



# Combined Heat and Power Workshop

November 6/13, 2014



**Legislation, Policy, and Regulations  
for CHP**

**KY Department for Energy  
Development and Independence**

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## Kentucky Department for Energy Development and Independence



The Department for Energy Development and Independence's mission is to improve the quality and security of life for all Kentuckians by creating efficient, sustainable energy solutions and strategies; by protecting the environment; and by creating a base for strong economic growth.

# *Pending Federal Rules*

## **Clean Power Plan**

- Clean Air Act Section 111(b) – New Power Plants**
- 111(d) – Existing Power Plants**

**What is Combined Heat and Power subject to and how might rules encourage utilities or end users to look at CHP?**

**Building Block 4 allows compliance with efficiency**

**Federal Rules still under development**

# *Proposed Legislation: What is ePAD?*

## **Energy Project Assessment District**

- **Energy Finance tool**
  - Energy efficiency, renewable energy, and water efficiency upgrades
- **Loans serviced through property tax assessment**
  - *All assessments are voluntary*
- **Creates revenue stream to leverage third party capital**
- **Municipalities may choose to voluntarily adopt the program**

# Who Can Use ePAD?

- **Commercial Building Owners**
- **Industrial facilities**
- **Multi-family building (>4 units)**
- **Agricultural buildings and processes**
- **Not-for-profits & Government buildings**
  - Organizations that do not pay taxes are eligible
  - Every building that is listed on tax rolls

# Advantages to ePAD

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## Barriers to EE/RE Upgrades

1. Lack of funds
2. No lenders
3. Poor ROI – Short term funding
4. Debt limitations
5. Might sell property
6. Split incentives

## ePAD Solutions

1. 100% external source
2. Unlimited private capital
3. Positive cash flow – Long term funding up to 30 yrs
4. Tax treatment as operating expense
5. Transfers to new owner
6. Tenants share

# *Proposed Legislation: ePAD*

- **HB 404 passed in Kentucky House in March 2014**
  - Session ended before approved by Senate
- **Back before the legislature in January 2015**
- ***Kentucky ePAD Council* is a multi-year effort to support the adoption and implementation of ePAD in Kentucky**

# *Proposed Legislation: Kentucky Reinvestment Act*

- **Kentucky Reinvestment Act (KRS 154.34 080-120) provide tax credit for manufacturing to retain jobs**
- **Proposal modifies statute to incentivize energy efficiency**

- **Sets up incentives for reinvestment projects and provides for:**
  - Incentives for capital costs of at least \$2,500,000 investment
  - Agreement to maintain full-time employment base of at least 85% at facility
  - 50% rebate of eligible equipment expenses
  - 100% of job skills upgrade training costs
  - 100% of income taxes imposed

# ***KRS 154.34 – proposed changes***

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- **Adds new tier specifically for energy efficiency, called Energy Efficiency Reinvestment Projects, that provides for:**
  - Incentives for capital costs of at least \$300,000 investment
  - Limits total statewide annual rebate amount to \$3,000,000
  - Tax rebate 50% of eligible equipment expenses (over 2 years)
  - All other provisions remain the same

# *KRS 154.34 – proposed changes, cont.*

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- **Conditions include:**
  - Agreement to provide data on energy costs, energy savings, energy savings per unit of productivity – both before (application) and after (agreement)
  - Attain a goal of 20% energy savings

# *Statutes and Regulations*

- Kentucky revised statutes (KRS) and administrative regulations (KAR) may be found here:
  - <http://www.lrc.ky.gov/Law.htm>
- The following slides are intended to give an overview of some laws related to power generation and where you can find them
- No official legal advice is intended with this presentation

# *Existing Regulations Related to CHP Projects*

- Utility Regulation
- Public Service Commission Jurisdiction
- Definition of a Utility
- Territorial Boundary Act and Utilities Right to Serve
- Net Metering
- PURPA - Qualifying Facilities (Cogeneration and Small Power Production)
- Interconnection

- **The Kentucky Public Service Commission (PSC)**
  - The mission of the Kentucky Public Service Commission is to foster the provision of safe and reliable service at a reasonable price to the customers of jurisdictional utilities while providing for the financial stability of those utilities by setting fair and just rates, and supporting their operational competence by overseeing regulated activities.
- **KRS Chapter 278**
- **807 KAR Chapter 5**

# *Utility Regulation Continued*

- **Scope**
  - The Commission regulates the intrastate rates and services of investor-owned electric, natural gas, telephone, water and sewage utilities, customer-owned electric and telephone cooperatives, water districts and associations, and certain aspects of gas pipelines.

# Public Service Commission Jurisdiction

- **KRS 278.040**
  - Electric Utilities
    - Investor Owned Utilities
    - Cooperatives
- **Excludes municipal utilities and TVA coops**
  - KRS 96.880
- **(See KRS Chapter 96 for laws affecting utilities in cities)**

# Definition of a Utility

*(An entity who owns and operates an electric generating facility on his/her property for his/her own use likely does not meet this definition)*

- **KRS Chapter 278.010 (3)**

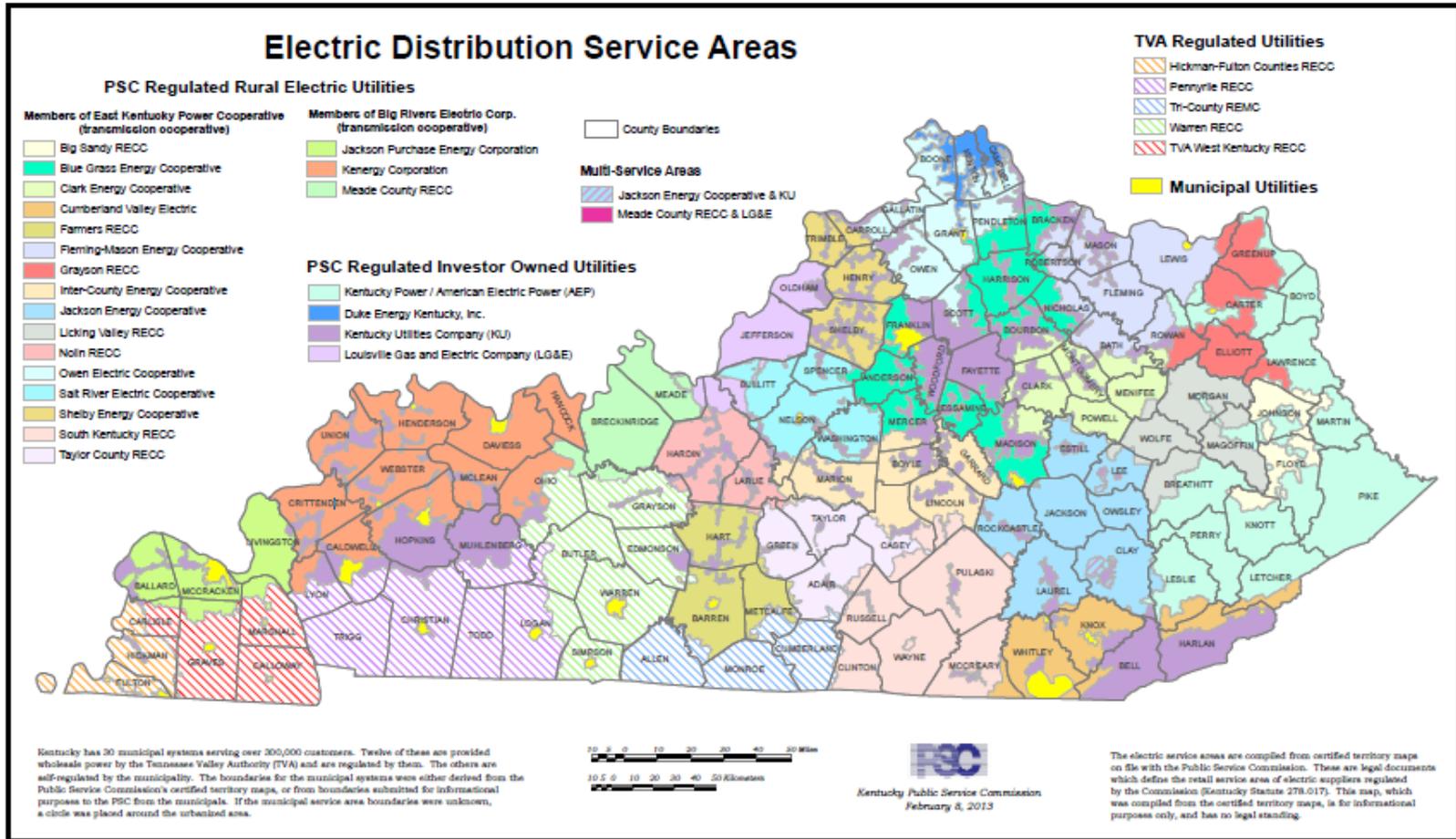
- any person except . . . for purposes of paragraphs (a), (b), (c), (d), and (f) of this subsection, a city, who owns, controls, operates, or manages any facility used or to be used for or in connection with:
  - (a) The generation, production, transmission, or distribution of electricity to or **for the public, for compensation**, for lights, heat, power, or other uses.

# *Territorial Boundary Act*

(Entities deemed to be a “Utility” as defined on the previous slide will be subject to these statutes)

- The utility’s exclusive right to serve
  - KRS 278.016 to .018
    - .016 - Geographical Service Areas (provides reasoning behind this statute – orderly development, prevent wasteful duplication, protect landscape etc.)
    - .017 Boundaries
    - .018 Right to serve

# Service Areas



# Net Metering

- Measuring the difference between the electricity supplied by the electric grid and the electricity generated by an eligible customer-generator that is fed back to the electrical grid over a billing period
  - KRS 278.465 to .468
  - PSC Case #2008-00169
    - Established Interconnection and Net Metering Guidelines – KY
    - Own and operate on the customer's premises
    - Solar, wind, hydro, biomass, biogas, & 30KW or less

# *Public Utilities Regulatory Policies Act (PURPA)*

## **807 KAR 5:054**

"An electric utility is required to make any interconnection with a qualifying facility that is necessary for purchase and sale."

- Qualifying Facility

- Small Power Production– 18CFR 292.204
  - <80MW
  - 75% Renewable Fuel
- Cogeneration – 18CFR 292.205
  - Efficiency Requirements

# Public Utilities Regulatory Policies Act (PURPA)

- Avoided cost tariffs for sales (> or < 100KW)
- Purchasing Power
  - Standby Rates
    - Emergency Power
    - Maintenance
    - Planned Shutdown
  - Ratchets
  - Understand any standby charges, ratchet clauses or other tariff information which is on file
- 5:054 Section 7 (9) speaks to voluntary agreements
- Partner with utility for a win/win
  - Creative tariffs, curtailable etc.
  - Develop a good contract, understand and operate within it

- **File Application with Utility**

- Utility Requirements involve FERC, NERC, PSC and other Codes or standards such as:
  - NEC, NESC
  - IEEE 1547, UL 1740
- Requirements will vary based on CHP capacity, method of operation, point of interconnection to the grid (transmission or distribution level etc.)
- Additional Costs incurred may include
  - Insurance
  - Reliability study fee
  - Equipment costs (Disconnect Switch etc.)
- Over 10MW required to file with the PSC per KRS 278.212
  - All grid upgrade cost will be borne by the generator



## CHP Workshop

**Bowling Green/Richmond, KY  
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<http://energy.ky.gov/Programs/Pages/chp.aspx>

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## Kentucky CHP Program Workshop –November, 2014

