

# The Essentials of Public Finance:



**OVERVIEW OF MUNICIPAL BOND FINANCING  
IN COAL-FIRED POWER PLANT DEVELOPMENT  
JANUARY 11, 2012**

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**for the  
Institute for Energy Economics and Financial  
Analysis**

# Outline

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- **Overview of Municipal Bonds in Coal Plant Construction**
  - ✦ Issuers: Types of Entities Utilizing Municipal Bonds
  - ✦ Types of Bonds & Characteristics
  - ✦ Assembling Bond Transaction & Participants
  - ✦ Example of Coal Projects Utilizing Municipal Bonds
  - ✦ Points of Advocacy

# Issuers: Municipal Bonds

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- State and Local (Municipal) Governments and Special Districts
  - By Statutory Authority
    - ✦ Regulations Dictate Caps (limits) on amounts
    - ✦ Designation of Board Members, Meetings
  - Political Roles
    - ✦ Provide low cost electricity
  - Economic Functions
    - ✦ Jobs and new economic development

# Characteristics of Municipal Bonds Categories

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**What is a Bond?**

– A long term debt security in which the issuer agrees to repay a specified principal amount at a certain date with interest.

(different from notes which have a shorter period of maturity)

# Municipal Bonds: Tax-Exempt, Taxable, and Taxable Build America Bonds (BABs)

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- **Tax –Exempt Bonds**

- Section 103(2) of the Internal Revenue Code exempts the interest income from municipal bonds from Federal Taxation.
- Issuer Benefits: lower cost of borrowing than direct loans, private placement and other borrowing vehicles
- Investor Benefits: investors able to deduct the interest generated on bonds from their federal income tax . States where the bond is issued may also allow interest on bond is exempt from state and local tax

- **Taxable Bond**

- interest or other investment return is included in gross income for federal income tax purposes and issued because the intended use of proceeds does not meet federal tax law requirements for the exclusion from gross income (*e.g. private activity bonds* that are not qualified bonds) or because certain other federal tax law requirements are not met.

- **Taxable Build America Bonds (BABs)**

- Issued as part of the American Recovery and Reinvestment Act
  - ✦ (Direct Payment ) Option of a direct 35% interest subsidy from the federal government or a
  - ✦ (Credit BABs) bondholders receive a tax credit equal to 35% of the interest coupon on the bonds.

# Characteristics of Municipal Bonds

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- **Source of payment**

- General Obligation Bonds
  - ✦ Backed by the full faith and credit of the issuing entity
  - ✦ Raise taxes (property taxes) to provide the Revenue of fund the Bonds
- Project Revenue Bonds
  - ✦ Funded by the Revenue of a particular project

- **Maturity structure**

- Serial
- Term

- **Price**

- Discount
- Premium

- **Rating**

- Rated
- Unrated

# Elements of a Municipal Bond Offering

## Participants and Their Roles

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Participant	Role
Issuer	Initiates the process to fund a particular project
Underwriter	Purchases the bonds from the issuer with the intent of offering or selling the bond.
Underwriter's Counsel	Ensures all of the facts and information with respect to the transaction ; prepares documents on behalf of underwriter relating to the purchase of bonds including official statement.
Bond Counsel	Renders a legal opinion to give investors assurances to the validity of the bonds. Hired by Underwriter
Bond Insurers	Provide insurance to the issuance and enabled the issuer to pay lower interest rates.

# Elements of a Municipal Bond Offering

## Participants and Their Roles

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Participant	Role
Rating /Credit Analysts	Issue an opinion about the credit strength or the probability that bond investors will be paid in full and on time.
Broker	Any person engaged I the business of effecting securities transactions for the accounts of others (excludes banks)
Dealer	Any person who is engaged in the business of buying and selling securities for his own account.
Secondary Market	Market in which the securities are purchased and sold between investors rather than purchasing from the issuer.
Municipal Securities Rulemaking Board (MSRB)	Requires Underwriters of publicly sold bonds to send an Official Statement and Continuing Disclosure Procedures



# Municipal Securities Rule Making Board: (MSRB) Rules: Official Statements

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## Cover Sheet

### OFFICIAL STATEMENT

NEW ISSUE  
BOOK ENTRY

RATINGS: Moody's: "Aaa", Underlying: "A3"  
Standard & Poor's: "AAA", Underlying: "A-"  
See "RATINGS" herein.

In the opinion of Bond Counsel, based upon laws, regulations, ratings and documents, and assuming compliance with certain covenants made by the Corporation, interest on the Series 2007A Bonds is excludable from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations, upon the conditions and subject to the limitations set forth herein under the caption "TAX EXEMPT INTEREST". Interest on the Series 2007A Bonds held by corporations is includable in the computation of such corporation's adjusted net book income, original net income or modified net income. Except as interest on the Series 2007A Bonds may result in other federal income tax consequences to certain holders of the Series 2007A Bonds, in the opinion of Bond Counsel, interest on the Series 2007A Bonds and the Series 2007B Bonds is also exempt from income tax by the Commonwealth of Kentucky, and the Series 2007A Bonds and the Series 2007B Bonds are exempt from ad valorem taxation by the Commonwealth of Kentucky and any of its political subdivisions.



### KENTUCKY MUNICIPAL POWER AGENCY

\$291,065,000  
Power System Revenue Bonds  
(Prairie State Project), Series 2007A

\$16,645,000  
Taxable Power System Revenue Bonds  
(Prairie State Project), Series 2007B

Dated Date: Date of Issuance

Due: As set forth herein on the inside front cover

The Bonds will bear interest payable semiannually on March 1 and September 1 of each year (each an "Interest Payment Date"), commencing March 1, 2008, as determined in accordance with the Trust Indenture dated as of September 1, 2007 (the "Indenture"), between the Kentucky Municipal Power Agency ("KMPA") and U.S. Bank National Association, Louisville, Kentucky, as trustee (the "Trustee"). Interest is payable by check mailed to the registered owners of the Bonds at their addresses appearing on the registration books kept by the Trustee as of the applicable record date preceding each Interest Payment Date. The Bonds are to be delivered in fully registered form in the authorized denominations described in the Indenture.

The Bonds are issued initially under a book-entry only system, registered in the name of CEDE & CO., as registered bondowner and nominee for The Depository Trust Company ("DTC"). DTC will act as securities depository for the Bonds. Individual purchasers of Book-Entry Interests in the Bonds will not receive certificates representing their interest in the Bonds.

Payment of the principal of and interest on the Bonds when due will be insured by a financial guaranty insurance policy to be issued by MBIA Insurance Corporation simultaneously with the delivery of the Bonds.



THE BONDS ARE SUBJECT TO MANDATORY, OPTIONAL AND EXTRAORDINARY OPTIONAL REDEMPTION PRIOR TO MATURITY AS DESCRIBED HEREIN. THE BONDS ARE LIMITED OBLIGATIONS OF KMPA AND ARE PAYABLE SOLELY OUT OF REVENUES, FUNDS AND ASSETS OF THE TRUST. PAYEE PLEDGED UNDER THE INDENTURE. KMPA DOES NOT HAVE ANY TAXING POWER. THIS OFFICIAL STATEMENT AND THE APPENDICES ATTACHED HERETO SHOULD BE READ IN THEIR ENTIRETY.

NEITHER THE COMMONWEALTH OF KENTUCKY, NOR ANY POLITICAL SUBDIVISION THEREOF, OTHER THAN KMPA AS DESCRIBED ABOVE, NOR ANY MEMBER OF KMPA SHALL BE OBLIGATED TO PAY THE PRINCIPAL OF OR PREMIUM, IF ANY, OR INTEREST ON THE BONDS, AND NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE COMMONWEALTH OF KENTUCKY OR ANY POLITICAL SUBDIVISION THEREOF OR ANY MEMBER OF KMPA IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF OR INTEREST ON THE BONDS.

FOR MATURITIES, INTEREST RATES AND PRICES OR YIELDS, SEE THE INSIDE COVER

The Bonds are offered when, as and if issued by KMPA and accepted by the Underwriters, subject to the approval of legality and tax exemption by Rubin & Hays, Bond Counsel, Louisville, Kentucky. Certain legal matters will be passed on for KMPA by its counsel, McMurry & Livingston, PLLC, Paducah, Kentucky and Wells & Wetzel, Princeton, Kentucky, and for the Underwriter by its counsel, Rubin & Hays, Louisville, Kentucky. This Official Statement is deemed final for the purposes of SEC Rule 15c2-12(b)(1). Delivery of the Bonds is expected on or about September 20, 2007.

J.J.B. HILLIARD, W.L. LYONS, INC.

PNC Capital Markets  
UBS Investment Bank  
Edward D. Jones & Co., L.P.

Morgan Stanley  
A.G. Edwards  
Morgan Keegan & Company, Inc.  
LaSalle Financial Services

Dated: August 29, 2007

## Maturity Schedule

### MATURITY SCHEDULE

\$291,065,000  
KENTUCKY MUNICIPAL POWER AGENCY  
POWER SYSTEM REVENUE BONDS  
(PRAIRIE STATE PROJECT), SERIES 2007A

\$90,675,000 Series 2007A Serial Bonds

CUSIP	September 1		Interest	Price or		CUSIP	September 1		Interest	Price or
	Year of	Amount					Year of	Amount		
491501	Maturity		Rate	Yield		491501	Maturity		Rate	Yield
AA0	2013	\$ 625,000	4.00%	3.95%		AK8	2022	\$7,030,000	5.25%	4.66% c
AB8	2014	650,000	4.00%	4.00%		AL6	2023	7,410,000	5.25%	4.69% c
AC6	2015	680,000	4.00%	4.12%		AM4	2024	7,810,000	5.25%	4.72% c
AD4	2016	710,000	4.10%	4.20%		AN2	2025	8,230,000	5.25%	4.75% c
AE2	2017	5,405,000	5.25%	4.31%		AP7	2026	8,675,000	5.25%	4.78% c
AF9	2018	5,700,000	5.25%	4.40% c		AQ5	2027	1,815,000	4.75%	4.95% c
AG7	2019	6,005,000	5.25%	4.49% c		AR3	2027	7,320,000	5.25%	4.83% c
AH5	2020	6,330,000	5.25%	4.55% c		AU6	2028	9,610,000	5.00%	5.01%
AJ1	2021	6,670,000	5.25%	4.61% c						

\$200,390,000 Series 2007A Term Bonds

\$43,640,000 - 5.00% - Term Bonds Due September 1, 2032 - 5.03% Yield - CUSIP# 491501 AS1  
\$68,375,000 - 5.00% - Term Bonds Due September 1, 2037 - 5.08% Yield - CUSIP# 491501 AT9  
\$88,375,000 - 5.25% - Term Bonds Due September 1, 2042 - 5.05% Yield to Call - CUSIP# 491501 AV4

c - Priced to par call

\$16,645,000  
KENTUCKY MUNICIPAL POWER AGENCY  
TAXABLE POWER SYSTEM REVENUE BONDS  
(PRAIRIE STATE PROJECT), SERIES 2007B

CUSIP	September 1		Interest	Price or		CUSIP	September 1		Interest	Price or
	Year of	Amount					Year of	Amount		
491501	Maturity		Rate	Yield		491501	Maturity		Rate	Yield
AW2	2013	\$3,825,000	5.34%	100		AY8	2015	\$4,260,000	5.44%	100
AX0	2014	4,035,000	5.39%	100		AZ5	2016	4,525,000	5.46%	100

## **Overview of Municipal Bond Financing in Coal-Fired Power Projects**

- **Coal-Fired Power Plant Financing and Electric Utility financing**
  - Relatively small percentage of total municipal bonds issued
  - Among the most expensive projects financed by municipal bonds
  - Power Purchase Agreements provide a contractually supported stream of revenue that give the perception of low risk investment
  - Market and Regulatory Factors present cumulative risks to alter risk profile.

# Examples of Coal-Fired Power Plant Projects Utilizing Municipal Bond Financing

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- Plum Point Energy Project
- Tennessee Valley Authority
- Prairie State Energy Campus

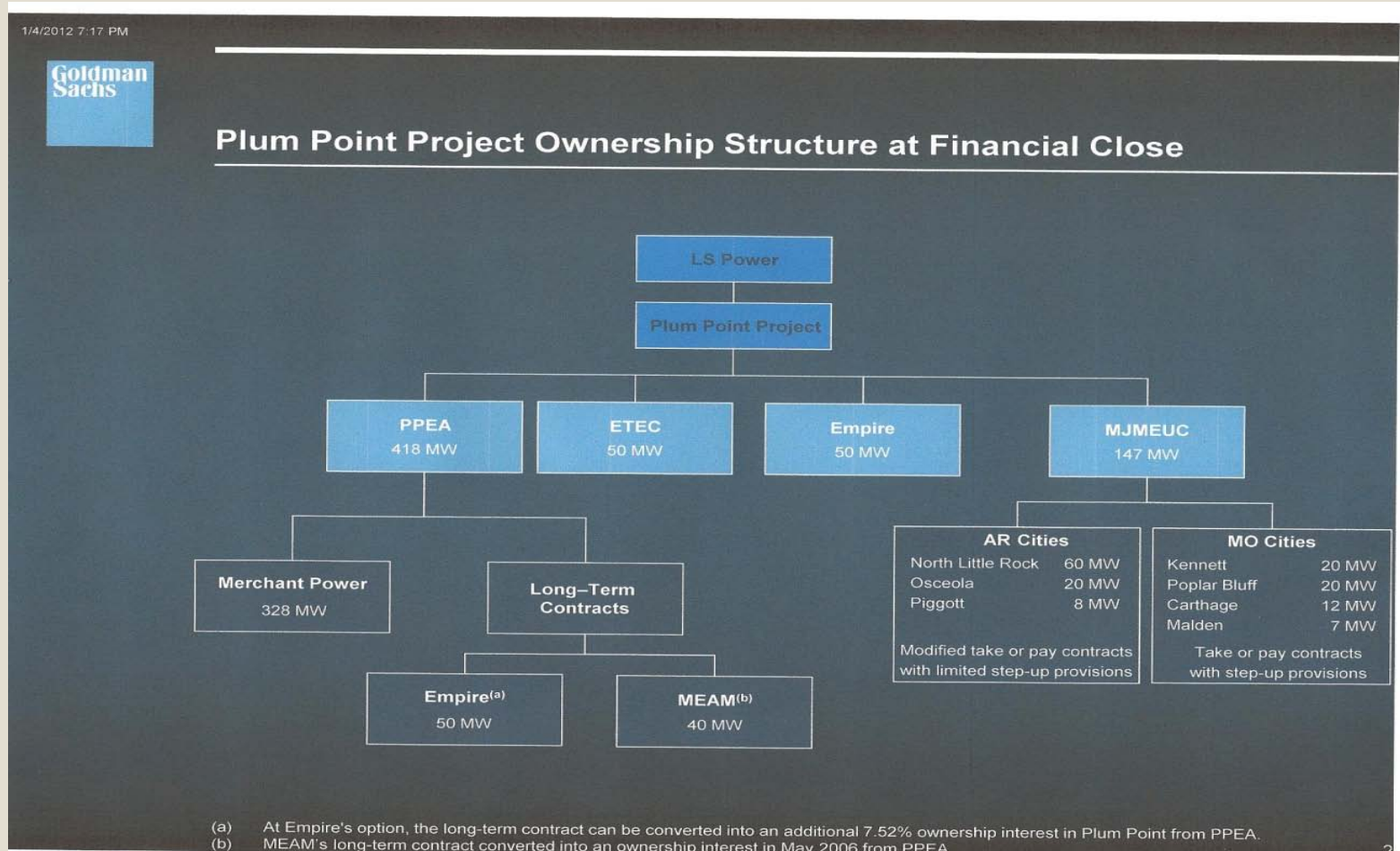
# Examples of Coal-Fired Power Plant Projects Utilizing Municipal Bond Financing

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- **Plum Point Energy Project**
  - Plum Point Energy Associates (“PPEA”) ; LS Power Subsidiary
  - Missouri Joint Municipal Electric Utility Commission (MJMEUC)
  - East Texas Electric Cooperative (“ETEC”)
  - Empire District Electric Company (“Empire”)
  - Municipal Energy Agency of Mississippi (“MEAM”)

# Plum Point: Municipal Bond Debt & Corporate Equity

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## Plum Point Project Ownership Structure at Financial Close

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<b><u>Plum Point Participant</u></b>	<b><u>Plum Point %</u></b>
• PPEA	56.85%
• MJMEUC	22.11%
• ETEC	7.52
• Empire	7.52
• MEAM	6.0
Total	100.00%

# TVA: Bond Issuances

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- TVA operates the nation's largest public power system and supplies power in most of Tennessee, northern Alabama, northeastern Mississippi, and southwestern Kentucky and in portions of northern Georgia, western North Carolina, and southwestern Virginia to a population of over nine million people.
- In 2011, the revenues generated from TVA's electricity sales were \$11.7 billion and accounted for virtually all of TVA's revenues.



# TVA: Bond Issuances

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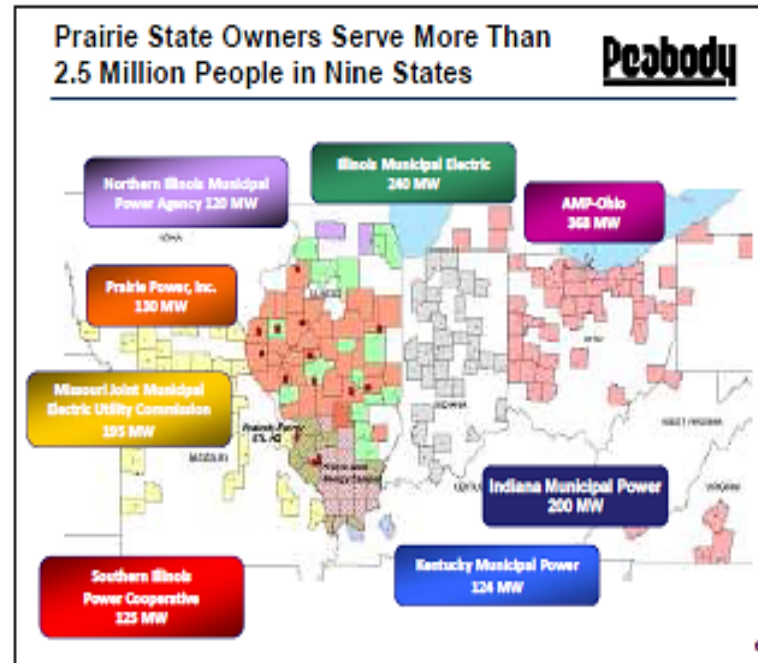
Plant	Total Units	Existing Scrubbers and SCR <sup>2</sup> s	Requirements Under Environmental Agreements	Actions Taken or Planned to Be Taken by TVA
Allen	3	SCRs on all three units	Install scrubbers or retire no later than December 31, 2018	Add scrubbers on all three units by December 31, 2018
Bull Run	1	Scrubber and SCR on unit	Continuously operate current and any new emission control equipment	Continuously operate existing emission control equipment
Colbert	5	SCR on Unit 5	<ul style="list-style-type: none"> <li>Remove from service, control<sup>1</sup>, convert<sup>3</sup>, or retire Units 1-4 no later than June 30, 2016</li> <li>Remove from service, control<sup>1</sup>, or retire Unit 5 no later than December 31, 2015</li> <li>Control or retire removed from service units within three years</li> </ul>	TVA has not yet decided what actions to take with respect to the Colbert units.
Cumberland	2	Scrubbers and SCR on both units	Continuously operate current and any new emission control equipment	Continuously operate existing emission control equipment
Gallatin	4	None	Control <sup>1</sup> , convert <sup>3</sup> , or retire all four units no later than December 31, 2017	Add scrubbers and SCR on all four units by December 31, 2017
John Sevier	4	None	<ul style="list-style-type: none"> <li>Retire two units no later than December 31, 2012</li> <li>Remove from service two units no later than December 31, 2012 and control<sup>1</sup>, convert<sup>3</sup>, or retire those units no later than December 31, 2015</li> </ul>	<ul style="list-style-type: none"> <li>Retire two units by December 31, 2012</li> <li>Remove from service the other two units by December 31, 2012. TVA has not yet decided what additional actions to take with respect to these two units.</li> </ul>
Johnsonville	10	None	<ul style="list-style-type: none"> <li>Retire six units no later than December 31, 2015</li> <li>Retire four units no later than December 31, 2017</li> </ul>	<ul style="list-style-type: none"> <li>Retire six units by December 31, 2015</li> <li>Retire four units by December 31, 2017</li> </ul>
Kingston	9	Scrubbers and SCR on all nine units	Continuously operate current and any new emission control equipment	Continuously operate existing emission control equipment
Paradise	3	Scrubbers and SCR on all three units	Upgrade scrubbers on Units 1 and 2 no later than December 31, 2012	Upgrade scrubbers on Units 1 and 2 by December 31, 2012
Shawnee	10	None	Control <sup>1</sup> , retire, or convert <sup>3</sup> Units 1 and 4 no later than December 31, 2017	<ul style="list-style-type: none"> <li>Idled Unit 10 in October 2010</li> <li>TVA has not yet decided what actions to take with respect to Units 1 and 4.</li> </ul>
Widows Creek	8	Scrubbers and SCR on Units 7 and 8	<ul style="list-style-type: none"> <li>Retire two of Units 1-6 no later than July 31, 2013</li> <li>Retire two of Units 1-6 no later than July 31, 2014</li> <li>Retire two of Units 1-6 no later than July 31, 2015</li> <li>Continuously operate current and any new emissions control equipment on Units 7 and 8.</li> </ul>	<ul style="list-style-type: none"> <li>As of September 30, 2011, TVA had idled Units 1-5.</li> <li>TVA idled Unit 6 effective October 1, 2011.</li> <li>Continuously operate current or equivalent emissions control equipment on Units 7 and 8</li> </ul>
<b>Notes</b> (1) If TVA decides to add emission controls to these units, TVA must continuously operate the emission controls once they are installed. (2) Selective catalytic reduction systems ("SCRs"). (3) Convert to renewable biomass.				

TVA's long-range plans will continue to attempt to balance the costs and benefits of significant investments at its remaining coal-fired plants without scrubbers and/or SCR. TVA expects to decide whether to control, convert, or retire its remaining coal-fired capacity on a unit-by-unit schedule.



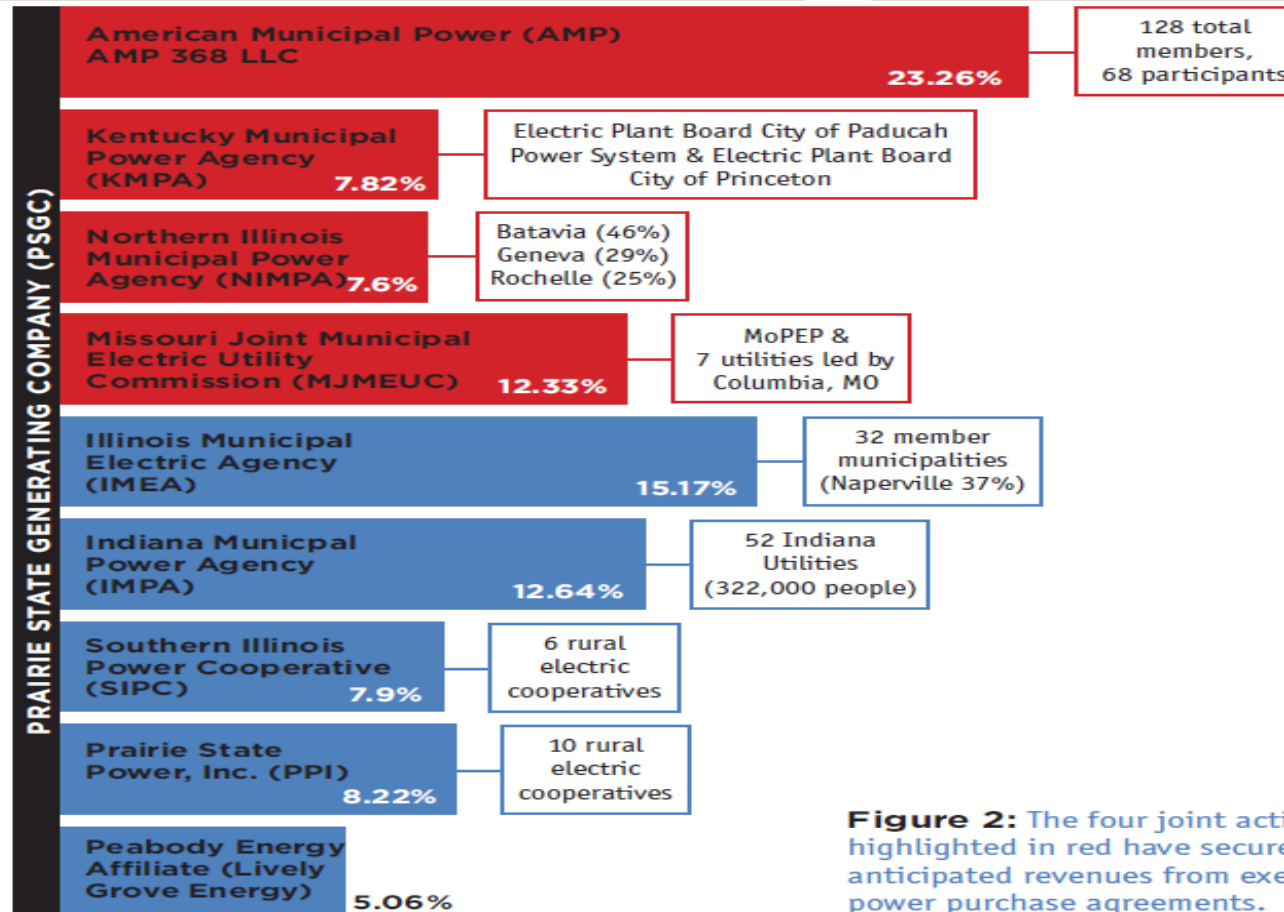
# Prairie State Energy Campus

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# Prairie State Energy Campus

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**Figure 2:** The four joint action agencies highlighted in red have secured the bonds with anticipated revenues from executed take-or-pay power purchase agreements.

# Engagement & Advocacy

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- **Effective use of Financial Information in Coal Campaigns**
  - Publicly released data and analysis to provide ammunition to advocates to persuade decision makers
  - Private reports released to the public to educate decision makers and advocates in the environmental community

# Engagement & Advocacy

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- Sources of Information

- [www.emma.msrb.org](http://www.emma.msrb.org)
- [www.sec.gov](http://www.sec.gov)
- [www.sifma.org](http://www.sifma.org)
- The Bond Buyer (Journal of Municipal Finance)

# For Additional Information

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