



Renewable Energy Outlook:  
*Making Virginia the Energy Capital  
of the East Coast*

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Durham, NC • New York, NY • San Francisco, CA

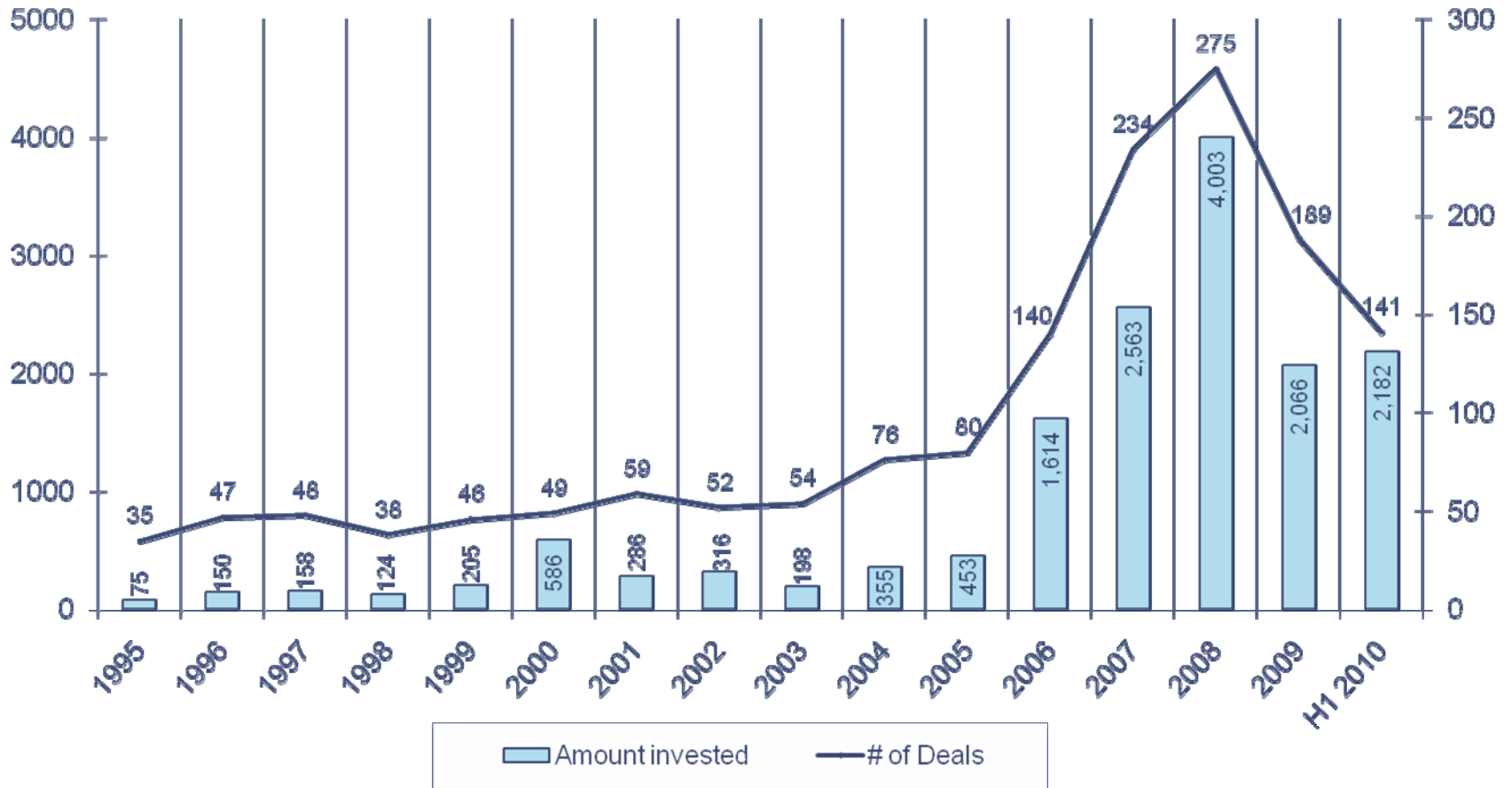
# SJF Ventures

- Founded 1999, \$45MM under management
- Offices in Durham, NC, NYC and San Francisco, invest nationwide
- Strategy and Sectors
  - Clean technologies, energy efficiency, renewable energy, recycling
  - Web-enhanced and business services
- Investment Size: \$1MM to \$5MM of equity, independently or with a syndicate
- Investment Stage: Expansion stage companies with revenues of \$1MM to \$20MM at an inflection point for growth
- One of Few Southeast Based Cleantech VC's
- Cleantech Portfolio : SC, PA, VT, MD, NJ, TX, WA, CA



# U.S. Cleantech Investing Trends

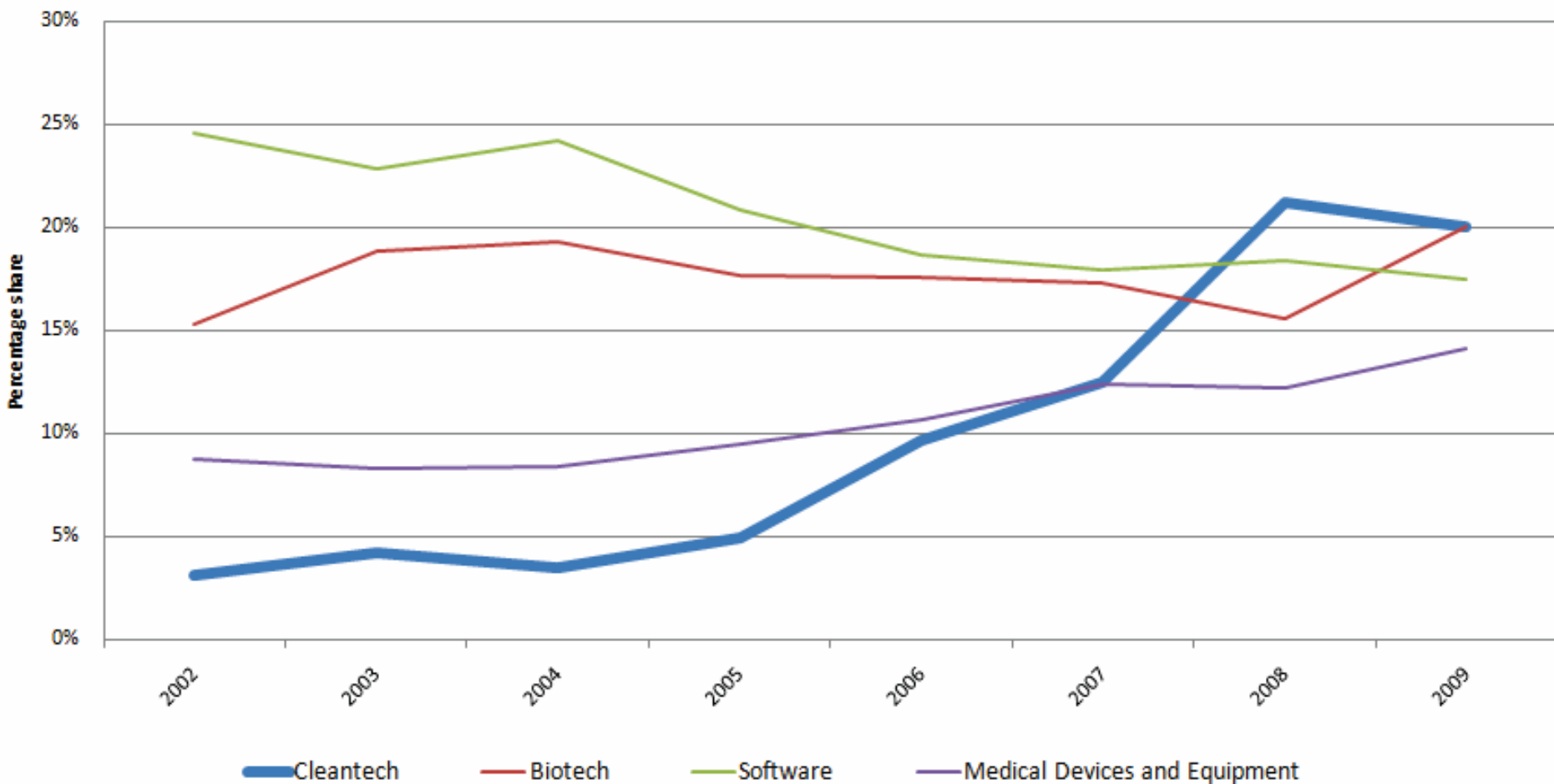
## Annual U.S. Cleantech Venture Capital Investments 1995 to H1 2010



Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report based on data from Thomson Reuters

# U.S. Cleantech Investing Trends

## Share of overall VC Investment in the US

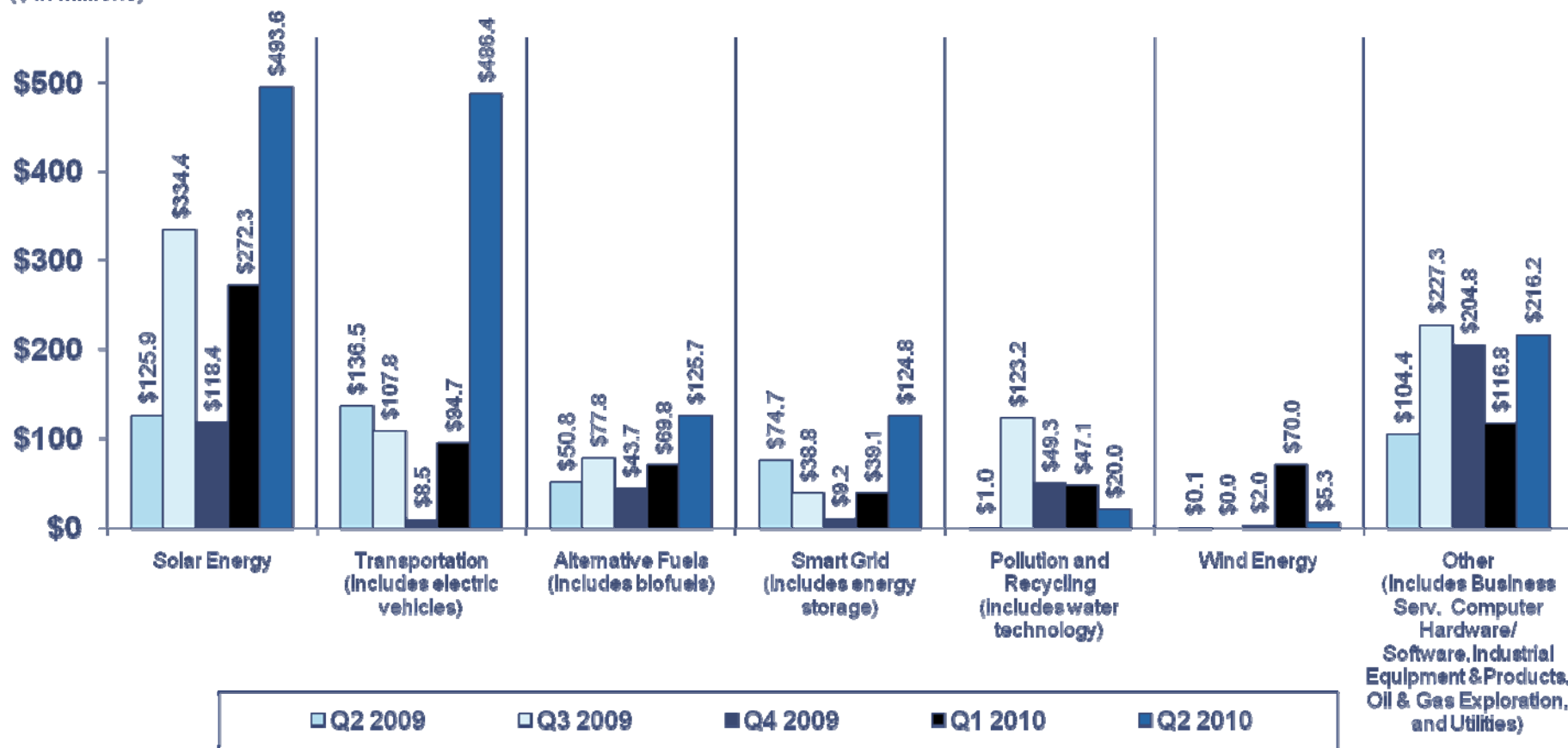


Source: Cleantech Network Database

# U.S. Cleantech Investing Trends

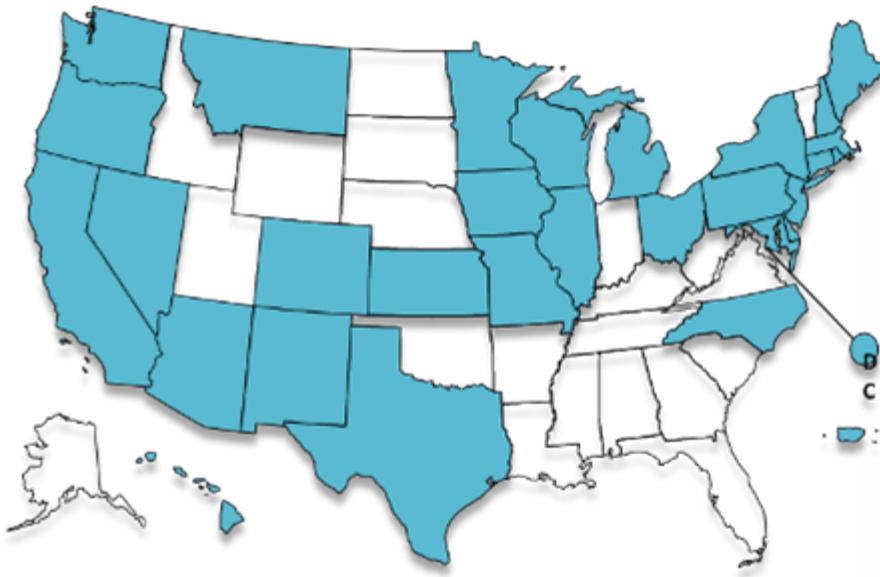
## US Cleantech Investments by Sub-Sectors, Q1 2009-Q2 2010

(\$ in millions)



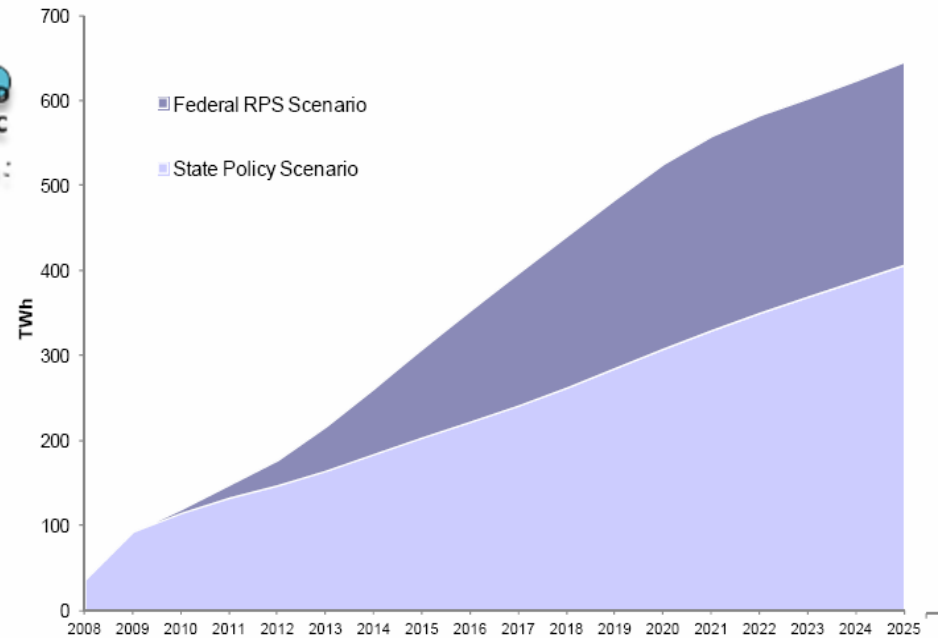
Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report based on data from Thomson Reuters

# The Market: States policies creating manageable risk and meaningful demand for renewable energy co's



**High Growth Markets Attract Investors:** Mandated renewable energy demand will require a 300% increase in generation from 2010 to 2025.

**Cumulative RPS Compliance Demand and Generation Supply**



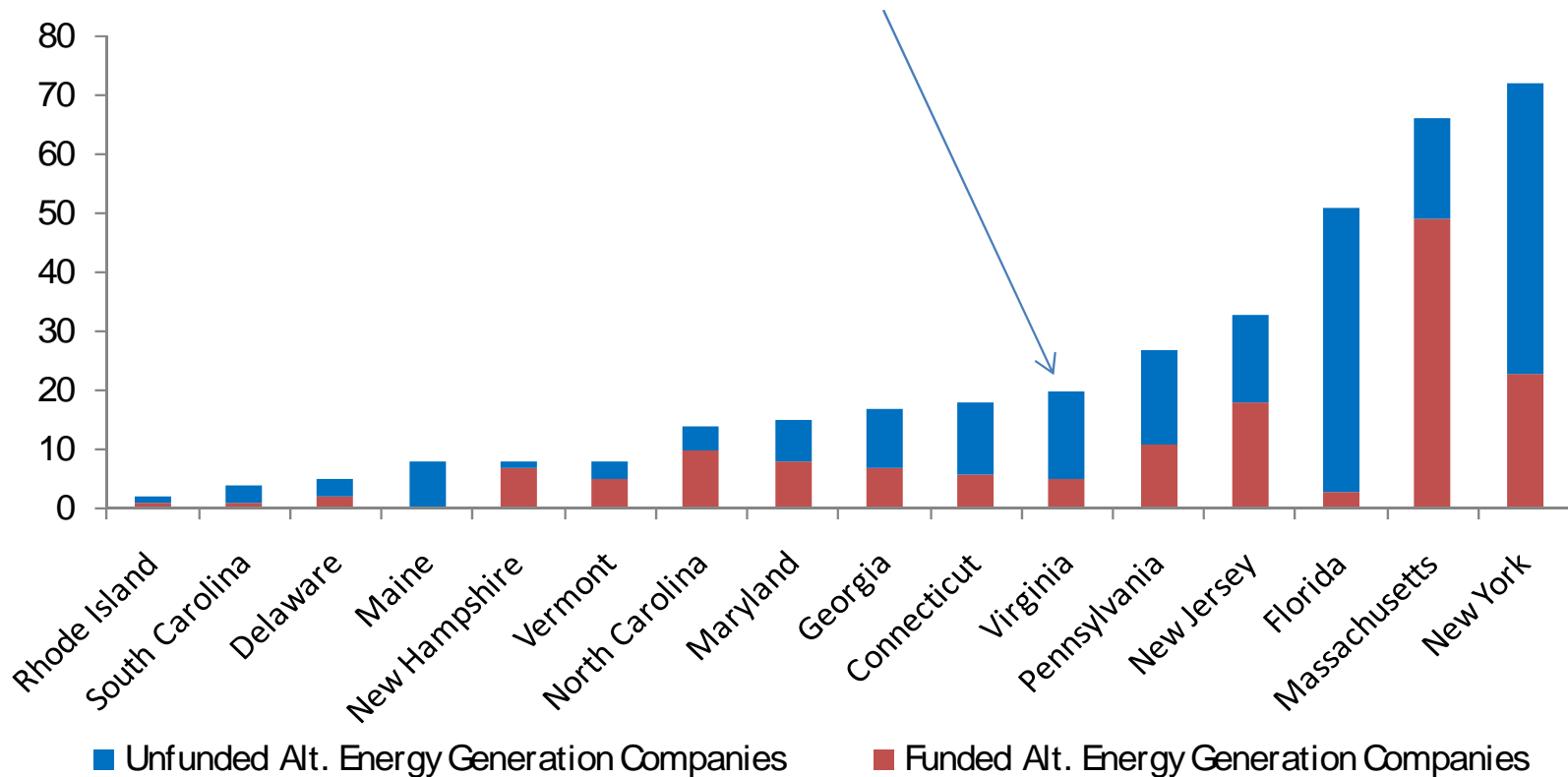
Source: IHS Emerging Energy Research

RPS Data

# Investor Deal Flow:

## Alternative Energy Generation Companies on East Coast

- Virginia: 20 new generation technology or service companies identified and 5 VC funded in last 5 years, ranked 6<sup>th</sup> in East Coast for deal flow
- 49% avg. funding rate of companies in RPS states, 32% average in non-RPS States
- 65% of generation company investments on east coast have been in NY, MA, NJ & PA



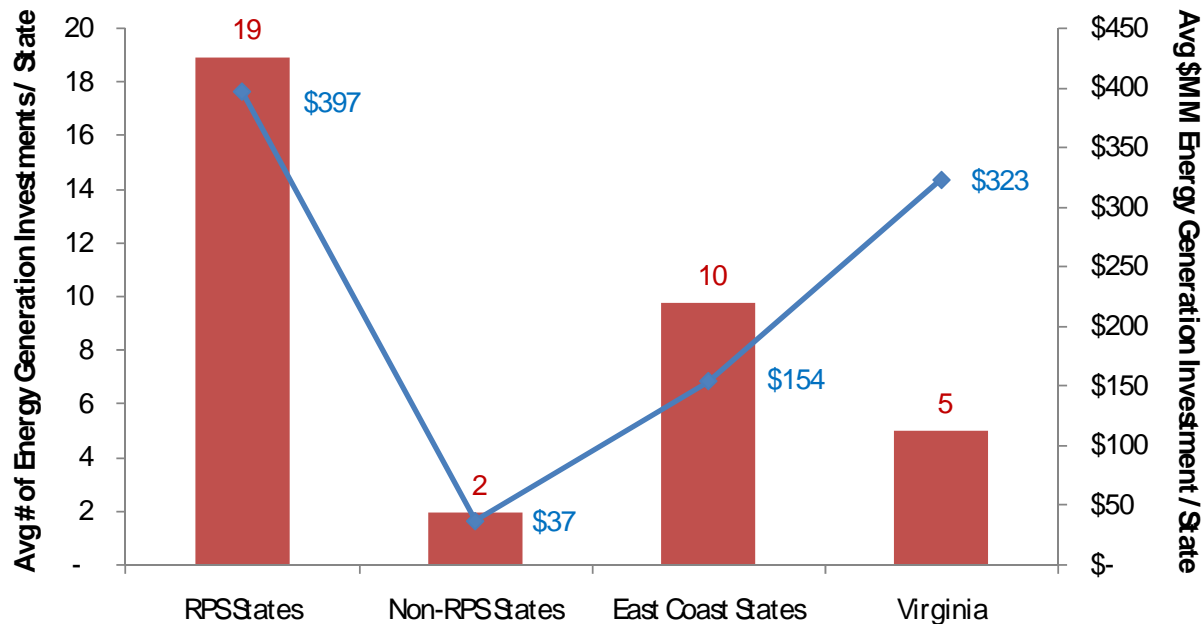
Source: Cleantech Network Database, 2005 – Oct. 10, 2010

# Investor Deal Flow:

## Alternative Energy Generation Companies on East Coast

- Average RPS state leads by number and amount of VC investment attracted to generation companies, 10x of non-RPS states, 2x+ of east coast states
- Virginia has attracted 80% of average RPS state capital, albeit going to significantly few companies. VA exceeds investment average for east coast states but realizes half as many unique company investments.

**Alternative and Renewable Generation Company Investments  
2005 - Oct. 2010, State Averages**

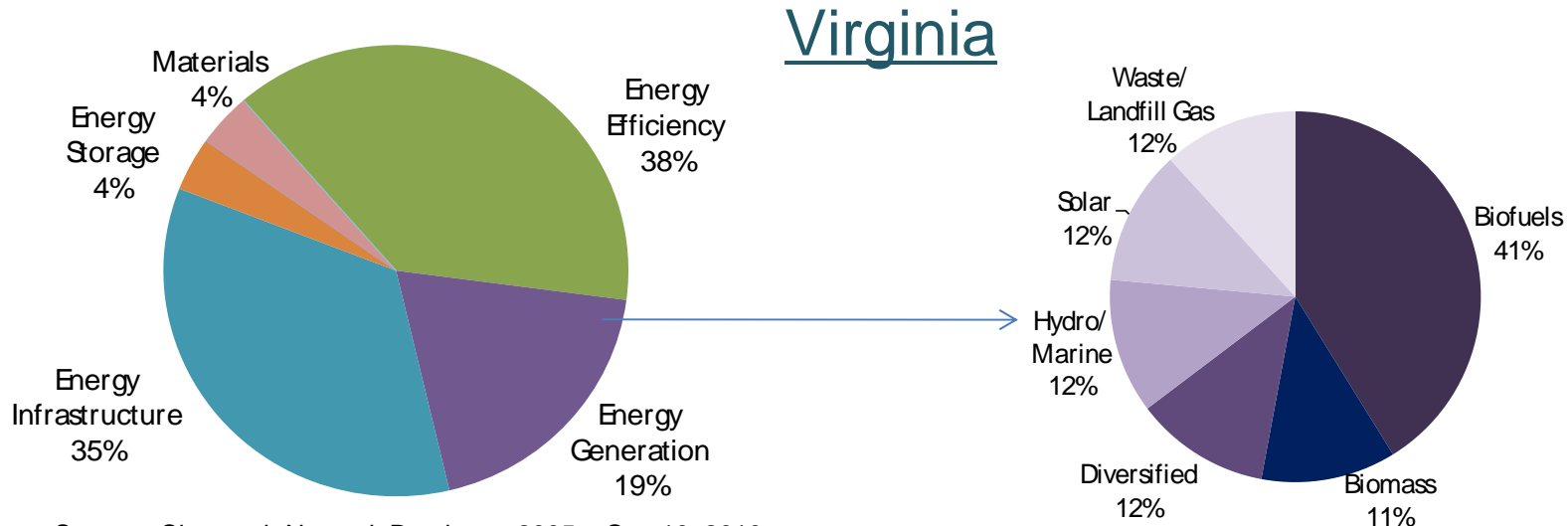
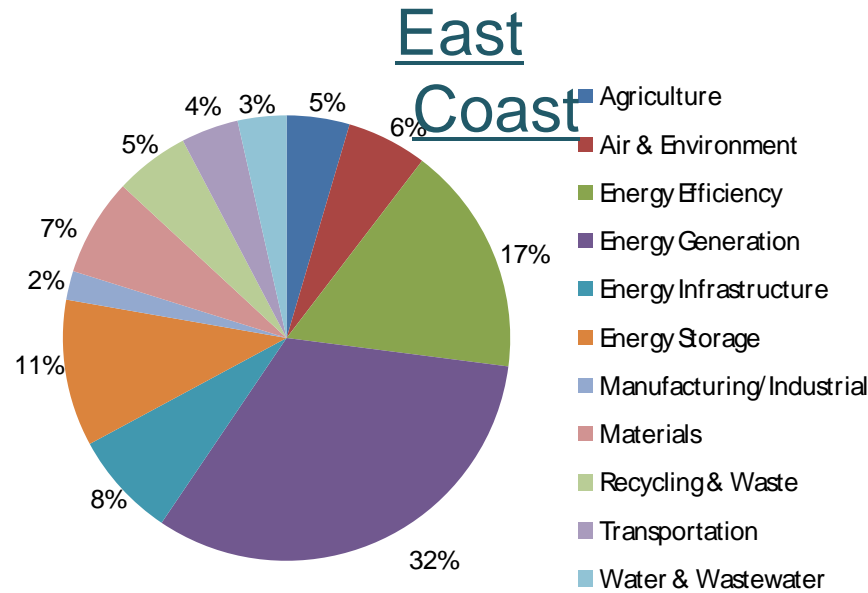


Source: Cleantech Network Database, 2005 – Oct. 10, 2010



# Investor Deal Flow:

## Subsectors of Cleantech Companies on East Coast and VA



# Investor Spectrum for Renewable Energy Investing in VA

## Angels

- Early stage investment
- Less angels in southeast with energy experience, more IT and biotech, often invest regionally
- Capital constraints, likely be more a fit for capital efficient smart grid, energy efficiency plays



## VC

- Early stage to expansion stage
- Few energy-focused VC's in Southeast but many invest nationwide
- Developer vs. development, technology-focus and scale
- Typical 5 year hold so energy asset ownership not preferred



## Private Equity

- Later stage/buyout
- Many dedicated funds for energy investment
- Often deploy very large amounts of capital
- Rely on some leverage
- Developer AND development, take less technology risk



## Infrastructure Fund/ Project Finance

- Project level investments
- Less active market
- Rely on large amount of leverage, grants and tax credits
- Financial interest is predictable long term asset ownership
- No tech risk, long term off-take a must



# Attracting Manufacturing Investment in VA

## Key Considerations: LONG TERM COMMITMENT AND SCALE



**2005  
Wind**

- PA state and utilities committed to 600MWs of wind power, already built 130MW, seen as wind leader on East Coast
- Spanish-based wind manufacturer and developer, Gamesa, located US manufacturing operations in PA
- 500 construction jobs, 1000 permanent manufacturing jobs



**2010  
Solar**

- AEP entered into a 20-year PPA for a 50MW solar project
- Spanish solar power component manufacturers, Prius Energy and Isofoton, will open OH manufacturing facilities
- 300 construction jobs, 300 permanent manufacturing jobs

Economic development battles are ensuing between states trying to attract local energy projects, manufacturing and resulting jobs

# Attracting Renewable Energy Project Investment in VA

Drivers and Incentives	Risks and Deterrents
Increasing electric capacity requirements in VA – 7,300MW by 2020 to maintain current import balance of 30%	No VA RPS or legislated demand – capacity can come from varying means
Sufficient and diverse resources: 15,000 MW of new capacity-weighted availability (1)	Many federal policies not permanent enough to give long term investors comfort
Proven, bankable technologies in the market	Opportunities in other states and countries provide for better returns or
Many investors looking to diversify generation type and location	Immediate opportunities of scale or ways to “move the needle” are lacking
Access to PJM interconnect – opportunity to sell into at premium prices	Incredibly slow moving market with many stakeholders involved, pain point still seems low
Dominion top 20 IOU, good partner for achieving scale	Electric rates in VA cheaper than national average - economics have to work with sufficient REC monetization

(1) VCCER: A Study of Increased Renewable Energy Resources in Virginia, November 11, 2005.