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CIRCA PRESENTATION
SUPREME COURT OF THE UNITED STATES

Syllabus

WEST VIRGINIA ET AL. v. ENVIRONMENTAL PROTECTION AGENCY ET AL.

CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 20–1530. Argued February 28, 2022—Decided June 30, 2022*
Inflation Reduction Act plus New CT Programs
Energy Resilience for Connecticut Municipalities

CT Public Act 20-5 defines resilience as "the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from deliberate attacks, accidents or naturally occurring threats or incidents, including, but not limited to, threats or incidents associated with the impacts of climate change."

Goals of Resilience

- Reliable: Every time you turn the switch, the lights come on.
- Sustainable: The strategies you’re using now will still work in 15, 25, or 50 years. This means not relying on non-renewable resources.
- Affordable and Accessible: Everyone in the community should have access to power.
- Mindful: The energy sources we use should not be making climate change worse - that is self-defeating.

Resources

- Federal Grants for Resilience Activities
- Energy 35CT for Towns
- DOE’s Efficiency-Resilience Nexus
- Residential Power Planning Guide

What does a good energy plan look like?

State: The State completed a pilot Efficient Energy Strategy (CIES) in 2016, and is currently working on its 2023 update.

Large cities: Hartford’s 2017 Climate Action Plan
- New Britain’s 2018 Energy & Innovation Roadmap for the Future
- West Hartford’s 2020 Energy Plan

Mid-size communities: Simsbury’s 2018 Energy Plan
- Middletown’s 2019 Energy Plan
- South Windsor’s 2019 Municipal, Residential, Business Energy Plan

Small towns: Ashford Clean Energy Task Force’s 2019 Municipal Action Plan

Electrification

New England is moving towards a decarbonized, more renewable-based grid, which is better for environmental and economic sustainability. In order to access these benefits, municipal buildings and vehicles should be electrified. By continuing to use oil to heat a recreation center or gas-fueled stoves in cafeterias, municipalities remain dependent upon harmful fossil fuels.

CT DEEP committed in their 2022-2024 Conservation and Load Management Plan to transition their Residential New Construction program into an electric-only offering, with their CDEEP rebate making fleet electrification more affordable as well. Electrification also pairs perfectly with distributed generation and microgrids, as it allows facilities and fleets to subsist on energy produced at the source rather than relying on oil and gas delivered from other sources. With pipeline attacks making recent headlines, and it makes sense for municipalities to build resilience against such threats.

Energy Efficiency

Energy efficiency is the use of less energy to perform the same task or produce the same result. It is quite likely that your municipality has already engaged in some kind of efficiency measure - whether it was replacing CFL lightbulbs with LEDs, adding weather stripping to maintain indoor temperatures, or adding a fuel-efficient vehicle to the fleet. The U.S. Department of Energy describes efficiency as “one of the easiest and most cost-effective ways to combat climate change, reduce energy costs for consumers, and improve the competitiveness of U.S. businesses.”

For the sake of simplicity, and in order to get to the bottom line, the U.S. Department of Energy classifies energy efficiency projects into five categories:
- Building Energy Efficiency
- Manufacturing Equipment
- Utility/Commercial Operations
- Customer Equipment
- Industrial Operations

There are numerous federal and state incentives for municipalities to implement these strategies. For more information, [click here to contact CT DEEP].

Storage

Energy sources that can be deployed specifically when needed are referred to as “dispatchable.” Oil, coal, natural gas, and nuclear are dispatchable; but wind and solar are not, even during “peak hours.” This becomes an issue when there is a mismatch between supply (no sun shining at night) and demand (humans and businesses need heat). The key to making these intermittent resources available continuously is in energy storage.

Energy storage allows ongoing power when an extreme weather event disconnects a facility from the grid. It is also a great way for municipalities to save money. When demand is high but supply is low, if you can store power during the day, you can sell it back to the grid at night. Keeping a reserve of power to use at these critical times means municipalities can avoid peak pricing, while also reducing strain on the rest of the community’s supply.

There are several types of storage including fuel cells and lithium battery storage. New technologies in this field are still emerging, and one of the most important areas of research is how to scale energy storage to accommodate more capacity.

Demand Response

Local energy resilience can also come from encouraging residents and businesses to lower their power usage during stressful times for the grid - such as hot, humid summer afternoons. This encourages typically involves a utility paying residents or businesses to reduce their usage for a small fee. Demand response can also be very useful for a municipality, often through social media, to its customers or residents has proven to be helpful in reducing consumption when it is the most needed. Municipalities could work with utilities on communicating with residents and local businesses to reduce power consumption during certain times. For more information, [click here to contact CT DEEP].

Energy Resilience for Connecticut Municipalities

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Inflation Reduction Act
Immediate Changes and Timeline

- Restores full 30% tax credit through at least 2032
- Retroactive – Full credit applies to projects placed in service in 2022
- Transition to technology neutral credits in 2025
- Commercial Phase-out:
  - Later of 2034 or two years after GHG emissions drop 75% below 2022 levels
  - 2034 – 22.5%
  - 2035 – 15%
  - 2036 – 0%
Summary of immediate changes to commercial tax credits

Changes slated to take effect in 2023, subject to further IRS guidance:

1. Transferability and Direct Pay
2. Storage ITC
3. Interconnection Costs
4. Prevailing Wage and Apprenticeship Requirements
5. ITC bonus for domestic content, brownfield sites, and low-income projects
6. PTC

Inflation Reduction Act
Starting in 2023 - New Ways to Monetize Credits

Direct Pay

- Receive cash for credits through IRS refund process
- Eligible entities: tax-exempt entities, rural electric co-ops, and states/munis
- Eligible entities cannot transfer
- Fine print ... “domestic content” stick

Transferability

- Sale of credits to unrelated parties
- Credits can only be sold once
- Still subject to recapture
- Passive activity loss rules likely still apply, awaiting IRS guidance
- Transfer market will take time to mature
Energy Storage ITC

Stand-alone ITC without any obligation to charge with renewable power

Broad definition: “property . . . which receives, stores, and delivers energy for conversion to electricity . . . and has a nameplate capacity of not less than 5 kilowatt hours”

- Would include pumped-hydro storage

Residential credit available provided battery has at least 3 KWh of capacity
Interconnection Costs

For projects up to 5 MW (AC) in capacity, interconnection costs are eligible for ITC.

Includes upgrades and facilities owned by the utility.

Applies to energy storage facilities and all other facilities that qualify for the ITC.

Cannot claim PTC on interconnection costs.

Single-plant risks?

Transmission ITC did not make it into the bill.
Prevailing Wage and Apprenticeship

Do these apply to your project?

- < 1 MW (AC) are exempt
- Projects that “begin construction” within 59 days of IRS Guidance
- Maybe 4-6 Months for Guidance?
- Rely on existing construction start guidance?

What are the consequences if they apply?

- Comply or 30% drops to 6%
- Pay Davis-Bacon wages paid on federal construction jobs
- Qualified apprentices for 10% to 15% of total labor hours
- Requirements apply during first 5 years post-commissioning for alterations/repairs (not O&M)
Bonus ITC: Domestic Content

- Certify that any steel, iron, or manufactured products was produced in the US
- **Steel and Iron**: Must be 100% US, applied consistent with Buy American Act regs:
- **Manufactured Products**: Deemed US made if “adjusted percentage” of the total cost of products and subcomponents “are mined, produced, or manufactured in the United States”

<table>
<thead>
<tr>
<th>Construction Begins</th>
<th>Adjusted Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 2025</td>
<td>40%</td>
</tr>
<tr>
<td>In 2025</td>
<td>45%</td>
</tr>
<tr>
<td>In 2026</td>
<td>50%</td>
</tr>
<tr>
<td>In 2027 or later</td>
<td>55%</td>
</tr>
</tbody>
</table>
**Bonus ITC: Energy Communities**

Includes (i) “brownfield sites,” (ii) census tracts with shuttered coal mines/generation, and (iii) areas with high unemployment and a fossil-fuel industry presence.

Incorporates the brownfield site definition from CERCLA:

• “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”

Be mindful of brownfield exclusions under CERCLA which include:

• Superfund sites (listed or proposed for listing);
• Sites subject to court orders, consent decrees, or admin orders; and
• Sites subject to certain permits, e.g., RCRA, TSCA, and the Safe Drinking Water Act.
Legend

Coal Closure Energy Communities

- Census tract with a coal closure
- Directly adjoins a tract with a coal closure
- Meets the Fossil Fuel Employment Threshold

Figure 3 - 2023 Connecticut Energy Data
## Bonus ITC: Low-Income Solar and Wind Projects

<table>
<thead>
<tr>
<th><strong>General Restrictions</strong></th>
<th><strong>Low-Income Project</strong></th>
<th><strong>Low-Income Site</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Application&gt;Award</td>
<td>20% bonus – 2 Types</td>
<td>10% bonus</td>
</tr>
<tr>
<td>1,800 MW (DC)/year</td>
<td>Installed on</td>
<td>Located in a “low-income community”</td>
</tr>
<tr>
<td>Under 5 MW (AC)</td>
<td>affordable housing</td>
<td>Relies on NMTC</td>
</tr>
<tr>
<td>Only solar or wind,</td>
<td>AND tenants</td>
<td>mapping</td>
</tr>
<tr>
<td>and integrated storage</td>
<td>receive financial</td>
<td></td>
</tr>
<tr>
<td>No PTC bonus</td>
<td>benefits.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least 50% of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>financial benefits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>provided to low-income households</td>
<td></td>
</tr>
</tbody>
</table>
## Investment Tax Credit Components

<table>
<thead>
<tr>
<th></th>
<th>Base Credit</th>
<th>Wage/Apprenticeship Requirement (&gt;1MW)</th>
<th>Domestic Content Bonus Credit</th>
<th>Energy Community Bonus Credit</th>
<th>Low-Income Community Bonus Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Under 1 MW</td>
<td>30%</td>
<td>N/A</td>
<td>10%</td>
<td>10%</td>
<td>10% – 20%</td>
</tr>
<tr>
<td>Base Credit 6%, if project is &lt;1 MW AC, base credit is 30% since apprenticeship credit is not required</td>
<td>24% for taxpayers that pay prevailing wages &amp; use apprenticeship programs – laborers must be paid during construction and 5 years after project is placed in service</td>
<td>10% for using steel, iron, or products mad in the U.S. – start at 20% of materials for offshore wind, 40% for all else</td>
<td>10% for projects located in low-income community, Indian land, multifamily housing – 20% for projects with 50% of financial benefit for low-income persons</td>
<td>Capped at 1.8 GW</td>
<td></td>
</tr>
</tbody>
</table>

Projects Between 1-5 MW

6%  24%  10%  10%  10% – 20%

* [https://arcgis.net.doe.gov/portal/apps/experiencebuilder/experience/?data_id=datasource_3-1e87e907e-layer-10%3A415&id=a2fe47d472e477e6701b03e38495e1d](https://arcgis.net.doe.gov/portal/apps/experiencebuilder/experience/?data_id=datasource_3-1e87e907e-layer-10%3A415&id=a2fe47d472e477e6701b03e38495e1d)*
Solar Production Tax Credit

Solar projects placed in service in 2022 or later may elect for the PTC for the first ten years of operations instead of the ITC.

Current PTC rate is 2.6 cents/kWh. Adjusted for inflation annually.

Potential factors to consider when evaluating PTC vs ITC:

- Project’s capacity factor
- Interconnection costs only eligible for ITC, not PTC
- Low-income bonuses only eligible for ITC, not PTC
CT Solar/Fuel Cell Programs

- **NRES** (solar and fuel cells)
  - Different tranches for fuel calls and solar
  - Behind the meter, and
  - VNM mandates projects on municipal (and state and ag) land/buildings
  - Favors projects located in distressed municipalities, brownfields and landfills (20%) and carports (30%) OR where all the benefits flow there
  - Potential municipal benefits in terms of lease payments and electricity savings

- **SCEF** (community solar – sort of)
  - Low-income customers
  - Carports, canopies, brownfields and landfills
<table>
<thead>
<tr>
<th></th>
<th>NRES Program</th>
<th>SCEF Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Maximum Size (MW)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MW offered per year</td>
<td>110</td>
<td>50</td>
</tr>
<tr>
<td>Total Program Size (MW)</td>
<td>500</td>
<td>300</td>
</tr>
<tr>
<td>Program Years Remaining</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Different Environmental Rules</td>
<td></td>
<td>No construction in core forest or on slopes &gt; 15°</td>
</tr>
<tr>
<td>Structure</td>
<td>Virtual net metering or direct sale to utility</td>
<td>Direct sale to utility w/utility distributing some financial benefit back to community</td>
</tr>
<tr>
<td>Pricing differences based on size</td>
<td>Different tranches/auction for different project sizes</td>
<td>One tranche/auction regardless of size</td>
</tr>
<tr>
<td>Special ground siting restrictions</td>
<td>State, farm or municipal land only</td>
<td>Distressed municipalities, brownfields, carports and landfills</td>
</tr>
<tr>
<td>Siting incentives</td>
<td>Distressed municipalities, brownfields, carports and landfills</td>
<td>Brownfields, carports and landfills</td>
</tr>
</tbody>
</table>
Figure 4 - Connecticut Distressed Municipalities and Environmental Justice Block Groups
<table>
<thead>
<tr>
<th>Potential Stacking Value of Projects Under 1 MW</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal</strong></td>
<td></td>
</tr>
<tr>
<td>1. Starting ITC Bonus (assuming wage threshold met)</td>
<td>30%</td>
</tr>
<tr>
<td>2. Energy Community Bonus</td>
<td>10%</td>
</tr>
<tr>
<td>3. Low Income Project or Community Bonus</td>
<td>10% or 20%</td>
</tr>
<tr>
<td>4. Domestic Content Bonus</td>
<td>10%</td>
</tr>
<tr>
<td>Plus ITC applies to interconnection costs</td>
<td></td>
</tr>
<tr>
<td>Potential Tax Credit or Direct Pay Value</td>
<td>60% to 70% of Project Costs</td>
</tr>
<tr>
<td>No Prevailing Wage or Apprenticeship Requirement</td>
<td></td>
</tr>
<tr>
<td><strong>State</strong></td>
<td></td>
</tr>
<tr>
<td>Favorable Pricing in NRES Middle Tranche</td>
<td>20% to 30% (Carports)</td>
</tr>
<tr>
<td>CT Low income/Landfill/Carport Bonus Pricing Preference</td>
<td></td>
</tr>
<tr>
<td><strong>Nonfinancial Benefits</strong></td>
<td></td>
</tr>
<tr>
<td>Local permitting (no CT Siting Council)</td>
<td></td>
</tr>
<tr>
<td>Less stringent (less expensive) stormwater compliance</td>
<td></td>
</tr>
</tbody>
</table>
The End