

Addendum

Agriculture, Forestry, and Waste Management (AFW)

Summary List of Draft Priority Options for Analysis—2017 and 2025

| Option No. | Policy Option | GHG Reductions (MMtCO ₂ e) | | | Net Present Value 2009–2025 (Million \$) | Cost-Effectiveness (\$/tCO ₂ e) | Energy Security Fuel Savings | Level of Support |
|------------|--|---------------------------------------|------|-----------------|--|--|---|------------------|
| | | 2017 | 2025 | Total 2009–2025 | | | | |
| AFW-1 | Forest Retention—Reduced Conversion of Forested to Non-Forested Land Uses | 0.5 | 0.6 | 7.2 | \$186 | \$26 | | Approved |
| AFW-2 | Afforestation and Restoration of Non-Forested Lands | | | | | | | |
| | A. Forest Landscape | | | | | | | Pending |
| | Afforestation | 1.6 | 3.1 | 28 | \$134 | \$4.9 | | Approved |
| | Reforestation | 6.1 | 11.6 | 104 | \$555 | \$5.3 | | |
| AFW-3 | B. Urban Forestry | 4.6 | 8.7 | 78 | \$759 | \$10 | 3.5 million short tons coal or 76,000 cubic feet natural gas | Pending |
| | Forest Management for Carbon Sequestration | | | | | | | |
| | A. Pine Plantation Management | 0.5 | 0.9 | 7.9 | \$84 | \$11 | | Pending |
| | B. Non-Federal Public Land Management | 0.3 | 0.4 | 3.9 | \$41 | \$11 | | Pending |
| AFW-4 | Expanded Use of Agriculture, Forestry, and Waste Management (AFW) Biomass Feedstocks for Electricity, Heat, and Steam Production | 21 | 40 | 361 | \$7,432 | \$21 | 22 million short tons coal or 486,000 cubic feet natural gas | Pending |
| AFW-5 | Promotion of Farming Practices That Achieve GHG Benefits | 0.7 | 1.2 | 10.6 | –\$6 | –\$1 | | Pending |
| | A. Soil Carbon Management | 0.5 | 0.9 | 8.0 | –\$74 | –\$9 | | Approved |
| | B. Land-Use Management That Promotes Permanent Cover | N/Q | N/Q | N/Q | N/Q | N/Q | | Pending |
| | C. Nutrient Management | 0.2 | 0.3 | 2.6 | \$68 | \$26 | | Approved |

| | | | | | | | | |
|--------------------------------------|---|-----------|-----------|------------|-----------------|-------------|---|----------|
| | D. Improved Harvesting Methods to Achieve GHG Benefits | N/Q | N/Q | N/Q | N/Q | N/Q | | Pending |
| AFW-6 | Reduce the Rate of Agricultural Land and Open Green Space Conversion To Development | 0.2 | 0.5 | 4.3 | \$394 | \$93 | | Pending |
| AFW-7 | In-State Liquid/Gaseous Biofuels Production | 4.0 | 8.2 | 68 | -\$532 | -\$8 | 4,075 million gallons gasoline and 271 million gallons diesel | Approved |
| AFW-8 | Promotion of Advanced Municipal Solid Waste (MSW) Management Technologies (Including Bioreactor Technology) | 1.9 | 4.4 | 34 | \$294 | \$9 | 190,000 short tons coal or 4,000 cubic feet NG and 109 million gallons diesel | Pending |
| AFW-9 | Improved Commercialization of Biomass-to-Energy Conversion and Bio-Products Technologies | 2.6 | 5.4 | 45.1 | \$1,675 | \$37 | 2.5 million short tons coal or 55,000 cubic feet natural gas | Pending |
| | A. Manure Digestion/Other Waste Energy Utilization | 0.04 | 0.09 | 0.75 | -\$13 | -\$17 | | |
| | B. WWTP Biosolids Energy Production | 2.4 | 5.0 | 42 | \$1,848 | \$44 | | |
| | C. Other Biomass Conversion Technologies | | | | | | | |
| D. Bio-Products Technologies and Use | 0.2 | 0.3 | 2.6 | -\$161 | -\$61 | | | |
| AFW-10 | Programs to Support Local Farming/Buy Local | N/Q | | | | | | Approved |
| | Sector Totals | 44 | 85 | 752 | \$11,000 | \$15 | | |
| | Sector Total After Adjusting for Overlaps* | | | | | | | |
| | Reductions From Recent Actions | — | — | — | — | — | | |
| | Sector Total Plus Recent Actions | — | — | — | — | — | | |

GHG = greenhouse gas; MMtCO₂e = million metric tons of carbon dioxide equivalent; \$/tCO₂e = dollars per metric ton of carbon dioxide equivalent; N/Q = not quantified; WWTP = wastewater treatment plant.

* See below for discussion of overlap adjustments

Note that negative costs represent a monetary savings.

Update of Progress on Options

AFW-1. Forest Retention – Reduced Conversion of Forested to Non-Forested Land Uses. *Approved.* Quantification methodology complete. Rate of conversion of forested land will be lowered by about 2/3 based on updates to forestry inventory & forecast. Table 2-1 was updated to include loblolly shortleaf pine.

AFW-2. Afforestation and Restoration of Non-Forested Lands. *Forest Landscape Approved.* Based on TWG input, Forest Landscape was split into afforestation and reforestation. For the reforestation piece the acreage involved will be increased to 190,000 acres reforested based upon input from the FL Division of Forestry. For the afforestation piece carbon credits can be sold and will provide a revenue stream. As a result, the cost for this option will go down slightly. For the Urban Forestry sub-option the metropolitan offset goal was brought in line with the canopy planting goal (about 6 million plantings a year).

AFW-3. Forest Management for Carbon Sequestration

Forest plantations - Only 10% of forests will be high intensity forests. 1/3 of low intensity will be moved to medium intensity management.

Of non-federal publicly managed land – 44% is manageable. The TWG has chosen a goal of managing 25% of this for increased carbon sequestration.