

SUBSTITUTE FOR  
HOUSE BILL NO. 4817

A bill to amend 1984 PA 270, entitled  
"Michigan strategic fund act,"  
by amending sections 4, 71, and 88a (MCL 125.2004, 125.2071, and  
125.2088a), section 4 as amended by 2005 PA 225 and section 88a as  
amended by 2006 PA 639.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

1       Sec. 4. As used in this act:

2       (a) "Board" means the board of directors of the Michigan  
3       strategic fund, except where the context clearly requires a  
4       different definition.

5       (b) "Economic development project" means an endeavor related  
6       to industrial, commercial, or agricultural enterprise. Economic  
7       development project includes, but is not limited to, a theme or

1 recreation park; agricultural or forestry production, harvesting,  
2 storage, or processing facilities or equipment; and the use of  
3 equipment or facilities designed to produce energy from renewable  
4 resources. Economic development project does not include that  
5 portion of an endeavor devoted to the sale of goods at retail,  
6 except that, as used in relation to the fund insuring a transaction  
7 entered into by a depository institution, and as used in relation  
8 to a loan by the fund to a minority owned business, an economic  
9 development project may include that portion of an endeavor devoted  
10 to the sale of goods at retail. Economic development project does  
11 not include that portion of an endeavor devoted to housing or a  
12 program or activity authorized under chapter 8A.

13 (c) "Financial institution" means a state or nationally  
14 chartered bank or a state or federally chartered savings and loan  
15 association, savings bank, or credit union whose deposits are  
16 insured by an agency of the United States government and that  
17 maintains a principal office or branch office in this state under  
18 the laws of this state or the United States.

19 (d) "Fund" means the Michigan strategic fund created under  
20 section 5, except where the context clearly requires a different  
21 definition.

22 (E) "GREEN CHEMISTRY" MEANS CHEMISTRY AND CHEMICAL ENGINEERING  
23 TO DESIGN CHEMICAL PRODUCTS OR PROCESSES THAT REDUCE OR ELIMINATE  
24 THE USE OR GENERATION OF HAZARDOUS SUBSTANCES, WHILE PRODUCING  
25 HIGH-QUALITY PRODUCTS THROUGH SAFE AND EFFICIENT MANUFACTURING  
26 PROCESSES. GREEN CHEMISTRY IS GUIDED BY THE FOLLOWING 12  
27 PRINCIPLES:

1           (i) PREVENT WASTE: DESIGN CHEMICAL SYNTHESSES TO PREVENT WASTE,  
2 LEAVING NO WASTE TO TREAT OR CLEAN UP.

3           (ii) DESIGN SAFER CHEMICALS AND PRODUCTS: DESIGN CHEMICAL  
4 PRODUCTS TO BE FULLY EFFECTIVE, YET HAVE LITTLE OR NO TOXICITY.

5           (iii) DESIGN LESS HAZARDOUS CHEMICAL SYNTHESSES: DESIGN SYNTHESSES  
6 TO USE AND GENERATE SUBSTANCES WITH LITTLE OR NO TOXICITY TO HUMANS  
7 AND THE ENVIRONMENT.

8           (iv) USE RENEWABLE FEEDSTOCKS: USE RAW MATERIALS AND FEEDSTOCKS  
9 THAT ARE RENEWABLE RATHER THAN DEPLETING. RENEWABLE FEEDSTOCKS ARE  
10 OFTEN MADE FROM AGRICULTURAL PRODUCTS OR ARE THE WASTES OF OTHER  
11 PROCESSES; DEPLETING FEEDSTOCKS ARE MADE FROM FOSSIL FUELS,  
12 INCLUDING PETROLEUM, NATURAL GAS, OR COAL, OR ARE MINED.

13           (v) USE CATALYSTS, NOT STOICHIOMETRIC REAGENTS: MINIMIZE WASTE  
14 BY USING CATALYTIC REACTIONS. CATALYSTS ARE USED IN SMALL AMOUNTS  
15 AND CAN CARRY OUT A SINGLE REACTION MANY TIMES. THEY ARE PREFERABLE  
16 TO STOICHIOMETRIC REAGENTS, WHICH ARE USED IN EXCESS AND WORK ONLY  
17 ONCE.

18           (vi) AVOID CHEMICAL DERIVATIVES: AVOID USING BLOCKING OR  
19 PROTECTING GROUPS OR ANY TEMPORARY MODIFICATIONS IF POSSIBLE.  
20 DERIVATIVES USE ADDITIONAL REAGENTS AND GENERATE WASTE.

21           (vii) MAXIMIZE ATOM ECONOMY: DESIGN SYNTHESSES SO THAT THE FINAL  
22 PRODUCT CONTAINS THE MAXIMUM PROPORTION OF THE STARTING MATERIALS.  
23 THERE SHOULD BE FEW, IF ANY, WASTED ATOMS.

24           (viii) USE SAFER SOLVENTS AND REACTION CONDITIONS: AVOID USING  
25 SOLVENTS, SEPARATION AGENTS, OR OTHER AUXILIARY CHEMICALS. IF THESE  
26 CHEMICALS ARE NECESSARY, USE INNOCUOUS CHEMICALS.

27           (ix) INCREASE ENERGY EFFICIENCY: RUN CHEMICAL REACTIONS AT

1 AMBIENT TEMPERATURE AND PRESSURE WHENEVER POSSIBLE.

2 (x) DESIGN CHEMICALS AND PRODUCTS TO DEGRADE AFTER USE: DESIGN  
3 CHEMICAL PRODUCTS TO BREAK DOWN TO INNOCUOUS SUBSTANCES AFTER USE  
4 SO THAT THEY DO NOT ACCUMULATE IN THE ENVIRONMENT.

5 (xi) ANALYZE IN REAL-TIME TO PREVENT POLLUTION: INCLUDE IN-  
6 PROCESS REAL-TIME MONITORING AND CONTROL DURING SYNTHESSES TO  
7 MINIMIZE OR ELIMINATE THE FORMATION OF BY-PRODUCTS.

8 (xii) MINIMIZE THE POTENTIAL FOR ACCIDENTS: DESIGN CHEMICALS  
9 AND THEIR FORMS, INCLUDING SOLID, LIQUID, OR GAS, TO MINIMIZE THE  
10 POTENTIAL FOR CHEMICAL ACCIDENTS, INCLUDING EXPLOSIONS, FIRES, AND  
11 RELEASES TO THE ENVIRONMENT.

12 (F) ~~(e)~~—"Michigan economic development corporation" or "MEDC"  
13 means the Michigan economic development corporation, the public  
14 body corporate created under section 28 of article VII of the state  
15 constitution of 1963 and the urban cooperation act of 1967, 1967  
16 (Ex Sess) PA 7, MCL 124.501 to 124.512, by a contractual interlocal  
17 agreement effective April 5, 1999, and subsequently amended,  
18 between local participating economic development corporations  
19 formed under the economic development corporations act, 1974 PA  
20 338, MCL 125.1601 to 125.1636, and the fund.

21 (G) ~~(f)~~—"Municipality" means a county, city, village,  
22 township, port district, development organization, institution of  
23 higher education, community or junior college, or subdivision or  
24 instrumentality of any of the legal entities listed in this  
25 subdivision.

26 (H) ~~(g)~~—"Person" means an individual, sole proprietorship,  
27 partnership, limited partnership, limited liability partnership,

1 limited liability company, joint venture, profit or nonprofit  
2 corporation including a public or private college or university,  
3 public utility, local industrial development corporation, economic  
4 development corporation, or other association of persons organized  
5 for agricultural, commercial, or industrial purposes.

6 (I) ~~(h)~~—"Project" means an economic development project and,  
7 in addition, means the acquisition, construction, reconstruction,  
8 conversion, or leasing of an industrial, commercial, retail,  
9 agricultural, or forestry enterprise, or any part of these, to  
10 carry out the purposes and objectives of this act and of the fund,  
11 including, but not limited to, acquisition of land or interest in  
12 land, buildings, structures, or other planned or existing planned  
13 improvements to land including leasehold improvements, machinery,  
14 equipment, or furnishings which include, but are not limited to,  
15 the following: research parks; office facilities; engineering  
16 facilities; research and development laboratories; warehousing  
17 facilities; parts distribution facilities; depots or storage  
18 facilities; port facilities; railroad facilities, including  
19 trackage, right of way, and appurtenances; airports; water and air  
20 pollution control equipment or waste disposal facilities; theme or  
21 recreational parks; equipment or facilities designed to produce  
22 energy from renewable resources; farms, ranches, forests, and other  
23 agricultural or forestry commodity producers; agricultural  
24 harvesting, storage, transportation, or processing facilities or  
25 equipment; grain elevators; shipping heads and livestock pens;  
26 livestock; warehouses; wharves and dock facilities; water,  
27 electricity, hydro electric, coal, petroleum, or natural gas

1 provision facilities; dams and irrigation facilities; sewage,  
2 liquid, and solid waste collection, disposal treatment, and  
3 drainage services and facilities. Project does not include a  
4 program or activity authorized under chapter 8A.

5 (J) ~~(i)~~—"Private sector" means other than the fund, a state or  
6 federal source, or an agency of a state or the federal government.

7 Sec. 71. As used in this chapter:

8 (a) "Economic development fund" means that fund to which the  
9 fund succeeded in ownership pursuant to section 22.

10 (b) "Research and development enterprise" means any person  
11 found by the fund to be engaged in a business which ~~has as its~~  
12 ~~principal function~~ **USES GREEN CHEMISTRY AS A DESIGN GUIDANCE, OR**  
13 the discovery of new substances and the refinement of known  
14 substances, processes, products, theories, and ideas, except for  
15 those persons whose businesses are directed primarily to the  
16 accumulation or analysis of commercial, financial, or mercantile  
17 data.

18 (c) "Research center fund" means that fund created by section  
19 ~~27 of Act No. 70 of the Public Acts of 1982, being section 125.1927~~  
20 ~~of the Michigan Compiled Laws~~ **FORMER 1982 PA 70**, to which the fund  
21 succeeds in ownership pursuant to section 76.

22 Sec. 88a. As used in this chapter:

23 (a) "Advanced automotive, manufacturing, and materials  
24 technology" means any technology that involves 1 or more of the  
25 following:

26 (i) Materials with engineered properties created through the  
27 development of specialized process and synthesis technology.

1           (ii) Nanotechnology, including materials, devices, or systems  
2 at the atomic, molecular, or macromolecular level, with a scale  
3 measured in nanometers.

4           (iii) Microelectromechanical systems, including devices or  
5 systems integrating microelectronics with mechanical parts and a  
6 scale measured in micrometers.

7           (iv) Improvements to vehicle safety, vehicle performance,  
8 vehicle production, or environmental impact, including, but not  
9 limited to, vehicle equipment and component parts.

10          (v) A new technology, device, or system that enhances or  
11 improves the manufacturing process of wood, timber, or  
12 agricultural-based products.

13          (vi) Any technology that involves an alternative energy vehicle  
14 or its components, as alternative energy vehicle is defined under  
15 section 2 of the Michigan next energy authority act, 2002 PA 593,  
16 MCL 207.822.

17          (vii) Advanced computing or electronic device technology  
18 related to technology described under this subdivision.

19          (viii) Design, engineering, testing, or diagnostics related to  
20 technology described under this subdivision.

21          (ix) Product research and development related to technology  
22 described under this subdivision.

23          (b) "Advanced computing" means any technology used in the  
24 design and development of 1 or more of the following:

25           (i) Computer hardware and software.

26           (ii) Data communications.

27           (iii) Information technologies.

1 (c) "Alternative energy technology" means applied research or  
2 commercialization of new or next generation technology in 1 or more  
3 of the following:

4 (i) Alternative energy technology as that term is defined in  
5 section 2 of the Michigan next energy authority act, 2002 PA 593,  
6 MCL 207.822.

7 (ii) Devices or systems designed and used solely for the  
8 purpose of generating energy from agricultural crops, residue and  
9 waste generated from the production and processing of agricultural  
10 products, animal wastes, or food processing wastes, not including a  
11 conventional gasoline or diesel fuel engine or retrofitted  
12 conventional gasoline or diesel fuel engine.

13 (iii) A new technology, product, or system that permits the  
14 utilization of biomass for the production of specialty, commodity,  
15 or foundational chemicals or of novel or economical commodity  
16 materials through the application of biotechnology that minimizes,  
17 complements, or replaces reliance on petroleum for the production.  
18 Alternative energy technology also includes a new technology,  
19 product, or system that utilizes wind energy.

20 (iv) Advanced computing or electronic device technology related  
21 to technology described under this subdivision.

22 (v) Design, engineering, testing, or diagnostics related to  
23 technology described under this subdivision.

24 (vi) Product research and development related to a technology  
25 described under this subdivision.

26 (d) "Applied research" means translational research conducted  
27 with the objective of attaining a specific benefit or to solve a



1 practical problem, or other research activity that seeks to  
2 utilize, synthesize, or apply existing knowledge, information, or  
3 resources to the resolution of a specified problem, question, or  
4 issue, with high potential for commercial application to create  
5 jobs in this state.

6 (e) "Basic research" means any original investigation for the  
7 advancement of scientific or technological knowledge that will  
8 enhance the research capacity of this state in a way that increases  
9 the ability to attract to or develop companies, jobs, researchers,  
10 or students in this state.

11 (f) "Commercialization" means the transition from research to  
12 the actions necessary to achieve market entry and general market  
13 competitiveness of new innovative technologies, processes, and  
14 products and the services that support, assist, equip, finance, or  
15 promote a person or an entity with that transition.

16 (g) "Competitive edge technology" means 1 or more of the  
17 following:

18 (i) Life sciences technology.

19 (ii) Advanced automotive, manufacturing, and materials  
20 technology.

21 (iii) Homeland security and defense technology.

22 (iv) Alternative energy technology.

23 (v) **TECHNOLOGIES USING GREEN CHEMISTRY AS A DESIGN GUIDANCE.**

24 (h) "Electronic device technology" means any technology that  
25 involves microelectronics, semiconductors, electronic equipment,  
26 and instrumentation, radio frequency, microwave, and millimeter  
27 electronics; optical and optic-electrical devices; or data and

1 digital communications and imaging devices.

2 (i) "Fund board" means the board of the Michigan strategic  
3 fund described in section 5.

4 (j) "Homeland security and defense technology" means  
5 technology that assists in the assessment of threats or damage to  
6 the general population and critical infrastructure, protection of,  
7 defense against, or mitigation of the effects of foreign or  
8 domestic threats, disasters, or attacks, or support for crisis or  
9 response management, including, but not limited to, 1 or more of  
10 the following:

11 (i) Sensors, systems, processes, or equipment for  
12 communications, identification and authentication, screening,  
13 surveillance, tracking, and data analysis.

14 (ii) Advanced computing or electronic device technology related  
15 to technology described under this subdivision.

16 (iii) Aviation technology, including, but not limited to,  
17 avionics, airframe design, sensors, early warning systems, and  
18 services related to technology described under this subdivision.

19 (iv) Design, engineering, testing, or diagnostics related to  
20 technology described under this subdivision.

21 (v) Product research and development related to technology  
22 described under this subdivision.

23 (k) "Independent peer review expert" means a person or persons  
24 selected by the commercialization board with appropriate expertise  
25 to conduct an independent, unbiased, objective, and competitive  
26 evaluation of activities funded under section 88k. The person or  
27 persons shall demonstrate the capability and experience, as

1 appropriate or necessary for the particular activity funded, to do  
2 all of the following:

3 (i) Conduct a highly competitive and intensive, independent,  
4 multiphased, peer-review-based evaluation process.

5 (ii) Employ personnel with appropriate business, scientific,  
6 technical, commercial, or other specialized expertise to carry out  
7 each aspect of the evaluation process.

8 (iii) Provide recommendations to or assist the commercialization  
9 board in identifying high-quality activities for funding that are  
10 likely to result in the development and commercialization of  
11 competitive edge technology and job creation in this state. The  
12 recommendations shall include all materials used by the independent  
13 peer review expert in making the recommendation.

14 (iv) Assure that any peer review process developed maintains a  
15 high level of integrity.

16 (l) "Institution of higher education" means an institution of  
17 higher education or a community or junior college described in  
18 section 4, 5, 6, or 7 of article VIII of the state constitution of  
19 1963 or an independent nonprofit degree-granting institution of  
20 postsecondary education in this state that is approved by the state  
21 board of education.

22 (m) "Jobs for Michigan investment fund" or "investment fund"  
23 means the jobs for Michigan investment fund created in section 88h.

24 (n) "Life sciences" means science for the examination or  
25 understanding of life or life processes, including, but not limited  
26 to, all of the following:

27 (i) Bioengineering.

1 (ii) Biomedical engineering.

2 (iii) Genomics.

3 (iv) Proteomics.

4 (v) Molecular and chemical ecology.

5 (vi) Biotechnology, including any technology that uses living  
6 organisms, cells, macromolecules, microorganisms, umbilical cord  
7 blood, or substances from living organisms to make or modify a  
8 product for useful purposes. Biotechnology or life sciences does  
9 not include any of the following:

10 (A) Activities prohibited under section 2685 of the public  
11 health code, 1978 PA 368, MCL 333.2685.

12 (B) Activities prohibited under section 2688 of the public  
13 health code, 1978 PA 368, MCL 333.2688.

14 (C) Activities prohibited under section 2690 of the public  
15 health code, 1978 PA 368, MCL 333.2690.

16 (D) Activities prohibited under section 16274 of the public  
17 health code, 1978 PA 368, MCL 333.16274.

18 (E) Stem cell research with human embryonic tissue.

19 (o) "Life sciences technology" means any technology derived  
20 from life sciences intended to improve human health or the overall  
21 quality of human life, including, but not limited to, systems,  
22 processes, or equipment for drug or gene therapies, biosensors,  
23 testing, medical devices or instrumentation with a therapeutic or  
24 diagnostic value, a pharmaceutical or other product that requires  
25 United States food and drug administration approval or registration  
26 prior to its introduction in the marketplace and is a drug or  
27 medical device as defined by the federal food, drug, and cosmetic

1 act, 21 USC 301 to 399, or 1 or more of the following:

2 (i) Advanced computing or electronic device technology related  
3 to technology described under this subdivision.

4 (ii) Design, engineering, testing, or diagnostics related to  
5 technology or the commercial manufacturing of technology described  
6 under this subdivision.

7 (iii) Product research and development related to technology  
8 described under this subdivision.

9 (p) "Qualified business" means a business entity located in  
10 this state.

11 (q) "Qualified mezzanine fund" means a person or entity  
12 primarily engaged in making loans or investments ranging in size  
13 from \$250,000.00 to \$6,000,000.00 that is managed by 2 or more  
14 individuals with no less than 5 years' direct experience in  
15 mezzanine lending or capital investments and that holds investment  
16 capital or has commitments from investors other than the fund and  
17 at least 2 financial institutions.

18 (r) "Qualified private equity fund" means a firm principally  
19 or primarily engaged in investing in or acquiring businesses that  
20 is managed by 2 or more individuals with no less than 5 years of  
21 direct experience in private equity investments, and that holds  
22 investment capital from investors other than the fund.

23 (s) "Qualified venture capital fund" means a firm principally  
24 or primarily engaged in investing in or acquiring early stage  
25 businesses with growth potential that have not yet demonstrated  
26 consistent profitability or a proven business model, that is  
27 managed by 2 or more individuals with not less than 5 years of

1 direct experience in venture capital, and that holds capital from  
2 investors other than the fund.

3 (t) "Small business" means a business entity formed or doing  
4 business in this state, including the affiliates of the business  
5 concern, which business entity is independently owned and operated  
6 and employs fewer than 250 full-time employees or has gross annual  
7 sales of less than \$6,000,000.00.

8 (u) "21st century investments" means investments in 1 or more  
9 of the following:

10 (i) Commercial loan guarantees under a loan enhancement program  
11 operated by the fund.

12 (ii) Private equity investments under a private equity  
13 investment program operated by the fund.

14 (iii) Venture capital investments under a venture capital  
15 investment program operated by the fund.

16 (iv) Mezzanine investments under a mezzanine investment program  
17 operated by the fund.

18 (v) "Strategic economic investment and commercialization  
19 board" or "commercialization board" means the strategic economic  
20 investment and commercialization board created in section 88k.

21 (w) "University technology transfer" means innovative methods  
22 to accelerate the creation of start-up companies affiliated with  
23 institutions of higher education or the transfer of competitive  
24 edge technology research from an institution of higher education to  
25 a qualified business in Michigan.