Legislation to Advance Efficient and Resilient Local Energy Infrastructure

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Energy Efficient Infrastructure for More Resilient Local Economies: The Role of District Energy, CHP, and Microgrids

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Agenda

• Introduced legislation:
  – Master Limited Partnerships Parity Act (MLPPA)

• Discussion Draft legislation:
  – Local Energy Supply and Resiliency Act (LESRA)
Master Limited Partnerships Parity Act

Bipartisan bill introduced April 24 in the Senate (S.795) and House (H.R. 1696)

What is an MLP?
• Business structure that is taxed as a partnership, but whose ownership interests are traded like corporate stock on a market.
• Double taxation (corporate and individual) is avoided because income from an MLP is taxed only at the individual level, thus significantly reducing the cost of capital.
• MLPs have been used for decades but by law have only been available to investors in energy portfolios for oil, natural gas, coal extraction, and pipeline projects.

Impact of the MLPPA
• Extends the definition of “qualified” sources to include energy technologies that qualify under Sections 45 and 48 of the tax code, including combined heat and power (CHP), closed and open loop biomass, wind, solar, municipal solid waste, hydropower and fuel cells.
• Also includes waste heat to power, carbon capture and storage, and a range of renewable transportation fuels.
• Applies to generation, storage and distribution of thermal energy from qualified resources.
Local Energy Supply & Resiliency Act (LESRA)

• Would help industry, universities, communities and others tap the energy resources in their backyards, e.g. renewable energy sources as well as waste heat.

• Would establish a low-interest revolving loan program for financing these investments, and provide cost-shared funding for technical assistance for feasibility studies and engineering.

• Benefits: reduce fossil fuel consumption; enhance energy supply resiliency, reliability and security; reduce air pollution and emissions of greenhouse gases; and retain more energy dollars in local economies.
Local Energy

- Industrial surplus heat
- Solar, geothermal
- Surplus heat from waste
- Surplus heat from biorefineries

Combined heat and power

- Biofuels
- Fossil fuels

INTERNATIONAL DISTRICT ENERGY ASSOCIATION
Waste heat is a key target

U.S. Energy Consumption

- Waste heat, mostly from power plants: 36%
- Useful industrial & building energy: 28%
- Total transportation energy: 36%

International District Energy Association
Technical Assistance Program

• Cost-shared grant program to provide technical assistance for identifying, evaluating, planning and designing local energy infrastructure, e.g.:
  – Feasibility studies
    • Identification of opportunities
    • Assessment of technical and economic characteristics
  – Barrier busting
    • Utility interconnection
    • Negotiation of power and fuel contracts
    • Permitting and siting issues
  – Business planning
    • Marketing and contract negotiations
    • Business planning and financial analysis
  – Engineering design
• Open to non-profit and for-profit entities.
• Authorized appropriations: $25 million per year from 2014 to 2018.
Local Energy Revolving Fund

- Establishes a Local Energy Revolving Fund Corporation, which would provide loans to projects that:
  - Recover or produce useful thermal energy from waste heat or renewable thermal energy sources,
  - Generate electricity locally,
  - Distribute electricity in microgrids,
  - Distribute thermal energy, or
  - Transfer thermal energy to building heating and cooling systems.

- Funding
  The Fund shall consist of—
  - Appropriated funds (authorized appropriations: $500 million a year from 2014 to 2018); and
  - During the 10-year period, amounts repaid on loans made from the Fund.

- Loan repayments received after the 10-year period will be deposited in the Treasury for Federal budget deficit reduction.
Recoverable Waste Energy Inventory

• LESRA re-authorizes the appropriations for the Recoverable Waste Energy Inventory Program which expired in 2012.
• Survey of all major industrial and large commercial combustion sources, and includes a review of each source for the quality and quantity of waste energy produced at the source.
• Re-authorizes appropriations for this program at $8 million a year from 2014 to 2018.
Example of Impact of Cost of Capital

Typical Private Sector Weighted Average Cost of Capital

Current range of Municipal Bonds

Current range of Revenue Bonds

Current Treasure Bonds (20-30 year)
Thanks for your attention!

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