

**Biofuels Sustainability Criteria**  
**Adopted by WORC Board on June 10, 2006**

1. **The immediate priority of any energy policy is to manage current energy usage through conservation and energy efficiency.** Reducing unnecessary use of energy is common sense, saves money, and helps the environment. Likewise, numerous studies have shown that improving the efficiency with which energy is used is the cheapest and quickest energy “source.”
2. **Development of new energy sources should not only be ecologically sound, but socially responsible and locally owned and managed when possible.** A farm-based sustainable energy system has great potential to be naturally responsive to the economic needs of rural communities and family farmers. The public good of a farm-based energy system must meet the same criteria of a sustainable agriculture system: economically viable, locally owned and managed, ecologically sound and socially responsible. The appropriate scale of new renewable energy systems must be considered. Markets for biofuel feedstocks must be open and competitive and ensure a fair price to farmers and ranchers.
3. **All energy developments, including renewable energy, should go through individual site and environmental review to insure that ecological impacts are minimized.** Impacts need to be considered on: 1) parks and recreation areas; 2) wildlife and wetlands; 3) migratory bird patterns; 4) landscape preservation; and 5) other environmental issues of local concern.
4. **Policies should avoid providing incentives for biomass energy production that does not prove to be a prudent environmental use.** Biomass that could be burned for energy can in some cases also have other uses, such as fertilizer or bio-products.
5. **Biomass byproducts should be utilized in an ecologically sound and sustainable way.** Location of a biofuels plant and attendant livestock feed supply should further sustainable livestock production, not factory farm production.
6. **Biomass energy should be grown or produced in a sustainable way that provides net environmental benefits.** Biomass energy crops should be grown and harvested in a way that embodies best stewardship practices to maintain or improve air, water and soil quality. Criteria for judging sustainable biomass energy production includes:
  - a. **Impact on water quality.** Surface or ground water should not be polluted with sediments from erosion, with pesticides, with nutrients, or with any other waste products. It should not negatively affect the aquatic ecosystem. It should not consume water beyond replacement levels.
  - b. **Impact on soil quality.** Soil quality should not be degraded. Soil organic content, water retention, and fertility should be improved.
  - c. **Effect on wildlife.** There should be no detrimental effect on wildlife on land where biomass is grown, compared to alternate uses for the land.
  - d. **Effect on air quality.** Biomass energy production should result in a net increase in air quality, from net reduction in such air pollutants as oxides of nitrogen, particulate matter and carbon dioxide.
  - e. **Net energy balance.** More energy should be released through biomass energy use than is consumed in producing it (over its lifecycle). This includes energy consumed from planting, cultivating, any fertilizer or pesticide application, harvesting and transporting to market.
  - f. **Diversity.** Biomass energy production must avoid the monoculture trends of industrial agriculture. Crop rotations must be incorporated at the landscape scale in order to ensure sufficient diversity of species to attain soil quality, wildlife habitat, and ecosystem health.
  - g. **Adequate income.** Federal farm policies must be adopted to insure farm income from biofuels is adequate to insure sustainability