Illinois Energy Policies and Programs: Driving Economic Development

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Legislative Summit
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Dept. of Commerce & Economic Opportunity
Illinois’ Energy Context

Illinois Electricity Generation, 2011
Electricity Generation by Fuel Type (%)

- 48%
- 45%

Illinois Energy Expenditures, 1970-2010
Annual Expenditures by Fuel Type (Million $ US)

Source: NASEO, “Illinois Energy Profile,” developed by DEDI
Illinois’ Energy Context

**Illinois Renewable Energy Production, 2010**
Energy Production by Fuel Type (%)
- 40% Hydro
- 29% Ethanol
- 17% Wood
- 12% Wind
- 0% Geothermal
- 0% Solar

**Illinois Renewable Electricity Generation, 2011**
Generation by Fuel Type (%)
- 88% Hydro
- 10% Biomass
- 0% Wind
- 0% Solar

Source: NASEO, “Illinois Energy Profile,” developed by DEDI
# Why Promote Clean Energy in Illinois?

## Economic benefits
- Generates economic growth
- Retains and creates quality jobs
- Leverages Illinois’ competitive advantages in transmission infrastructure, transportation infrastructure, skilled workforce in manufacturing, research institutions.

## Consumer benefits
- Hedges against volatility in fossil fuel prices
- Hedges against future costs of environmental externalities
- Renewables and efficiency programs complement each other as tools to help consumers mitigate higher energy costs
- Improves air quality by reducing emissions
A Very Brief History of Illinois Energy Policy

1997
- Electric market restructuring

2007
- Renewable Portfolio Standard (RPS)
- Energy Efficiency Portfolio Standard for electricity (EEPS)
- Illinois Power Agency (IPA) created

2009
- American Recovery & Reinvestment Act (ARRA)
- Renewable Portfolio Standard expanded to ARES
- Energy Efficiency Portfolio Standard for gas
- Solar carve-out established in RPS

2010
- Long-Term RE contracts awarded
- Solar ramp-up established in RPS

2011
- Smart grid legislation
- DG carve-out in RPS
Renewable Energy in Illinois

- Illinois RPS compliance cost was $53.5m; aggregate savings was almost $177m in total load payment for generation.
- >300 companies are part of the RE supply chains in Illinois.
- 1 MW of solar/wind power creates 15-20 manufacturing jobs – jobs from installation, operations and professional services jobs.
- Chicago region is home to 13 corporate HQs of major wind power companies – generates professional services jobs in finance, insurance, real estate and law.
- In total, Illinois RE sector companies employ an estimated 18,000 people.

Growth in Illinois Wind Power Capacity (MW)

Energy Efficiency Portfolio Standard

- **ComEd**
  - Ameren
  - Electric Efficiency
    - Private Sector
      - Businesses
      - Residential
      - Non-profits
    - Public Sector
      - Governments
      - K-12 schools
      - Community colleges
      - Public universities
    - Low-income
      - Residential Sector
      - Affordable housing
      - PHAs
      - Implementation agencies
    - Private Sector
      - Businesses
      - Residential
      - Non-profits

- **Nicor**
  - Integrys
  - Ameren
  - Gas Efficiency
## Estimated Statewide EEPS Budget

<table>
<thead>
<tr>
<th>Year</th>
<th>Electric</th>
<th>Natural Gas</th>
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<tbody>
<tr>
<td>FY 2011-12</td>
<td>$216 million</td>
<td>$60 million</td>
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<tr>
<td>FY 2012-13</td>
<td>$220 million</td>
<td>$88 million</td>
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<tr>
<td>FY 2013-14</td>
<td>$220 million</td>
<td>$120 million</td>
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EEPS Impact
(before Smart Grid Bill)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>Benefit/Cost Ratio</th>
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<tbody>
<tr>
<td>Total Program Cost</td>
<td>204.4</td>
<td>184.6</td>
<td>168.5</td>
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<tr>
<td>(in millions of 2009 $)</td>
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<tr>
<td>Consumer Match</td>
<td>284.1</td>
<td>256.5</td>
<td>234.3</td>
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<tr>
<td>(in millions of 2009 $)</td>
<td></td>
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<td></td>
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<tr>
<td>Consumer Savings</td>
<td>528.8</td>
<td>1,064.5</td>
<td>1,600.2</td>
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</tr>
<tr>
<td>(in millions of 2009 $)</td>
<td></td>
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</tr>
<tr>
<td>Net Gain in Total Jobs</td>
<td>3,000</td>
<td>5,900</td>
<td>8,200</td>
<td>1.61</td>
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<tr>
<td>(Actual)</td>
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## EEPS Impact (after Smart Grid Bill)

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<tbody>
<tr>
<td>Total Program Cost</td>
<td>267.6</td>
<td>241.6</td>
<td>220.6</td>
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<tr>
<td>(in millions of 2009$)</td>
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<tr>
<td>Consumer Match</td>
<td>327.7</td>
<td>295.9</td>
<td>270.2</td>
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<tr>
<td>(in millions of 2009$)</td>
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<td></td>
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<tr>
<td>Consumer Savings</td>
<td>651.9</td>
<td>1,392.7</td>
<td>2,133.5</td>
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<tr>
<td>(in millions of 2009$)</td>
<td></td>
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</tr>
<tr>
<td>Net Gain in Total Jobs (Actual)</td>
<td><strong>3,500</strong></td>
<td><strong>7,500</strong></td>
<td><strong>10,800</strong></td>
<td><strong>1.76</strong></td>
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## DCEO Energy Incentive Programs

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<thead>
<tr>
<th>Efficiency</th>
<th>Renewables</th>
<th>Biofuels</th>
<th>EVs</th>
<th>ARRA</th>
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<tbody>
<tr>
<td>• Public sector</td>
<td>• Solar</td>
<td>• R&amp;D</td>
<td>• Charging station</td>
<td>• State Energy Program</td>
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<tr>
<td>electricity and</td>
<td>• Wind</td>
<td>• New</td>
<td>station rebates</td>
<td>• Energy Efficiency &amp;</td>
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<tr>
<td>gas efficiency</td>
<td>• Biomass</td>
<td>facilities</td>
<td>Manufacturing</td>
<td>Conservation Block</td>
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<tr>
<td>rebates</td>
<td>• Biogas</td>
<td>• Retrofits</td>
<td>grants</td>
<td>Grant</td>
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<tr>
<td>• Low-income</td>
<td></td>
<td></td>
<td>• Manufacturing</td>
<td>• Energy Efficient</td>
</tr>
<tr>
<td>residential</td>
<td></td>
<td></td>
<td>grants</td>
<td>Appliance Rebates</td>
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<tr>
<td>energy efficiency</td>
<td></td>
<td></td>
<td></td>
<td>• Weatherization</td>
</tr>
<tr>
<td>• Industry training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Weatherization</td>
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<td></td>
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</tr>
</tbody>
</table>
Illinois Energy Office ARRA SEP Spending by Program Area
ARRA SEP Leveraged Funds

- 25 different companies funded.
- To date: ~1,154 jobs created; ~712 jobs retained.
Ingersoll Machine Tools

- Project located in Rockford
- Retrofitted existing equipment; designed and built new equipment for machining of wind turbine rotor hubs.
- $10.3M total project cost
- $5M grant
- Created ~82 jobs to date
- Retained ~18 jobs to date