



State Policy Incentives for Biomass Utilization

National Bioenergy & Wood Products
Conference II

Frederick A. Tornatore
Vice President, Environmental Services & Technology
TSS Consultants

March 2006



Benefits of Biomass Utilization via Bioenergy

- Environmental improvement (air, water, waste, habitat)
- Forest health & reduction of catastrophic wildfire
- Decrease use of fossil fuel
- Increased diversity and security of energy supply
- Local economic development from power generation and biomass fuels collection



“The best way to make a fire with two wood sticks is to make sure one is a match”

Will Rogers



Advantages of State Policies

- States can function as “policy laboratories”, creating initiative models for federal action
- States have primary jurisdiction over many areas – electrical generation, agriculture, land use



Disadvantages of State Policies

- Limited budget resources
- Lack of direct jurisdiction over certain areas – such as federal forests
- A ‘patchwork quilt’ of policies across the nation can result – reacting difficulties for businesses and duplicating efforts



Principal State Policy Incentives for Biomass

- Renewable Portfolio Standards
- Renewable Energy Credits
- Public Benefit Funds
- Greenhouse Gas Reporting and Registries
- Climate Action Plans
- Biofuels Incentives



Renewable Portfolio Standards

- State RPS require electric utilities and provides to supply a minimum amount of eligible renewable energy and in a given timeframe
- 20+ states have RPS
- Biomass is an eligible renewable energy source in all of the RPS

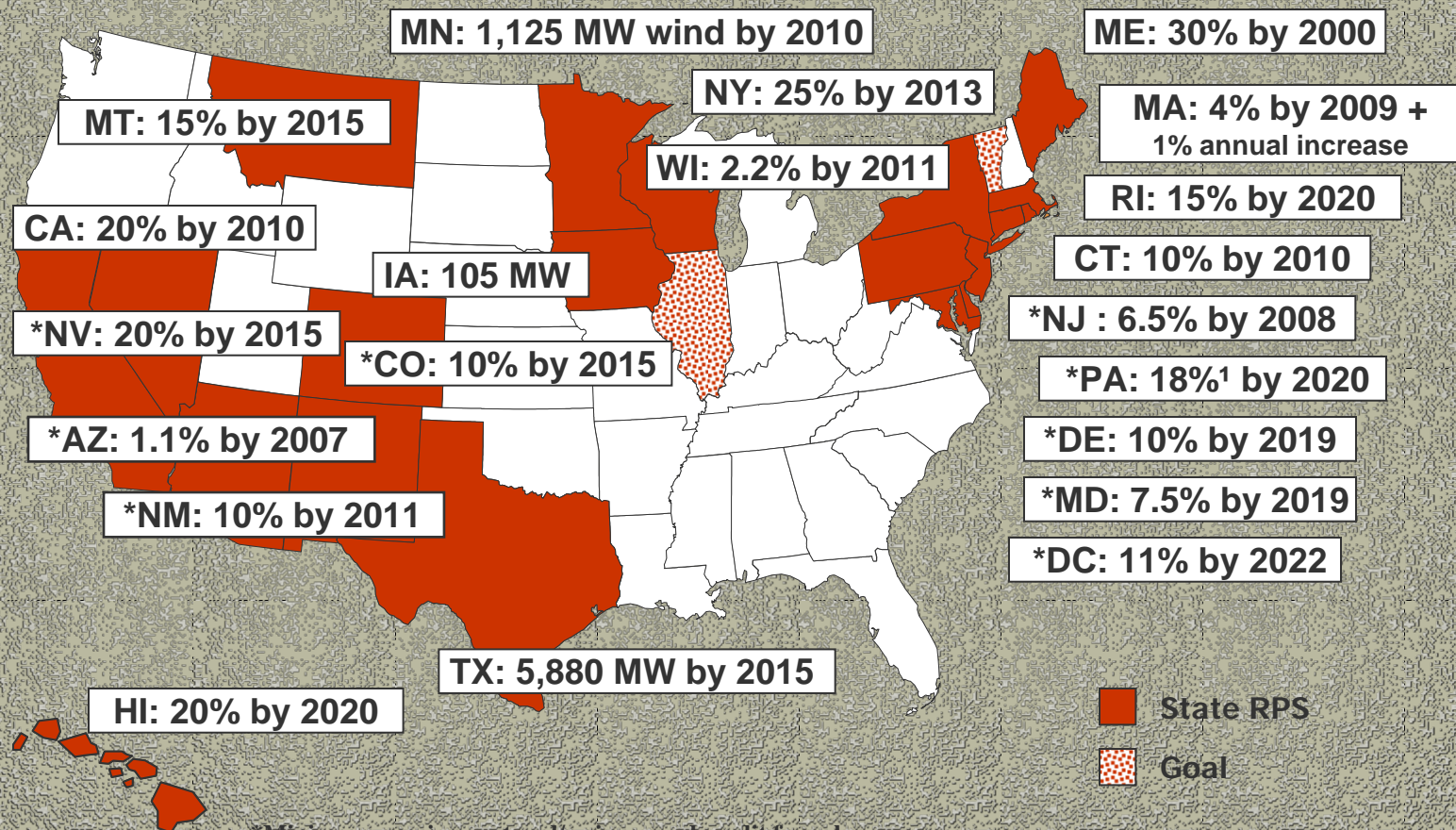


Key Features of a State RPS

- States can tailor RFP requirements to:
 - Satisfy electricity market characteristics
 - Accommodate renewable resource potential
 - Meet individual state policy objectives
- Tailored requirements lead to wide variations the states RPS's

Renewable Portfolio Standards State-by-State

as of January 2006

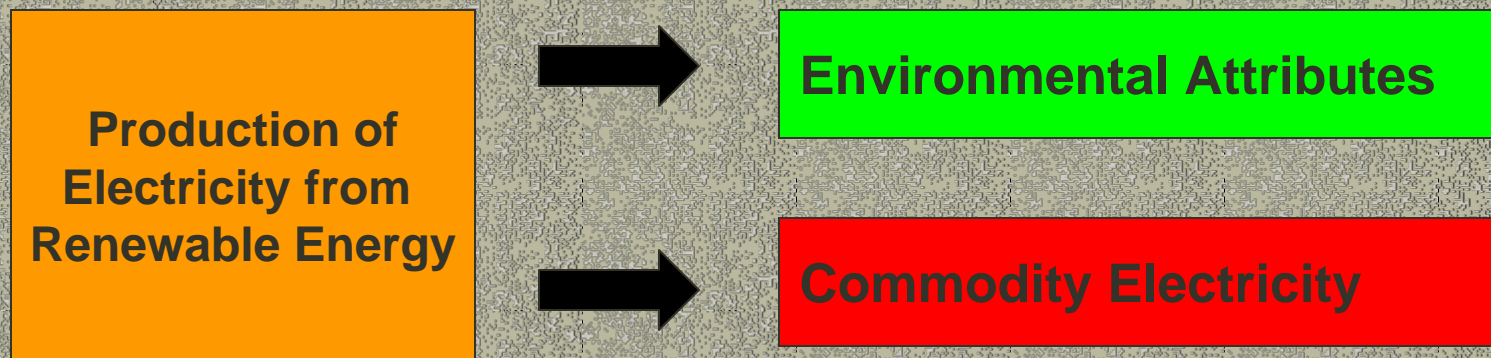


*Minimum requirement and/or increased credit for solar

¹ PA: 8% Tier I, 10% Tier II (includes non-renewable sources)



Renewable Energy Credits



Growing recognition that electricity generated from renewable energy sources comprises two distinct tradable commodities – the electricity and the “green” environmental attributes.



RECs and State Policy

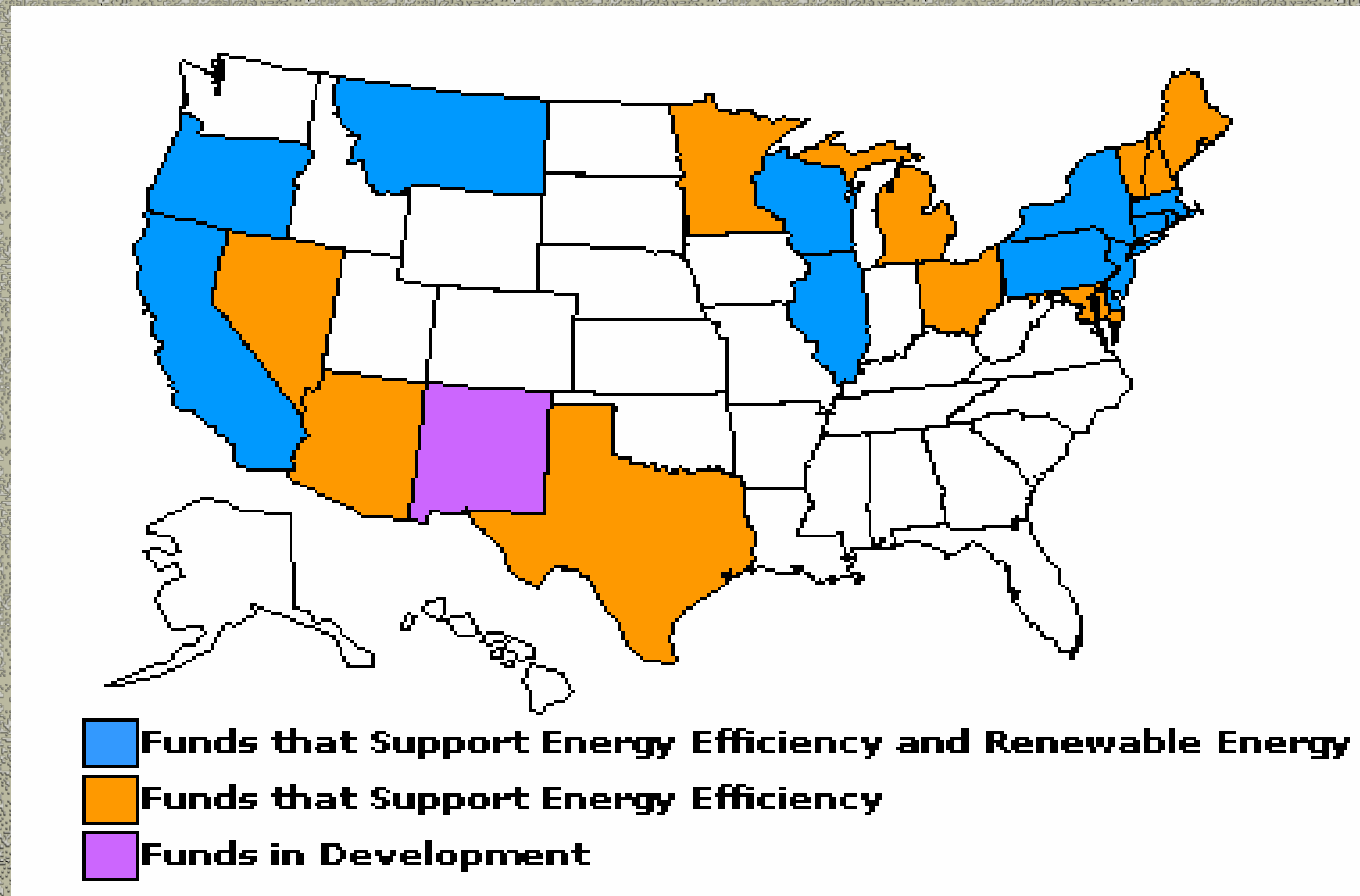
- Supports state RPS programs by being a flexible compliance and verification tool for states with RPS
- Allows RPS goals in states where renewable resources are not readily available to be able to buy REC's from generators in other states where renewable resources are available
- REC trading policies deemed to most effective if implemented on a regional scale



State Public Benefits Funds

- Funds dedicated to renewable energy projects (and energy efficiency)
- Collected by charges on electric bills or through utility contributions
- “Clean Energy States Alliance” formed by 12 states to coordinate investments (CA, CT, IL, MA, MN, NJ, NY, OH, OR, PA, RI, WI)

State Public Benefit Funds

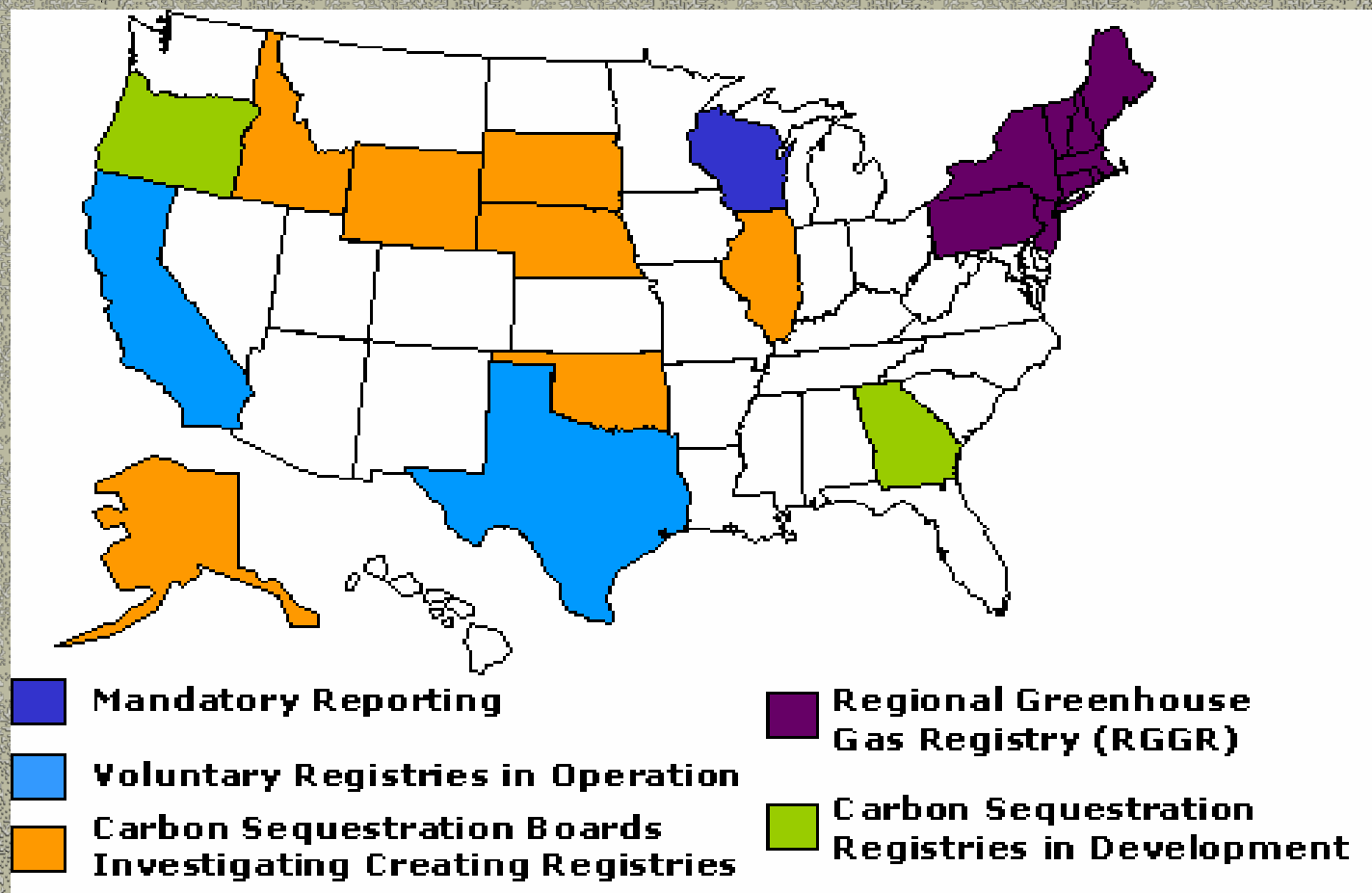




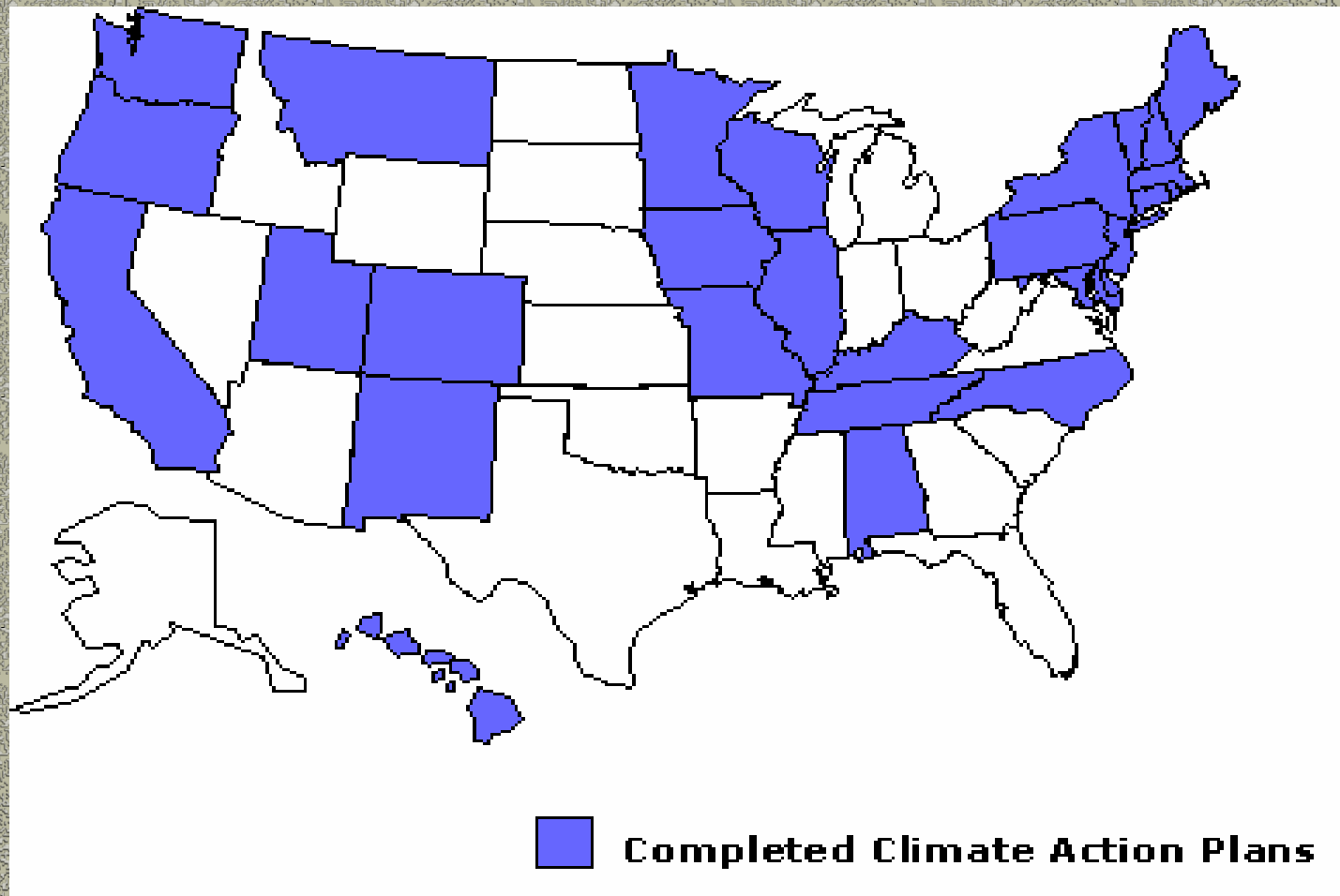
State Greenhouse Gas Programs

- In lieu of a federal program for GHG, several states have initiated GHG programs and Climate Action Plan development
- Biomass, being “carbon neutral”, can and does play a role in these programs and plan

State Greenhouse Gas Reporting & Registries



State Climate Action Plans

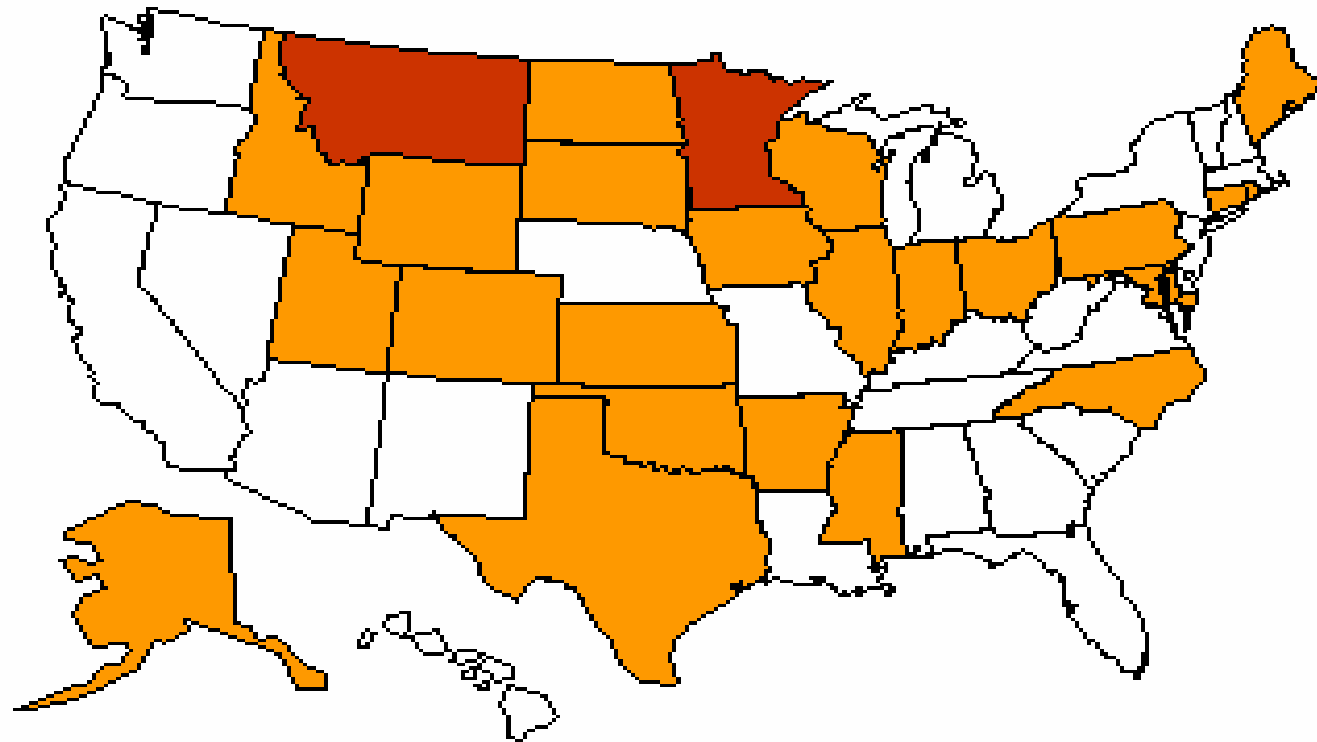




State Ethanol Incentives

- Began, and continue to be used as incentives for corn to ethanol
- However, many states will consider ethanol production from other sources, including forest and wood waste biomass resources
- Incentives can be in many forms – tax credits, direct production payments, price supports, etc.

States with Ethanol Incentives



-  Excise Tax Exemptions, Tax Credits, and/or Grants Promoting Ethanol Production and Use
-  Mandates supported by other incentives



Questions? Comments? Ridicule?

Contact Information:

Fred Tornatore
TSS Consultants
2724 Kilgore Road
Rancho Cordova, CA 95670
(916) 638-8811
fatoxic@tssconsultants.com