

# NC Solar Industry Status, Barriers & Opportunities

NC Energy Policy Council  
Low Carbon Energy Supply Committee

1/25/2010



# Status Solar Business NC

- **More installations [ residential, commercial , and industrial scale]**
- **Positive impact of REPS**
- **New job creation**
- **Dramatically lower prices, trend expected to continue**
- **Higher consumer acceptance**
- **Better IOU support and cooperation**

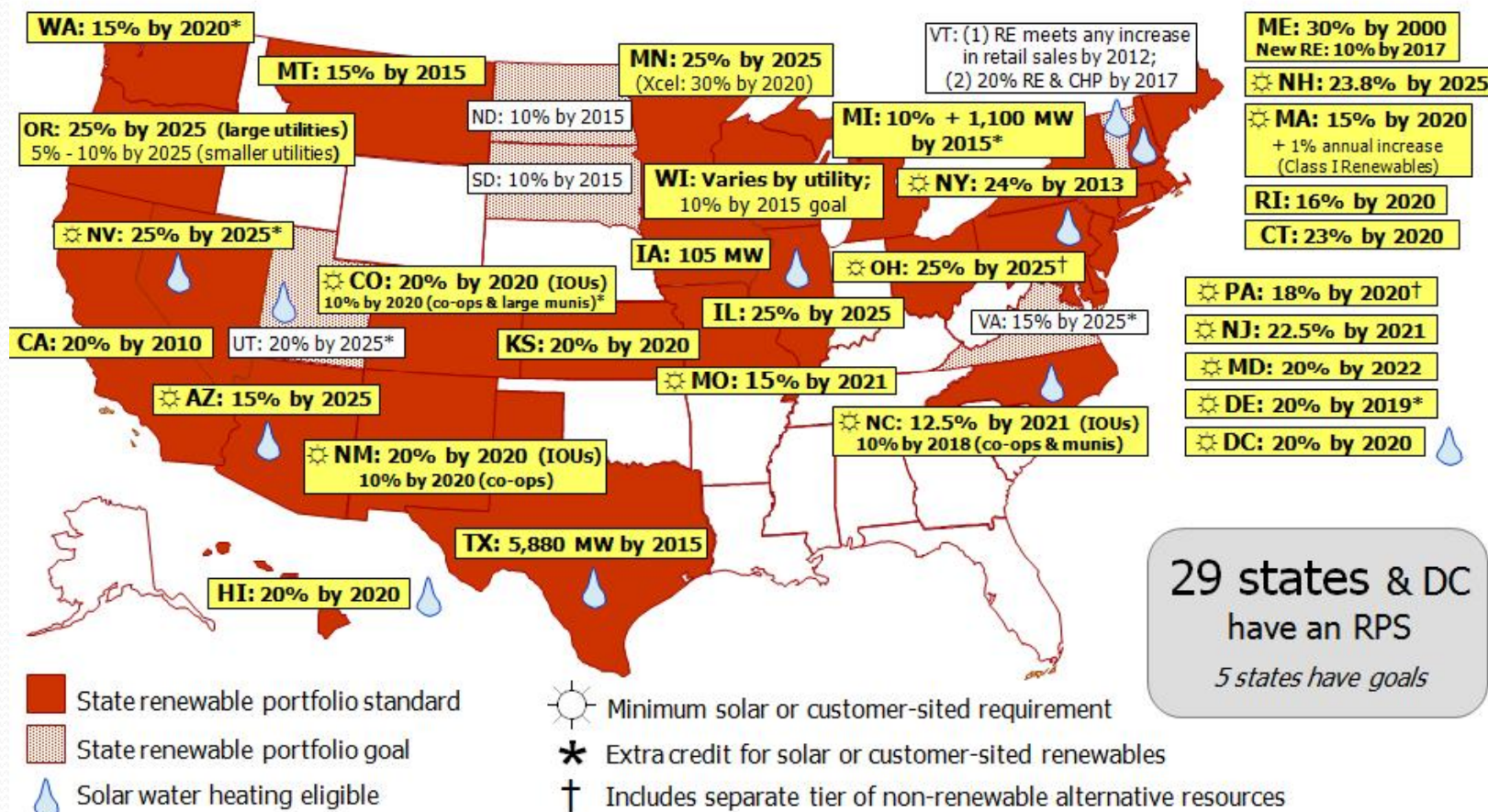
*A lot of progress has been made, but:*

# Is North Carolina on its way to become a nationwide leader in renewable Energy?

“Developing our green economy is a cornerstone of my vision for North Carolina’s economic future,” Gov. Perdue said. “Creating green jobs and businesses is a key part of my JobsNOW initiative, and the energy reforms I am implementing will lay the foundation for North Carolina to lead the nation in green energy.”


Press Release 5/21/2009

# 29 State Mandates: Solar Required by Law to Increase




# What establishes leadership in renewable energy policy [with focus on solar]?

- REPS
- Number of systems installed
- Net metering standards
- Purchase and Interconnection requirements
- Energy costs
- Job creation [green or other]
- Cooperation between IOUs, private and public sector
- Energy Education Initiatives
- Feed in tariffs
- Etc.



## **North Carolina has the most progressive energy policy in the Southeast, and comparably low energy costs but...**

- **NC is not leading in most renewable energy and especially solar projects in comparison to Colorado, Minnesota, Ohio, New Mexico, Pennsylvania, etc. We are currently not even in the top 10.**
- **While there seems to be great interest for residential and commercial customers to get solar systems and to do “the right thing”, state tax regulations , net metering restrictions and REC complexities have been a major obstacle.**



***North Carolina has the most progressive energy policy in the Southeast, and comparably low energy costs but...***

- **There is currently no financing infrastructure in place like in most leading states, because of state specific PPA restrictions.**
- **The cooperation between utilities and the green business community needs to be further improved. In other words: We need to find a way to work together on renewable energy issues.**
- **Last, but not least: We obviously need a more comprehensive energy policy that encompasses renewable energy and energy efficiency. We should benchmark our performance against the leading states and provinces [e.g. Ontario], while taking into consideration the specific needs and requirements of the people and local economy.**



## Recommendations regarding RECs

- **Ensure that “In-state” RECs must be from renewable energy generation actually located within the boundaries of the state.**
  - **OUT-OF-STATE RECs currently are capped at 25%, but the renewable energy generation does not have to be located within the boundaries of the state to be considered “In-state”**
  - **For the in-state benefits to occur (use of indigenous resources, industry and job development), the renewable energy generation must be located in-state.**
- **Remove limitations on REC ownership**



## Recommendations regarding RECs

- **Tighten rules for REC lifetime**
  - **The industry standard for a REC is a 3-year lifetime before expiration for compliance with state renewable portfolio standards (“RPSs”).**
  - **Current NCUC rules allow utilities to buy and bank RECs indefinitely. Utilities have seven (7) years to retire the RECs after cost has been recovered.**
  - **This causes the NC market for renewable energy to be unpredictable over time, causing project developers, renewable energy component manufacturers and investors to perceive NC to be riskier than other states.**



## Recommendations regarding RECs

- **Require utility REC compliance transparency**
  - Lack of transparency of Utility REC inventory and strategy further contributes to investor and developer uncertainty about the market for renewable energy.
- **Market to sell RECs is unknown**
  - RE companies want to sell the RECs beforehand. Challenge because IOUs are not always buying
  - High risk projects either cannot get financing or cannot get affordable financing. Because investors cannot assess the market size (nor the price for RECs), their evaluations determine the project's risks as high
  - Provide funding to study and design online REC trading exchange
- **Review NC GreenPower's position on net metered RECs.**



## Recommendations regarding Net Metering

- **Net metering in NC does not work. If we as a state are serious about being a leader in renewable energy, we need workable net metering rules.**
- **Adopt safe harbor language to protect customer sited generators from extra and/or unanticipated fees, e.g. stand-by charges**
- **Expand net metering to all utilities (i.e., munis/co-ops)**



## Recommendations regarding Interconnection

- **Expand interconnection standards to all utilities (i.e., munis and co-ops)**
- **Discourage contractual limitations on distributed generation (affecting Municipals and EMCs)**
- **Utility Commission should accept electronic filing of Report of Proposed Construction of renewable energy generators, Registration Statement, etc. and should send notification electronically of docket numbers, approvals, etc.**



# Market Barriers or Challenges faced by Solar Companies

- **Third Party sale of renewable energy not allowed by NC utility law.**
  - **Third party PPA models (where Company owns and operates the system and sells the power to individual households or businesses) have proven to vitalize renewable energy adoption and industry growth**
  - **Systems under 1 MW should be able to sell power if NC wants to be even a contender in renewable energy development.**



## **Market Barriers or Challenges faced by Solar Companies**

- **Financing renewable energy systems is still tough as economy recovers**
  - **PACE financing model should be encouraged where solar costs can be loaned from a municipality and collected through property tax assessments.**
- **Proven renewable energy funding models are not being given consideration in NC.**
  - **FIT Study was not given any funding. If we as a state were serious about leading in renewable energy, NC would fund the legislated FIT Study.**

# Market Barriers or Challenges faced by Solar Companies

- **NC tax incentives are in many cases unusable**
  - **The General Assembly should consider allowing public entities, nonprofit organizations without 501© status, and other entities with little or no state tax liability to transfer or “pass through” tax credits for investments in renewable energy installations.**
- **Lack of central information about Utility RFPs**
  - **The NC Utilities Commission, State Energy Office and Dept. of Commerce should provide a list of renewable energy requests for proposals (RFPs) issued by North Carolina utilities on their websites so potential renewable energy generators can easily access the information.**



## Market Barriers or Challenges faced by Solar Companies

- **NC tax credits are misaligned with federal tax credits and stimulus funds.**
  - **The state incentives meant to relieve project financing [*while the renewable energy market is still new*] is in some cases not useable at all when combined with federal incentives.**
  - **NC Department of Revenue's private letter ruling policy provides word of mouth guidance but on a case-by-case basis.**
  - **There are several large financed projects that are not going to go forward because of unexpected rulings.**



# Conclusion

- **Solar energy is becoming more popular in state and country. This positive trend is expected to accelerate.**
- **Gov. Perdue is giving us the right mission and support, requesting that NC is becoming a leader in renewable energy.**
- **We have a long list of improvements that need to be addressed.**
- **But we will not be able to be the leader or even a nationwide leader, if we do not develop a consensus about a more ambitious, long term strategy for energy conservation and all major renewable energy sources. Let's get started!**