

GROWING NORTH CAROLINA'S GREEN ENERGY ECONOMY:

Learning, Connecting & Creating Opportunities Together



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Charlotte, North Carolina



NCSEA

Overview of North Carolina's Green Energy Economy

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NCSEA's Growing NC's Green Energy Economy Forum
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Drivers of NC's Green Economy

How did we get here?

- Consistent tax incentives for renewables
Consolidated in 1999, enacted sunset date 2005, commercial \$0.25 mil up to \$2.5 mil
- Renewable Energy and Energy Efficiency Portfolio Standard (REPS), 2007
"A Citizen's Guide to NC REPS" Aug 2009
- Good interconnection standard, Jul 2008
- Market demand for high performance building not constrained by regulation, but also not encouraged



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Financing Green Economy in '08-'09

Finance, Incentives & Investment

- Renewable energy tax credits extended and expanded
- Electric service providers buying RECs to comply with the REPS law
- Lenders / VC supporting more NC companies
- Numerous investment funds establishing
- NC Green Power continues to buy RECs
- Green Business Fund is growing
- Revolving loan program imminent
- Insurance companies entering market
- Utility rebate programs ramping up
- Federal stimulus beginning to flow



Becoming a National Leader

NC Leading the Southeast

- We lead the Southeast with energy policy
- Now NC market is ramping up installed solutions and job creation
 - #10 state in 2008 for solar capacity additions*
 - #11 in total installed solar capacity*
 - Q1-Q3 2009 surpassed 2008 for new additions*
- NC electric membership cooperatives are leaders in their industry for “smart grid” and energy saving programs
- Gov. Perdue’s “Green is Gold” leadership
- NCSEA 2009 Industries Census results



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2009 Regulatory Outcomes Utilities Commission – REPS

REPS is success, heavily challenged

Utilities on track to comply in 2010

“Cost cap” methodology is sound

Large hydropower not eligible

Must prove why cannot comply w/ law

Identified improvements for reporting & planning
transparency

Legislative intent vs. NCUC interpretation

In-state resource use, investment, job creation,
environmental and health benefits

But...NCUC changed its mind in Sep 09, now says
25% of set-asides can come from out-of-state

Reduces regulatory certainty & market confidence



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2009 Regulatory Outcomes Utilities Commission

- Net Metering changes, but still doesn't work
 - System size limit increased to 1 megawatt
 - Aggregate limit on systems eliminated
 - Net-metered customers can choose rate schedule
 - BUT...only TOU-D customers can keep their RECs
 - Dialogue: NC Green Power is adequate vs. large job creation
- NC Renewable Energy Tracking System – will track RECs purchased, but no ave. market price / signal
- NCUC encouraging utilities to explore how they plan wholesale purchases
- NCUC deciding whether to adopt Fed EISA provisions for utility installation of smart grid technology



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2009 Legislative Session

Highlights

- H1481 – Energy authority in government
- H512 – Renewable tax credits
- S960 & H1389 – RECs & Loans
- S304 – Performance contracting
- S97 – Property tax assessments

[NC Sustainable Energy Legislative Guide](http://energync.org/issues/nc_general_assembly.html)

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Issues in 2009?

Finance & Regulation Very Limiting

Financing options very limited, \$billions on sidelines

Consumer “pull” limited by lack of ability to pay up front capital costs, policy can address limitations

Options to leverage private capital and stimulus \$ too limited

Municipal financing options on the rise nationally

Consumer education needed to “pull” efficiency market

Consumers have no “price signal” to motivate efficient use

Collecting data on real costs of energy efficiency

Conflict between utility incentives and the public interest

Volume-based regulation is the fundamental barrier

Need to work together to find economically robust solution

Builders / Construction going green



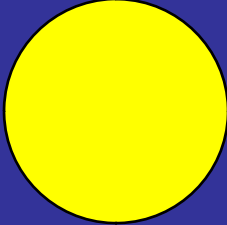



Consumer “pull” is accelerating market

State evaluating stronger building codes, huge jobs potential



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System Size, Financing, Market: Solar Response to Policy Change

Year in NC:	1990's – 2005	2005 – 2009	2010 – 2012 (est.)
Lender Type:	Home owner	Smaller Banks	Innovative / Gov't
Investor Type:	Self	Venture	Institutional
System size:	1.5 kW – 10kW	25 kW – 100 kW	2kW to 16 MW
Investment \$:			
Local Gov't:	Unaware	Annoyed	Excited
Local Tax Rev:			
Lead Customer:	Homeowner / Passionate	Commercial / for Marketing	All System Sizes
# Co.s / # Jobs:	< 50 / <1,000	~150 / ~6400	1,300+ / 20,000+



Five Gov't Roles for Growing a Green Energy Economy

All must be advanced to achieve growth:

- Public policy and regulation (different)
- Infrastructure
- Enabling finance and attracting investment
- Research & Development
- Workforce development

Federal vs State Policy

Energy & Climate



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- NC has enabled more than 10,000 jobs
- Southeast and nationwide requests for NCSEA's strategic / technical assistance received weekly
- NC "swing state" in Federal legislation because of state policy and markets
- Firms will still put HQ's in state's that go beyond Federal requirements, offer greatest competitive advantages
- State will have more policy work to do, not less



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Thank you

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