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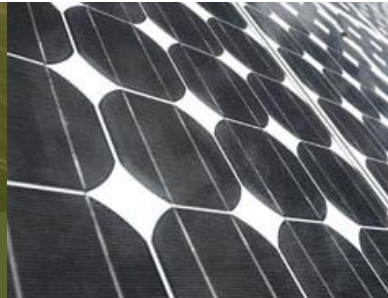
# Wyoming Infrastructure Authority Financing Renewable Energy Transmission & Other Renewable Energy Projects June 24, 2009

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# Executive Summary

- Transmission accessibility and the development of renewable energy infrastructure is vital to realizing the full production capacity of Wyoming's world class wind resources
- In 2004, the Wyoming Infrastructure Authority was created to diversify and assist the private sector in growing Wyoming's economy through the development of electric transmission infrastructure
- The Authority's responsibilities includes the following:
  - Issuing revenue bonds to finance new transmission lines and advanced coal plants
  - Extending up to \$1 billion in bond financing for projects owned by private parties
  - Entering into partnerships with public or private entities to build and upgrade transmission lines and develop advanced coal plants
  - Owning and operating transmission lines in instances where private investment is not offered
  - Investigating, planning, prioritizing, and establishing corridors for electric transmission
  - Establishing and charging fees and rates for use of its facilities

# Executive Summary

- Nine states have created Renewable Authorities: WY, CO, NM, Idaho, Kansas, ND, Nevada, South Dakota and Utah
- Colorado created the Clean Energy Development Authority (CEDA) to help facilitate the development of Colorado's renewable energy and renewable energy transmission
  - CEDA has “moral obligation” bond authority from the State to credit enhance financings (only with specific Legislative approval). Permits bonds with Aa3/AA- ratings.
  - CEDA is considering assisting Tri-State and Xcel in financing a jointly owned 230 KV line for solar energy from the San Luis Valley
- New Mexico has the Renewable Energy Transmission Authority (RETA). Established in 2007, RETA focuses on electric system transmission infrastructure, planning, financing and implementation
  - Its priority project is the \$35 million High Lonesome Mesa 115 kv line upgrade for the Edison Mission owned 100 WM wind project, PPA with APS. Considering DOE Loan Guarantee

# Executive Summary

- ARRA created new forms of Federal subsidies: ITC grants & taxable, tax exempt, and tax credit bonds which can be used by both WIA and project sponsors to reduce the cost of capital for renewable energy projects
- Investment Tax Credit Grant in lieu of direct tax credit (30% of eligible costs) is “free equity” for project sponsors. Transmission not eligible for ITC grant
- On debt side Department of Energy Loan Guarantee Program has expanded eligible projects to include renewable transmission
- Wyoming local governments have received allocations: Local Gov. allocations can be shifted to State
  - **Recovery Zone Economic Development Bonds (Taxable Bonds) - \$ 90 million to 5 WY counties**
  - **Recovery Zone Private Facility Bonds (Tax exempt bonds)- \$135 million to 5 WY counties**
  - **Qualified Energy Conservation Bonds (Tax credit bonds) - \$5.5 million to WY (state level)**
  - **Clean Renewable Energy Bonds (Tax credit bonds)- \$3.2 billion available nationally**

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# DEPARTMENT OF ENERGY LOAN GUARANTEE PROGRAM

# Overview of the Department of Energy Loan Guarantee Program

- Provides credit enhancement for renewable energy project financing
  - The loan guarantee gives project debt a “AAA” rating; significantly reducing the cost of borrowing. We estimate about 125 basis points spread over comparable Treasury... now would have approximately 5.10% for 10 years and 5.80% for 30 years
- Final DOE Loan Guarantee Regulations are expected to come out at the end in July
  - Program expected to begin accepting rolling applications July 2009
  - Both public and private projects ok...DOE will require real project equity, perhaps 80% LTV
  - DOE will guarantee only a portion of debt, perhaps 70-80%
  - DOE will guarantee between \$100 billion and \$120 billion of project loans
  - NEPA, Prevailing Wage, and Buy America provisions
  - DOE Lien on Project Collateral
  - DOE will assess a credit charge
  - Clean Coal not eligible for the ARRA Guarantee program
  - Lenders & bankers expected to be the applicants with a project sponsor
  - Federal Guaranty cannot be used with tax-exempt bonds
  - Expiration: Project must break ground by September 30, 2011. Federal Guaranty cannot be used with tax-exempt bonds

# DOE Loan Guarantee Program Administration: Delegated Lender Model

- Financial institutions are expected to play large role in the program
  - DOE lacks the staff necessary to review all of the expected applications
  - DOE will outsource the credit analysis to commercial banks and investment bankers
- DOE may only guarantee a portion of the project debt in order to make sure the lender has “skin in the game”
  - The lender would then have to secure “high yield” financing to finance the remainder of the project. Unguaranteed debt would significantly increase the cost of capital
  - Lenders or bondholders may require recourse to project sponsor instead of pure project financing.
- The financial institution, not the Authority, would apply to DOE for a guarantee
  - Will only do so after they have completed due diligence to determine whether a project is creditworthy
  - Authorities and project sponsors would need to have a lender or investment banker prepared to lend to their projects

# Potential Problems with the Delegated Lender Model

- Tenor mismatch of the loan
  - Most bank debt requires repayment within seven years
  - Renewable and Transmission assets to be financed are long-lived (20-30+ years)
  - Loan guarantee program allows maturities up to 30 years
- Pro-rata collateral sharing between DOE and private lenders will be problematic. Same issue for exercising remedies in the event of debt default
- Commercial bank appetite for project financings is diminishing given their financial stress
- If only banks are permitted players then relying on commercial banks precludes most long-term financing. The bond market and private lenders, e.g. insurance company debt placement, does provide long term fixed rate financing.

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## **RECOVERY ZONE ECONOMIC DEVELOPMENT BONDS (Taxable Bonds)**

# Overview of Recovery Zone Economic Development Bonds

- Recovery Zone Economic Development Bonds (RZEDBs) are bonds in which the issuer elects to issue taxable bonds with a tax credit from the U.S. Treasury
- Project owner is a governmental unit
- Either the bondholders receive a tax credit equal to 45% of the interest, or the issuer may elect to receive a direct payment in lieu of a tax credit to bondholders.
- RZEDBs may be issued to promote development in a designated Recovery Zone
  - A **Recovery Zone** is an area designated because of significant poverty, unemployment, rate of home foreclosures or general distress or economically distressed because of military base closure or realignment or any area which a designation as an empowerment zone or renewal community is already in effect
- RZEDBs can be used for the following public project purposes:
  - Infrastructure
  - Capital expenditures
  - Job training
  - Educational programs

# Overview of Recovery Zone Economic Development Bonds

- RZEDBs are a special type of Build America Bond. RZEDBs are comparable to the “direct pay to the issuer” Build America Bonds in that they are taxable governmental bonds except that they provide for a deeper Federal subsidy through the refundable tax credit paid to State or local governmental issuer in an amount equal to 45% (rather than 35%) of the total coupon interest payable by the issuer to investors.
- The quid-pro-quo for the higher subsidy is that RZEDBs have different program requirements regarding eligible uses of proceeds. These program requirements mandate that a certain amount of the bond proceeds be used for one or more qualified economic development purposes within recovery zones.



# RZEDB & RZPFB Allocations in WY

<b>Area</b>	<b>Recovery Zone Economic Development Bond</b>	<b>Recovery Zone Facility Bond</b>
Wyoming	90,000,000	135,000,000
Carbon County, WY	24,323,000	36,484,000
Laramie County, WY	8,516,000	12,774,000
Lincoln County, WY	43,070,000	64,606,000
Niobrara County, WY	490,000	735,000
Platte County, WY	4,809,000	7,214,000
Sweetwater County, WY	4,136,000	6,203,000
Teton County, WY	4,656,000	6,984,000

# Overview of Recovery Zone Economic Development Bonds

- Below is a summary of RZEDBs as they pertain to WIA

Provision	Volume	Allocation	Permitted Issuers	Eligible Projects	Summary
Recovery Zone Economic Development Bonds (RZEDBs)	\$10 billion	Proportionate to state unemployment increase	Counties and cities with populations in excess of 100,000	All projects that would otherwise qualify for tax exempt financing that benefit a "Recovery Zone"	Provides governmental borrowers with an additional structure through a subsidy/tax credit

Provision	Eligible Through	Structure	Benefits	Considerations
Recovery Zone Economic Development Bonds (RZEDBs)	December 31, 2010	45% Direct Subsidy	<ol style="list-style-type: none"> <li>1) Interest rate savings</li> <li>2) Enhanced Marketability</li> <li>3) Structuring flexibility</li> </ol>	<ol style="list-style-type: none"> <li>1) Refunding/ Prepayment due to possible taxable bond no call provisions</li> <li>2) Potential Direct Subsidy spending restrictions</li> </ol>

- Wyoming Allocation: \$90 million
- Allocation can be shifted to other governments

# RZEDB Example: Direct Subsidy

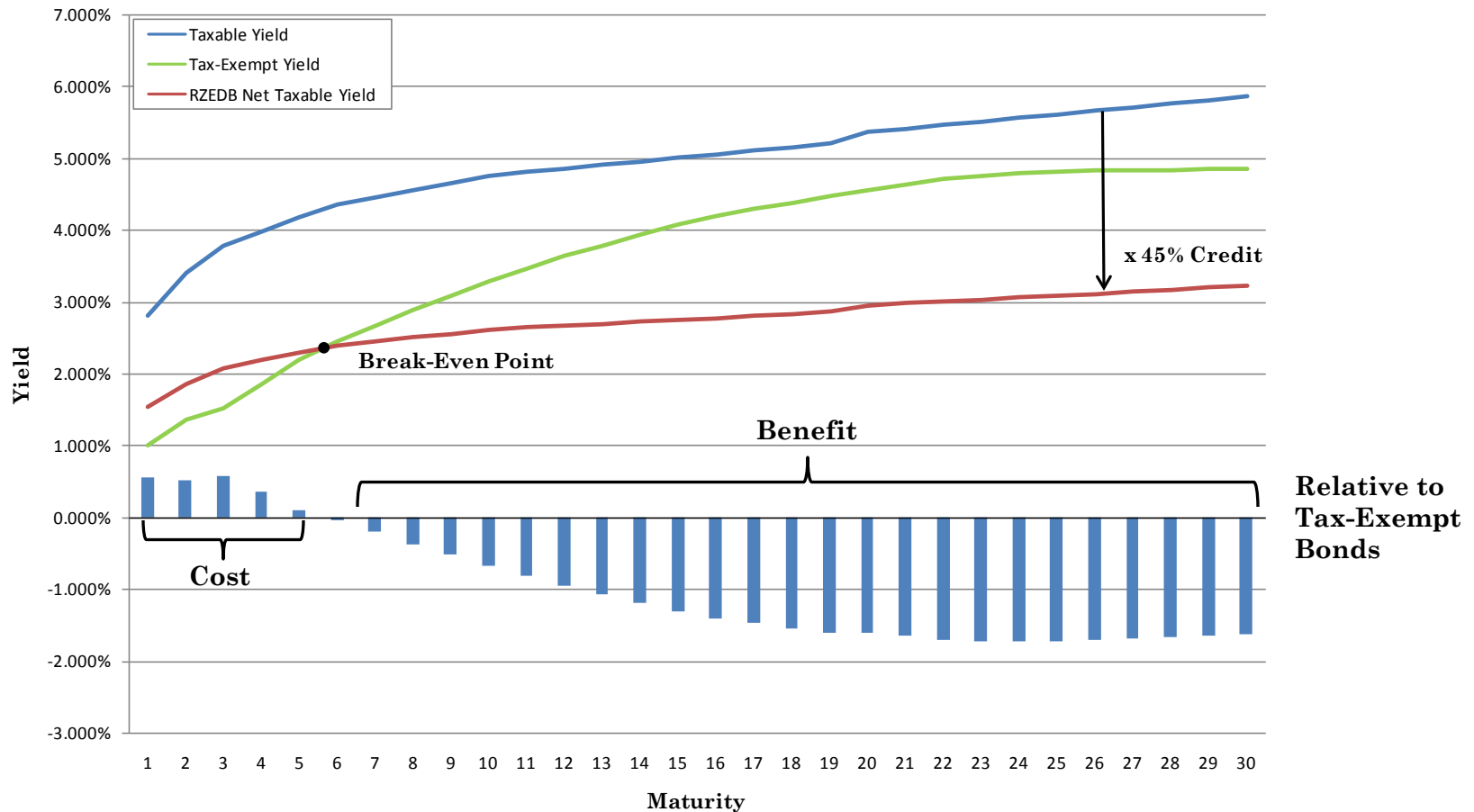
- Direct Subsidy Example
  - Issuer pays bondholder taxable interest payment of \$1,000
    - Interest payment is higher because the bondholder does not receive a tax credit
  - The U.S. Treasury pays issuer \$450 ( $\$1,000 \times 45\%$ ),
  - Issuer net interest payment = \$550
- Current Rates for AA rated 30 year RZEDB bonds @approximately 200-225 basis point spread to Treasury rate, approximately 6.60% with net cost at 4.29% after the direct subsidy payment to issuer
- Equivalent tax exempt 30 year rate for AA rated bond is approximately 5.15%

# Market for RZEDBs

- Publicly placed bonds will most likely be sold at competitive rates if:
  - Issue size large enough to attract taxable buyers (probably over \$20 million)
  - Credit rating of “A” or higher
- Additional Considerations
  - Direct subsidy presents most economically advantageous structure in the current market
  - Greater interest cost savings on the long end of the RZEDBs yield curve
  - Structural Flexibility:
    - **Possible to combine Taxable and Tax Exempt bonds to achieve optimal pricing**
      - **Short Term (years 1-10) = Tax-Exempt Bonds**
      - **Long Term (years 11-30) = RZEDBs**
      - » **RESULT = LOWEST COST OF CAPITAL**

# Potential Savings of RZEDBs Relative to Tax-Exempt Bonds

## RZEDB vs Tax-Exempt Yield Comparison



Relative to Tax-Exempt Bonds

# Recovery Zone Private Facility Bond: Tax Exempt Bonds For Privately Owned Projects

- Tax Exempt Private Activity Bonds for privately owned projects or publicly owned projects
- Projects may include privately owned renewable power or transmission
- Must be issued by January 1, 2011
- Wyoming allocation \$135 million split among many 7 counties
- Market for such tax exempt bonds is the traditional bond market which currently is fairly healthy, even for unrated tax exempt bonds
  - Rates range from high 4% for AAA rated bond to 5-6 % range for A rated bonds to 7% for BBB rated bonds



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## TAX CREDIT BONDS

# Tax Credit Bonds: Clean Renewable Energy Bonds (CREBs) & Qualified Energy Conservation Bonds (QECBs)

- Below are the basic structuring mechanics of tax credit bonds

<b>Benefit</b>	Interest-free* borrowing tool for the Issuer
<b>Investor Incentive</b>	Rather than receiving tax-exempt interest, investors receive a federal tax credit in lieu of interest
<b>Rates</b>	Credit rates are determined by the U.S. Treasury on the date the bonds are sold and vary by the specific type of tax credit bond
<b>Credit Calculation</b>	Tax credit equal to 70% of the interest on the bonds
<b>Structure</b>	Tax credit bonds are often “bullet” maturity bonds, but can have a mortgage style amortization, maximum maturity is established by the U.S. Treasury (typically 15 years)
<b>Cost to Issuer</b>	The issuer is responsible for principal payments and, in certain cases, a “supplemental coupon” payment depending on the credit of the project credit
<b>Other Criteria</b>	100% of the proceeds must be spent on project costs (up to 2% for cost of issuance) within 3 years from the issue date

\*In some cases, a “supplemental coupon” is required

# CREBs & QECBs: Tax Credit Considerations

- Interest is provided to the investor in the form of a tax credit from the U.S. Treasury
- Treasury will base these rates on “its estimate of the yields on outstanding bonds from market sectors selected by the Treasury Department in its discretion that have an investment grade rating of between A and BBB for bonds of a similar maturity for the business day immediately preceding the sale date of the tax credit bonds”
- Tax credit is considered taxable income to the investor
- Credit amount may be “stripped” and sold to other investors which will dramatically broaden market for tax credits and restore their utility to renewable developers

# Clean Renewable Energy Bonds

- Created in the Federal Energy Policy Act of 2005, and expanded in the Stimulus Bill, Clean Renewable Energy Bonds provide an interest-free financing mechanism for **public entities, governments and electric coops** to construct renewable energy projects
- ARRA increased the national limit on CREBs by \$1.6 billion to \$2.4 billion
  - 1/3 allocated to public power providers, 1/3 governmental bodies and 1/3 cooperative electric
  - Allocations have historically been awarded to smaller projects first

~~No sunset provision, CREBs can be issued as long as funds are available~~

## Qualified Issuers

- States or US territories
- District of Columbia
- Indian tribal government
- Certain political subdivisions
- Cooperative electric companies
- Public power providers

## Qualified Projects

- Wind
- Closed-loop biomass
- Open-loop biomass
- Geothermal
- Small irrigation
- Hydropower
- Landfill gas
- Marine renewable
- Trash combustion facilities

# Qualified Energy Conservation Bonds

- QECBs are another broader form of a CREBs
  - At least 70% of each state’s allocation must be used for governmental purpose bonds
    - 30% of QECBs allocated for private activity bonds (i.e. private colleges, private developers, hospitals, independent schools, etc.)
- Wyoming Allocation: \$5,526,000

## Permitted Issuers

State and “large local governmental” issuers , with 30% allocated for “Private Activity Purposes”

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## Volume

\$3.2 billion

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## Allocation

Made by the Treasury to each state, based on population. Each state has control of allocation process internally

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## Considerations

1. Project allocations expected to be small
  2. Broader scope of eligible projects
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# Qualified Energy Conservation Bonds: Eligible Projects

## “Qualified Conservation Purposes”

Private Activity Bond  
Issuers can only use  
QEBCs for Uses #1 & #2

1. All projects eligible for CREBs **PLUS**:
2. Capital expenditures for projects related to:
  - Reducing energy consumption in publicly-owned buildings by at least 20%
  - Implementation of “green” community programs
  - Rural renewable energy development
3. Research facilities grants to support:
  - Development of cellulosic ethanol and other biofuels
  - Technologies for CO<sub>2</sub> capture and sequestration
  - Technologies to reduce fossil fuel consumption in transportation
  - Energy conservation in buildings
4. Mass transit facilities and expenditures to reduce pollution caused by mass transit facilities
5. Demonstration projects to encourage:
  - Green building technology & technologies to reduce “peak demand”
  - Waste-to-fuel projects
  - Advanced battery technologies
  - Technologies for CO<sub>2</sub> capture and sequestration
6. Public education campaigns to promote energy efficiency

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# CHALLENGES TO FINANCING RENEWABLE ENERGY TRANSMISSION

# Challenges to Renewable Energy Finance

1. Project financing, in particular construction lending and permanent loans
  - Credit market sensitivity to increased project risk....credit spreads increasing for less credit worthy projects
2. Renewable energy transmission infrastructure not currently eligible for ITC or PTC incentives
3. Transmission of renewable energy not an eligible tax-exempt bond use....state infrastructure authorities seeking changes to federal legislation so cost of capital for renewable transmission can be reduced
4. Pricing of renewable energy given market volatility in traditional energy sources, e.g. natural gas
5. New federal incentives untested and many will expire...but they are a welcome addition to the capital markets for renewable energy!

# Biography – Lee White

Lee White is an Executive Vice President and Manager for George K. Baum & Company at its Denver Public Finance Headquarters. He has been in the investment banking business for more than 20 years and is responsible for underwriting over \$6 billion of municipal bonds. Mr. White has assisted numerous state and local governments and private corporations finance their infrastructure needs. Mr. White has served as the lead or co-lead banker on a number of major utility financings, the most recent being a \$78.4 million bond financing for Wyoming Municipal Power Agency. Other electric utility issues in which he has been involved in recent years include: \$79.5 million Pollution Control Revenue Refunding issue for Public Service of Colorado, \$1.5 million Fargo, ND Clean Renewable Energy Bonds, \$16 million Cheyenne Light Fuel and Power, \$60 million City of Colorado Springs and \$324 million City of Colorado Springs. Mr. White is actively working on financing renewable energy projects. Mr. White is Governor Ritter's appointee to the Colorado Clean Energy Development Authority. He also serves as underwriter to the New Mexico Renewable Energy Transmission Authority.

Lee White is a co-founder of the Renewable Energy Finance Coalition. He has presented to the American Council on Renewable Energy (ACORE), Windustry and the Continuing Legal Education of Colorado at their Renewable Energy Conference. Mr. White recently presented on the topic of financing renewable energy in today's capital markets to more than 400 members of the Colorado Renewable Energy Society.

Mr. White received a Masters of Business Administration from Harvard Business School, a Masters of City Planning from the Massachusetts Institute of Technology, and a Bachelor of Science in Mechanical Engineering from Rensselaer Polytechnic Institute.

