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Forestry, Agriculture, and Waste Management Technical Work Group

Summary List of Draft Priority Policy Options for Analysis

Revised Option #	Draft Policy Option Name	Straw Proposal Volunteers
FAW-1	Forest Management Strategies for Carbon Sequestration	Ron Wolfe, Rick Rogers, Chris Maisch
FAW-2	Expanded Use of Biomass Feedstocks for Energy Production	Charles Knight, Ron Wolfe , Rick Rogers
FAW-3	Advanced Waste Reduction and Recycling	Donna Mears, Kathie Wasserman, Doug Buteyn , Charles Knight
	Expanded Use of New, Used, & Recycled Wood Products for Building Materials	Designated a medium priority option by unanimous TWG consent on 10/01/2008
	In-State Liquid Biofuels Production	Consolidated with FAW-2 by unanimous TWG consent on 10/01/2008

Sample Draft Policy Option Template

FAW-1 Forest Management for Carbon Sequestration

Policy Description

The "Policy Description" is a part of the Straw Proposal. CCS will provide sample text for volunteer sub-groups to work from. This section should provide a **brief** summary of the proposed policy option.

CCS default text:

Forest management activities that promote forest productivity and increase the rate of carbon dioxide sequestration in forest biomass and soils and in harvested wood products. Practices may include clearing and conversion of forest cover type to achieve higher sequestration levels, increased stocking of poorly stocked lands, age extension of managed stands, thinning and density management, fertilization and waste recycling, expansion of short-rotation woody crops (for fiber and energy), expanded use of genetically preferred species, modified biomass removal practices, fire management and risk reduction, and pest and disease management. Programs that reduce the potential for and severity of wildfires also reduce GHG emissions by lowering the forest carbon lost during the fire in addition to the subsequent losses of carbon sequestration potential in the area impacted by wildfire. Prescribed fires may increase carbon in soil. Mechanical removal of biomass may provide sources of biomass that can be used for conversion to energy. Adoption of water conservation, improved harvesting technology such as improved equipment, and other GHG-reducing agricultural practices that can be applied to silviculture.

Establish forests on land that has not historically been forested (e.g., agricultural land; "afforestation"). Promote forest cover and associated carbon stocks by regenerating or establishing forests in areas with little or no present forest cover ("reforestation"). In addition, implement practices such as soil preparation, erosion control, and stand stocking to ensure conditions that support forest growth.

Policy Design

The "Policy Design" is the other part of the Straw Proposal. The "Goals" represent the **numerical** targets that the TWG feels are attainable by the end of the policy period (2020), and will provide sufficient carbon benefits. The "Timing" bullet is a place for the TWG sub-group to insert an incremental target (2012), or multiple incremental targets. The "Parties Involved" bullet includes a list of organizations (specific or otherwise) that could be affected by this proposed option, or are parties to the implementation of the option. *Please see example below a Policy Design from the Michigan Process:*

Goals:

• Increase permanent forestland cover (including improved stocking of under-stocked stands) across the state on 1 million acres through afforestation and reforestation by 2025.

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• Implement wildfire reduction Community Wide Protection Plans for 10-12 identified communities at risk by 2025.

Timing: See above

Parties Involved: Private landowners; Michigan Forestry Association; Michigan Departments of Agriculture, Conservation Districts; environmental/sustainability interests; Forest Industries; People and Land (a Kellogg Foundation funded organization which tracks progress on the 2003 Michigan Land Use Leadership Conference Report recommendations); The Global Observatory for Ecosystem Services; Michigan United Conservation Club; The Nature Conservancy, USFS State and Private Forests; Michigan State University Extension; Farm Bureau; Forest Industry; Carbon Traders.

Other: Note that plantations of native trees should be encouraged – not fast-growing trees from Southeast Asia.

FAW-2 Expanded Use of Biomass Feedstocks for Energy Production

Policy Description

Increase the amount of biomass available from forestry, municipal solid waste, and agriculture for generating heat/electricity and liquid/gaseous biofuels to displace the use of fossil energy sources. Foster the development of the following where they are compliant with environmental requirements:

- wood biomass alternative fuel products or heat and electric generation from sawmill byproducts;
- methods to economically utilize that portion of harvested trees not being used to make conventional forest products to make wood biomass alternative fuel products or heat and electric generation;
- methods to economically utilize biomass generated from silvicultural treatments and wildland fire fuel reduction treatments in the production of biomass alternative fuel products or heat and electric generation;
- methods to economically utilize feedstocks from municipal solid waste (e.g. urban wood waste, waste vegetable oil) and agricultural sources (e.g. manure management);
- large and small scale technologies that generate heat and electricity and the production of synthetic fuels from biomass;
- both conventional and emerging technologies (e.g. cellulosic ethanol/other liquid fuel; pyrolisis; gasification) for biomass utilization; and
- opportunities for industry, communities and individuals to use biomass alternative fuel products to substitute for fossil fuels for heat or transportation. This should be done either using 100% biomass or through co-firing with other fuels.

Policy Design

Goals:

- By 2020, utilize biomass feedstocks to produce 5% of the state's electricity.
- By 2020, utilize biomass feedstocks to offset 10% of the state's heating oil use.
- By 2020, utilize biomass feedstocks to offset 5% of the state's fossil transportation fuels.

Timing:

- By 2010, establish a demonstration pilot facility to produce biomass electricity, heat generation, synthetic fuels or biomass alternate fuel products.
- By 2015, utilize 50% of practical and available resource.
- By 2020, achieve the full policy goals.

Coverage of Parties:

Executive and Legislative Branches of State Government, Alaska Department of Natural Resources, Alaska Department of Environmental Conservation, Alaska Energy Authority, Alaska Native Corporations, University of Alaska, Southeast Conference, Alaska Industrial Development Authority, Cooperative Extension Service and Agencies, Natural Resource Conservation Service, Alaska State Chamber of Commerce, Resource Development Council, Alaska Forest Association, Alaska Public Service Commission, Alaska Department of Revenue, Alaska electric utilities and electric cooperatives, crop producers, and timberland owners.

Other:

FAW-3 Advanced Waste Reduction and Recycling

Policy Description

Reduce waste generation and increase recycling and organics management and in order to limit GHG emissions upstream from material production, through transportation and on the downstream end associated with landfill methane generation. Reduction of generation at the source reduces both landfill emissions and upstream production and transportation emissions. Increase economically-sustainable recycling programs, create new recycling programs, provide incentives for the recycling of construction materials, develop markets for recycled materials, and increase average participation and recovery rates for all existing recycling programs.

Policy Design

Goals: Quantify current waste generation rates (pounds per capita per day) for rural and urban areas. Reduce waste stream, including diverted waste, 10% in 2012, 15% by 2015, and 25% by 2020.

Timing: Startup in 2010 and ramp up to higher levels in 2012 and 2015, consistent with goals

Parties Involved: Consumers, manufacturers, relevant trade associations, consumer's associations, all state and local agencies, retail outlets, non-profit organizations, shippers, waste management industry

Other: Urban areas are considered to be Anchorage, Mat-Su Valley, Fairbanks, and Juneau. Rural areas are all other communities in the state.

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