

# Making Clean Energy Work in Texas

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# Why Clean Energy Jobs Focus?

For Some...

- Climate Change and Transitioning to more Sustainable Economy
- Reducing Impacts of Ozone, Mercury, Water Use

For Others...

- Creating a new industrial cluster
- Jobs, including manufacturing
- Diversifying our resources

But for me.....it's because Texas has:

# Potential to be the Breadbasket of Clean Energy and Clean Energy Jobs

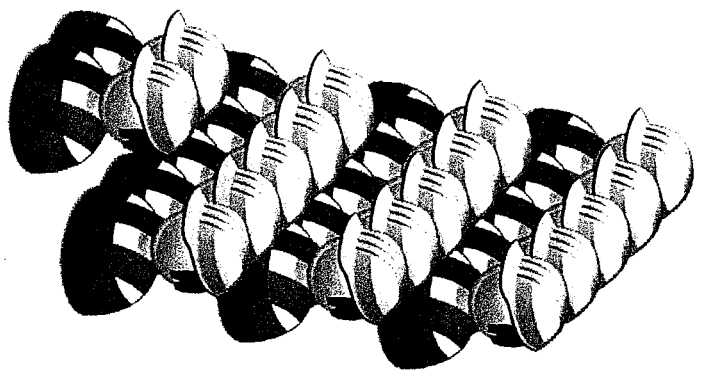
- More potential for renewable energy than any other state;
- Second most people, centrally located to ship manufactured products to Mexico, Great Plains, West and East Coast;
- Texas No. 1 in Energy Use, but ranks 23rd in how efficiently we use electricity: vast potential for energy efficiency jobs, demand response, Smart meters and energy storage;
- Texas has more wind installed-- 10,000 MWs -- today than all but 3 countries and potentially 18,000 MWs by 2020 with the build-out of transmission lines in West Texas (though relatively few manufacturing jobs);
- Solar Energy is an untapped potential, but eight utilities have small on-site solar programs and three solar utility-scale are beginning construction through municipal utilities;

# More job than anywhere.. potentially

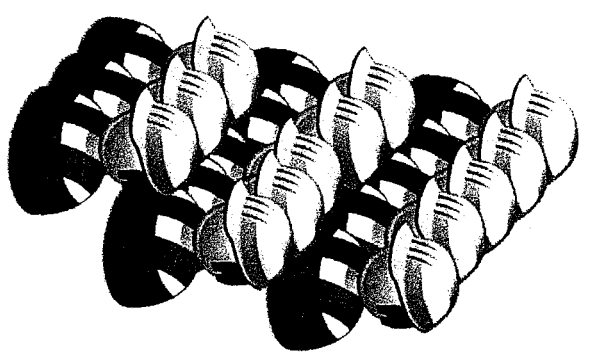
- A Navigant 2010 Study found that a 25 percent Renewable Energy Standard by 2025 would produce 275,000 Jobs, of which 50% would be in manufacturing. More than 10 percent would be in Texas.
- A 2009 Pew Charitable Trust Study found that Texas already has 50,000 Clean Energy Jobs today, second only to California, in the areas of renewable energy, energy efficiency and pollution control and cleanup.
- A Blue-Green Alliance Study found that a nationwide Renewable Standard would create some 60,000 new jobs in Texas, including 20,000 in solar.
- An American Center for Progress Report found that a 25 % RES plus the spending of the stimulus dollars in Texas could produce 150,000 Jobs by 2020.
- The recent Billy Hamilton study -- The Texas Clean Energy Economy -- found a 20% RPS with a 3,500 MW solar carve-out would produce 220,000 jobs by 2020, \$280 million in taxes and \$2.7 billion in economic activity per year.

# Create Clean Energy Jobs

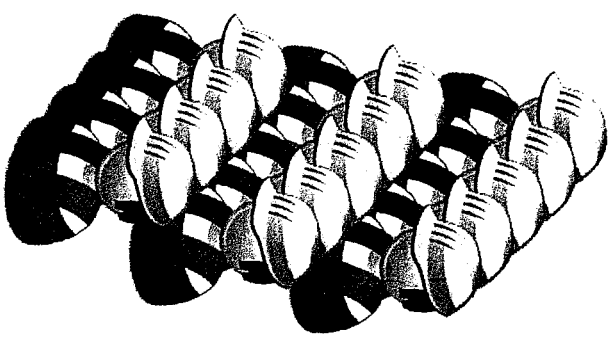
Jobs created from an investment of \$1 million...



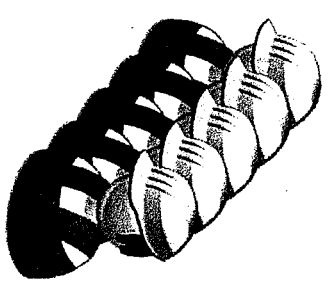
Energy Efficiency



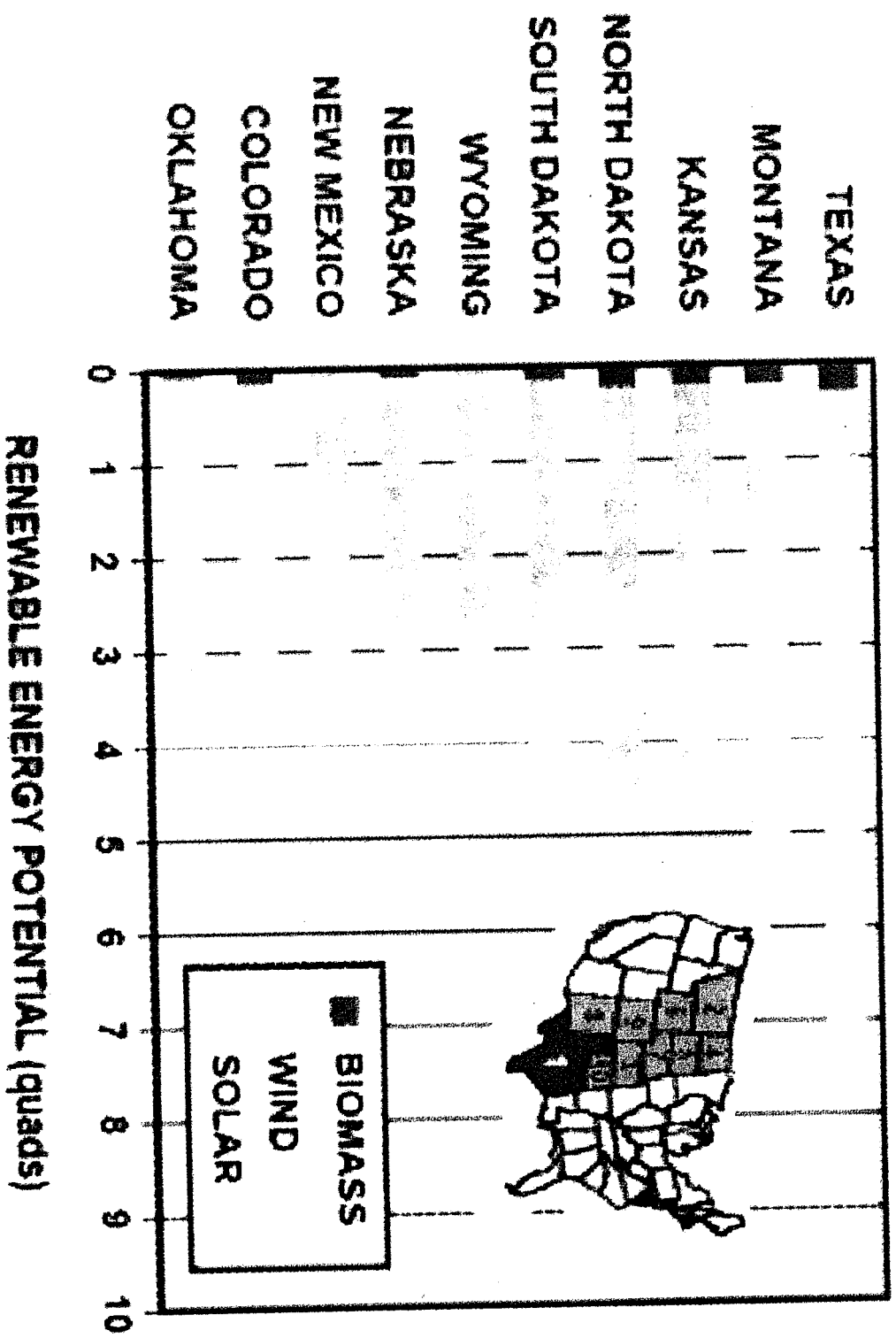
Wind



Solar



Fossil Fuels



# Clean Energy Solutions Campaign:

## A 6-Point Plan for Making Texas Clean Energy Work

1. An Emerging Technology “Made in Texas” Renewable Energy Portfolio Standard: 500 MWS by 2015; 5,000 Megawatts by 2025; Carve-out for distributed technologies, and rules for energy storage, including a role of natural gas
2. A Statewide Solar Bill of Rights: 1,000 Megawatts by 2020;
3. Energy Efficiency: Create an Energy Efficiency Market Trading Program of 10 % of Gas and Electricity Demand Savings by 2020; and Creating Coordinating Council between SECO, PUC and TDHCA and others
4. Rebuilding Texas Through Advanced Building Codes;
5. Refocus Emerging Technology Fund and Enterprise Fund to Provide incentives for Clean Energy Innovation and Manufacturing
6. Create Clean Energy District Financing through HB 1937 and Create Regional Financing Program

# An Emerging Technology (Non-wind) “Made in Texas” Renewable Energy Portfolio Standard: 500 MWS by 2015; 5,000 Megawatts by 2025;

- Texas PUC is already beginning rulemaking on a provision that 500 MWS of electricity capacity come from solar, biomass or geothermal by 2015; Consider distributed renewable carve-out
- In addition, Texas legislature should consider a longer-term goal for non-wind renewables, and include a “Made in Texas” provision to promote manufacturing jobs similar to legislation that nearly passed last session
- High-Tech and chemical industry in Texas could benefit since they provide inputs to solar
- Need to develop rules on energy storage either as part of RPS or separately -- no rules in Texas
- RPS could include some technologies that in part rely on natural gas (energy storage, Combined Heat and Gas? )

Wind
1 Texas
2 Iowa
3 California
4 Minnesota
5 Washington

Concentrated Solar Plants
1 California
2 Arizona*
3 Nevada
4 New Mexico*
5. Florida
*=in Construction

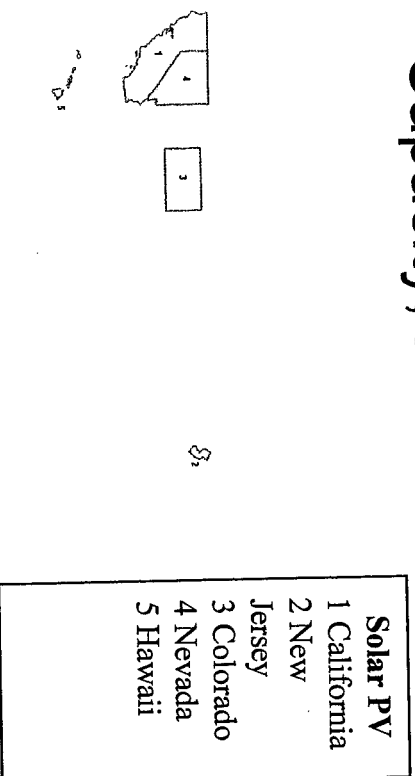
Renewable Electricity Installed Capacity, 2008





# A Solar Bill of Rights

## Solar PV Installed Capacity, 2008



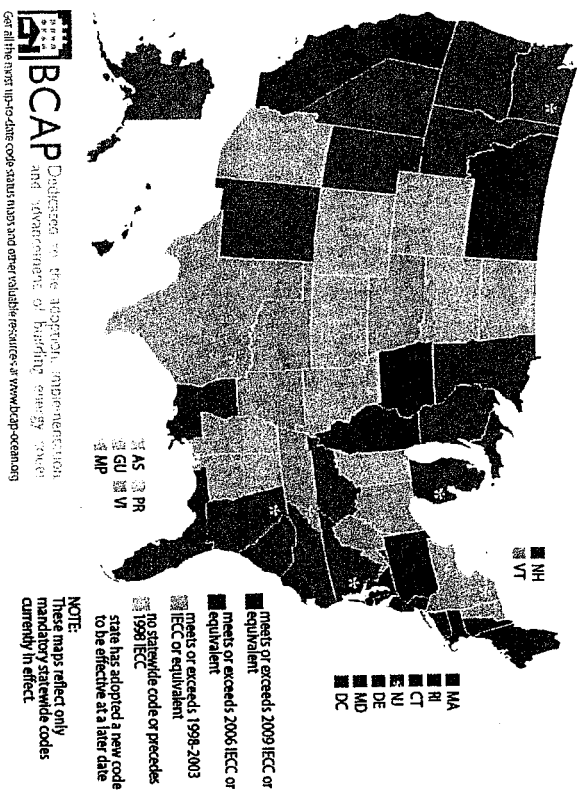
- Clear Rules on Registrations of Onsite Solar
- Limit ability of Homeowner Associations to prevent solar panels in neighborhoods
- Support third-party ownership
- Support fair market pricing --net-metering -- for excess electricity generated
- Consider a statewide solar rebate program depending on costs -- or pass an RPS with a distributed renewable goal;  
**EXAMPLE: TXU Energy = SolarCity Agreement**
- Example: Yingli and Heliovolt
- High-Tech and chemical industry in Texas could benefit since they provide inputs to solar

# Expand Energy Efficiency Programs: Cheap Electricity, Create Jobs

- Current PUC programs save more than 130 MWh of peak demand per year through required goals on investor-owned utilities;
- In July, PUC just raised goal to 30% of growth in demand by 2013 with a cap of \$1.60 per MWh in costs -- Sierra Club supported adding a further goal of 50% by 2015 (or 1% of total demand);
- We could continue to build on that momentum and set a 1% goal by 2015 and a 2% goal by 2020 for utilities -- OR;
- Texas should consider moving beyond a narrow program only focused on investor-owned utilities and instead create a market system with EECs (white RECs) in which REPs, Utilities, Coops and Municipalities participate with a long-term goal of reducing peak demand by 10% by 2020;
- We need to better coordinate the energy efficiency programs administered by PUC, TDHCA, SECO and Workforce Commission
- We could consider a separate agency or simply a coordinating council and advisory group to help make sure that efficiency monies are leading to cost savings and job creation

# Rebuilding Texas Through Advanced Building Codes

## Residential State Energy Code Status AS OF AUGUST 1, 2010



- In June, SECO raised the state minimum energy codes for new construction to 2009 IECC and 2009 IRC-- this is a job creator for window manufacturers, roofing companies, insulation companies -- to be implemented over next 18 months -- cities will need to react;
- State should consider setting a long-term goal of having new homes constructed to be able to produce as much electricity as they consume;
- State should lead by example and have state buildings meet green building standards like Energy Star or LEEDs

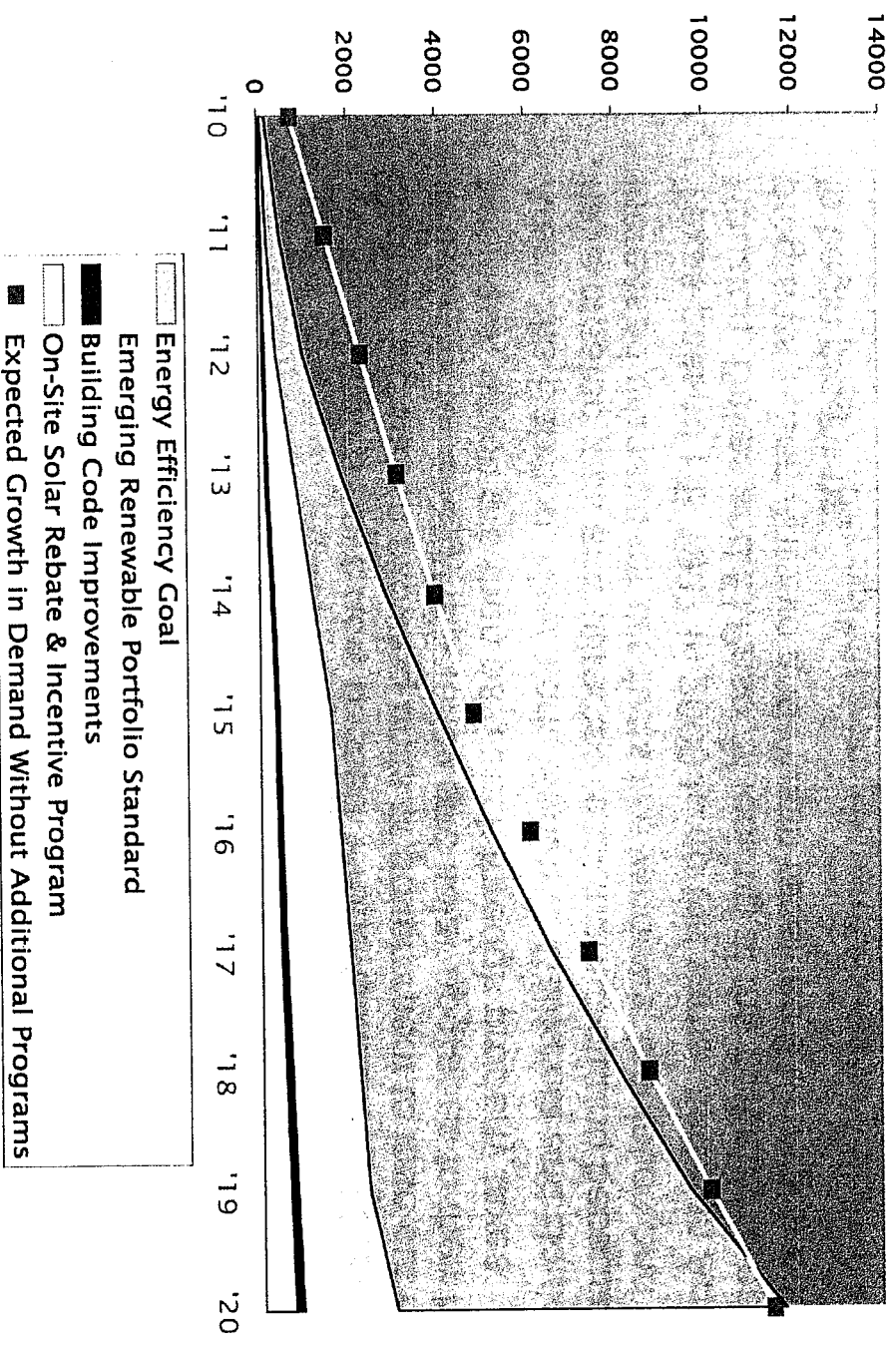
# Emerging Tech Fund and Enterprise Fund: Expand it!

- Create a new Clean Energy Fund operating under rules similar to existing funds but with a more specific focus to the industry.
- Do need to assure there are wage components, clawback provisions and other means to protect workers and taxpayers.
- Both the Enterprise Fund and Emerging Tech Fund can be and have been used to attract clean energy and energy efficiency manufacturers to Texas, but..
- The lack of specific focus on clean energy has also led some manufacturers to choose Michigan, New Mexico or Arizona over Texas
- State could even consider a low-interest loan program for businesses converting from traditional energy to clean energy;

# Low-Interest Loan Programs for EE and Renewables

- Some 20 states have now passed “Property Assessed Clean Energy District” legislation allowing units of government to loan out money to individuals for energy efficiency and solar upgrades to their home or business, which are then paid back through property taxes.
- Areas like Babylon, New York, Sonoma, California and Boulder Colorado have created jobs and attracted local manufacturing because of the increased demand for products like windows, insulation and solar panels
- Texas passed HB 1937 in 2009 to do the same, and San Antonio, Austin, Houston, Dallas and El Paso all looking at the potential to open loan programs -- San Antonio and Austin received \$10 million each from stimulus to begin programs;
- HOWEVER, recent rulings from Federal Housing Finance Authority have called into question the PACE programs -- legislation being considered at federal level
- Some aspects of law in Texas may need to be fixed in 2011 session so that municipalities can actually participate as federal law is fixed
- Legislature should also consider giving either state or regional authority a role so smaller cities can participate. SECO may have a role to play in overseeing this process or even providing a risk pool of funds to lower interest rates.

# How do we meet our energy demand? Clean Energy!



# How Many Jobs Would it Create by 2020?

- On-site Solar Program: 21,000 Jobs  
Source: Solar Alliance
- Efficiency Programs: 30,000 - 50,000 Jobs  
Source: ACEEE
- Renewable Portfolio Standard for Non-Wind: 20,000 Jobs  
Source: Blue Green Alliance

