



Agriculture-To-Energy: Policies supporting energy production from biomass and animal manure

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Policy for the Bay

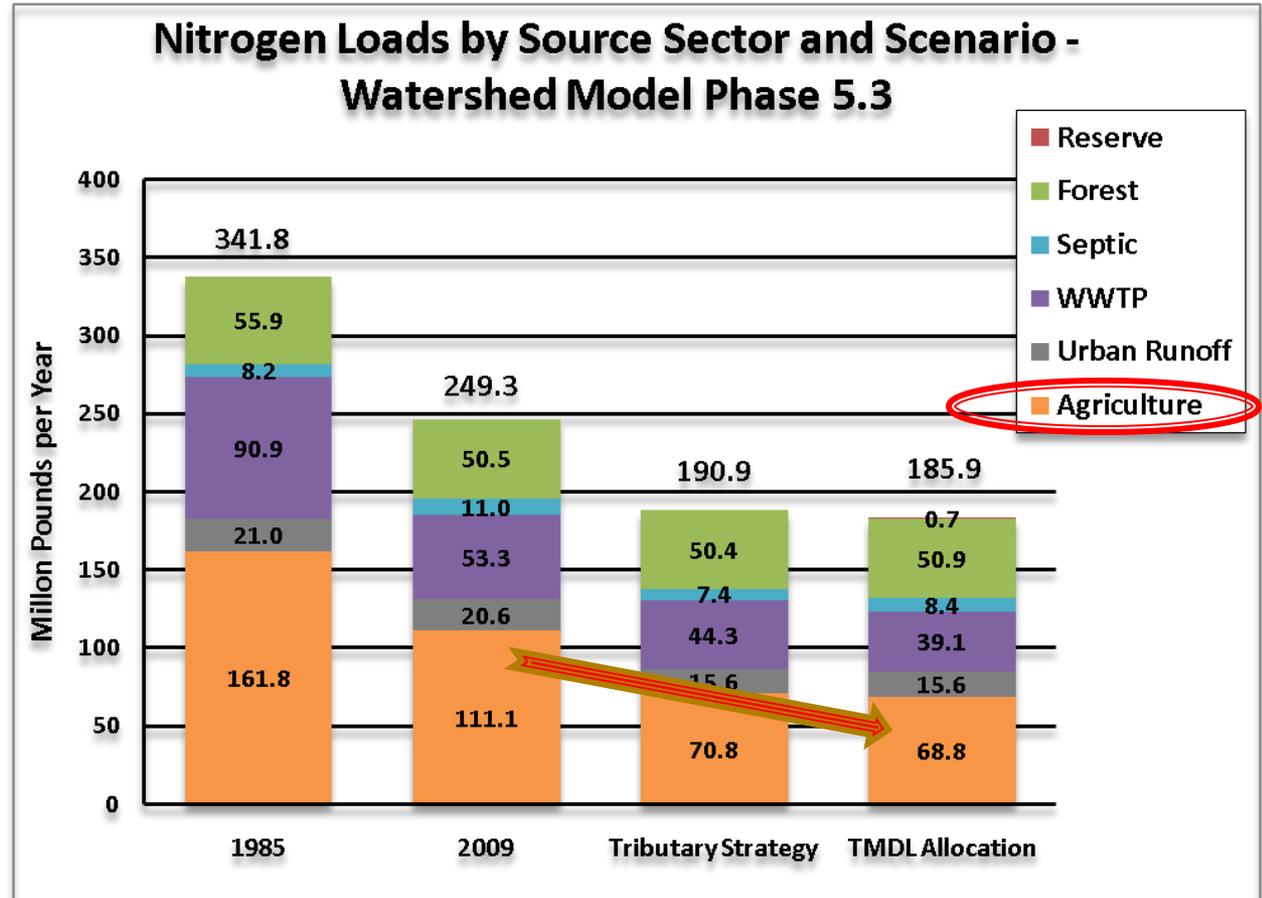
- Tri-State Legislative Commission for **Bay Restoration**
 - VA, MD, PA
- Established by state law
- Legislative Partner of Chesapeake Bay Program
- 7 Members Each (21 total)
 - 2 Senate
 - 3 House
 - Governor or designee
 - Citizen appointee



BAY TMDL

Nitrogen Reductions Needed

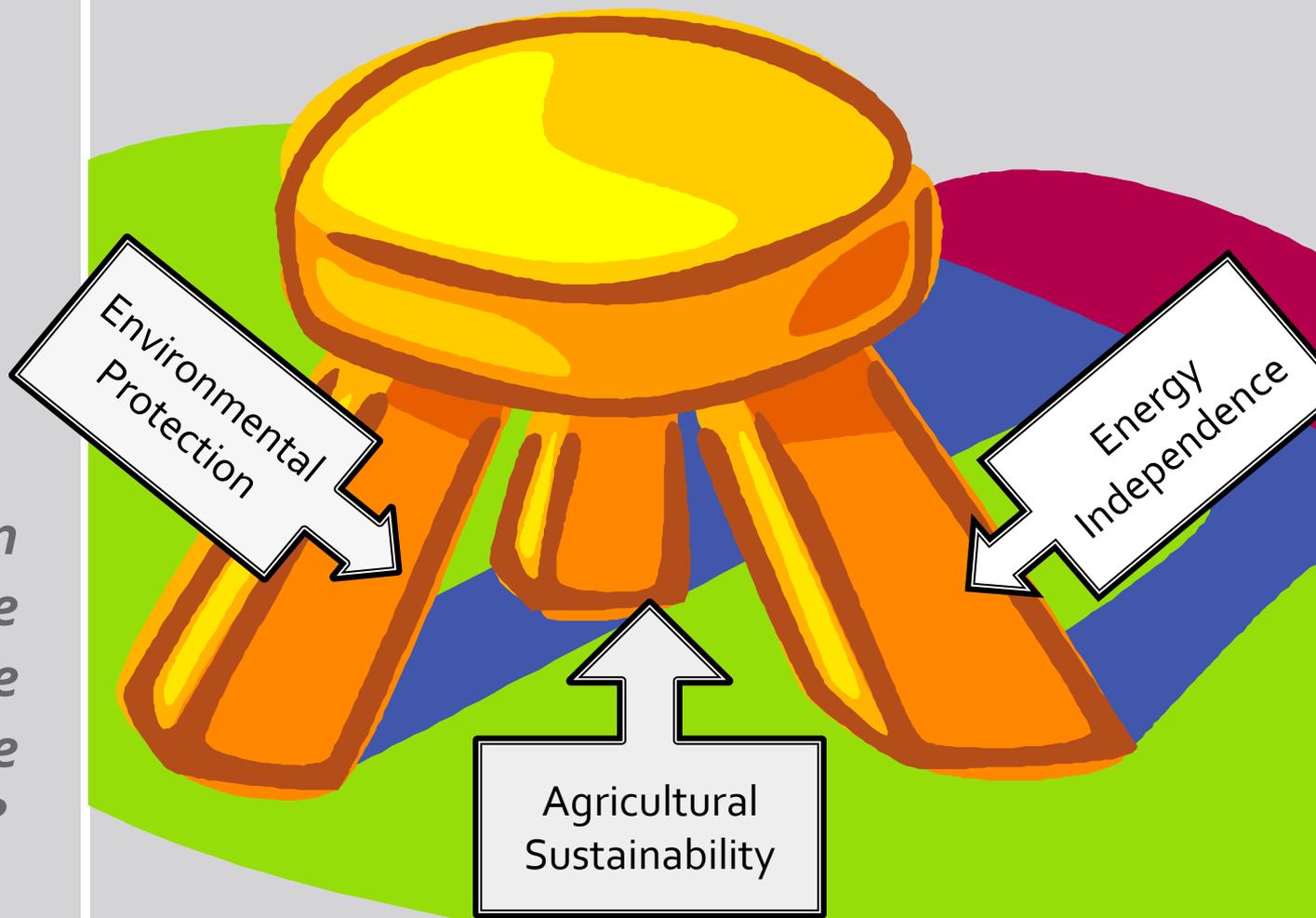
Bay-wide total annual loadings from land-based sources will have to be reduced by **60 million pounds of nitrogen**; with **~40 million lbs.** from Ag sources



Finding the “Win - Win”

Produce energy from biomass & manure that provide the farmer with income *and* reduce air and water pollution.

What policies can help get more projects “on the ground” in the Bay watershed?



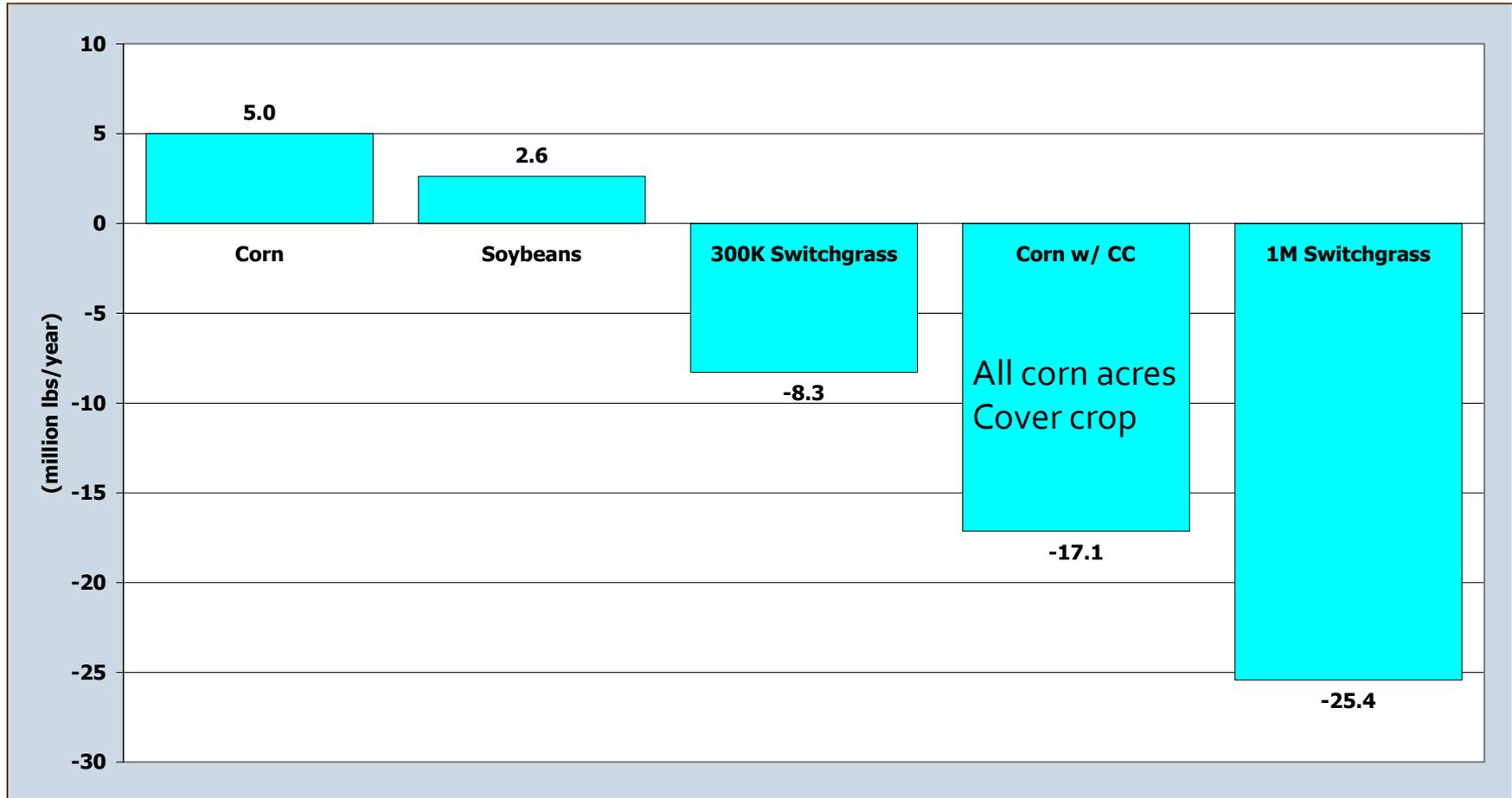
Bay Region's Competitive Advantages

- ❑ Our climate, soils and landscape
- ❑ Diversity of feedstocks
- ❑ Close proximity to refineries and markets
- ❑ Access to private capital
- ❑ Thriving biotechnology industry
- ❑ University research programs
- ❑ Enlightened leaders



Impacts of Alternative Biofuels Scenarios

Bay Watershed Delivered Load, Million lbs. N per year



Third Report: Chesapeake Biofuel Policies

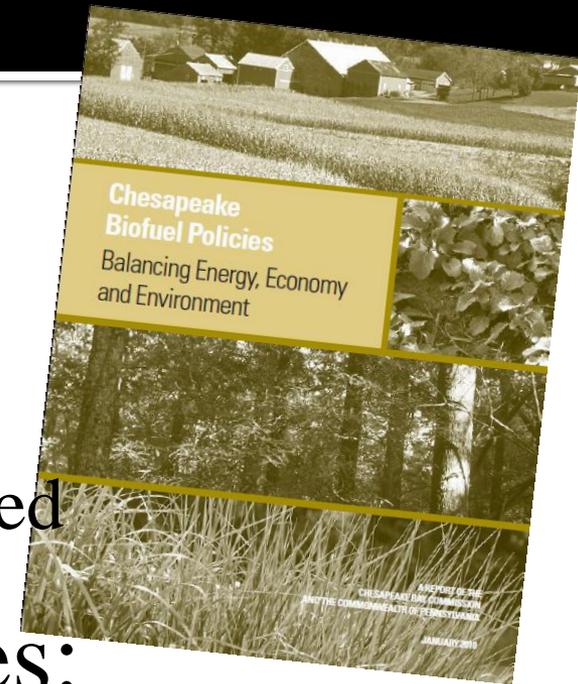
Balancing Energy, Economy and Environment

□ Report Findings:

- ✓ 500 Million gallons E annually
- ✓ Over 18,000 jobs created by 2022
- ✓ Up to 25 M lbs. of Nitrogen reduced

□ Near-Term Policy Priorities:

- ✓ Guidelines for biomass harvest
- ✓ Encouragement of winter biofuel crops
- ✓ Protocol on invasive feedstock species



The Policies: Manure -to-Energy



September 8, 2011 Manure-to-Energy Summit
What changes are needed at the federal and state level to encourage successful deployment of manure-to-energy technologies at the regional, community and farm scale?

The Issues fall into 3 categories:

- **Market Entry Factors**
- **Financing for Maximizing Benefits**
- **Markets for Byproducts**

Policy Recommendations: Market Entry Factors



- Incentivize manure to energy using Renewable Portfolio Standard incentives similar to solar. 
- Allow aggregation of meters . (*Virginia issue*)
- Encourage industry to remove unintentional barriers (ex. propane purchase requirements)
- Establish programs to facilitate long-term power purchase contracts, with initial rates above market price. 
- Establish "Bay Power" certification for market-based branding program.

Policy Recommendations: Financing



- Change ranking systems of funding programs to prioritize manure to energy projects that address water quality issues. Devote resources to technical assistance and outreach. (Farm Bill)



Alter state tax credit programs

- MD: Expand existing tax credit program to make heat generation eligible.
- VA: Establish transferable or refundable tax credits, make heat generation eligible.
- PA: Fund the existing alternative energy tax credit program.

- Stimulate nutrient trading markets by establishing credit banks to buy and sell credits.

- Establish regional technical review panel to assist in calculating nutrient credit benefits.

Policy Recommendations: Markets for By-Products



- Evaluate adequacy of current nutrient management plans to fully account for imported/exported nutrients in by-products.



- Increase demand for compost by promoting Low Impact Development (LID), and use on public projects.

- Clear classification of manure as a “fuel” instead of “solid waste” for purposes of air permitting.



- Facilitate use of organic fertilizer products on food crops through continued research and inclusion of this practice in BMP risk management programs.

- Target manure-to-energy projects in high P-surplus areas.

Virginia Policy Change Opportunities:

Balancing Energy, Economy and Environment

1. Establish Mandatory Renewable Portfolio Standard (RPS)
2. Adopt “technology specific” set asides under the RPS
3. Establish alternative compliance payments under the RPS
4. Renewable Energy Credit “multiplier” for biomass and/or manure-to-energy

Virginia Policy Change Opportunities:

Balancing Energy, Economy and Environment

5. Allow aggregation of meters (virtual)
6. Sell back limit: based on use or energy production (manure available)
7. Long-term power purchase agreements or direct contracting to energy user
8. Increase “net metering” limits for commercial (farms) producers

Virginia Policy Change Opportunities:

Balancing Energy, Economy and Environment

9. Provide incentives (grants/tax credits) for energy projects that provide environmental benefits (target to high manure volume areas)
10. Nutrient management plans should account for nutrients in energy by-products
11. EPA should classify manure as “fuel” instead of “solid waste”.

Questions?

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