

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



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Green Energy Economics and Politics: How They Can Work For You

The Line-up

- Matt Ferguson, Reznick Group
- Greg Moreland, Sentech
 - Department of Energy Overview
- Ben Taube, Southeast Energy Efficiency Alliance
 - Application of energy efficiency & demand response
- Ken Taratus, Morgan Keegan
 - Investment bank application
- Chris Diaz, Sunergy LLC
 - Affordable housing application
- Kristian Hanelt, Tioga Energy
 - Solar power provider application
- Pete Marte
 - Hannah Solar



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ARRA

- Largest government intervention since New Deal
- Cost 5.4% of GDP
 - Close to 2008 military and social program spend
- 70% to be spent by end of fiscal 2010



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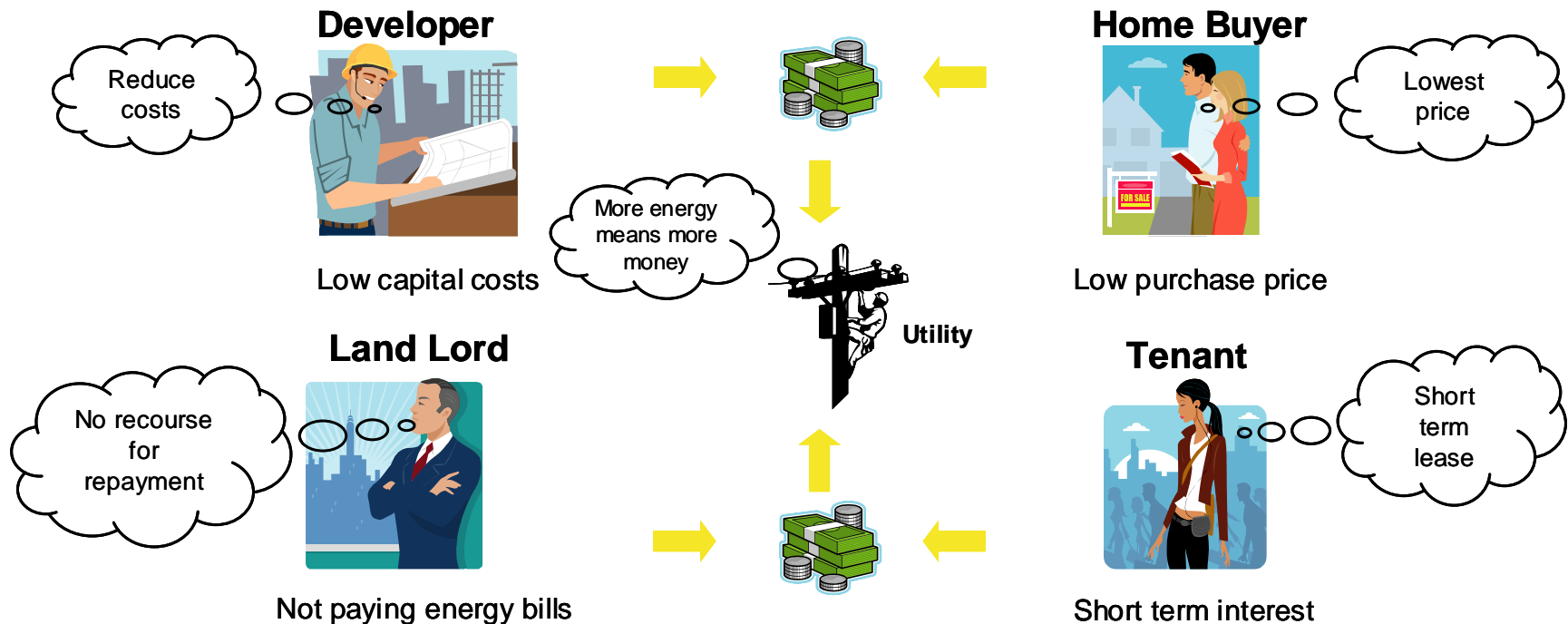


Between now and 2030, over \$20 trillion will be invested in energy infrastructure worldwide

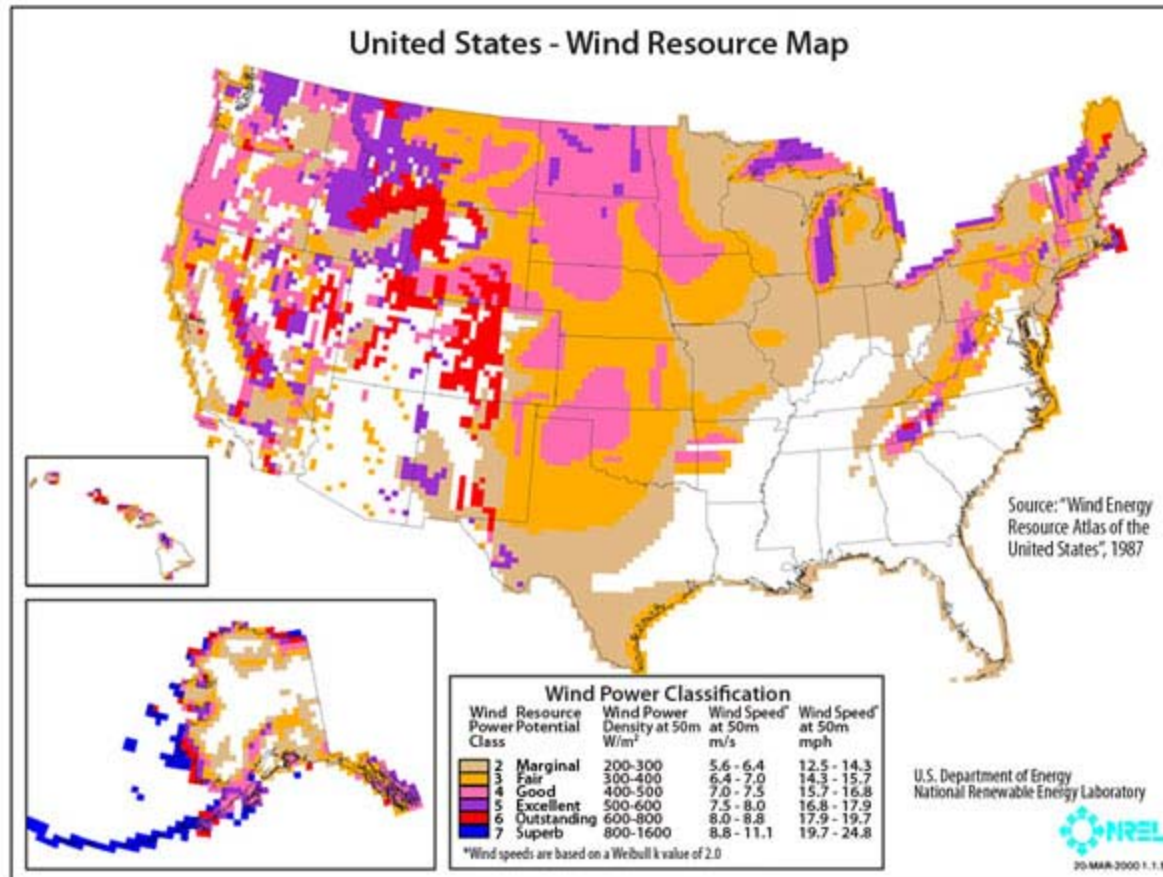
Estimated \$1.5 trillion will be invested by the U.S. power sector alone



Who pays



One perspective

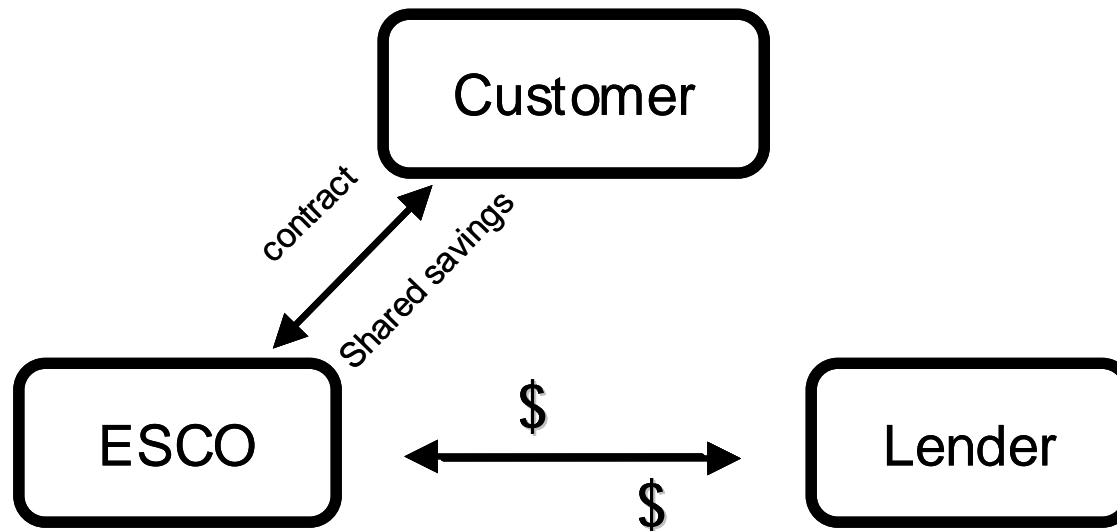


New Revenue



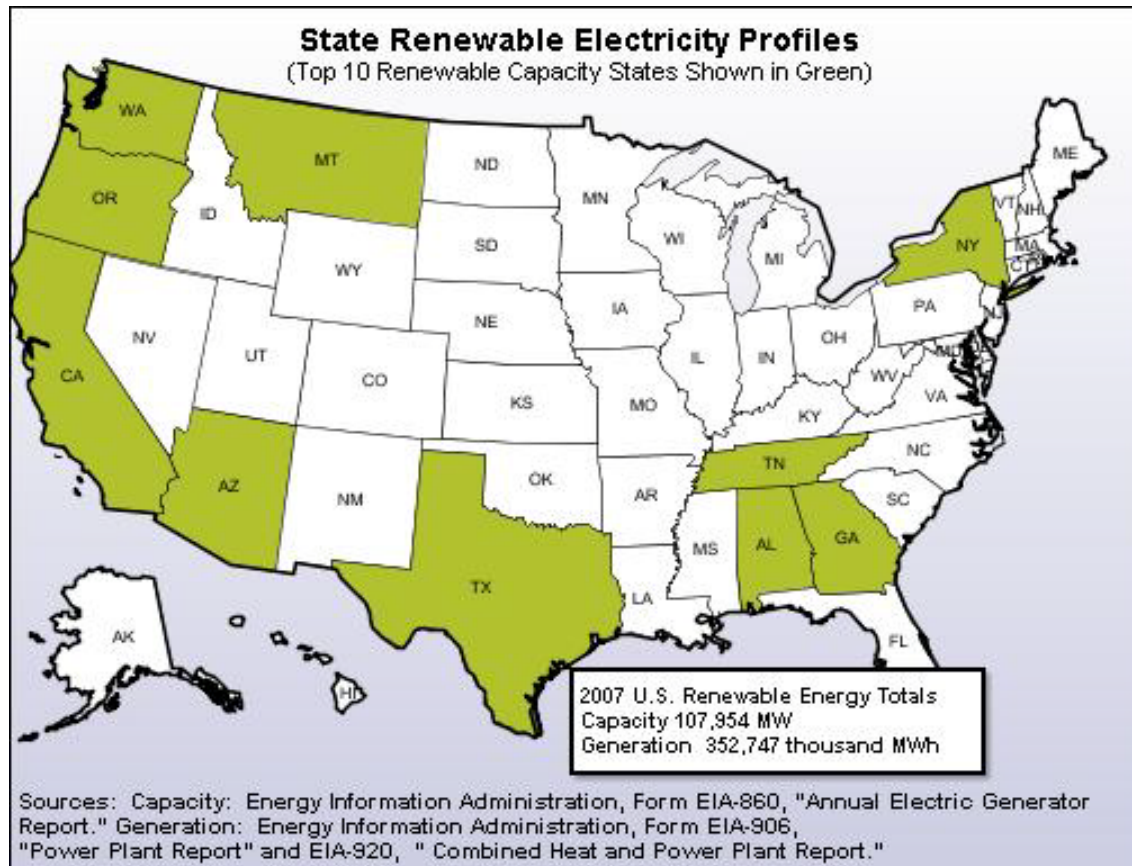
- 40% of all energy and 70% of electricity is used in commercial property in the U.S.
 - Buildings produce 35% of the country's CO2 emissions
- Income streams
 - Rent
 - Energy

ESCO



- Market is developing complex financial instruments that make it financially compelling for landlords and tenants to coordinate and finance energy-efficient retrofits with compelling payback periods

Southeast Opportunity



**1996 Atlanta Summer
Olympics aquatic center**

- PV system made by Solarex that provides 340 kilowatts of dc electric power - the world's largest building-integrated, roof-top PV system - as well as 9 kilowatts of ac modules in the visitors center



Solar



Virginia

- Only 2% of Virginia's energy comes from renewable sources, while the Solar Energy Industries Association estimates that rooftop PV alone could provide 18% of state's electricity needs



Biomass

- Biomass power generation (and cogeneration) continued to increase at both large and small scales, with an estimated 2 GW of power capacity added in 2008, bringing existing biomass power capacity to about 52 GW.
 - Biomass power generation continued to grow in several European Union (EU) countries during 2007/2008, including Finland, France, Germany, Italy, Poland, Sweden, and the United Kingdom.
 - China continued to increase power generation from industrial- scale biogas (i.e., at livestock farms) and from agricultural residues, mainly straw.
 - The sugar industries in many developing countries continued to bring new bagasse power plants online, including leaders Brazil and the Philippines, and others such as Argentina, Columbia, India, Mexico, Nicaragua, Thailand, and Uruguay
- **ACORE Outlook Calls for 100 GW of New Biopower by 2025**

Southeast has Biomass

- Biomass is organic material, derived from plant or animal life.
 - Wood and wood waste
 - Paper Plant Co-generation
 - Arable crops and grasses
 - Animal manure
 - Food processing wastes
 - Animal carcass residues
 - Gardening wastes
- Biomass can be divided into two main classifications
 - Closed Loop Biomass - which refers to energy crops or trees (including coppiced willow) specially grown for fuel.
 - Open Loop Biomass - which refers to all other types of biomass



Biopower Opportunity

- The Department of Energy (DOE) estimates that biomass-based power currently provides nearly 45 billion kilowatt hours of electricity, or about 1.2% of the nation's electric sales
- **DOE projects that overtime, biomass could supply as much as 14% of the nation's power needs**

