

# Delaware Sustainable Energy Utility

Senator Harris B. McDowell, III  
Chair, Energy and Transit Committee  
Chair, Sustainable Energy Utility Task Force



## New Direction

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- Create *Significant* Sustainable Energy Goals for Delaware
- Energy Efficiency: Delaware's Cheapest and Cleanest Resource
- Renewable Energy: Clean Energy, Made in Delaware
- Delaware's Way Forward:  
***The Sustainable Energy Utility***



# Ambitious Goals



## ***By 2015***

- Help Delawareans use 30% less energy\*
  - 1/3 of savings in our homes, 1/3 in our businesses, 1/3 in our cars and transportation services
  - Saves more than 3.0 million metric tons of CO<sub>2</sub>, equivalent to a 15% cut in our State's Carbon Footprint

## ***By 2019***

- Install over 300 MW of renewables at homes & businesses
  - 200 MW of Geothermal, Wind & Solar Thermal installed as a result of upgraded State Renewable Portfolio Standard (RPS)
  - 100 MW of Solar Electric on residential and commercial buildings through the new RPS Solar Carveout
  - 25 MW Solar Lifeline serves 14,000 low & moderate income households with life-sustaining energy: 200 kWh per month for 5 cents per kWh
  - Equivalent to an additional 10% cut in our State's Carbon Footprint

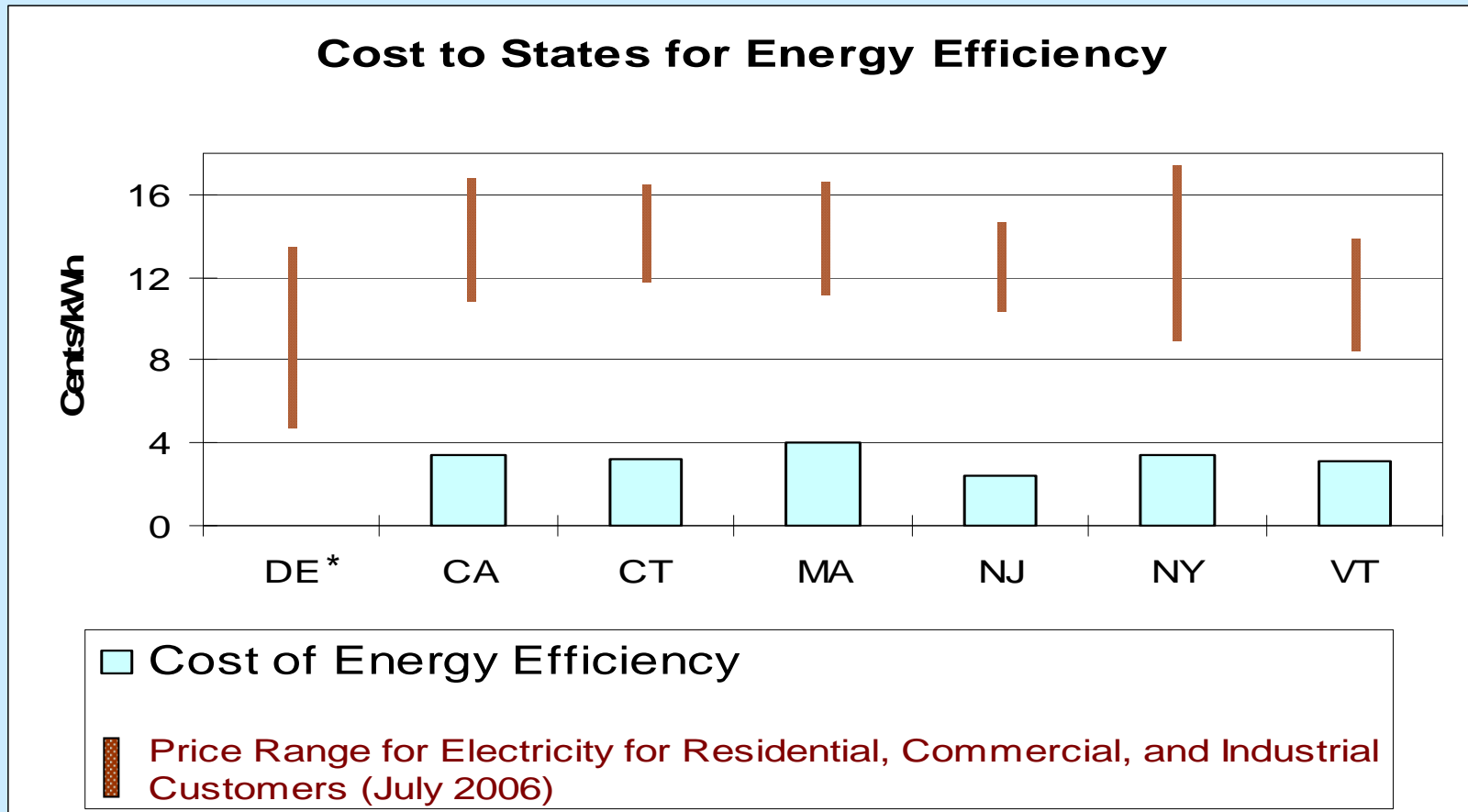
\* Assumes a 33% participation rate by 2015



# Energy Efficiency

*Delaware's Cheapest and Cleanest Resource*

## Cost of Energy Efficiency vs. Price of Retail Electricity



\* No data available. Delaware did not fund energy efficiency until July 1, 2006.





# Energy Efficiency

*Delaware's Cheapest and Cleanest Resource*

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## Key Policy Goal

Delawareans reduce energy use by 30% within 8 years\*

- 1/3 from homes, 1/3 from businesses, 1/3 from transportation
- Save households \$1,100 per year in energy bills
- Add 1,000 to 3,000 jobs in Delaware in the service and manufacturing sectors
- Reduce CO<sub>2</sub> emissions, thereby shrinking the State's Carbon Footprint by 33% (compared to business-as-usual)
- Programs available to all households and small & medium businesses
- Pioneer states have 5-10 year history of successful programs – **SEU target is achievable!**

*\*Based on estimates by the Delaware Sustainable Energy Utility Task Force, 2006 (30%); Governor's Energy Task Force Conservation and Energy Efficiency Working Group, 2003 (30% target); Delaware Climate Change Action Plan, 2000 (30% target)*



# Renewable Energy

*Clean Energy, Made in Delaware*

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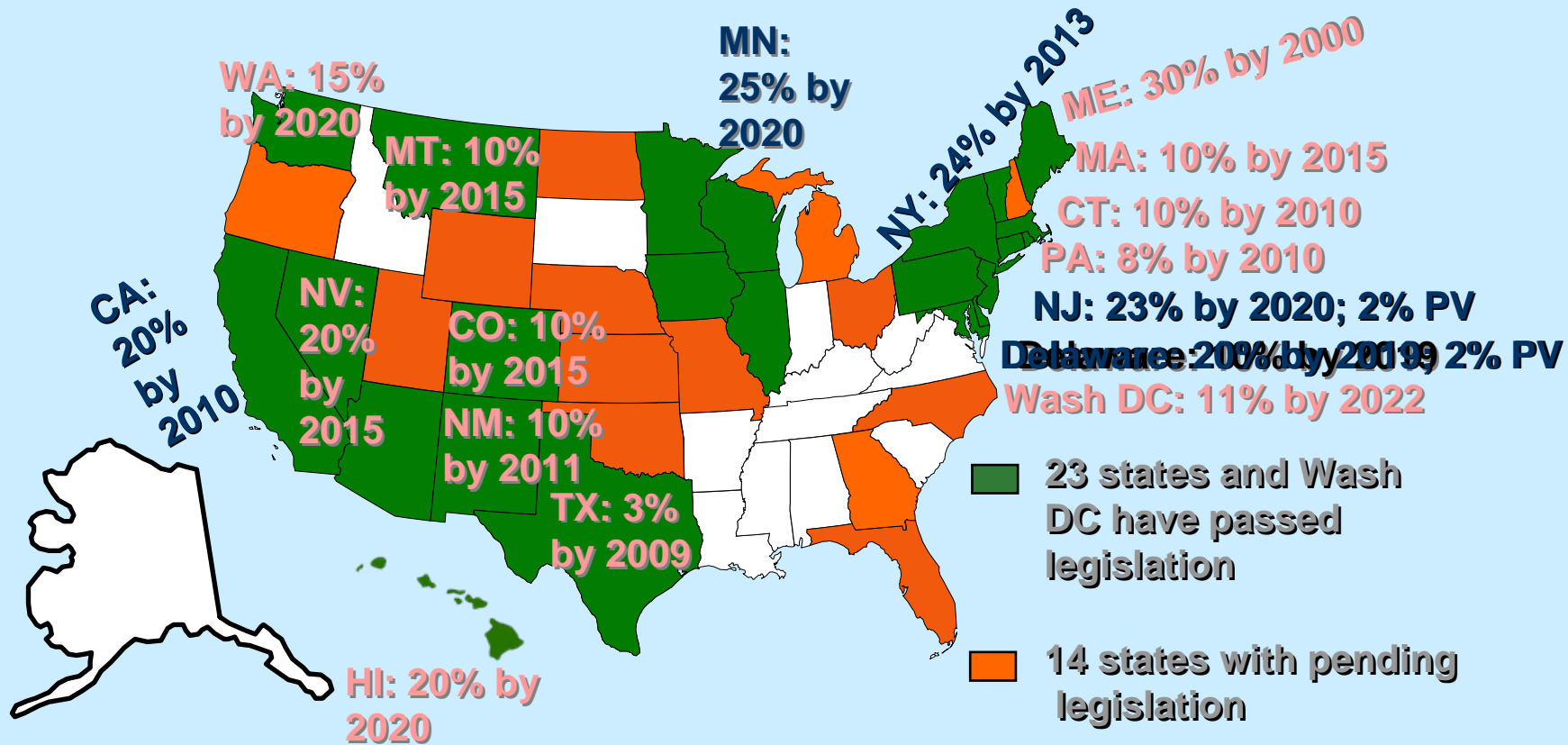
## **Solar Energy:** **Delaware's greatest renewable resource**

*1.1% of Delaware's land area covered with solar panels would meet all of Delaware's annual electricity needs. This is likely much less than the total area of roof tops in Delaware.\**

- General Electric's U.S. Solar Manufacturing Plant – Newark
- High quality workforce and leading materials science researchers
- Aggressive renewables development can stimulate 2,000—5,000 new jobs in Delaware
- NJ has the nation's fastest growing PV market, not a Western state:
  - Why? **Good policy!!!**

\* Source: Applied Energy Group, 2002, for Governor's Energy Task Force

# State Renewable Portfolio Standards in the U.S.



Sources: CEEP, 2007;  
DSIRE, 2007; UCS, 2005

29 states have completed  
Climate Change Action Plans  
(US EPA, 2006)

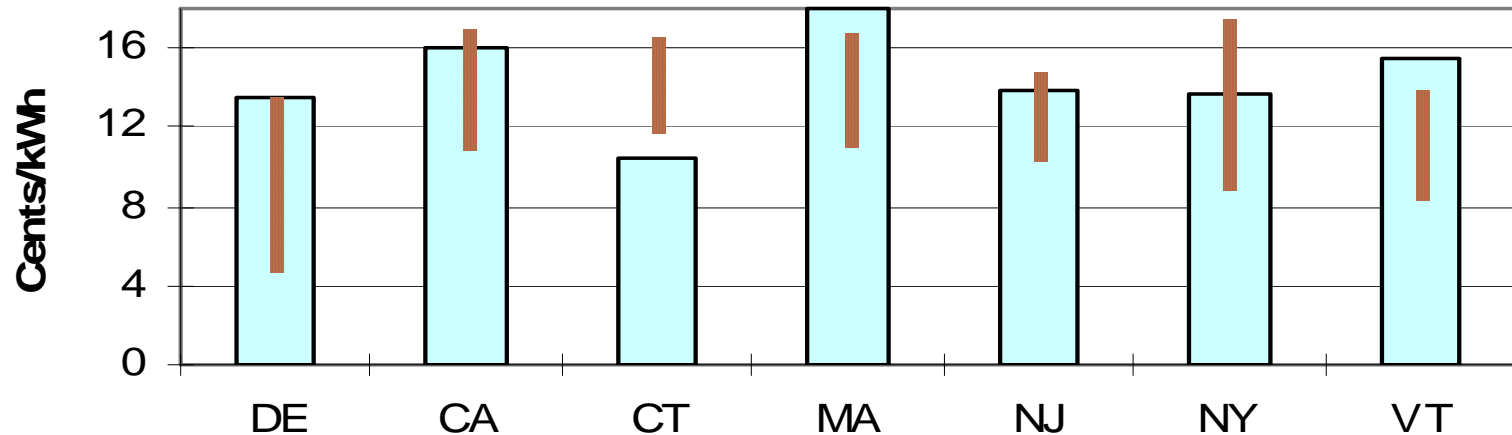




# Renewable Energy

*Clean Energy, Made in Delaware*

## Levelized Cost of Electricity for PV After Incentives



□ Levelized Cost of Electricity for PV

■ Price Range for Electricity for Residential, Commercial, and Industrial Customers (July 2006)





# Delaware at a Crossroads

## *Old*

## *New*

High energy volatility; price spikes	Energy efficiency and customer-sited renewables eliminate price shocks
Centralized, brown energy generation	Distributed, green energy resources
No market competition, no innovation, government-granted monopoly	Competition promotes innovation in end-user markets
No consumer control over energy choices	Customers capture value from energy savings; one-stop shopping for all sustainable energy services
Utility disincentives to conserve energy	Real reductions in energy bills; services improve; affordable energy programs created



## *Delaware Sustainable Energy Utility*

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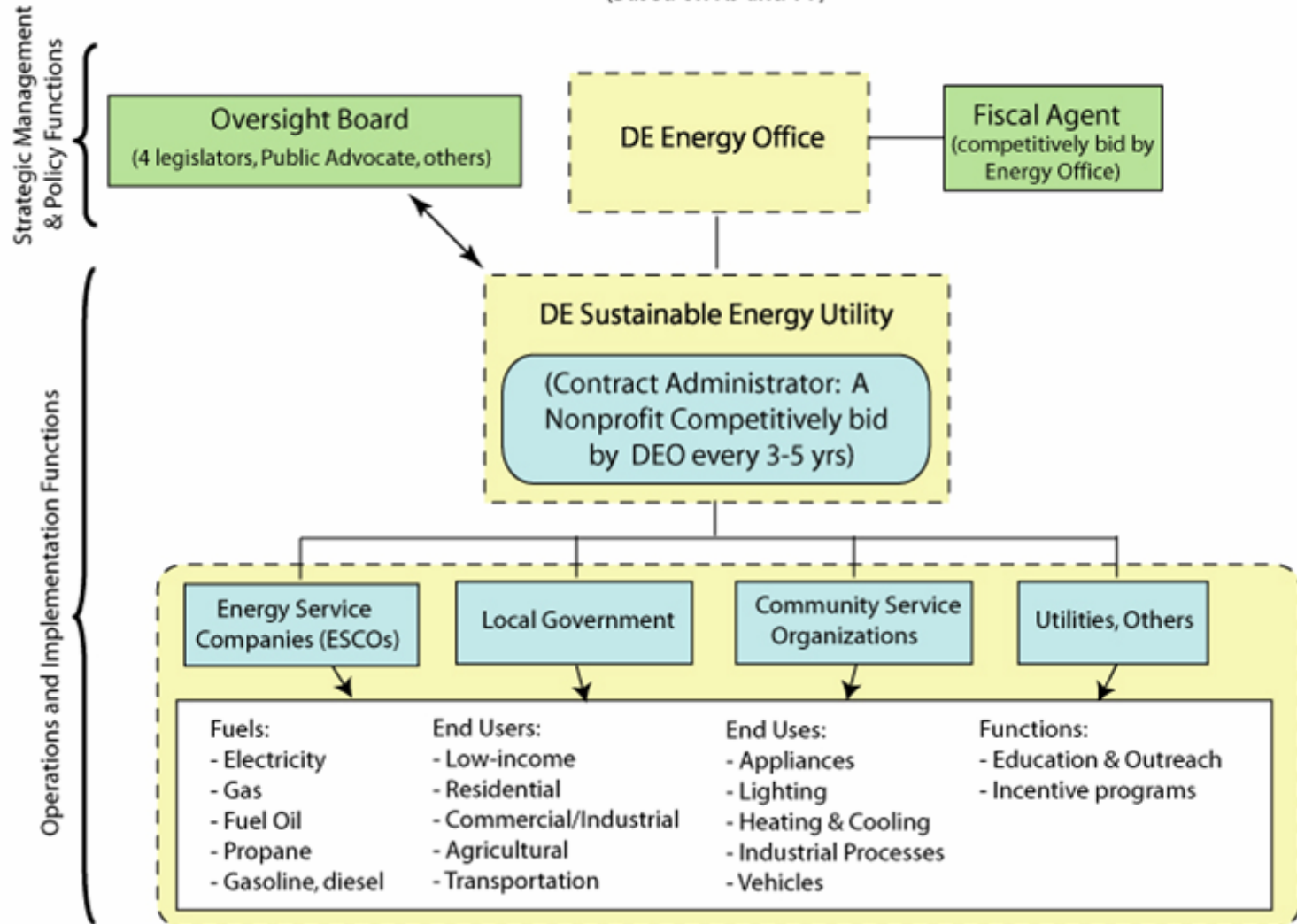
- Delaware's Clearinghouse for Sustainable Energy
  - Energy Efficiency
  - Customer-Sited Renewables
  - Affordable Energy
  - Clean Vehicles
  - Green Buildings
- Create New Markets & New Jobs
- Competitive Market with Public Oversight





# Delaware Sustainable Energy Utility

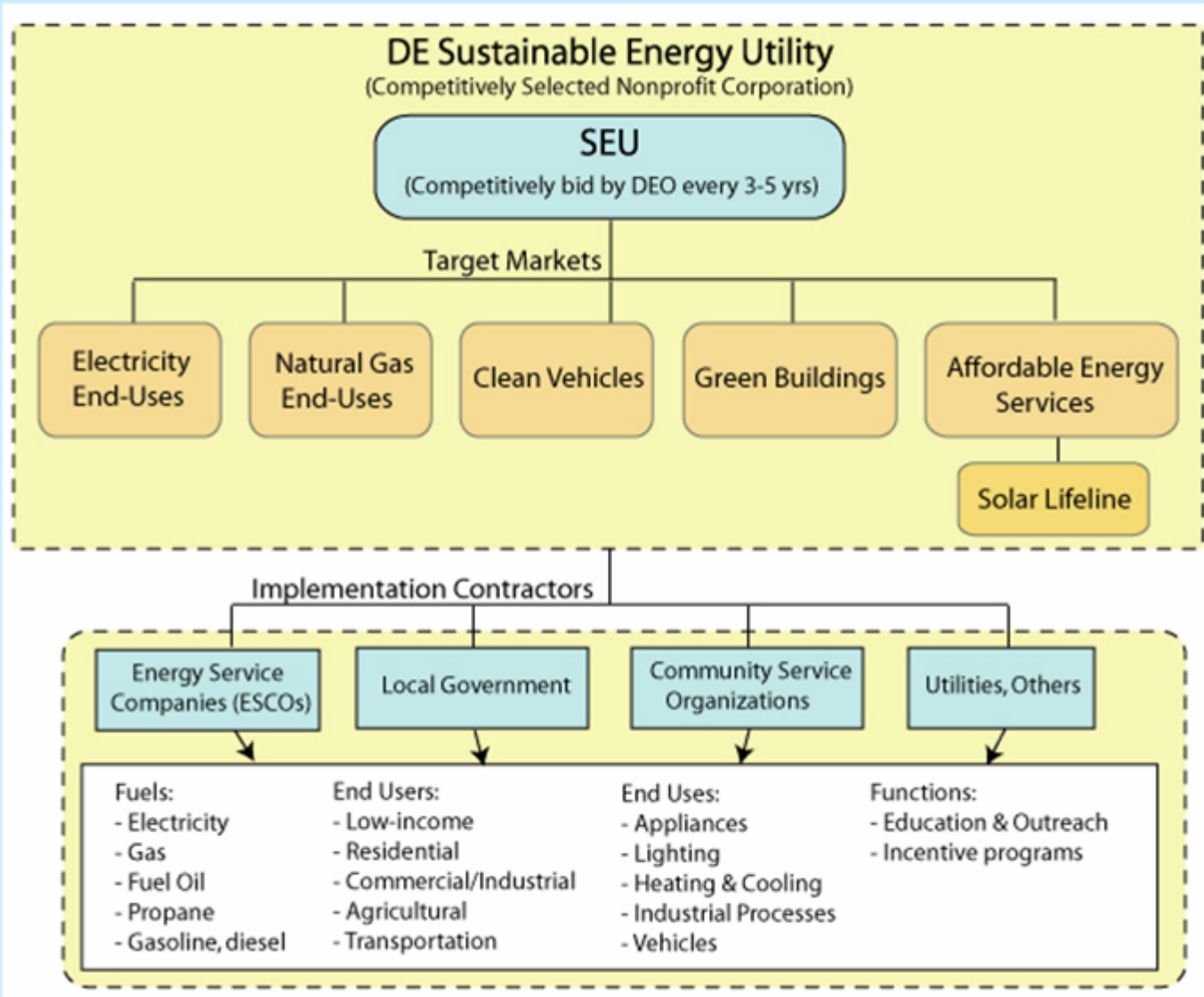
## Proposed Delaware SEU Framework (Based on NJ and VT)





# Delaware Sustainable Energy Utility

## Target Markets





## *Delaware Sustainable Energy Utility*

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# SEU Delivers Packaged Services

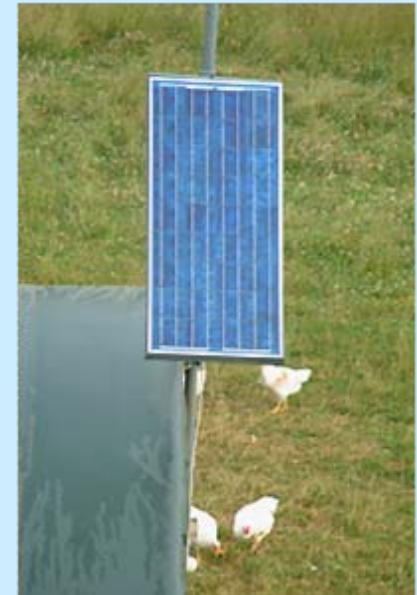
- All fuels, all customers, all markets
- No technology silver-bullets, no cream-skimming
- Independently monitored and verified performance



# *Delaware Sustainable Energy Utility*

## **Existing sustainable energy programs in DE**

- PV for poultry
  - Solar energy for agriculture facilities
- Green Energy Fund
  - 50% Rebates for customer-sited renewables
- Affordable energy programs
  - Delaware's weatherization program
    - one of the best-performing in the nation – currently saves households 18-26% on their energy bills





# *Delaware Sustainable Energy Utility*

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## **SEU Program Additions**

- Rebates
- Loans
- Shared savings programs
- Home energy audits
- Demand shaving (for commercial/industrial)
- Public-private leveraged partnerships
- Major renewables development
- Solar Lifeline

## **SEU Revenue Sources**

- Leveraged private sector investment
- Leveraged Tax Credits
- Green Energy Fund
- Sustainable Energy Bond
- Renewable energy certificate (REC) sales
- Revenue and private activity bonds



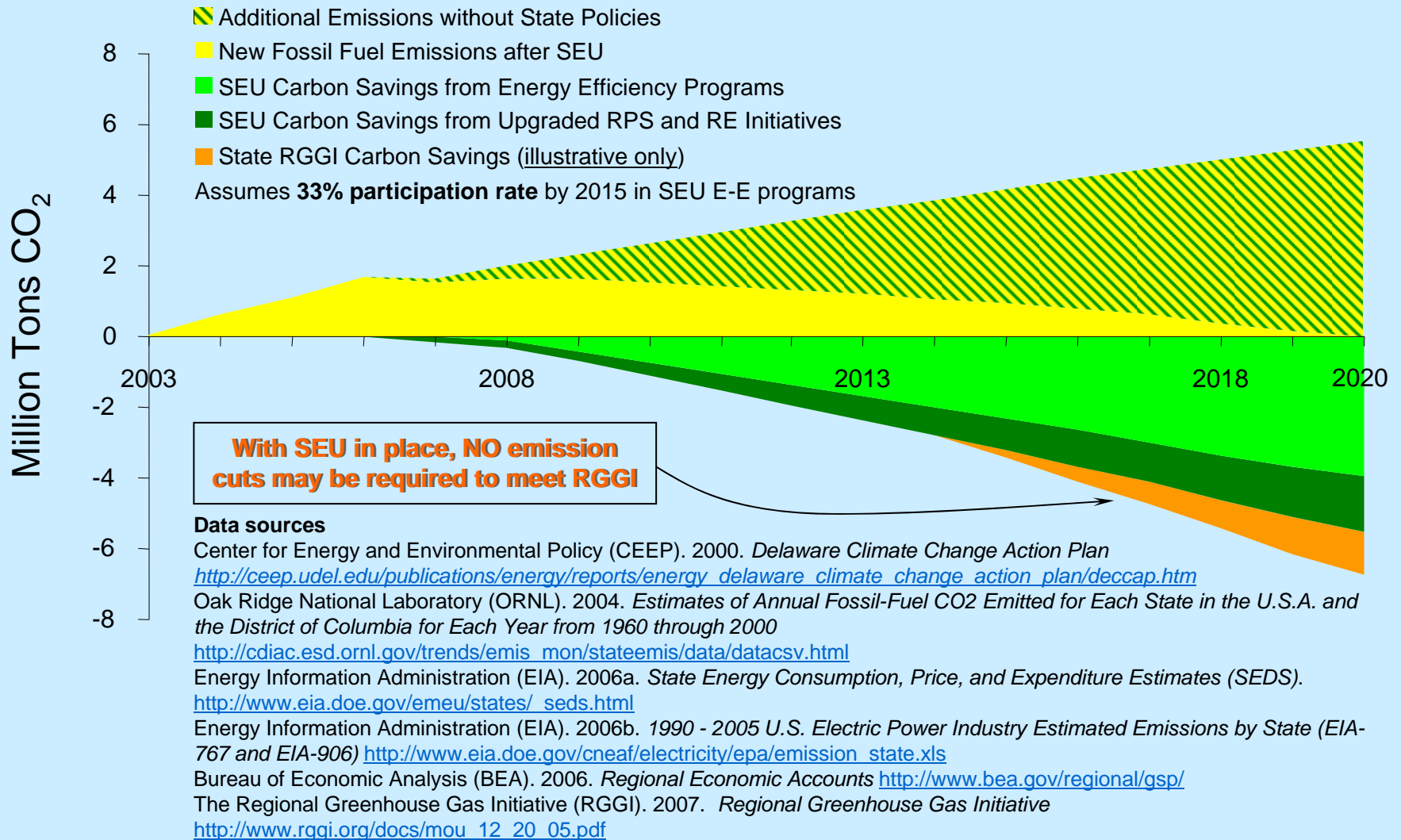
# Policy Initiatives



- **Renewable Portfolio Standard (RPS) – Increased**
  - Upgrade to proven ‘best practice’: 20% by 2019; add 2% solar carveout
- **Green Energy Fund (GEF) – Doubled**
  - Support customer-sited renewables, energy efficiency & affordable energy
  - Increase for the average consumer of only 18 cents per month
- **Net Metering Standards – Updated**
- **Authorize a *Sustainable Energy Bond***
  - Authorize our State to invest \$30 million in an Energy Future that creates jobs, lowers energy bills and improves our environment
- **Create the *Delaware Sustainable Energy Utility***
  - Reduce energy consumption for participating families by 30% by 2015 & add more than \$1,000 per year to the household budget
  - Install over 300 MW of Geothermal, Wind, Solar Electric & Solar Thermal
  - Establish 25 MW Solar Lifeline and lower electric bills 17% for low and moderate income families
  - Create several thousand new jobs to support energy efficiency & renewable energy development
  - Cut State CO2 emissions in 2020 by 33%
  - Relieve local grid congestion – reduce power outages
  - Offer one-stop, comprehensive sustainable energy services to all Delawareans

# Delaware Sustainable Energy Utility

## Our Best Environmental Policy



# *Delaware Sustainable Energy Utility*

Website: <http://www.seu-de.org/>

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