

# HOUSE BILL No. 6526

September 14, 2006, Introduced by Reps. Moore, Nitz, Baxter, Ball, Proos, Meyer and Stahl  
and referred to the Committee on Agriculture.

A bill to amend 2002 PA 593, entitled  
"Michigan next energy authority act,"  
by amending section 2 (MCL 207.822).

## THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

1       Sec. 2. As used in this act:

2       (a) "Advanced battery cell" means a rechargeable battery cell  
3       with a specific energy of not less than 80 watt hours per kilogram.

4       (b) "Alternative energy marine propulsion system" means an  
5       onboard propulsion system or detachable outboard propulsion system  
6       for a watercraft that is powered by a fuel cell energy system,  
7       photovoltaic energy system, or advanced battery cell energy system  
8       and that is the singular propulsion system for the watercraft.

9       Alternative energy marine propulsion system does not include

1 battery powered motors designed to assist in the propulsion of the  
2 watercraft during fishing or other recreational use.

3 (c) "Alternative energy system" means the small-scale  
4 generation or release of energy from 1 or any combination of the  
5 following types of energy systems:

- 6 (i) A fuel cell energy system.
- 7 (ii) A photovoltaic energy system.
- 8 (iii) A solar-thermal energy system.
- 9 (iv) A wind energy system.
- 10 (v) A CHP energy system.
- 11 (vi) A microturbine energy system.
- 12 (vii) A miniturbine energy system.
- 13 (viii) A Stirling cycle energy system.
- 14 (ix) A battery cell energy system.
- 15 (x) A clean fuel energy system.
- 16 (xi) An electricity storage system.
- 17 **(xii) A BIOMASS STOVE SYSTEM.**

18 (d) "Alternative energy technology" means equipment, component  
19 parts, materials, electronic devices, testing equipment, and  
20 related systems that are solely related to the following:

21 (i) The storage or generation of hydrogen for use in an  
22 alternative energy system.

23 (ii) The process of generating and putting into a usable form  
24 the energy generated by an alternative energy system. Alternative  
25 energy technology does not include those component parts of an  
26 alternative energy system that are required regardless of the  
27 energy source.

1           (iii) A microgrid. As used in this subparagraph, "microgrid"  
2 means the lines, wires, and controls to connect 2 or more  
3 alternative energy systems.

4           (e) "Alternative energy technology business" means a business  
5 engaged solely in the research, development, or manufacturing of  
6 alternative energy technology.

7           (f) "Alternative energy vehicle" means a motor vehicle  
8 manufactured by an original equipment manufacturer that fully  
9 warrants and certifies that the motor vehicle meets federal motor  
10 vehicle safety standards for its class of vehicles as defined by  
11 the Michigan vehicle code, 1949 PA 300, MCL 257.1 to 257.923, and  
12 certifies that the motor vehicle meets local emissions standards,  
13 that is propelled by an alternative energy system. Alternative  
14 energy vehicle includes the following:

15           (i) An alternative fueled vehicle. As used in this  
16 subparagraph, "alternative fueled vehicle" means a motor vehicle  
17 that can only be powered by a clean fuel energy system and can only  
18 be fueled by a clean fuel.

19           (ii) A fuel cell vehicle. As used in this subparagraph, "fuel  
20 cell vehicle" means a motor vehicle powered solely by a fuel cell  
21 energy system.

22           (iii) An electric vehicle. As used in this subparagraph,  
23 "electric vehicle" means a motor vehicle powered solely by a  
24 battery cell energy system.

25           (iv) A hybrid vehicle. As used in this subparagraph, "hybrid  
26 vehicle" means a motor vehicle that can only be powered by 2 or  
27 more alternative energy systems.

1 (v) A solar vehicle. As used in this subparagraph, "solar  
2 vehicle" means a motor vehicle powered solely by a photovoltaic  
3 energy system.

4 (vi) A hybrid electric vehicle. As used in this subparagraph,  
5 "hybrid electric vehicle" means a motor vehicle powered by an  
6 integrated propulsion system consisting of an electric motor and  
7 combustion engine. Hybrid electric vehicle does not include a  
8 retrofitted conventional diesel or gasoline engine. A hybrid  
9 electric vehicle obtains the power necessary to propel the motor  
10 vehicle from a combustion engine and 1 of the following:

11 (A) A battery cell energy system.

12 (B) A fuel cell energy system.

13 (C) A photovoltaic energy system.

14 (g) "Alternative energy zone" means a renaissance zone  
15 designated as an alternative energy zone by the board of the  
16 Michigan strategic fund under section 8a of the Michigan  
17 renaissance zone act, 1996 PA 376, MCL 125.2688a.

18 (h) "Authority" means the Michigan next energy authority  
19 created under section 3.

20 (i) "Battery cell" means a closed electrochemical system that  
21 converts chemical energy from oxidation and reduction reactions  
22 directly into electric energy without combustion and without  
23 external fuel and consists of an anode, a cathode, and an  
24 electrolyte.

25 (j) "Battery cell energy system" means 1 or more battery cells  
26 and an inverter or other power conditioning unit used to perform 1  
27 or more of the following functions:

1           (i) Propel a motor vehicle or an alternative energy marine  
2 propulsion system.

3           (ii) Provide electricity that is distributed within a dwelling  
4 or other structure.

5           (iii) Provide electricity to operate a portable electronic  
6 device including, but not limited to, a laptop computer, a personal  
7 digital assistant, or a cell phone. For purposes of this  
8 subparagraph only, a battery cell energy system shall only use  
9 advanced battery cells.

10          (k) "Board" means the governing body of an authority under  
11 section 4.

12          (l) "CHP energy system" means an integrated unit that generates  
13 power and either cools, heats, or controls humidity in a building  
14 or provides heating, drying, or chilling for an industrial process  
15 that includes and is limited to both of the following:

16           (i) An absorption chiller, a desiccant dehumidifier, or heat  
17 recovery equipment.

18           (ii) One of the following:

19           (A) An internal combustion engine, an external combustion  
20 engine, a microturbine, or a miniturbine, fueled solely by a clean  
21 fuel.

22           (B) A fuel cell energy system.

23          (m) "Clean fuel" means 1 or more of the following:

24           (i) Methane.

25           (ii) Natural gas.

26           (iii) Methanol neat or methanol blends containing at least 85%  
27 methanol.

1 (iv) Denatured ethanol neat or ethanol blends containing at  
2 least 85% ethanol.

3 (v) Compressed natural gas.

4 (vi) Liquefied natural gas.

5 (vii) Liquefied petroleum gas.

6 (viii) Hydrogen.

7 (n) "Clean fuel energy system" means a device that is designed  
8 and used solely for the purpose of generating power from a clean  
9 fuel. Clean fuel energy system does not include a conventional  
10 gasoline or diesel fuel engine or a retrofitted conventional diesel  
11 or gasoline engine.

12 (o) "Department" means the department of management and  
13 budget.

14 (p) "Electricity storage device" means a device, including a  
15 capacitor, that directly stores electrical energy without  
16 conversion to an intermediary medium.

17 (q) "Electricity storage system" means 1 or more electricity  
18 storage devices and inverters or other power conditioning  
19 equipment.

20 (r) "Fuel cell energy system" means 1 or more fuel cells or  
21 fuel cell stacks and an inverter or other power conditioning unit.  
22 A fuel cell energy system may also include a fuel processor. As  
23 used in this subdivision:

24 (i) "Fuel cell" means an electrochemical device that uses an  
25 external fuel and continuously converts the energy released from  
26 the oxidation of fuel by oxygen directly into electricity without  
27 combustion and consists of an anode, a cathode, and an electrolyte.

1           (ii) "Fuel cell stack" means an assembly of fuel cells.

2           (iii) "Fuel processor" means a device that converts a fuel,  
3 including, but not limited to, methanol, natural gas, or gasoline,  
4 into a hydrogen rich gas, without combustion for use in a fuel  
5 cell.

6           (s) "Microturbine energy system" means a system that generates  
7 electricity, composed of a compressor, combustor, turbine, and  
8 generator, fueled solely by a clean fuel with a capacity of not  
9 more than 250 kilowatts. A microturbine energy system may include  
10 an alternator and shall include a recuperator if the use of the  
11 recuperator increases the efficiency of the energy system.

12           (t) "Miniturbine energy system" means a system that generates  
13 electricity, composed of a compressor, combustor, turbine, and  
14 generator, fueled solely by a clean fuel with a capacity of not  
15 more than 2 megawatts. A miniturbine energy system may also include  
16 an alternator and a recuperator.

17           (u) "Person" means an individual, partnership, corporation,  
18 limited liability company, association, governmental entity, or  
19 other legal entity.

20           (v) "Photovoltaic energy system" means a solar energy device  
21 composed of 1 or more photovoltaic cells or photovoltaic modules  
22 and an inverter or other power conditioning unit. A photovoltaic  
23 system may also include batteries for power storage or an  
24 electricity storage device. As used in this subdivision:

25           (i) "Photovoltaic cell" means an integrated device consisting  
26 of layers of semiconductor materials and electrical contacts  
27 capable of converting incident light directly into electricity.

1           (ii) "Photovoltaic module" means an assembly of photovoltaic  
2 cells.

3           (w) "Small-scale" means a single energy system with a  
4 generating capacity of not more than 2 megawatts or an integrated  
5 energy system with a generating capacity of not more than 10  
6 megawatts.

7           (x) "Solar thermal energy system" means an integrated unit  
8 consisting of a sunlight collection device, a system containing a  
9 heat transfer fluid to receive the collected sunlight, and heat  
10 exchangers to transfer the solar energy to a thermal storage tank  
11 to heat or cool spaces or water or to generate electricity.

12           (y) "Stirling cycle energy system" means a closed-cycle,  
13 regenerative heat engine that is fueled solely by a clean fuel and  
14 uses an external combustion process, heat exchangers, pistons, a  
15 regenerator, and a confined working gas, such as hydrogen or  
16 helium, to convert heat into mechanical energy. A Stirling cycle  
17 energy system may also include a generator to generate electricity.

18           (z) "Wind energy system" means an integrated unit consisting  
19 of a wind turbine composed of a rotor, an electrical generator, a  
20 control system, an inverter or other power conditioning unit, and a  
21 tower, which uses moving air to produce power.