Climate + Energy Project

Reaching global targets through local efforts: Clean Power Plan in KS

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The Climate & Energy Project seeks to dramatically reduce greenhouse gas emissions in America's Heartland through the ambitious deployment of energy efficiency and renewable energy, in policy and practice.
Climate Change: turning a *global* issue into *local* actions
Climate Change and CO2

Human everyday activities

- Burning fossil fuels
- Deforestation
- Other Practices

Too much carbon dioxide (CO2) and other greenhouse gases released into the atmosphere.

- Changes in temperature
- Changes in rain and wind patterns, water levels

Climate Change

- Threatens food, water, electricity, transportation and health
- Social and Environmental Effects on Everyone
Clean Power Plan, Climate Change, and Pollution

Why The Clean Power Plan?

- A way for USA to lead global efforts to address greenhouse gas pollution
- Power Plants produce 31% of Carbon Dioxide Emissions in U.S. No current CO2 limits exist
- Overwhelming scientific evidence of global climate change caused by human activities
- Limiting power plants carbon emissions through customized state goals will decrease national carbon pollution
Clean Power Plan Background

- The U.S. Environmental Protection Agency (EPA) released Proposed Clean Power Plan
- Public Engagement and Feedback
- Final Clean Power Plan Announced
- State Planning Process & Public Engagement
- Initial State Plan or Request for Extension Due

June 2, 2014
August 3, 2015
September 6, 2016

SLOW DOWN! Supreme Court Stay
Clean Power Plan National Reduction Target

Nationally reduces CO2 emissions **32%** by 2030 from 2005 levels from Power Plants

![Graph showing 32% decrease in CO2 emissions from 2005 to 2030](image-url)
U.S. greenhouse gas emissions by economic sector

- Electricity: 31%
- Transportation: 27%
- Industry: 21%
- Commercial & Residential: 12%
- Agriculture: 9%

Global Initiatives (Paris Climate Agreement) ➔ US National Initiatives ➔ Final Clean Power Plan ➔ Kansas Clean Power Plan

Source: EPA
What’s in the Plan?

State targets will reduce national CO2 reduction 32% by 2030 (from 2005 level)

CO2 reduction targets are based on States’ energy mixes

States Decide how to reach the target

- Mass-Based or Rate-based
- Flexible Trading options

Masses Decide how to reach the target
Kansas Energy Generation Mix 2014

- Coal: 57.82%
- Nuclear: 17.21%
- Wind: 21.81%
- Natural gas: 2.92%
- Petroleum: 0.09%
- Other biomass: 0.12%
- Hydroelectric: 0.03%

How can Kansas Meet Those Goals?

- Shift to lower emitting resources like Natural Gas
- Increase efficiency at existing coal plants
- Renewable Energy
- Energy Efficiency
What is Energy Efficiency?

Reducing the amount of energy required to provide energy and services

- Using less energy for:
  - Heating and cooling a home
  - Operating appliances: washer, dryer, refrigerator
  - Lights

How does Energy Efficiency work?

- Decreases how much energy is wasted
- Makes the energy produced more effective
### Prioritizing Energy Efficiency as a compliance tool:

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Cost-effective Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduces electricity usage, electricity bills and the amount of produced CO2</td>
<td>The most cost-effective option in reducing CO2 emissions</td>
</tr>
<tr>
<td>Quick to implement compared to transmission line, natural gas plant building, and building wind farms</td>
<td>States are rewarded for early EE measures</td>
</tr>
</tbody>
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Clean Power Plan giving the power to communities

• States must have an inclusive and transparent process when developing a plan
  • Making sure all voices have a chance to be heard
• Educate Communities about the CPP
• Engage with communities to learn about their needs and priorities
• Energy access and affordability for low-income communities
Clean Power Plan Benefits

Making sure all communities reap the benefits

Public Health Benefits from less Pollution

Economic Development, Job Creation opportunities, & Innovation

Affordable & Reliable Energy Future
Smart Clean Power Plan in Kansas

- Get a head start
- Take advantage of programs like CEIP
- Invest in EJ and low-income communities
- Make sure the benefits are fairly distributed
- Engage all communities in the decision making
- Prioritize energy efficiency and renewable energy as compliance methods and make them accessible to all communities
<table>
<thead>
<tr>
<th>Clean Power Plan</th>
<th>Paris Agreement</th>
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</thead>
<tbody>
<tr>
<td>USA Regulation</td>
<td>Agreement among 195 countries</td>
</tr>
<tr>
<td>CO2</td>
<td>All greenhouse gasses</td>
</tr>
<tr>
<td>None specified</td>
<td>Limit increase in global average temperature to <strong>well below 2°C</strong> above pre-industrial levels</td>
</tr>
<tr>
<td>Electricity Sector Specific reductions</td>
<td>Non-sector specific greenhouse gasses reductions (majority of which is CO2)</td>
</tr>
<tr>
<td>870 million tons by 2030 from 2005 levels in US  •  22 million tons in Kansas</td>
<td>~ 2277- 2115 million tons by 2025 from 2005 levels in US  •  No state goals yet</td>
</tr>
<tr>
<td>In mitigation, awaiting legal ruling in early 2017</td>
<td>Next step: ratification by countries by April 21, 2017</td>
</tr>
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</table>
Clean Power Plan: what can I do?

- Tell legislators who are campaigning for your vote what energy future you would like to see.
- Learn about the Clean power plan at EPA and CEP online resources.
- Learn what’s important for your community.
- Seek out partners and community leaders.
- Build relationships and trust among diverse communities.
- Sign up for CPP updates at climateandenergy.org.
- Talk to your friends and neighbors about the benefits of low carbon economy.
Which units are affected by the CPP Rule in Kansas?

Affected Electric Generating Units (EGU’s)
Electricity 101

North American Electric Reliability Corporation Interconnections

Regional Transmission Organization (RTO) – Southwest Power Pool

SPP Footprint, 2014.
FERC approved the Integrated Systems joining SPP in November 2014. SPP will begin coordinating the IS transmission system in June 2015, with full membership in October 2015.
**Clean Energy Incentive Program (CEIP)**

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<tr>
<th>Optional program that rewards early investments in low income communities energy efficiency and state-wide renewable energy projects</th>
<th>States get bonus incentives (valuable allowances) for energy saved or generated through approved EE and RE measures in 2020-2021</th>
</tr>
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<td>Helps states meet CPP compliance goals</td>
<td>States must include it in their plans if they decided to participate in CEIP</td>
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