## **SENATE BILL No. 144**

February 15, 2011, Introduced by Senator GREEN and referred to the Committee on Agriculture.

A bill to amend 1984 PA 270, entitled "Michigan strategic fund act,"

by amending section 88a (MCL 125.2088a), as amended by 2006 PA 639.

## THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

- 1 Sec. 88a. As used in this chapter:
- 2 (a) "Advanced automotive, manufacturing, and materials,
- 3 INFORMATION, AND AGRICULTURAL PROCESSING technology" means any
  - technology that involves 1 or more of the following:
    - $\left(i\right)$  Materials with engineered properties created through the development of specialized process and synthesis technology.
  - (ii) Nanotechnology, including materials, devices, or systems at the atomic, molecular, or macromolecular level, with a scale measured in nanometers.

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- 1 (iii) Microelectromechanical systems, including devices or
- 2 systems integrating microelectronics with mechanical parts and a
- 3 scale measured in micrometers.
- 4 (iv) Improvements to vehicle safety, vehicle performance,
- 5 vehicle production, or environmental impact, including, but not
- 6 limited to, vehicle equipment and component parts.
- 7 (v) A new technology, device, or system that enhances or
- 8 improves the manufacturing process of wood, timber, or
- 9 agricultural-based products.
- 10 (vi) Any technology that involves an alternative energy vehicle
- 11 or its components, as alternative energy vehicle is defined under
- 12 section 2 of the Michigan next energy authority act, 2002 PA 593,
- **13** MCL 207.822.
- 14 (vii) Advanced computing or electronic device technology
- 15 related to technology described under this subdivision.
- 16 (viii) Design, engineering, testing, or diagnostics related to
- 17 technology described under this subdivision.
- 18 (ix) Product research and development related to technology
- 19 described under this subdivision.
- 20 (b) "Advanced computing" means any technology used in the
- 21 design and development of 1 or more of the following:
- (i) Computer hardware and software.
- 23 (ii) Data communications.
- 24 (iii) Information technologies.
- 25 (c) "Alternative energy technology" means applied research or
- 26 commercialization of new or next generation technology in 1 or more
- 27 of the following:

- 1 (i) Alternative energy technology as that term is defined in
- 2 section 2 of the Michigan next energy authority act, 2002 PA 593,
- 3 MCL 207.822.
- 4 (ii) Devices or systems designed and used solely for the
- 5 purpose of generating energy from agricultural crops, residue and
- 6 waste generated from the production and processing of agricultural
- 7 products, animal wastes, or food processing wastes, not including a
- 8 conventional gasoline or diesel fuel engine or retrofitted
- 9 conventional gasoline or diesel fuel engine.
- 10 (iii) A new technology, product, or system that permits the
- 11 utilization of biomass for the production of specialty, commodity,
- 12 or foundational chemicals or of novel or economical commodity
- 13 materials through the application of biotechnology that minimizes,
- 14 complements, or replaces reliance on petroleum for the production.
- 15 Alternative energy technology also includes a new technology,
- 16 product, or system that utilizes wind energy.
- 17 (iv) Advanced computing or electronic device technology related
- 18 to technology described under this subdivision.
- 19 (v) Design, engineering, testing, or diagnostics related to
- 20 technology described under this subdivision.
- 21 (vi) Product research and development related to a technology
- 22 described under this subdivision.
- (d) "Applied research" means translational research conducted
- 24 with the objective of attaining a specific benefit or to solve a
- 25 practical problem, or other research activity that seeks to
- 26 utilize, synthesize, or apply existing knowledge, information, or
- 27 resources to the resolution of a specified problem, question, or

- 1 issue, with high potential for commercial application to create
- 2 jobs in this state.
- 3 (e) "Basic research" means any original investigation for the
- 4 advancement of scientific or technological knowledge that will
- 5 enhance the research capacity of this state in a way that increases
- 6 the ability to attract to or develop companies, jobs, researchers,
- 7 or students in this state.
- 8 (f) "Commercialization" means the transition from research to
- 9 the actions necessary to achieve market entry and general market
- 10 competitiveness of new innovative technologies, processes, and
- 11 products and the services that support, assist, equip, finance, or
- 12 promote a person or an entity with that transition.
- 13 (g) "Competitive edge technology" means 1 or more of the
- 14 following:
- (i) Life sciences technology.
- 16 (ii) Advanced automotive, manufacturing, and materials,
- 17 INFORMATION, AND AGRICULTURAL PROCESSING technology.
- 18 (iii) Homeland security and defense technology.
- 19 (iv) Alternative energy technology.
- 20 (v) ANY OTHER INNOVATIVE TECHNOLOGY AS DETERMINED BY THE FUND
- 21 BOARD.
- (h) "Electronic device technology" means any technology that
- 23 involves microelectronics, semiconductors, electronic equipment,
- 24 and instrumentation, radio frequency, microwave, and millimeter
- 25 electronics; optical and optic-electrical devices; or data and
- 26 digital communications and imaging devices.
- (i) "Fund board" means the board of the Michigan strategic

- 1 fund described in section 5.
- 2 (j) "Homeland security and defense technology" means
- 3 technology that assists in the assessment of threats or damage to
- 4 the general population and critical infrastructure, protection of,
- 5 defense against, or mitigation of the effects of foreign or
- 6 domestic threats, disasters, or attacks, or support for crisis or
- 7 response management, including, but not limited to, 1 or more of
- 8 the following:
- 9 (i) Sensors, systems, processes, or equipment for
- 10 communications, identification and authentication, screening,
- 11 surveillance, tracking, and data analysis.
- 12 (ii) Advanced computing or electronic device technology related
- 13 to technology described under this subdivision.
- 14 (iii) Aviation technology, including, but not limited to,
- 15 avionics, airframe design, sensors, early warning systems, and
- 16 services related to technology described under this subdivision.
- 17 (iv) Design, engineering, testing, or diagnostics related to
- 18 technology described under this subdivision.
- 19 (v) Product research and development related to technology
- 20 described under this subdivision.
- (k) "Independent peer review expert" means a person or persons
- 22 selected by the commercialization board with appropriate expertise
- 23 to conduct an independent, unbiased, objective, and competitive
- 24 evaluation of activities funded under section 88k. The person or
- 25 persons shall demonstrate the capability and experience, as
- 26 appropriate or necessary for the particular activity funded, to do
- 27 all of the following:

- 1 (i) Conduct a highly competitive and intensive, independent,
- 2 multiphased, peer-review-based evaluation process.
- 3 (ii) Employ personnel with appropriate business, scientific,
- 4 technical, commercial, or other specialized expertise to carry out
- 5 each aspect of the evaluation process.
- 6 (iii) Provide recommendations to or assist the commercialization
- 7 board in identifying high-quality activities for funding that are
- 8 likely to result in the development and commercialization of
- 9 competitive edge technology and job creation in this state. The
- 10 recommendations shall include all materials used by the independent
- 11 peer review expert in making the recommendation.
- 12 (iv) Assure that any peer review process developed maintains a
- 13 high level of integrity.
- 14 (1) "Institution of higher education" means an institution of
- 15 higher education or a community or junior college described in
- 16 section 4, 5, 6, or 7 of article VIII of the state constitution of
- 17 1963 or an independent nonprofit degree-granting institution of
- 18 postsecondary education in this state that is approved by the state
- 19 board of education.
- 20 (m) "Jobs for Michigan investment fund" or "investment fund"
- 21 means the jobs for Michigan investment fund created in section 88h.
- 22 (n) "Life sciences" means science for the examination or
- 23 understanding of life or life processes, including, but not limited
- 24 to, all of the following:
- 25 (i) Bioengineering.
- 26 (ii) Biomedical engineering.
- 27 (iii) Genomics.

- 1 (iv) Proteomics.
- 2 (v) Molecular and chemical ecology.
- 3 (vi) Biotechnology, including any technology that uses living
- 4 organisms, cells, macromolecules, microorganisms, umbilical cord
- 5 blood, or substances from living organisms to make or modify a
- 6 product for useful purposes. Biotechnology or life sciences does
- 7 not include any of the following:
- 8 (A) Activities prohibited under section 2685 of the public
- 9 health code, 1978 PA 368, MCL 333.2685.
- 10 (B) Activities prohibited under section 2688 of the public
- 11 health code, 1978 PA 368, MCL 333.2688.
- 12 (C) Activities prohibited under section 2690 of the public
- 13 health code, 1978 PA 368, MCL 333.2690.
- 14 (D) Activities prohibited under section 16274 of the public
- 15 health code, 1978 PA 368, MCL 333.16274.
- 16 (E) Stem cell research with human embryonic tissue.
- 17 (o) "Life sciences technology" means any technology derived
- 18 from life sciences intended to improve human health or the overall
- 19 quality of human life, including, but not limited to, systems,
- 20 processes, or equipment for drug or gene therapies, biosensors,
- 21 testing, medical devices or instrumentation with a therapeutic or
- 22 diagnostic value, a pharmaceutical or other product that requires
- 23 United States food and drug administration approval or registration
- 24 prior to its introduction in the marketplace and is a drug or
- 25 medical device as defined by the federal food, drug, and cosmetic
- 26 act, 21 USC 301 to 399—399A, or 1 or more of the following:
- 27 (i) Advanced computing or electronic device technology related

- 1 to technology described under this subdivision.
- 2 (ii) Design, engineering, testing, or diagnostics related to
- 3 technology or the commercial manufacturing of technology described
- 4 under this subdivision.
- 5 (iii) Product research and development related to technology
- 6 described under this subdivision.
- 7 (p) "Qualified business" means a business entity located in
- 8 this state.
- 9 (q) "Qualified mezzanine fund" means a person or entity
- 10 primarily engaged in making loans or investments ranging in size
- 11 from \$250,000.00 to \$6,000,000.00 that is managed by 2 or more
- 12 individuals with no less than 5 years' direct experience in
- 13 mezzanine lending or capital investments and that holds investment
- 14 capital or has commitments from investors other than the fund and
- 15 at least 2 financial institutions.
- 16 (r) "Qualified private equity fund" means a firm principally
- 17 or primarily engaged in investing in or acquiring businesses that
- 18 is managed by 2 or more individuals with no less than 5 years of
- 19 direct experience in private equity investments, and that holds
- 20 investment capital from investors other than the fund.
- (s) "Qualified venture capital fund" means a firm principally
- 22 or primarily engaged in investing in or acquiring early stage
- 23 businesses with growth potential that have not yet demonstrated
- 24 consistent profitability or a proven business model, that is
- 25 managed by 2 or more individuals with not less than 5 years of
- 26 direct experience in venture capital, and that holds capital from
- 27 investors other than the fund.

- 1 (t) "Small business" means a business entity formed or doing
- 2 business in this state, including the affiliates of the business
- 3 concern, which business entity is independently owned and operated
- 4 and employs fewer than 250 full-time employees or has gross annual
- 5 sales of less than \$6,000,000.00.
- 6 (u) "21st century investments" means investments in 1 or more
- 7 of the following:
- 8 (i) Commercial loan guarantees under a loan enhancement program
- 9 operated by the fund.
- 10 (ii) Private equity investments under a private equity
- 11 investment program operated by the fund.
- 12 (iii) Venture capital investments under a venture capital
- investment program operated by the fund.
- 14 (iv) Mezzanine investments under a mezzanine investment program
- 15 operated by the fund.
- 16 (v) "Strategic economic investment and commercialization
- 17 board" or "commercialization board" means the strategic economic
- 18 investment and commercialization board created in section 88k.
- 19 (w) "University technology transfer" means innovative methods
- 20 to accelerate the creation of start-up companies affiliated with
- 21 institutions of higher education or the transfer of competitive
- 22 edge technology research from an institution of higher education to
- 23 a qualified business in Michigan.