

# SE Clean Energy Roadmapping

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# Background Clean Energy Sector Drivers

- Clean energy growth in SE has been a bright spot
- Clear evidence – RE installations, demo projects, utility RE RFPs
  - NC #3 in nation PV capacity added in 2013
  - GA solar capacity quintupled in 2013 & Georgia Power solar initiatives
  - SC growing energy cluster growth and the Clemson Univ wind turbine drivetrain testing center in Charleston (up to 15 MW equip)
  - VA offshore Wind Tech Advancement Project – placing 2 six MW Alston turbines *in the water!*
- ***Clean Energy has large growth potential in SE***

# Project Overview

- Project period – Feb 2014 – Feb 2016
- Project Partners – 4 state govt, Southface, SCCEBA, VEEC, NCSEA, NCSC, RTPCC, E4 Carolinas, Advanced Energy, Inst. for Emerging Issues, SECWC, Land of Sky Reg. Council, & Southern Gov. Assoc.
- Project Outputs
  - clean energy “roadmaps” - 5 (each state & region)
  - Clean energy censuses - one in each state

# Project Tasks

This project takes advantage of partners' present knowledge of regional, state, and community clean energy assets and opportunities by facilitating the development clean energy roadmaps. A clean energy business census will also be completed for 2014 and 2015.

- Task 1 – Industry Measurement
  - 2013 Census completed and 2014 Census underway – two annual censuses will be completed w/ breakdowns by state
  - <http://www.cleanenergyindustry.org/> - link to census site
- Task 2 – Community, State, Regional forums

# Tasks - continued

- Task 3 – Roadmap development – one SE regional and one per state
- Task 4 – Implementation model
  - Document and describe project goals, barriers, solutions and outcomes – enable sharing roadmapping best practices with other states/regions
- Management functions
  - Project planning, contracting, & reporting

# Project Strategies

- Engage Partners across 4 states to take part in clean energy roadmapping “forums” – emerge with “actionable” document specific to each state
- Complete clean energy business census (survey) – documenting clean energy business growth

*Table 4: North Carolina Clean Energy Organizations and Employment by Business Sector, 2013*

Sector	# of Responding Firms	% of Responding Firms	Clean Energy FTE	% State Clean Energy FTE
Solar	240	22%	2,422	15%
Wind	64	6%	632	4%
Biomass	94	9%	1,277	8%
Hydro	39	4%	953	6%
Geothermal	122	11%	480	3%
Smart Grid	43	4%	4,177	25%
EE Bldg	356	33%	5,411	33%
Storage	47	4%	544	3%
Vehicles	70	7%	678	4%
<b>Sector Totals</b>	<b>1,075</b>	<b>100%</b>	<b>16,573</b>	<b>100%</b>

# Roadmap Sample Elements

- **Sample Assets ID**
  - energy training & certification programs
  - energy research organizations and current applied research
  - Energy investor networks and VC entities
  - Energy products manufacturing, installation, consultation
  - Energy clusters and other connective organizations
  - Utility Programs
- **Consider action strategies addressing barriers like:**
  - improving access to capital by small/medium businesses – make VC & other investors networks accessible
  - proposing specific education & training programs that address clean energy sector needs
  - Strengthening energy cluster organizations

# Why use forums?

- Generate state/community buy-in
- De-politicize a complex topic
- Identify important roadmap elements
- Make connections among varied players
- Provide a framework and foundation for future work



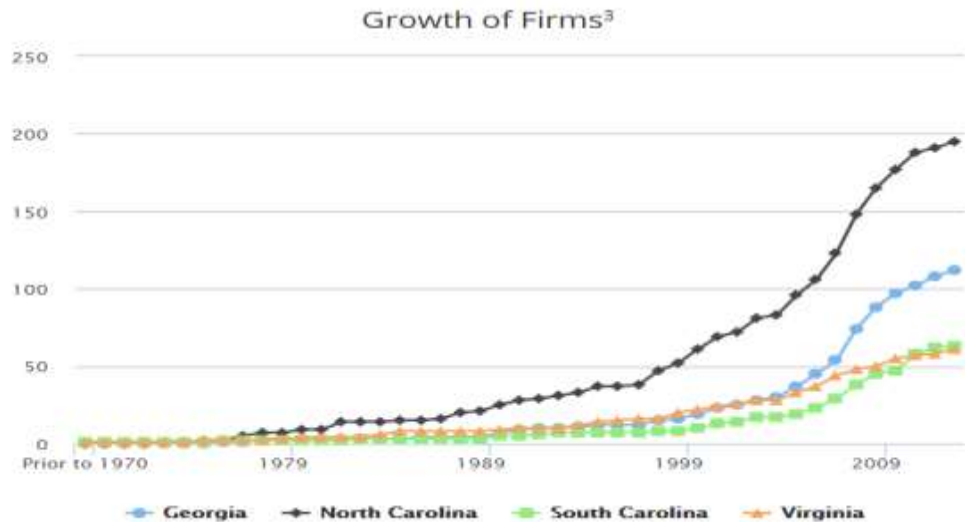
# Regional Value Proposition

- Identify regional clusters, assets, opportunities
- Four state economies closely linked
- Leverage each others' strengths to position region for growth, global competition (e.g., OSW)
- Historical clean energy policy collaboration
- *Encourage networking and sharing best practices*

# Census Overview

- Census partners – NCSEA, Southface, SCCEBA, & VEEC
- 10 tech areas (solar, wind, EE, hydro, storage, etc.)
- 2014 survey – administer summer 2014
- 2015 survey will incorporate improvements

From SE Census website  
[www.cleanenergyindustry.org/](http://www.cleanenergyindustry.org/)  
- Solar firms



# Thank You

## Questions?

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