ks.Rep. Tom Sloan 2003
- Must install 100 kWp renewables in two years
- Each board member pays \$100 to state K-SEC
- Each board member pays \$100 to county K-SEC
- State K-SEC organizes & manufactures BI-PV
- County K-SEC installs =monitors =maintains and sells the solar electricity wholesale
- K-SEC pioneers transform energy commerce

Pioneers must take the initiative to impact the world. For thirty years BI-PV solar hardly increased due to market power takeovers and suppression by oil cartels. The K-SEC model understands market momentum demands 10% non-profit manufacturing to allow solar BI-PV technology to evolve. Eileen M.Smith, M.Arch.