OVERVIEW OF THE SUSTAINABLE ENERGY UTILITY

Presentation to

Delaware RGGI Working Group

Senator Harris B. McDowell III
Chair, Delaware Sustainable Energy Utility Oversight Board

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October 25, 2007

SEU Task Force Members

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Dr. John Byrne, Co-Chair

Charlie Smisson, State Energy Coordinator

3 State Senators (in addition to Senator McDowell)

4 State Representatives

Delaware's Public Advocate

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(the oldest African- American community organization in DE)

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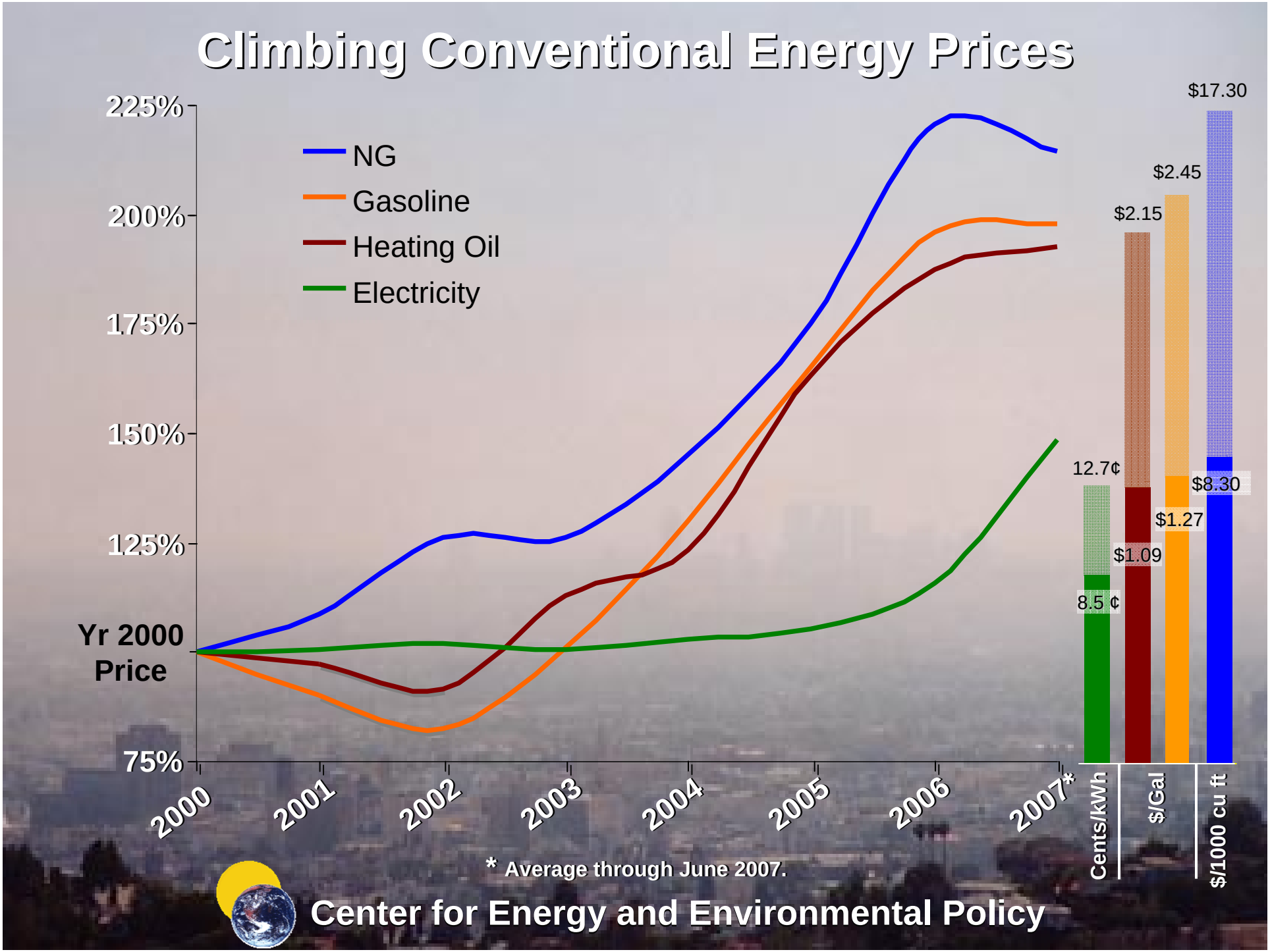
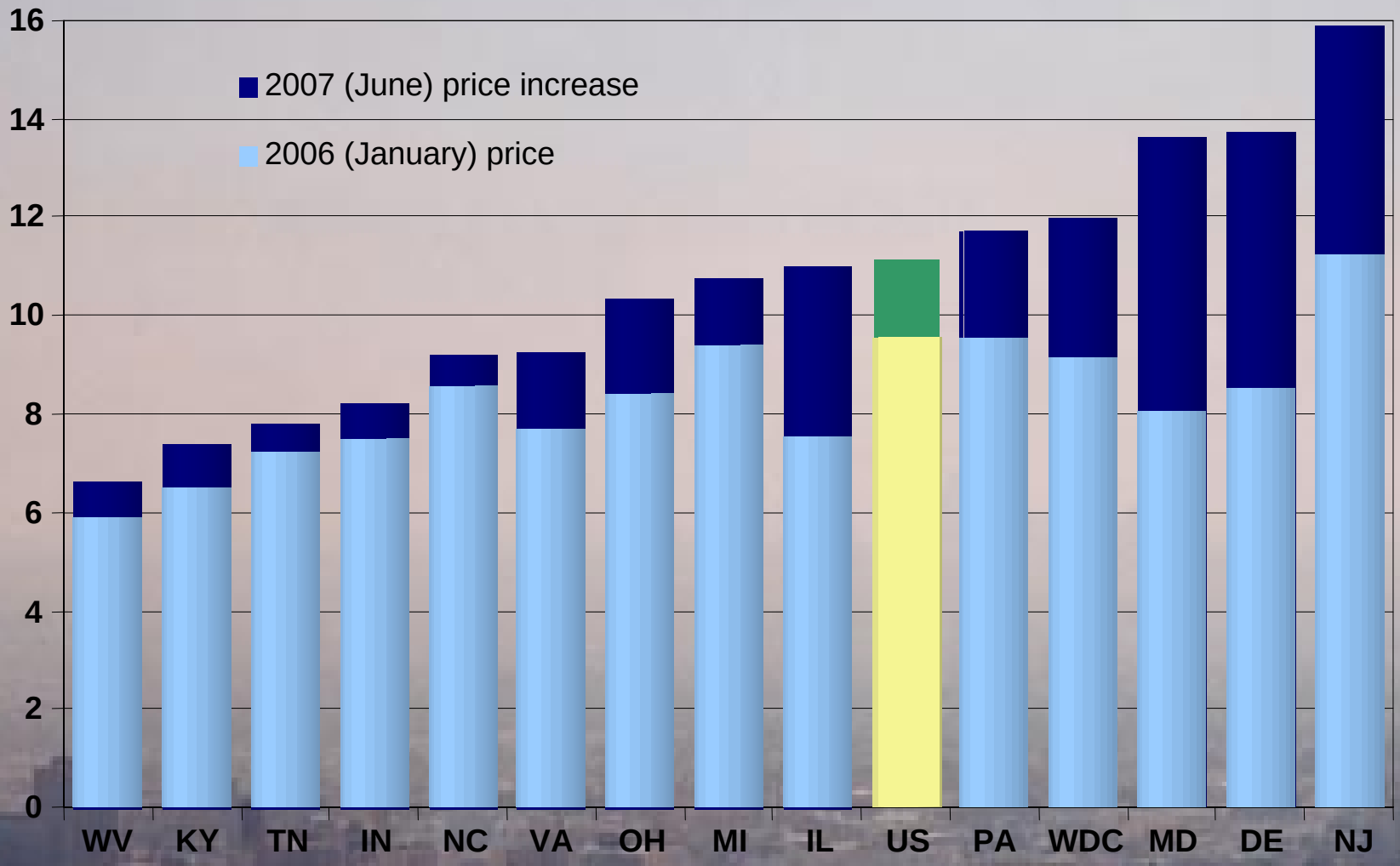
Climbing Conventional Energy Prices



* Average through June 2007.

Center for Energy and Environmental Policy

PJM Region
Residential Electricity Prices: Jan 2006 - July 2007



Source: EIA 2007. Average Price by State by Provider (EIA-861)

Center for Energy and Environmental Policy

New Direction – Goals of a Sustainable Energy Utility

By 2015

- Participating Delaware residents and businesses cut conventional energy use by 30%: ALL FUELS, ALL SECTORS
  - Utilize Market Transformation Rebate Programs: pay the incremental cost difference between standard and high-efficiency models
  - Create a Green Buildings Initiative: reward green renovations of existing buildings and provide incentives for new construction that contributes to Low/No Emissions Buildings
  - Adopt a Sustainable Transport Plan: promote High MPG, Low Carbon Vehicles; reward Employee Commute Planning; incent Carsharing

By 2019

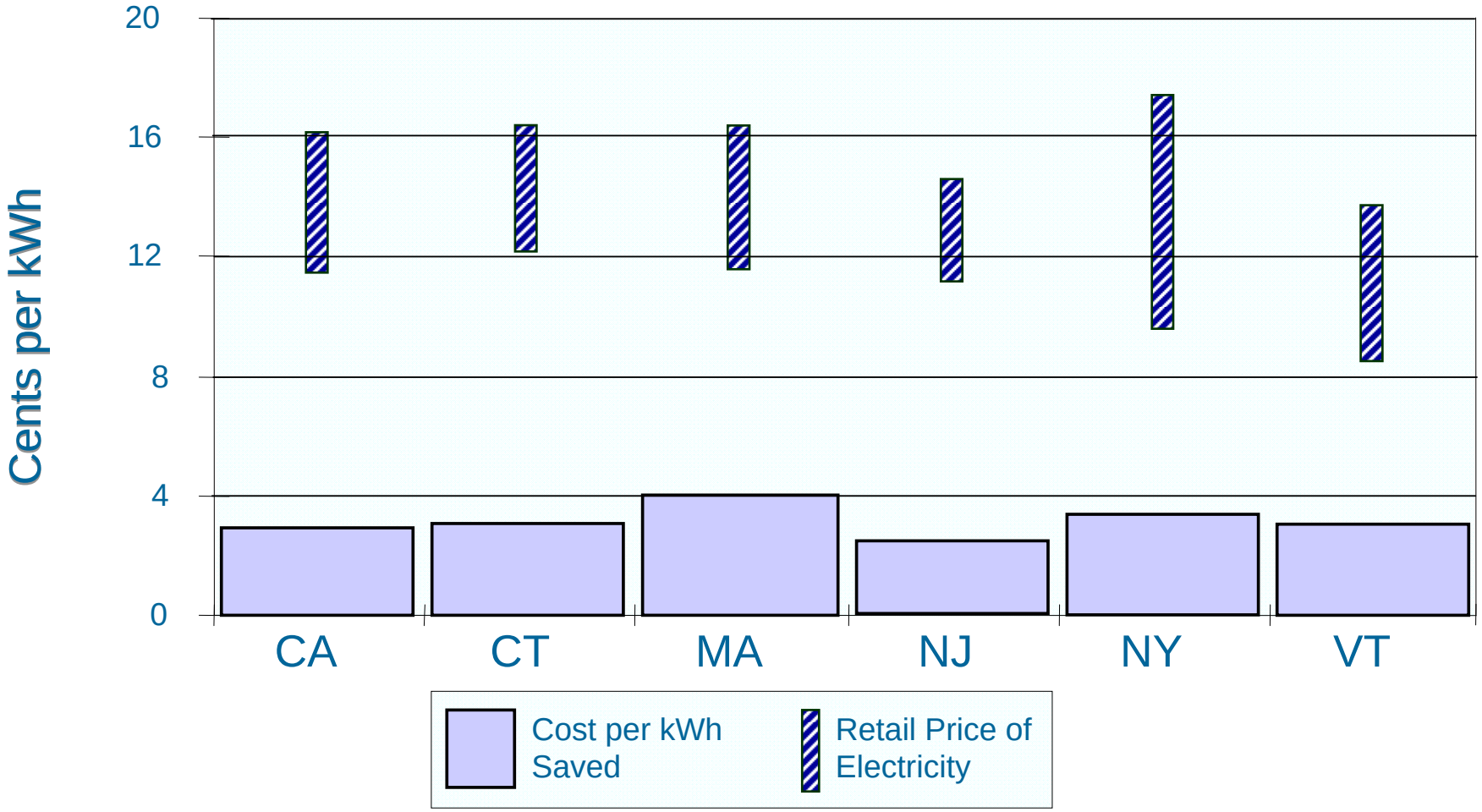
- 20% of electrical generation serving the State to come from Renewables
  - Upgrade the Renewable Portfolio Standard (RPS) to 20% by 2019
  - Include a Solar Carveout of 2% by 2019 with High-Value Solar RECs
  - Encourage a Renewable Energy Credits (RECs) Market, providing a revenue stream to customer-sited renewables

Both Goals = 25-30% reduction in Delaware's carbon footprint

Policy Agenda

- **Renewable Portfolio Standard (RPS)**
  - Upgrade to proven 'best practice': 20% by 2019
  - Add 2% Solar Carveout
- **Green Energy Fund (GEF)**
  - Double GEF mill rate to support renewables &energy efficiency
  - Cost to the average residential customer = ~ 18 cents per month
- **Net Metering Standards**
  - Enable commercial and industrial customers to generate up 2 MW
  - Enable residential customers to generate up to 25 kW
  - Net meter customer generation at full retail rates (including generation and T&D)
- **Authorize a Sustainable Energy Bond**
  - Authorize the State to initially invest $30 million in a Sustainable Energy Future
- **Create the Delaware Sustainable Energy Utility**
  - An incentive-based institution that utilizes performance contracting
  - Offers one-stop, comprehensive sustainable energy services to all
  - Super Majority 3/4th Vote Required:
    - Senate (Democrat Party majority): 19-1
    - House (Republican Party majority): Unanimous vote in favor

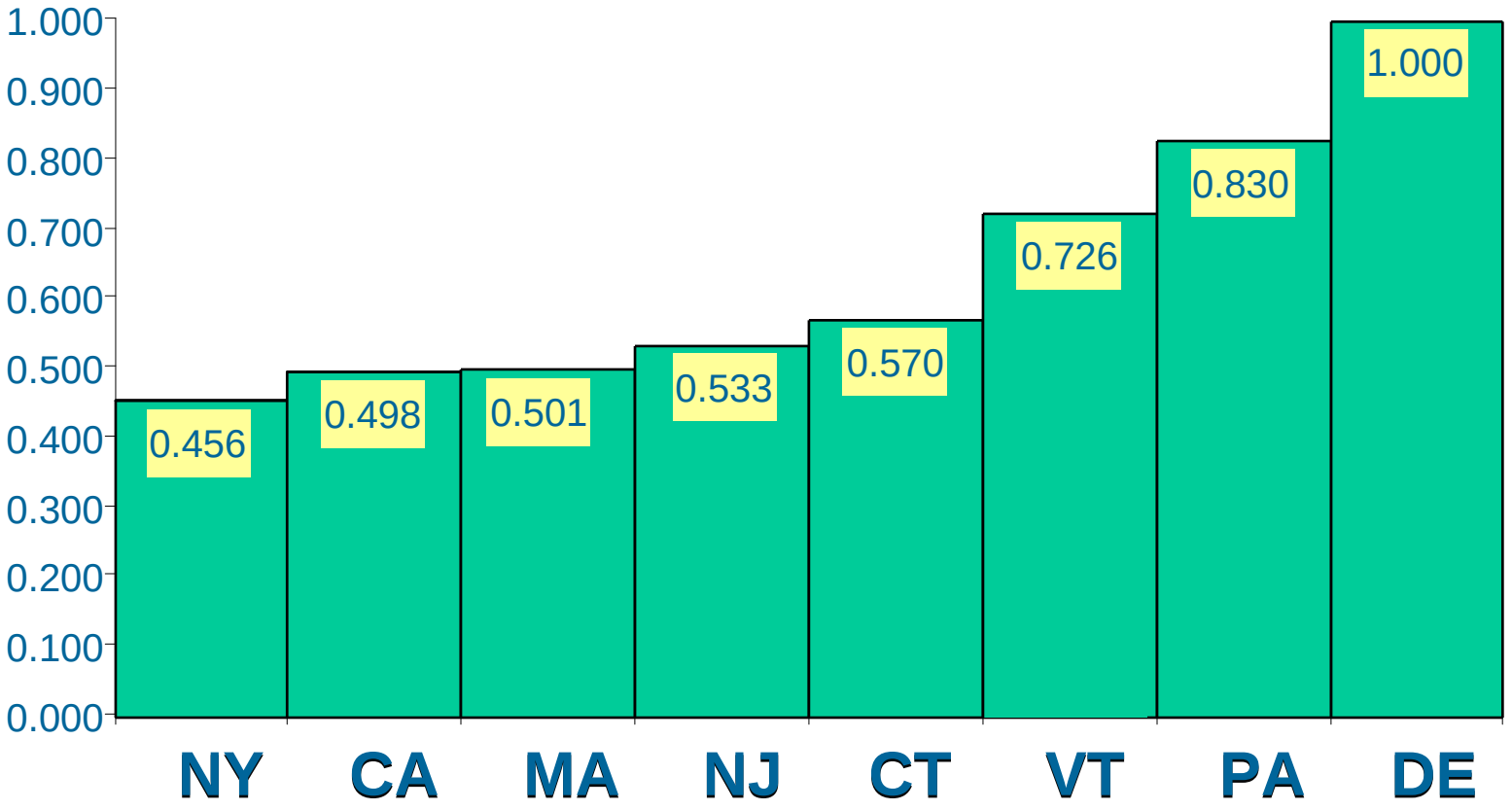
U.S. Cost per kWh Saved versus kWh Supplied



Source: Delaware Sustainable Energy Utility Task Force (2007)
http://www.seu-de.org/docs/Section_F.pdf http://www.seu-de.org/docs/Section_H.pdf and http://www.seu-de.org/docs/App_A.pdf

DELAWARE – A PORTRAIT OF UNSUSTAINABILITY

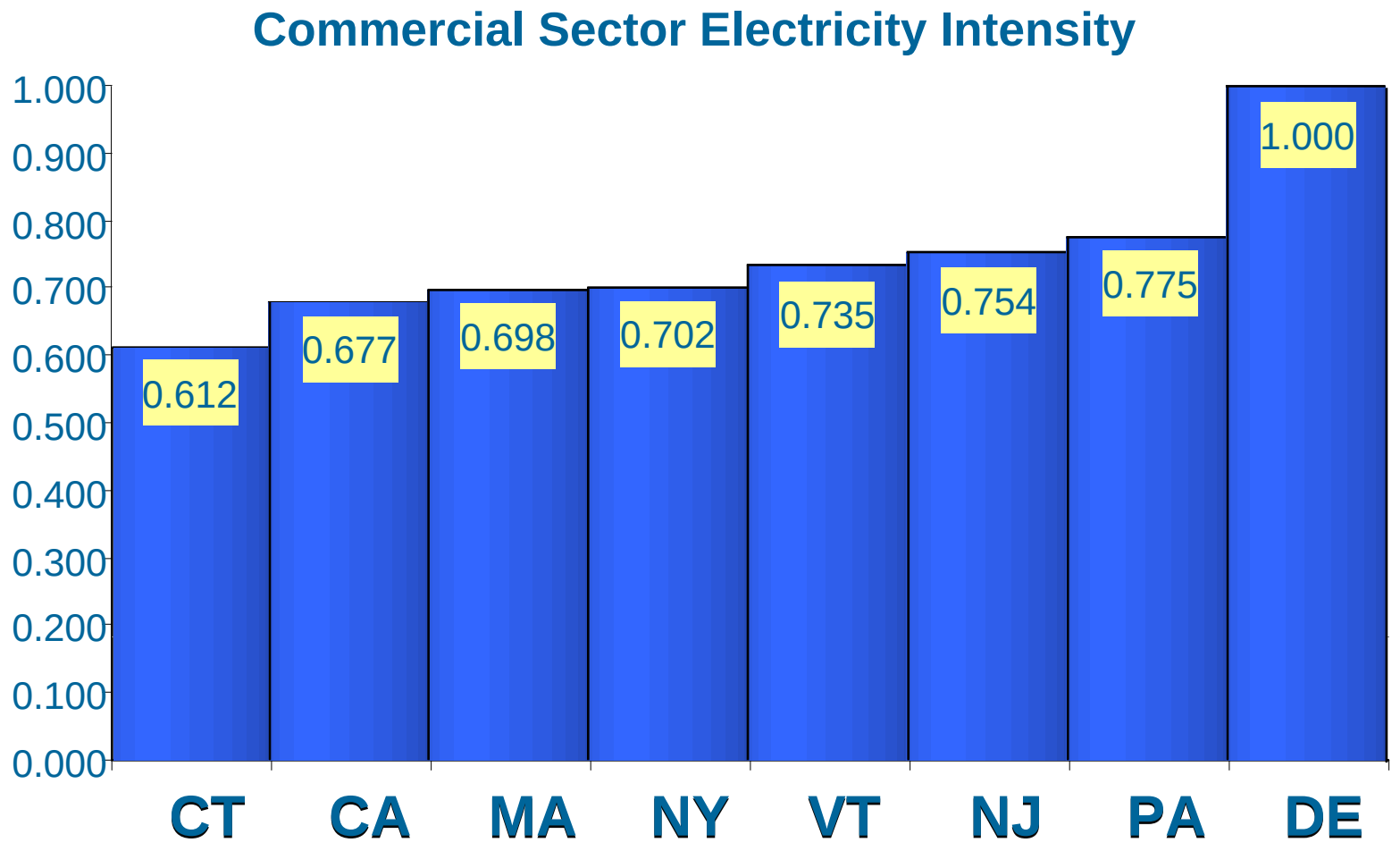
Residential Sector Electricity Intensity



Sources: Sustainable Energy Utility Task Force (2007)
Available at: http://www.seu-de.org/docs/fina_report_brief.pdf

Statistical details available at:
http://www.seu-de.org/docs/IRP_submission_4-10-07.pdf (especially pp. 9-12).

DELAWARE – A PORTRAIT OF UNSUSTAINABILITY



Sources: Sustainable Energy Utility Task Force (2007)
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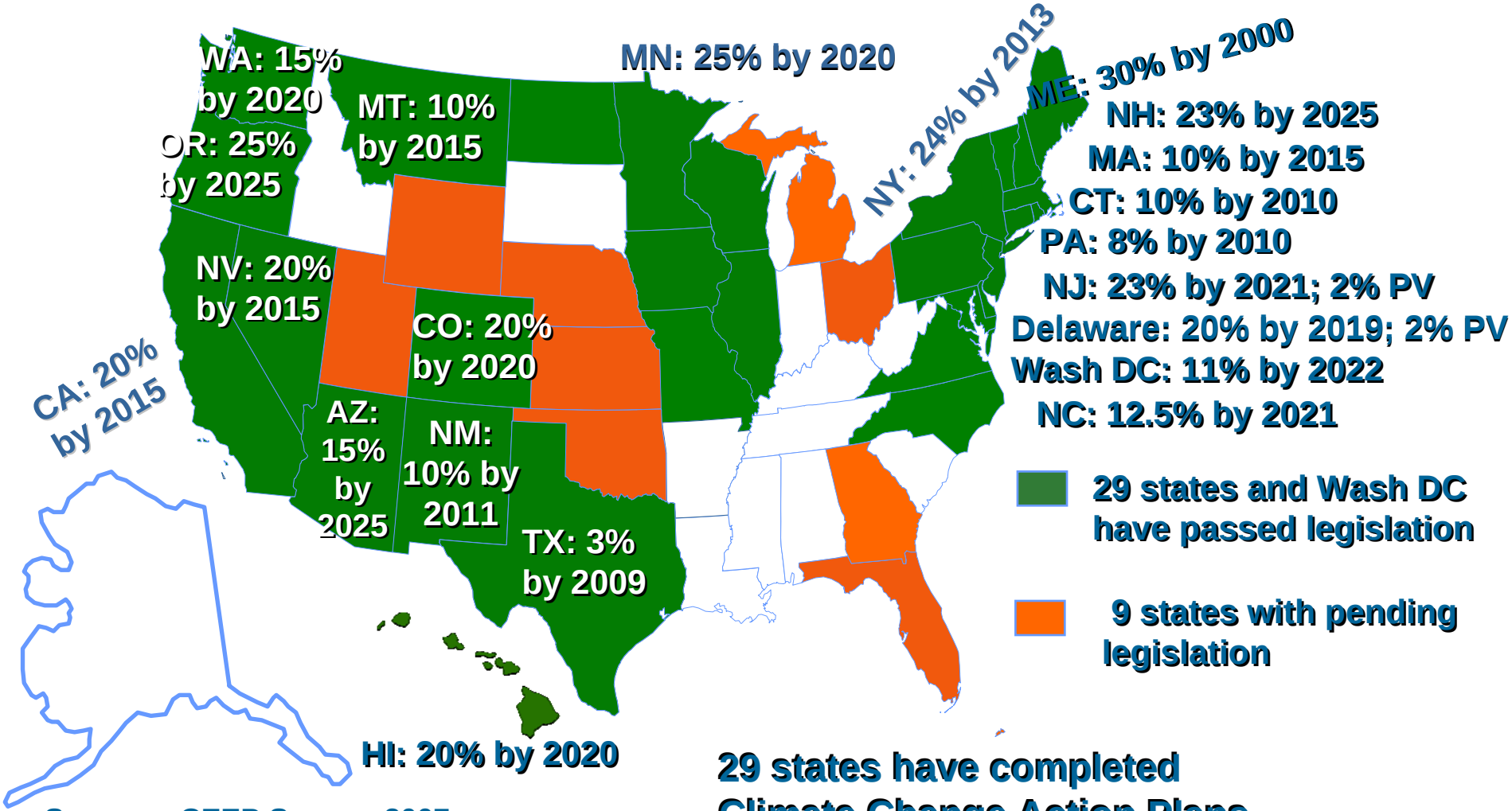
State Renewable Portfolio Standards in the U.S.



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

29 states have completed Climate Change Action Plans
http://yosemite.epa.gov/oar/globalwarming.nsf/content/ActionsStateActionPlans.html

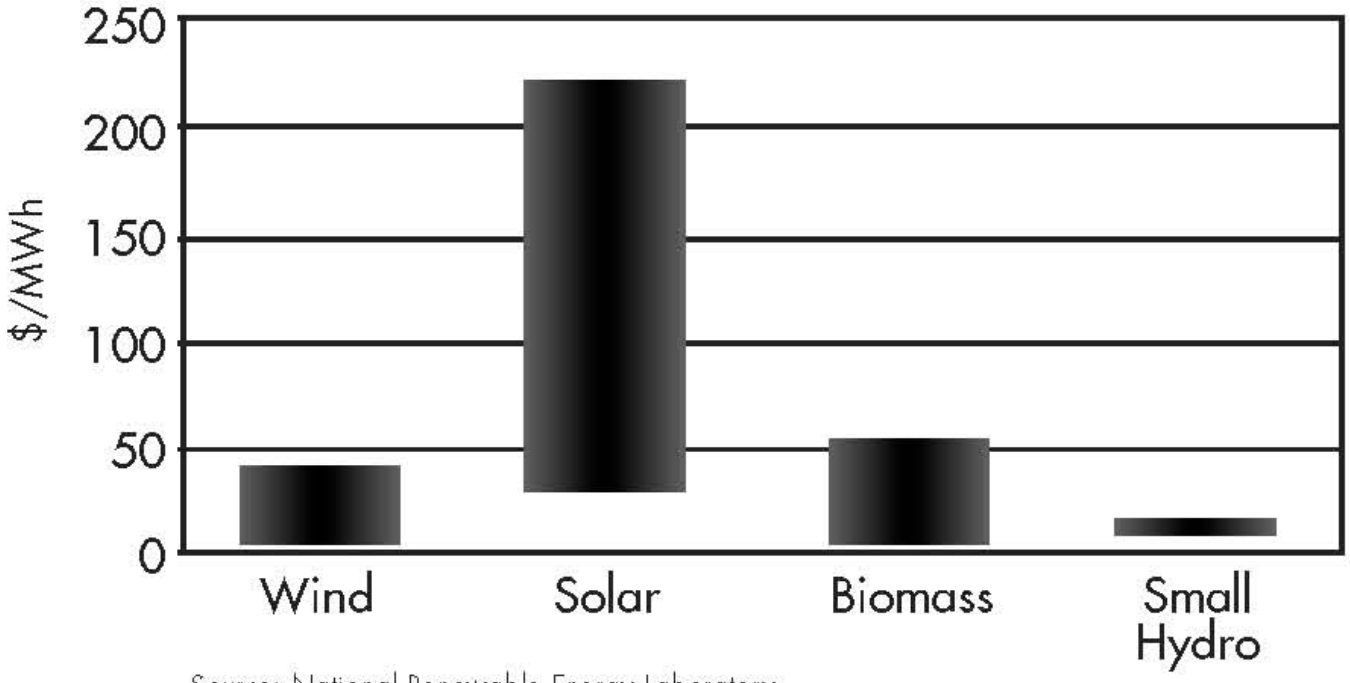
Center for Energy and Environmental Policy

SEU Aggregates RECs & Sells to Compliance Markets

Figure 1

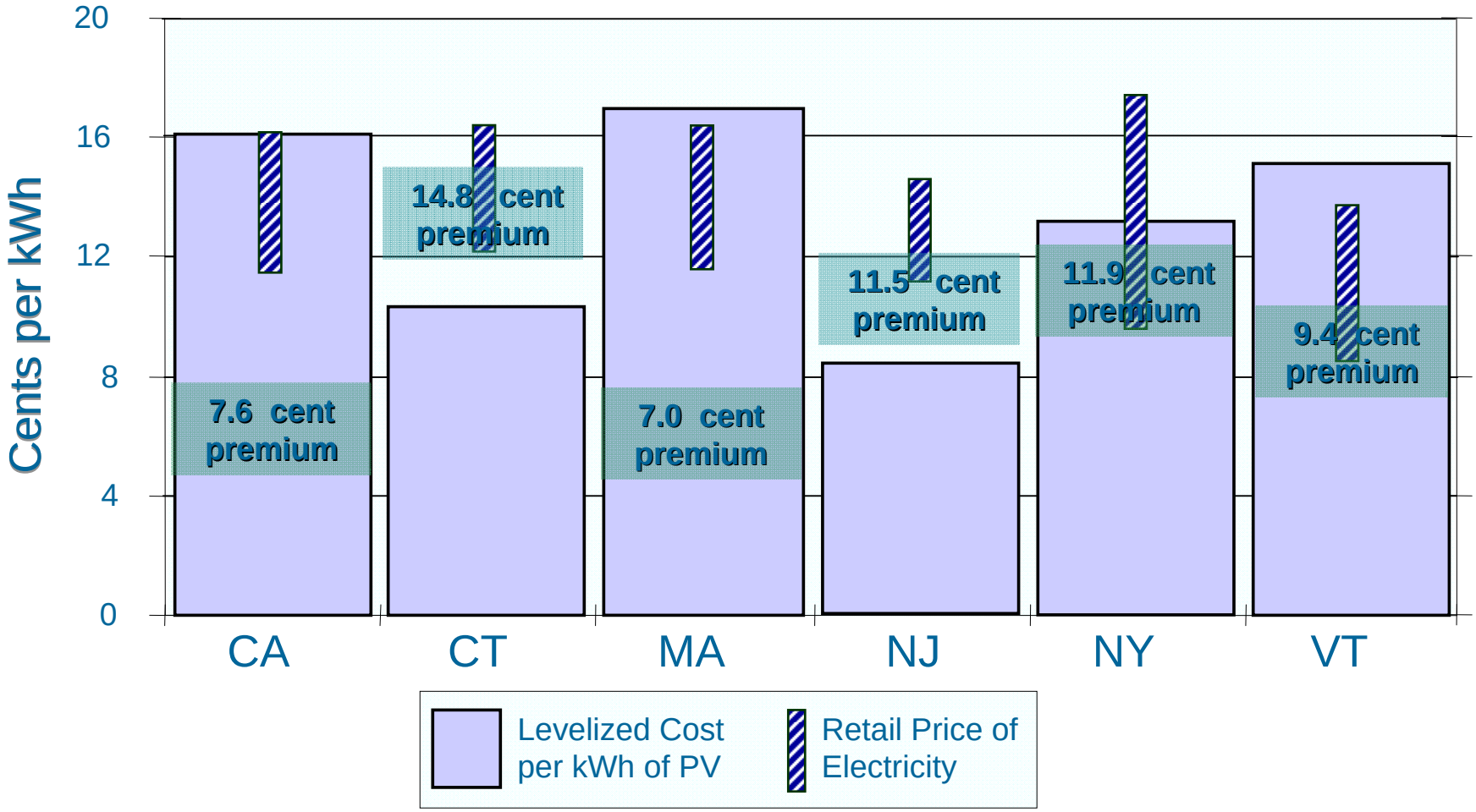
Wholesale REC Prices by Resource Type

REC prices vary widely in voluntary markets.



Source: National Renewable Energy Laboratory

Levelized Cost per Solar kWh vs Retail Price per kWh



Source: Delaware Sustainable Energy Utility Task Force (2007)
http://www.seu-de.org/docs/Section_F.pdf http://www.seu-de.org/docs/Section_H.pdf and http://www.seu-de.org/docs/App_A.pdf

Center for Energy and Environmental Policy

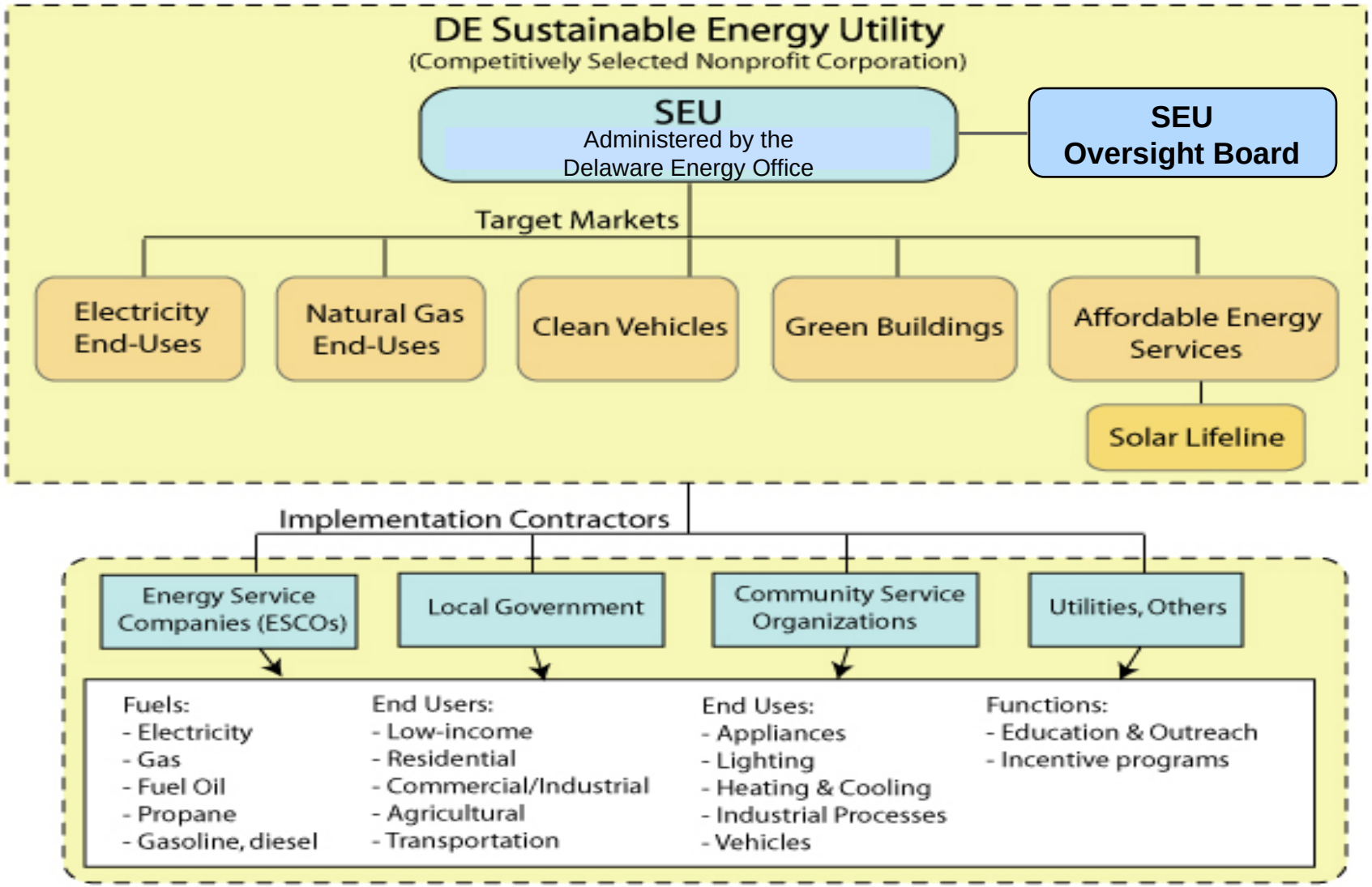
White Roof Coating Program
Energy Coordinating Agency (Philadelphia)

Approximately 440,000 row homes in Philadelphia, about nine in ten have black tar roofs

White roofs never get hotter than ~ 95° F

Black roofs can be hotter than 115° F

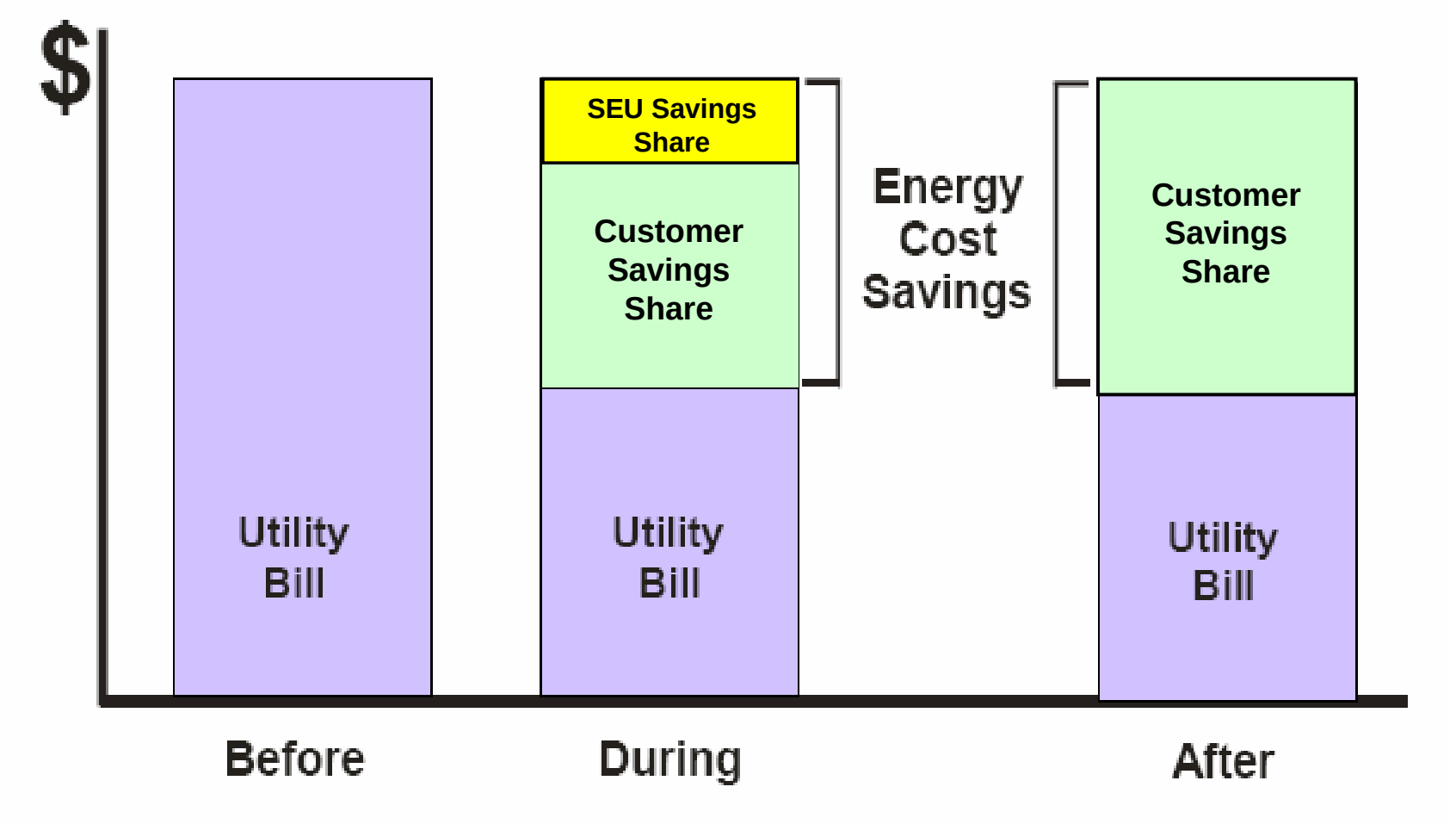
New Direction – A Sustainable Energy Utility



New Direction – Funding a Sustainable Energy Utility

- **Green Energy Fund (GEF)**
  - Support Rebates for customer-sited renewables, energy efficiency & affordable energy services from the State's Public Benefit Charge
- **Sustainable Energy Bond**
  - Borrowing from San Francisco, the Task Force identified Sustainable Energy Bonds as a tool to create jobs, lower energy bills and improve the environment
- ***Reinvest through Shared Savings and RECs***
  - In return for assumption of initial capital cost of Sustainable Energy Investments by the SEU, sign agreements with participants to share savings (e.g., 33% for 3-5 years) and REC revenues (e.g., 25% for 8 years)
  - Encourage implementation contractors to acquire volume discounts in return for SEU market development and share benefits with the SEU

Performance Contracting



Source: King, 2003

SEU Cash Flow Detail

(not including Sustainable Energy Bond)

	Expenditures					Revenues	Balance
Year	SEU Contract	SEU Program Costs (Rebates, Incentives, EM&V, etc.)	SEU / DEO Education & Marketing	Bonus Fund	Expenditure Totals	SEU Revenues: 0.25RECs + 0.33SS (yrs 1-5) + GEF Revenues	Annual Cash Balance
2008	-$800,000	-$5,953,981	-$300,000	-$100,000	-$7,153,981	$3,140,411	-$4,013,569
2009	-$816,000	-$8,823,059	-$300,000	-$175,000	-$10,114,059	$7,630,898	-$2,483,161
2010	-$832,320	-$10,520,922	-$300,000	-$192,962	-$11,846,205	$12,864,141	$1,017,936
2011	-$848,966	-$17,429,788	-$261,447	-$288,291	-$18,828,492	$19,219,402	$390,910
2012	-$865,946	-$21,628,684	-$432,574	-$392,609	-$23,319,812	$26,173,902	$2,854,090
2013	-$909,243	-$32,364,351	-$647,287	-$664,624	-$34,585,505	$33,231,192	-$1,354,313
2014	-$954,705	-$38,569,611	-$771,392	-$759,003	-$41,054,712	$37,950,155	-$3,104,557
2015	-$1,002,440	-$42,212,500	-$844,250	-$841,412	-$44,900,602	$42,070,590	-$2,830,012
Sub-totals	-$7,029,621	-$177,502,896	-$3,856,950	-$3,413,900	-$191,803,367	$182,280,690	-$9,522,677
2016	-$1,052,562	-$41,052,588	-$821,052	-$937,295	-$43,863,498	$46,864,759	$3,001,262
2017	-$1,105,191	-$44,887,443	-$897,749	-$1,020,003	-$47,910,386	$51,000,162	$3,089,776
2018	-$1,160,450	-$45,173,259	-$903,465	-$1,068,534	-$48,305,708	$53,426,697	$5,120,989
2019	-$1,218,473	-$42,744,016	-$854,880	-$1,123,466	-$45,940,835	$56,173,305	$10,232,470
Totals	-$11,566,296	-$351,360,203	-$7,334,096	-$7,563,199	-$377,823,794	$389,745,614	$11,921,820

Prepared for the Delaware Sustainable Energy Utility Task Force by the Center for Energy & Environmental Policy, University of Delaware.

SEU Prospectus

Year	Net SEU Revenues (before Debt Service) Balance of SEU Costs and Revenues	SEU Bond Debt Service: Tax Exempt Bond Floats			Annual Interest Cost for Bond 1 (Yield = 5.20%)	Annual Interest Cost for Bond 2 (Yield = 5.0%)	Annual Interest Cost for Bond 3 (Yield = 4.90%)	Annual Interest Cost for Bond 4 (Yield = 4.90%)	Bond Management	Debt Totals	Net SEU Revenue (after Debt Service & Bond Retirement) SEU Balance + Bond Interest Cost + Bond Principal	SEU Bottom Line Cumulative Cash Flow
2008	-$4,013,569	Bond 1: 5 yr Maturity	Yield = 5.20%	$7,700,000	-$400,400				-154000	-$554,400	$3,132,031	$3,132,031
2009	-$2,483,161				-$400,400					-$400,400	-$2,883,561	$248,469
2010	$1,017,936	Bond 2:	Yield = 5.00%	$0	-$400,400	$0			$0	-$400,400	$617,536	$866,006
2011	$390,910	Bond 3:	Yield = 4.90%	$0	-$400,400	$0	$0		$0	-$400,400	-$9,490	$856,515
2012	$2,854,090	Bond 4: 8 yr Maturity	Yield = 4.90%	$15,300,000	-$400,400	$0	$0	-$749,700	-$306,000	-$1,456,100	$8,997,990	$9,854,505
2013	-$1,354,313					$0	$0	-$749,700		-$749,700	-$2,104,013	$7,750,492
2014	-$3,104,557					$0	$0	-$749,700		-$749,700	-$3,854,257	$3,896,235
2015	-$2,830,012					$0	$0	-$749,700		-$749,700	-$3,579,712	$316,523
Sub-totals	-$9,522,677				-$2,002,000	$0	$0	-$2,998,800	-460000	-$5,460,800	$316,523	
2016	$3,001,262					$0	$0	-$749,700		-$749,700	$2,251,562	$2,568,084
2017	$3,089,776					$0	$0	-$749,700		-$749,700	$2,340,076	$4,908,161
2018	$5,120,989					$0	$0	-$749,700		-$749,700	$4,371,289	$9,279,450
2019	$10,232,470					$0	$0	-$749,700		-$749,700	-$5,817,230	$3,462,220
Totals	$11,921,820				-$2,002,000	$0	$0	-$5,997,600	-460000	-$8,459,600	$3,462,220	

All Bond Interest
-$7,999,600

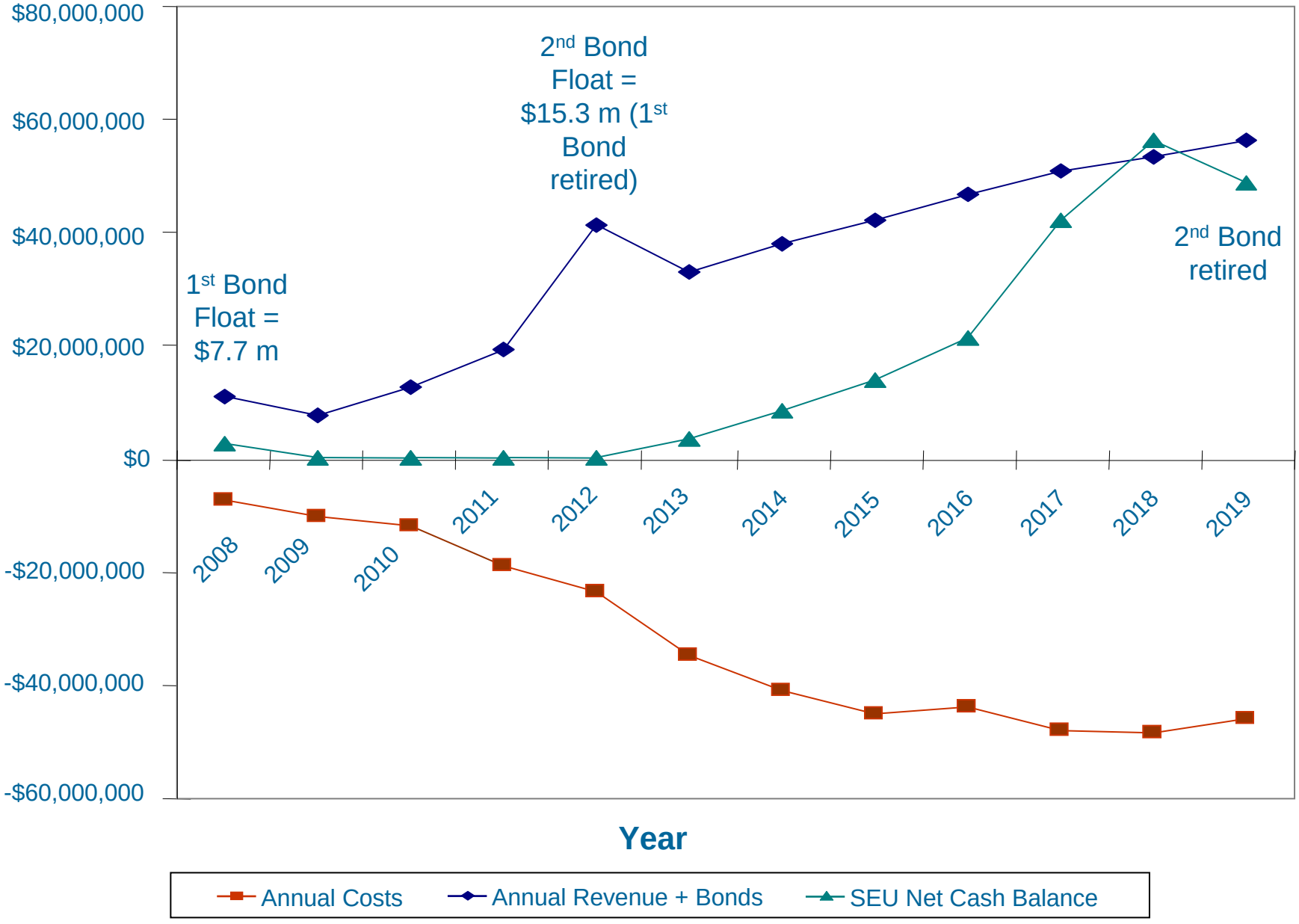
Total Bond Float
$23,000,000

* Revenue Assumptions

$25 million in Sustainable Energy Special Purpose Revenue Bonds are authorized.
GEF mill rate is doubled.
REC revenues are based on declining price schedule.

Prepared for the Delaware Sustainable Energy Utility Task Force by the Center for Energy & Environmental Policy, University of Delaware.

SEU Annual Costs, Revenues & Cash Balance

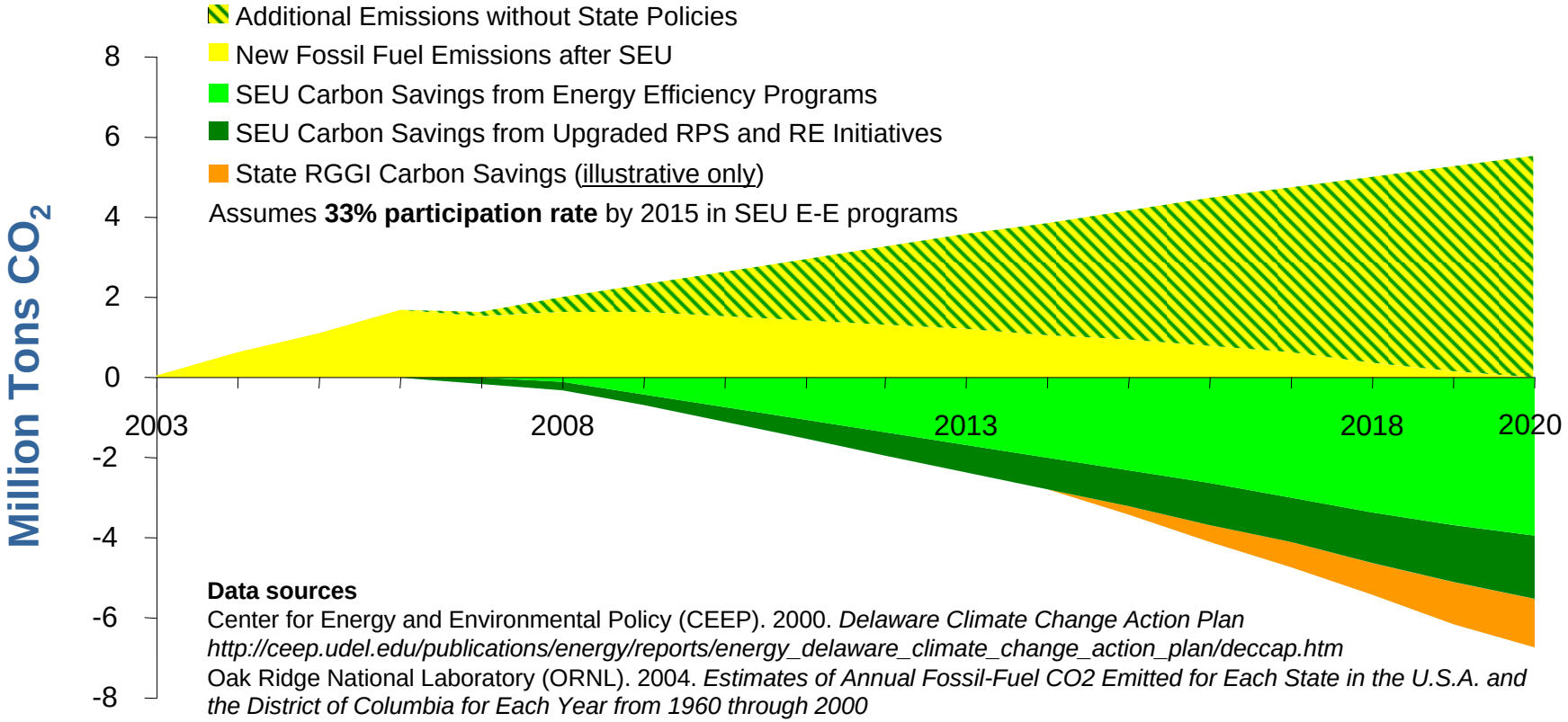


Prepared for the Delaware Sustainable Energy Utility Task Force by the Center for Energy & Environmental Policy, University of Delaware.

Major Banking Group with Extensive Bond Management Experience reviewed the SEU pro forma and concluded it is financeable by a private activity bond at investment grade.

Delaware Sustainable Energy Utility

Our Best Environmental Policy



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Estimates prepared for the Sustainable Energy Utility Task Force by the Center for Energy & Environmental Policy, University of Delaware.

Sustainable Energy Utility

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

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