

AUG 18-19,

09

Today's Real Estate Market

**The Changing Landscape for Affordable, Commercial
and Green Financing**

The InterContinental Hotel Buckhead, Atlanta, GA

2009 CONFERENCE SERIES



AUG 18-19,

09

Today's Real Estate Market

**The Changing Landscape for Affordable, Commercial
and Green Financing**

The InterContinental Hotel Buckhead, Atlanta, GA



Legislative Update On Green Incentives

AUG 18-19,

09

Today's Real Estate Market

The Changing Landscape for Affordable, Commercial
and Green Financing

The InterContinental Hotel Buckhead, Atlanta, GA



Federal

- Overview of Housing Assistance Tax Act of 2008
- Overview of TARP Act
- Overview of Stimulus Act
- Discussion of Cap and Trade Legislation

Housing Assistance Tax Act of 2008

- This Act added **energy efficiency** as an **additional criteria** that states must use in an allocation of §42 credits among a state's affordable housing projects.

Emergency Economic and Stabilization Act of 2008

- Extended the production tax credit (PTC) and modified the PTC to include marine and hydrokinetic facilities.
- Extended the energy investment tax credit (ITC) and modified it to include small wind, combined heat and power, and geothermal heat pumps.
- Energy ITC may be used to offset AMT.
- New tax credits for carbon capture and sequestration projects.
- Accelerated depreciation for smart meters, smart grid systems, and recycling.
- Extended and modified residential energy credits.
- Extended energy efficient commercial buildings deduction.

American Recovery and Reinvestment Act of 2009

- DOE Loan Guarantee Program
 - “Old” 1703 program – “innovative” technologies
 - “New” 1705 program – proven technologies
- ITC in lieu of PTC
- Cash grants in lieu of ITC
- Repealed subsidized energy financing provisions for ITC
- Extended and modified PTC
- Established a new manufacturing ITC
- Extension of bonus depreciation
- Direct spending for grid development, R&D, demonstration projects, Defense Energy and Efficiency programs, and study of electric transmission congestion
- Bond funding
- USDA and other programs

AUG 18-19,

09

Today's Real Estate Market

The Changing Landscape for Affordable, Commercial
and Green Financing

The InterContinental Hotel Buckhead, Atlanta, GA



Bonds

- Clean Renewable Energy Bonds (CREBs)
- New CREBs
- Qualified Energy Conservation Bonds
- Qualified Zone Academy Bonds
- Qualified School Construction Bonds
- Build America Bonds

Miscellaneous

- Advanced Battery Grants
- Plug-In Electric Drive Vehicle Credit
- Department of Energy (DOE) Funding
 - \$2.5 billion for applied research, development, deployment of energy efficiency and renewable energy technologies
 - \$800 million for biomass projects
 - \$400 million for geothermal activities and projects
 - \$1.25 billion for wind, solar, water power, industrial and building technologies
- Department of the Interior (DOI) Funding
 - \$320 million for the Bureau of Land Management
 - \$140 million for the U.S. Geological Survey
- Environmental Protection Agency (EPA)
 - \$300 million for diesel emissions reduction

Cap-and-Trade Legislation

- Also known as the Waxman-Markey Bill
- Manager's Amendment
- Establishes a national renewable portfolio standard (RPS)
 - Requires electric utilities to meet 20% of their electricity demand through renewable energy sources and energy efficiency by 2020
- Promotes investments in clean energy (3 to 1 multiplier)
- Promotes deployment of smart grid technology and enhanced transmission planning
- Establishes new efficiency standards for buildings, appliances, and vehicles
 - Building Energy Performance Labeling Program – affect on real estate transactions?
- Global warming provisions:
 - Cap on large domestic sources of emissions
 - Preventing tropical deforestation
 - Offset program

Clean/Renewable Energy Projects – Multiple Attributes, Revenue Streams

Message: Don't Leave \$\$ on Table



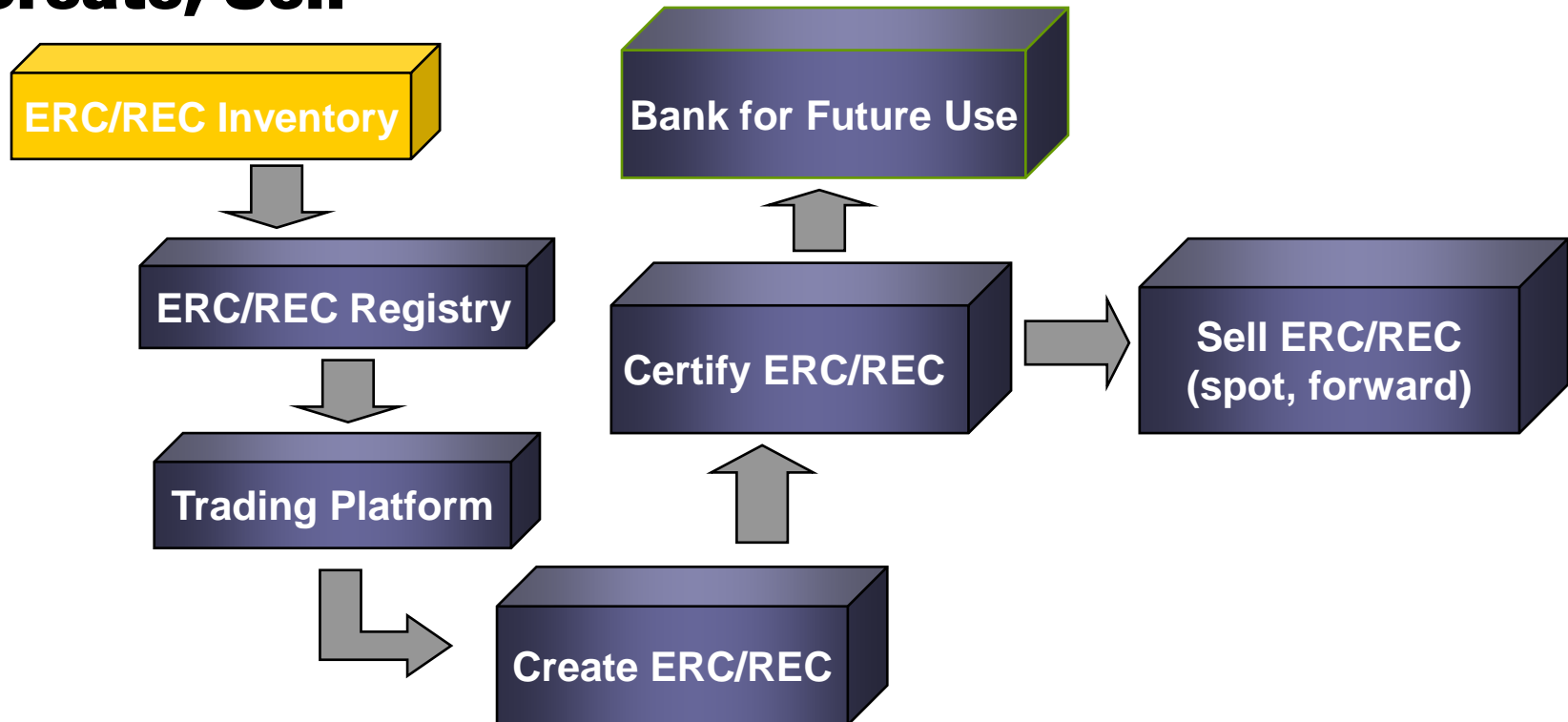
Today's Real Estate Market

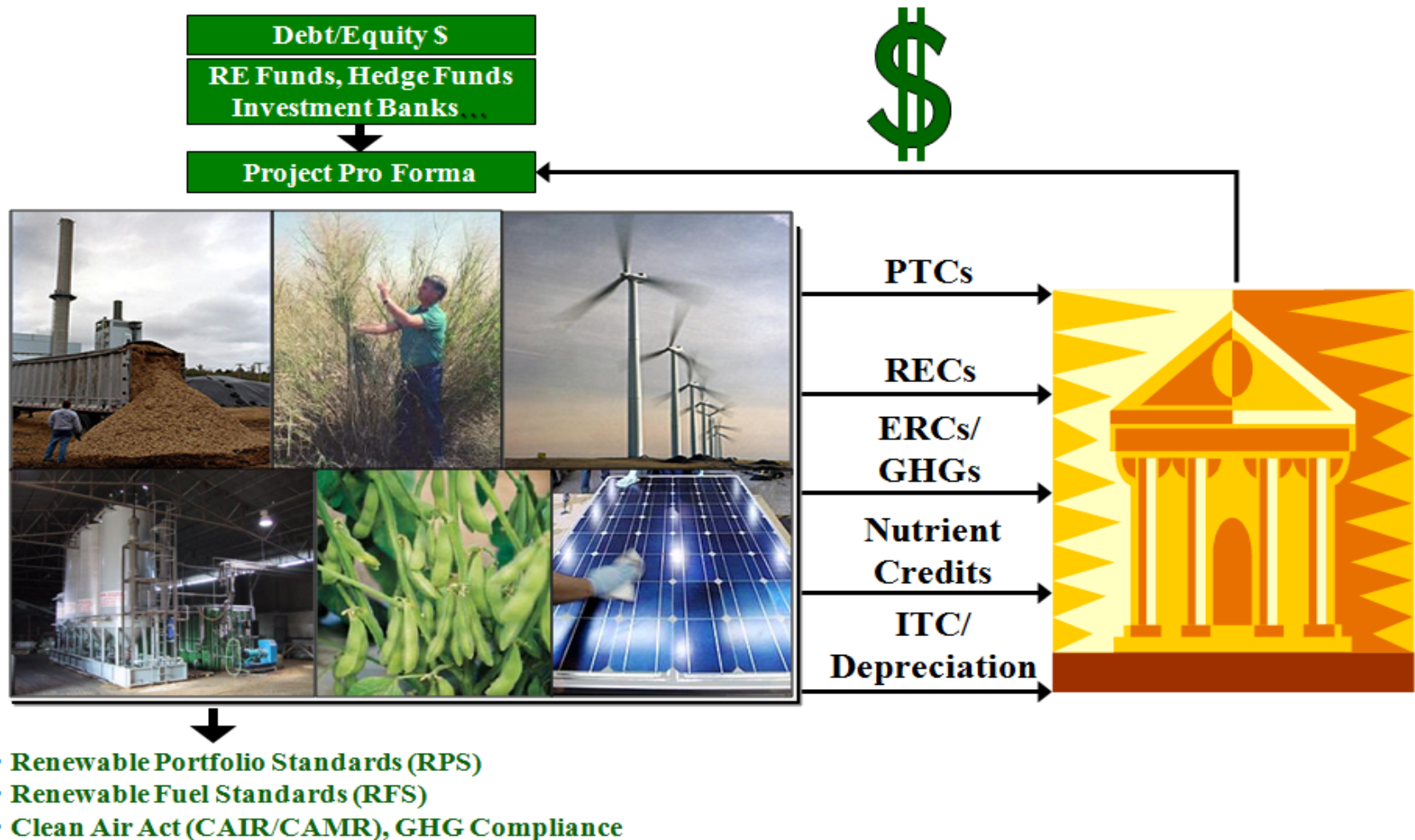
The Changing Landscape for Affordable, Commercial and Green Financing

The InterContinental Hotel Buckhead, Atlanta, GA

Technology	Resource Driver	Market Drivers—US	Market Drivers—State	Financial Credits	Grid Value
Solar-PV (Wafer)	Solar, Roof Space, Direction, Ownership	ITC, PTC	RPS, Offsets, CAIR, GHG	RECs	Depends on Scale-Up
Solar-PV (Thin Film)	Solar, Land	ITC, PTC	RPS, Offsets, CAIR, GHG	RECs	?
Solar-Thermal	Solar, New v. Retrofit		RPS, Offsets, CAIR, GHG	RECs	Depends on Scale-Up
Wind Turbine	Wind Speed, Land, Visibility	ITC, PTC	RPS, Offsets, CAIR, GHG	RECs	?
Geothermal	Location	ITC, PTC	RPS, Offsets, CAIR, GHG	Offset Credits--Air, GHG, RECs	Baseload
Biomass-Ag Residue	Location	ITC	RPS, Offsets, CAIR, GHG	Tipping Fee, Nutrient Credits, Offset Credits--Air, GHG, RECs	Avoided Supply, VAR/Reliability
Biomass-Wood, C&D	Location	ITC, PTC	RPS, Offsets, CAIR, GHG	Tipping Fee, Offset Credits--Air, GHG, RECs	Avoided Supply, VAR/Reliability
Solid Waste (MSW)	Location	ITC	RPS, Offsets, CAIR, GHG	Tipping Fee, Offset Credits--Air, GHG, RECs	Avoided Supply, VAR/Reliability
WWTP Sludge	Location	ITC	RPS, Offsets, CAIR, GHG	Tipping Fee, Nutrient Credits, Offset Credits--Air, GHG, RECs	Avoided Supply, VAR/Reliability
Animal Litter/Manure	Location	ITC	RPS, Offsets, CAIR, GHG	Tipping Fee, Nutrient Credits, Offset Credits--Air, GHG, RECs	Avoided Supply, VAR/Reliability

Emission Reduction, Environmental or Renewable Energy Credits—Similar Process to Create, Sell





AUG 18-19,

09

Today's Real Estate Market

The Changing Landscape for Affordable, Commercial
and Green Financing

The InterContinental Hotel Buckhead, Atlanta, GA



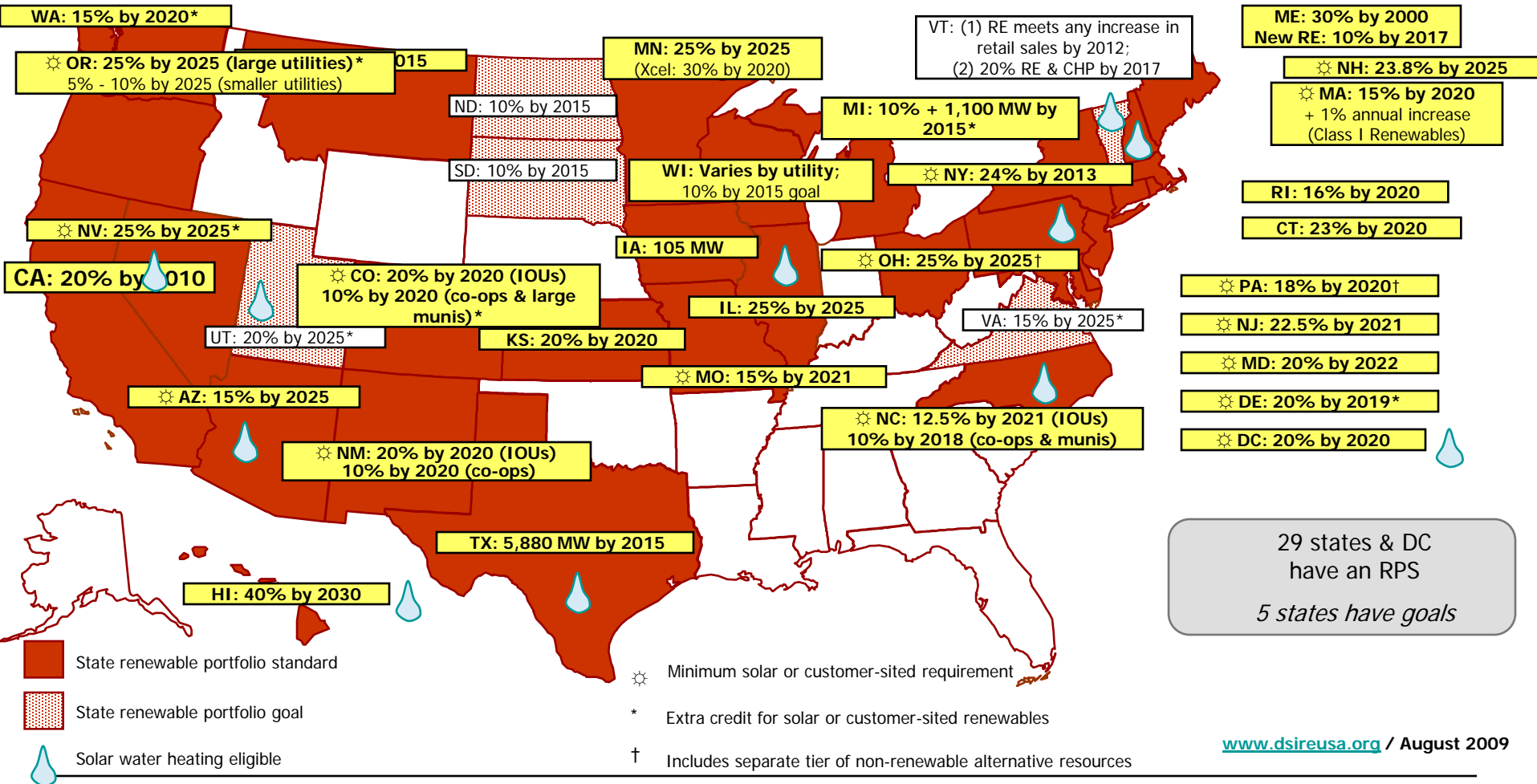
Southeast States

- Survey of Green Legislative Initiatives In the Southeast
- Past Year
- Current Year
- Next Year

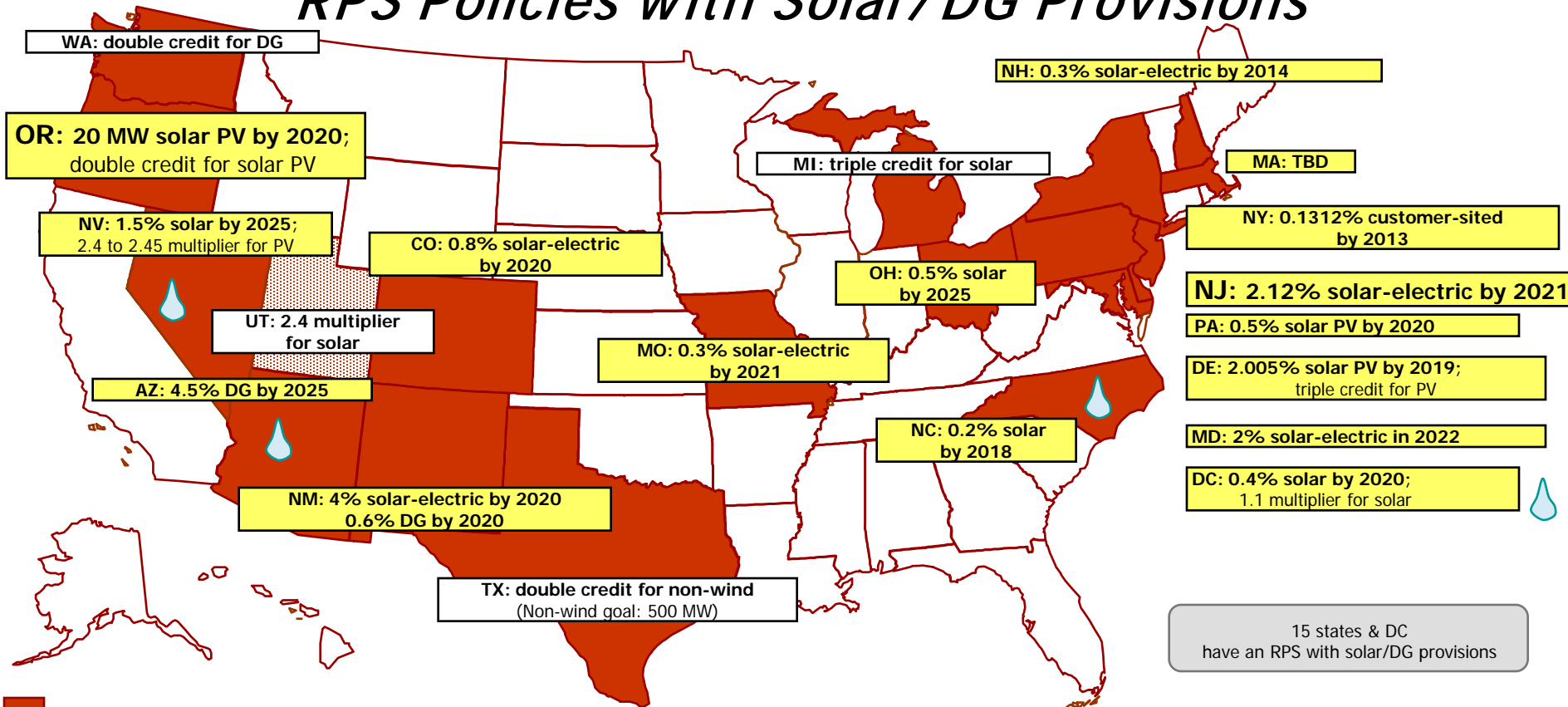
Georgia


- Past, Present, and Future of Green Legislation and Policy in Georgia
- 2008: HB 670 tax credit for solar, wind, energy efficiency
 - 35% of cost (separate caps per technology)
 - \$2.5 million per year until 2012
- 2009: HB 473 commercial grant program through GEFA
- 2010: expand and improve incentives???


Renewable Portfolio Standards




RPS Policies with Solar/DG Provisions



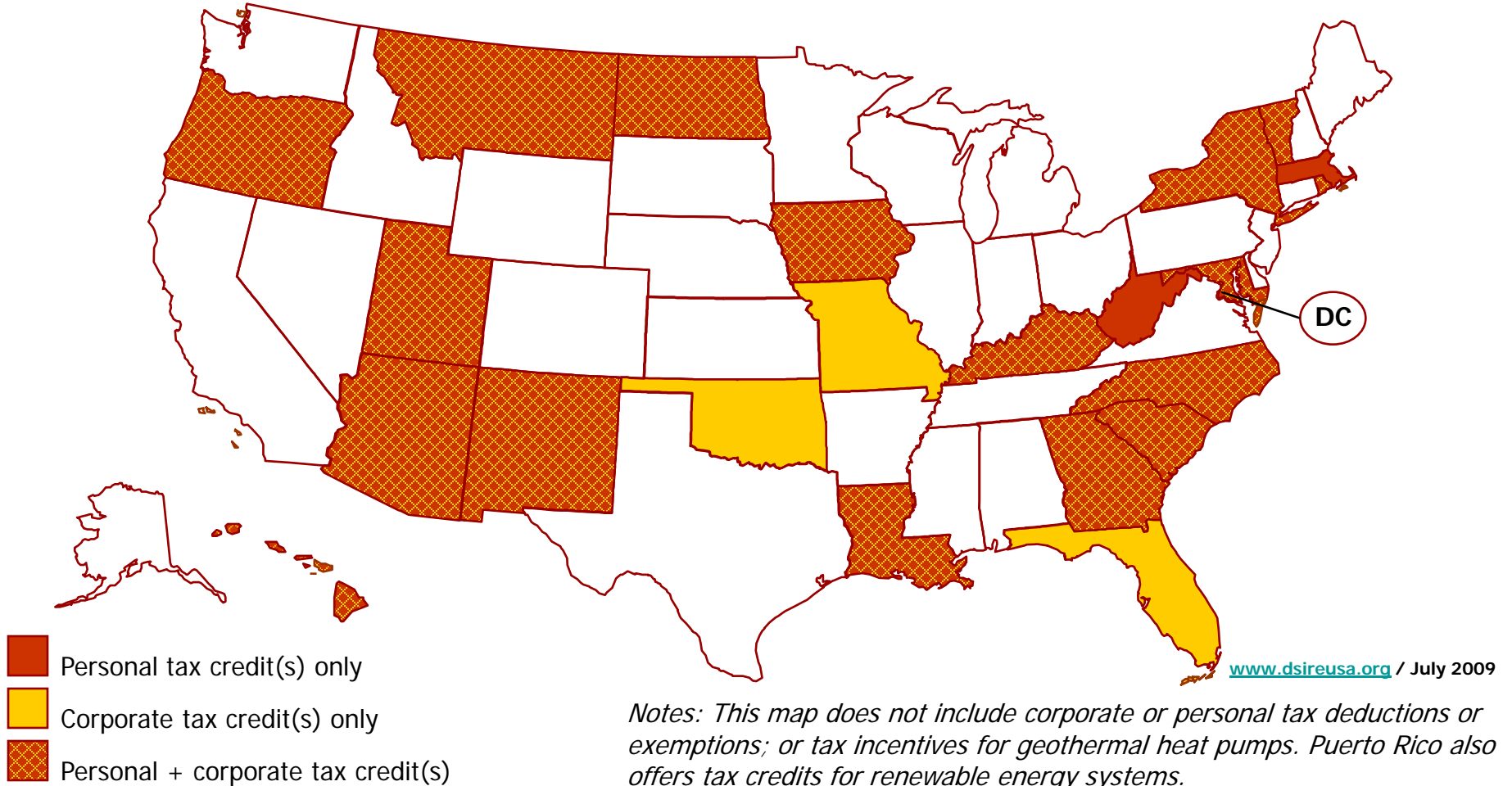
 State renewable portfolio standard with solar / distributed generation (DG) provision

 State renewable portfolio goal with solar / distributed generation provision

 Solar water heating counts toward solar provision

15 states & DC have an RPS with solar/DG provisions

Tax Credits for Renewables



Metro Counties - DeKalb

- Interesting Green Projects Done – Prior Policy
- Impact and Perspective of Federal, Regional, and State Legislation or Policy on Metropolitan Counties
- Interesting Green Projects Planned – Current Policy
- Current and Future Opportunities in DeKalb

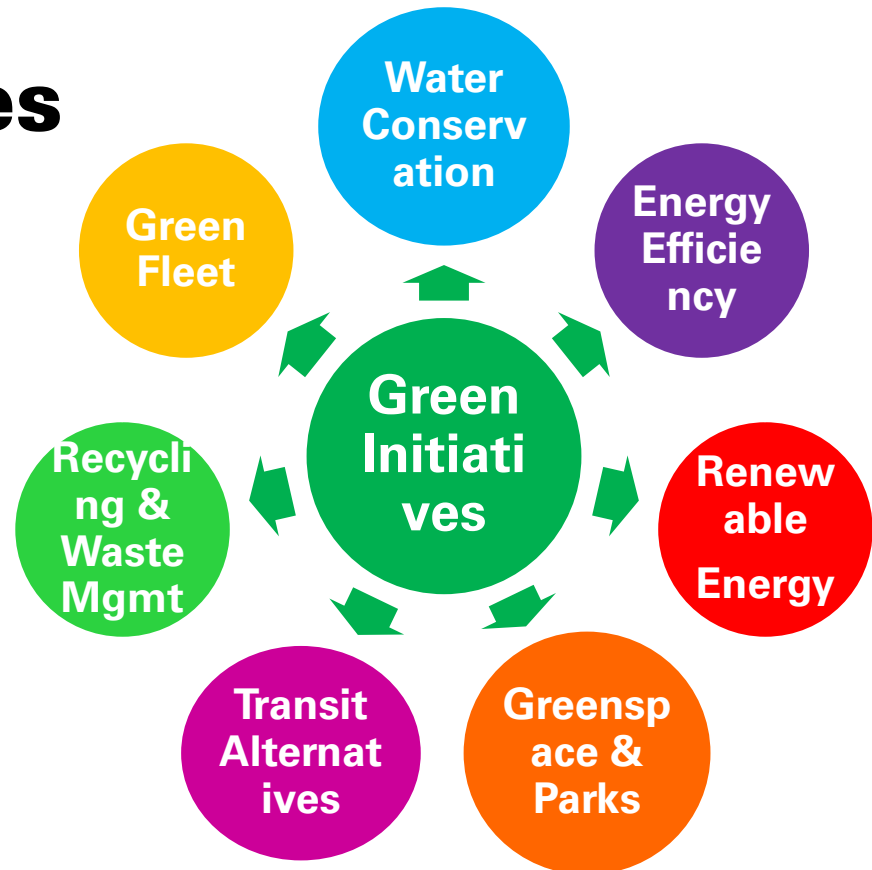
Metro Cities - Atlanta

- Interesting Green Projects Done – Prior Policy
- Impact and Perspective of Federal, Regional, and State Legislation or Policy on Metropolitan Cities
- Interesting Green Projects Planned – Current Policy
- Current and Future Opportunities in Atlanta

Atlanta's Green Goals & Initiatives

Goals

- Economic Development
- Energy security
- Air quality
- GHG Reduction
- Water security
- Land quality
- Resource security

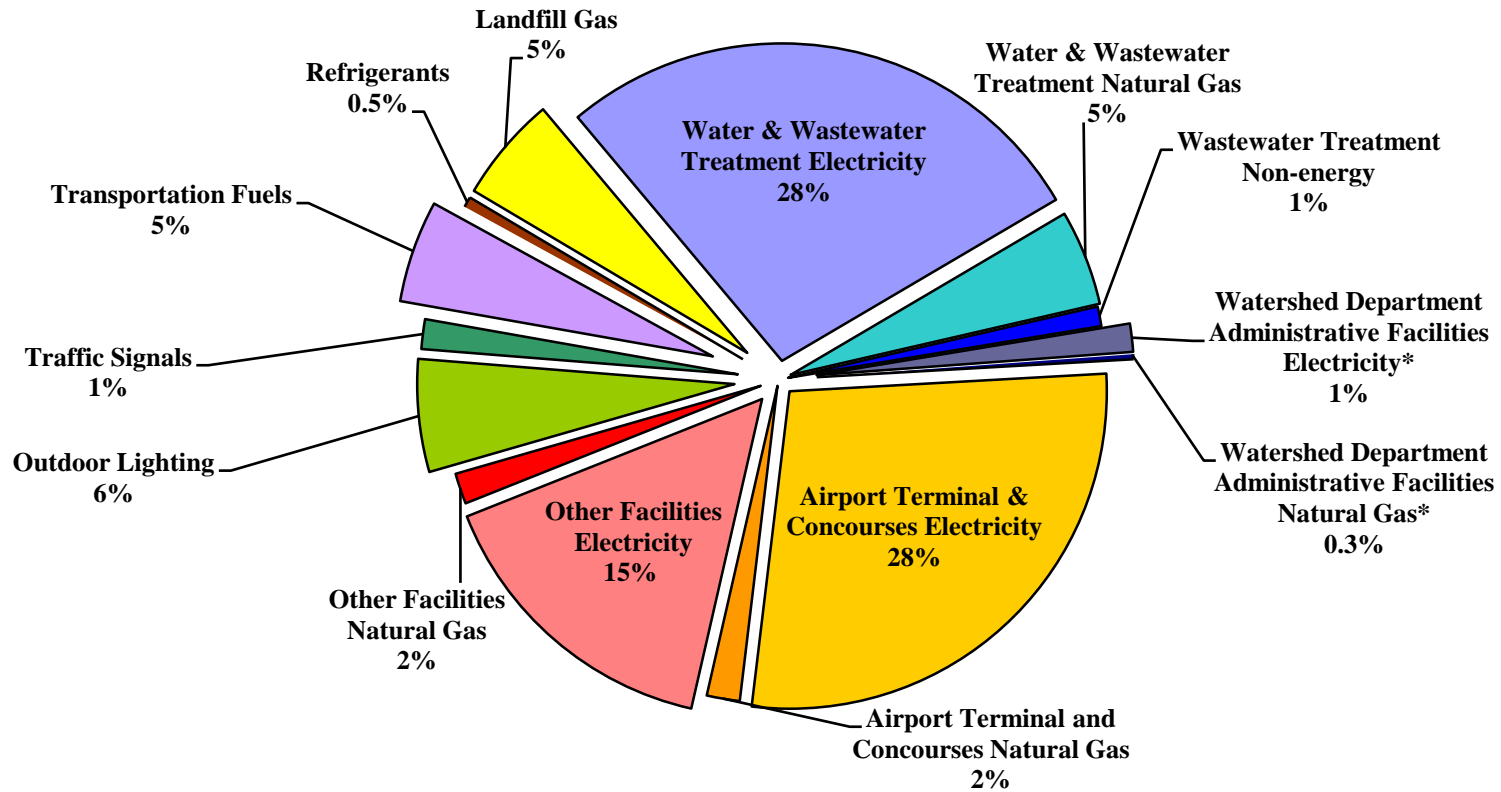


Projected Success by End of 2009

- 10% drop in energy use in general fund facilities through low/no-cost conservation measures, resulting in avoided energy costs of \$300,000-\$500,000 per year
- 5% drop in water use in general fund facilities
- 2 renewable energy demonstration projects
- Major progress towards meeting Governor's Energy Challenge*
- 3% drop in fossil fuels used by municipal fleet yielding \$267,000 Savings
- 30% of employees using a commute alternative
- Recycling in municipal buildings over 50%
- **10% drop in GHG emissions from energy consumption in general fund facilities**

*Governor's Energy Challenge: Reduce energy consumption per square foot in government facilities 15 percent below FY2007 levels by 2020.

**City of Atlanta Municipal Carbon Footprint
 2007 Total ~ 540,000 metric tons CO₂e**



*Watershed Department Administrative Facilities Electricity and Natural Gas based on estimated breakdowns.

Implementation of Efficiency Projects Top Priority

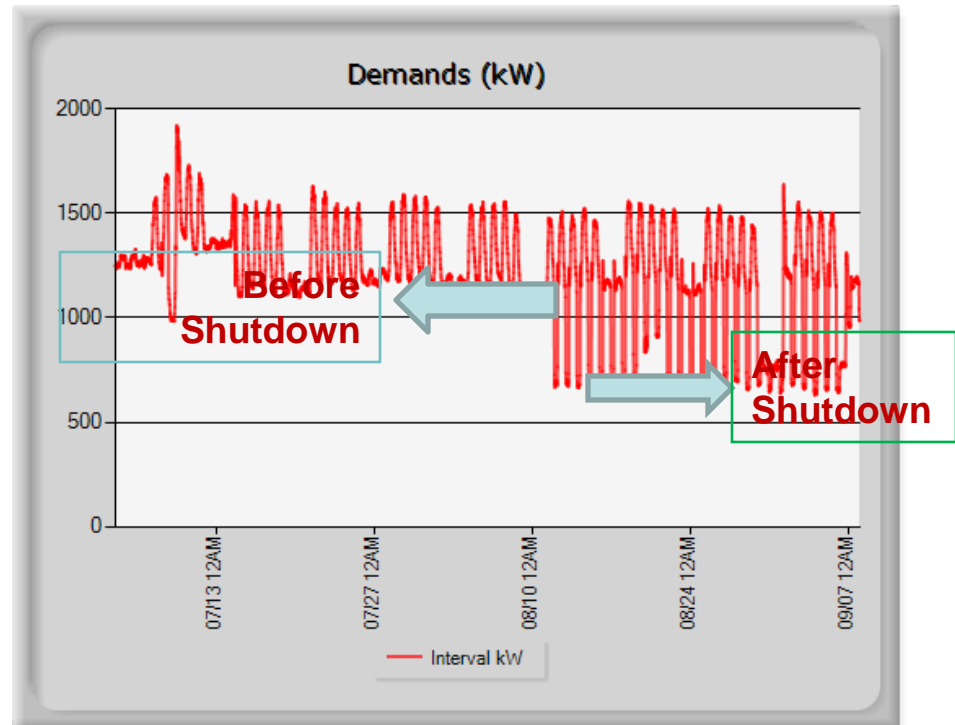
City Hall No Cost Efficiency Improvements

Expected Annual Savings

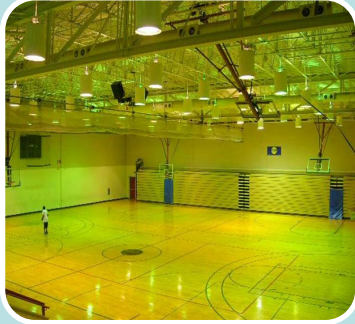
Energy : 20-25%
Cost : \$134,000+

Results to date

17% Energy savings since mid August



- The graph above shows the electricity demand for July 2008 (left) when HVAC systems operated 24 hours per day versus unoccupied-period shutdown beginning in mid-August (right).



Lighting

- **Replace inefficient lighting with high-efficiency systems**
- **Install automatic lighting controls**
- **LED traffic and outdoor lighting**



HVAC & Building Envelope

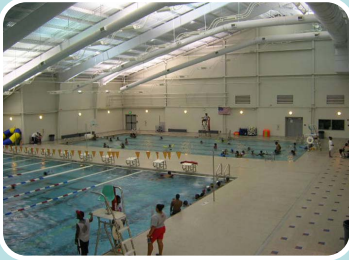
- **Automatic controls**
- **Recommission existing systems**
- **Reflective or green roofing**
- **Insulation**
- **High-performance HVAC, windows & doors**



Water Conservation

- **Upgrade systems to low-flow faucets, toilets, urinals, showerheads**
- **Gray water recovery systems would be installed where practical.**

Solar Thermal



- Solar thermal pool and domestic water heating systems installed on these high-profile facilities would educate the public on renewable energy systems and yield significant energy costs savings.



Photovoltaic Projects

- Proposed solar electricity systems would reduce greenhouse gas emissions by over 6,000 metric tons each year by displacing coal-based electricity.



Waste to Energy

- Renewable energy would be recovered from yard waste, landfill gas, wastewater grease and biogas, and used cooking oil.

Discussion Topics

- Looking forward, what excites you?
- Looking forward, what gives you “heartburn”?
- What would you like to see happen?
- Do you think it’s achievable?
- What obstacles, if any, do you foresee and how might they be overcome?

AUG 18–19,

09

Today's Real Estate Market

The Changing Landscape for Affordable, Commercial
and Green Financing

The InterContinental Hotel Buckhead, Atlanta, GA



David South, Technology & Market Solutions, LLC

Mr. South devises innovative “solutions” for clients challenged by the interaction between technologies (power generation, energy efficiency, process & environmental), commodity/financial markets, and regulatory requirements (energy, emissions & site/permit). He brings more than 30 years of power generation and emissions control technology and related market assessment experience to his clients in the power generation, industrial, financial, technology development & manufacturing, and public sectors (trade association, research institutions, and state/federal agencies).

His power generation technology expertise covers: coal, natural gas, nuclear power, distributed/on-site, cogeneration, and renewable energy (biomass, municipal and agricultural waste, landfill gas, geothermal, fuel cells, solar, and wind). Mr. South is also well-versed on the spectrum of technologies and markets for—air pollution and greenhouse gas (GHG) mitigation and clean fuels production (ethanol, biodiesel, additives). For these technologies and processes, Mr. South has experience performing due diligence analyses and examining such factors as: state of development; economic competitiveness; market niches; barriers-to-entry; market mechanisms & incentives; and the impact of market restructuring.

AUG 18-19,

09

Today's Real Estate Market

**The Changing Landscape for Affordable, Commercial
and Green Financing**

The InterContinental Hotel Buckhead, Atlanta, GA



Jason Rooks, Clean Energy Strategies

Jason Rooks is founder of a renewable energy firm, First Century Energy, and a principal with Clean Energy Strategies, LLC a government and legislative affairs consulting firm focusing on clean energy technologies. Previously Jason had been a lobbyist for the Georgia Conservation Voters representing environmental and conservation clients. Jason was also co-founder and General Counsel of Avido Systems, Inc. and a practicing attorney at Whelchel & Dunlap. Jason has a B.A. from Duke University and a J.D. from the University of Georgia.

AUG 18-19,

09

Today's Real Estate Market

**The Changing Landscape for Affordable, Commercial
and Green Financing**

The InterContinental Hotel Buckhead, Atlanta, GA



David Fisher, DeKalb County Government

David Fisher has been actively involved in the facilities management profession for over thirty years. He received bachelor and master degrees from the College of Engineering at the University of Nebraska. He held engineering, management and administrative positions and served within the healthcare, academic, research and government sectors. He is certified through the Association for Facilities Engineering and received the prestigious Facilities Management Excellence Award.

David is the Director of Facilities Management with DeKalb County Government. He is the administrator of facility planning, design, construction, maintenance, operations and security with a portfolio of over 200 county owned and operated buildings. He has served as chairperson of the Capital Projects Budget Committee and is a member of board of directors of his Jekyll Island home owner's association.

AUG 18-19,

09

Today's Real Estate Market

**The Changing Landscape for Affordable, Commercial
and Green Financing**

The InterContinental Hotel Buckhead, Atlanta, GA



Mandy Schmitt Mahoney, City of Atlanta

Mandy is Director of Sustainability for the City of Atlanta. This initiative is aimed at improving the city's green programs and policies such as water and energy conservation, reducing our solid waste, reducing emissions, and improving the rates of recycling. Mandy is proud that she was part of the team that launched the BeltLine. Other work experience includes Ahmann, Weeks Properties Group and the Georgia Department of Natural Resources. She serves on the Board of the Atlanta Chapter of Ducks Unlimited, the Green Chamber of the South, Urban Sustainability Directors Network and runs GoGreenInStyle.com, a green lifestyle website, with her husband Sean. Mandy graduated from Duke University with a master's degree in environmental management. She also earned a law degree and a bachelor's degree in biology and environmental studies from Emory University.

AUG 18-19,

09

Today's Real Estate Market

The Changing Landscape for Affordable, Commercial and Green Financing

The InterContinental Hotel Buckhead, Atlanta, GA



Lee J. Peterson, Reznick Group, P.C.

Lee J. Peterson is a Senior Manager in the Firm's Tax Practice and leads the Atlanta Office's Research and Planning Department in the Renewable Energy Tax Credit Services Group and the Tax Consulting Practice. Lee is responsible for advising clients on structuring renewable energy and other complex transactions, with significant focus on transactions that involve federal and state income, franchise or premium tax credits. He is also responsible for general tax research, planning and tax compliance review of trusts and estates for high net worth individuals and families. Lee has broad tax knowledge and experience in the areas of federal and state income taxation of partnerships, LLCs and corporations. His clients include major publicly-held Fortune 100 companies, non-profit housing organizations, and renewable energy project developers across the United States.

Lee has considerable experience dealing with the various state taxing authorities, as well as prior tax litigation experience as a licensed tax attorney. Mr. Peterson has participated as both instructor and public speaker at numerous professional seminars and presentations dealing with energy credits, low-income housing tax credits, historic credits and tax planning strategies. He is also an adjunct professor at Clayton State University, Georgia and guest lecturer on tax for the J. Mack Robinson MBA program at Georgia State University.

Education

B.A. - University of Minnesota

J.D. – William Mitchell College of Law

Professional Affiliations

AWEA – American Wind Energy Association

American Bar Association – Tax Section, Renewable Energy Section

State Bar of Georgia

Georgia Society of CPA's

Atlanta Tax Forum