



# Illinois Sustainable Energy Plan

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## Oil Production Lags Behind Demand

Chevron's CEO stated in recent  
newspaper ads that...

***"...the era of easy oil and natural  
gas is over...the world consumes  
two barrels of oil for every barrel  
found..."***

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## Rising Energy Prices

**1982 – 2005**

(in 2002 \$'s)

<u>Annualized Growth Rates</u>	<u>Oil</u>	<u>NG</u>	<u>Coal</u>	<u>Electricity</u>
<b>1982 – 1999</b>	-6.1%	-6.1%	-4.7%	-2.5%
<b>1999 – 2005 (est.)</b>	+ 56%	+ 54%	+21%	+20%

*98% of the 250,000 MW of new capacity built in U.S. since 1990 is natural gas or natural gas & oil-fired!*

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## Illinois' Energy Context: Looking Back

- IL. lacks well-established energy efficiency and renewal energy infrastructure.
  - Current annual state EE funding = \$3 million.
  - Utilities with surplus capacity lacked impetus for EE.
  - Utilities offered demand response programs, but not programs to reduce baseline use.
  - 0.5% of energy currently generated by renewables.
- Since 1997, Illinois Commerce Commission and policy makers focused on rates, deregulation/restructuring, not reducing costs through efficiency.

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## Illinois' Energy Context: Looking Forward

- Increasing energy demand with continued dependence on imported energy sources.
- Rising fossil fuels prices will significantly impact electricity rates in Illinois.
- Electricity deregulation post-2006.
- Transmission constraints, increasing cost of new transmission and aging distribution systems.
- Emergence of regional transmission organizations.

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## Illinois' Environmental Context

- Clean Air Act Non-Attainment.
- Clean Air Interstate Rule & Clean Air Mercury Rule.
- Rising emissions control costs.
- IL leading new Midwestern regional emissions reduction effort to go beyond what the USEPA is requiring.
- Also pursuing a regional voluntary GHG registry.

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## Where are we heading?

- Diversify Illinois generation to reduce dependence on fossil fuels.
- Hedge some electricity consumption against likely future fossil fuel price volatility.
- Provide Illinois consumers with tools to use energy smarter and more efficiently.
- View efficiency & renewables as valuable resources to mitigate higher electricity costs and deliver economic & environmental benefits.

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## Sustainable Energy Plan

### Renewable Portfolio Standard

- 8% by 2013
  - 6% wind-generated electricity.
  - 2% other alternative sources (solar, biomass, methane recovery).
- At least 2,000 MW of wind energy installations anticipated in Illinois.
- Enough wind power for 1,000,000 homes.

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# Sustainable Energy Plan

## Energy Efficiency Portfolio Standard

- 25% of load growth by 2015 from demand response and increased efficiency.
- Voluntary, opt-in programs to benefit residential, commercial and industrial customers.
- Demand response (KW): load curtailment, lighting system management, real-time pricing, generating “negawatts,” etc.
- Demand reduction (KWH): lighting retrofits and other energy efficient upgrades.
- Focus on lowering costs through smart consumption and increased efficiency.

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# Sustainable Energy Plan

## Energy Efficiency Portfolio Standard

- Estimated \$40 million annual investment.
- A strong portfolio to include complementary energy efficiency, demand response and price response strategies.
- Utilities releasing RFPs by sector, including:
  - Commercial, Industrial, Residential, Low-Income.
  - Bidders supply verifiable energy and demand reductions.
  - Bids could be submitted by customers, aggregations of customers, vendors, etc.
- Large commercial/industrial energy users eligible for utility-sponsored EE investments and state-sponsored EE programs.

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## Sustainable Energy Plan Implementation

- Competitive procurement with long-term, fixed-price contracts to ensure competitive cost of EE/RE investments.
- Compliance costs fully recoverable in rates if they are competitive with traditional forms of generation and delivery resources.
- Commission adopted the Governor's plan July 19, 2005.
- Utility tariff submittals expected this fall with rule-making to follow.
- Programs in place by January 1<sup>st</sup>, 2007.

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## Benefits of the Sustainable Energy Plan

- EE/RE deliver cost savings businesses and residents.
  - Stabilize long-term electric rates and act as a hedge against volatile fossil fuel.
  - Reduced demand for high-cost peak power can exert downward pressure on energy prices.
- Possible reduced need for new generation capacity.
- Improved reliability from reduced grid congestion and greater distribution of generation.
- Creates jobs, generates income & investment.
- Lower pollution control costs for industry as Illinois works to comply with federal Clean Air Act and other environmental standards.

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## Illinois EE/RE Air Quality Integration Pilot Program

- IL & USDOE estimating quantity and location of emission reductions from Sustainable Energy Plan EE/RE strategies.
- Include emission benefits in SIPs (per USEPA guidance).
- Determine the generation displaced and geographic location of estimated emission reductions.
- Determine appropriate size of benefits for SIP.
  - IL is deregulated and a significant power exporter.
  - EE/RE may reduce emissions outside non-attainment areas (i.e. may result in regional or national benefits).

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## What's Next?

- Ensure success of Sustainable Energy Plan
- Address resource adequacy.
  - Traditional coal using clean coal technology.
  - IGCC (low environmental impact with polygeneration of electricity, substitute natural gas and transportation fuels).
  - Capacity charges being proposed by RTO's.
- EE/RE can play an important role.
  - Wind limited by intermittency/off-peak problem.
  - Solar limited by cost.
- Bottom Line:
  - Great potential for additional efficiency gains.

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## Questions?

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