HOUSE JOINT RESOLUTION

WHEREAS, America's increasing dependence on foreign oil has contributed to rising gasoline prices throughout Illinois and the nation; numerous economic development and environmental benefits result from the use of renewable fuels, including strengthening our agricultural sector by creating new renewable fuels industry related jobs, reducing our dependence on foreign oil, improving our energy security, and reducing greenhouse gas emissions; and

WHEREAS, Replacing fossil fuels with renewable raw material significantly reduces the consumption of limited energy sources; the hybrid grass miscanthus requires little energy input for infrastructure, fertilizers and pesticides, and growing and processing; use of non-renewable raw materials in miscanthus production and processing is limited to infrastructure and transport; miscanthus requires significantly less fertilizer and pesticide input than other energy crops; miscanthus is a plant that thrives on less water than other crops; targeted below-ground irrigation via pipe systems increases yields; and

WHEREAS, Mining fossil fuels entails large-scale interference in the landscape, but establishing energy crops preserves rather than endangers landscapes; miscanthus has the best energy per space ratio of all energy crops; harvested miscanthus can be processed down to the last fibre, leaving no production waste; ashes from combustion can re-enter the cycle as fertilizer; and

WHEREAS, Renewable energy sources have a closed carbon cycle: the CO2 released while burning biomass is absorbed by the next crop growing; in contrast to fossil fuels like coal, petroleum, and natural gas, the atmosphere is not polluted by additional greenhouse gas and CO2 emissions; the danger of

water pollution by excessive fertilization is low; compared to food production the pesticide input is extremely low, and miscanthus requires pesticide input only during the first and second year of establishment to keep out competing field plants; so far, no significant pests or diseases have affected miscanthus; and

WHEREAS, The energy yield from miscanthus is not high enough to make transportation over long distances economically viable, favoring localized conversion and use at the place of availability and the establishment of local infrastructure; growing miscanthus has some advantages over conventional food agriculture; perennials offer more animal and plant kinds a habitat than a crop like corn could; the soil improves, and as miscanthus requires only a low fertilizer input, the danger of water pollution is low; miscanthus stabilizes soil threatened by erosion; fields planted with miscanthus produce annual yields over decades without harming the natural balance of soil and ground water; and

WHEREAS, Growing and converting miscanthus as an energy crop is highly cost-effective; the conversion of biomass to biogenic solid fuels is labor-intensive and creates jobs; growing miscanthus offers farmers an additional foothold; new employment opportunities benefit economically weak areas; miscanthus can be harvested with existing machinery; biomass fuels are easy to store, even for longer periods of time, which ensures year-round availability; up-to-date conversion facilities pose no health risks; appropriate handling will prevent the development of hazardous fungus spores or toxins that is possible in biofuel storage; and

WHEREAS, Dry miscanthus stems can be used as a solid fuel; the perennial grass grows from an underground stem-like organ called a rhizome; miscanthus, a crop native to Asia and a relative of sugarcane, drops its leaves in the winter, leaving

behind tall bamboo-like stems that can be harvested in early spring and burned for fuel; grasses such as miscanthus are very clean fuels; nutrients such as nitrogen are transferred to the rhizome and are saved until the next growing season; burning miscanthus produces only as much carbon dioxide as it removes from the air as it grows, that balance means there is no net effect on atmospheric carbon dioxide levels, which is not the case with fossil fuels; and

WHEREAS, Miscanthus also is a very efficient fuel, because the energy ratio of input to output is less than 0.2; in contrast, the ratios exceed 0.8 for ethanol and biodiesel from canola, which are other plant-derived energy sources; besides being a clean, efficient, and renewable fuel source, miscanthus also is remarkably easy to grow; upon reaching maturity, miscanthus has few needs, as it outgrows weeds, requires little water and minimal fertilizer, and thrives in untilled fields; in untilled fields, various wildlife species make their homes in the plant's leafy canopy and in the surrounding undisturbed soil; Illinois researchers have found that miscanthus grown in the State has greater crop yields than in Europe, where it has been used commercially for years; full-grown plants produce 10-30 tons per acre dry weight each year; and

WHEREAS, The Illinois miscanthus crop began three years ago, when 400 miscanthus rhizomes were planted at the University of Illinois, and the three 33-by-33 feet miscanthus plots are considered mature; nine different fields across the State are being used to help estimate miscanthus productivity; plots in Champaign and Christian counties each have more than 2 acres of miscanthus, and DeKalb, Pike, Pope, Wayne, Fayette, and Mason counties have smaller plots; plots in Champaign County have shown the greatest yearly yields, according to the 2004 progress report to the Illinois Council on Food and Agricultural Research, which funded the experiments; and

WHEREAS, The next step is to demonstrate how miscanthus goes from a plant to a power source; existing U.S. power plants could be modified to use miscanthus for fuel, as in Europe; therefore, be it

RESOLVED, BY THE HOUSE OF REPRESENTATIVES OF THE NINETY-FOURTH GENERAL ASSEMBLY OF THE STATE OF ILLINOIS, THE SENATE CONCURRING HEREIN, that we urge the United States Department of Agriculture and the Illinois Department of Agriculture to fund research and make grants available to determine the efficacy of using miscanthus as a power source; and be it further

RESOLVED, That suitable copies of this resolution be delivered to the United States Secretary of Agriculture and to the Illinois Director of Agriculture.