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State of Minnesota
HOUSE OF REPRESENTATIVES

EIGHTY-FIFTH
SESSION

HOUSE FILE No. 1392

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Authored by Hilty; Knuth; Peterson, A.; Wagenius; Hoppe and others
The bill was read for the first time and referred to the Committee on Finance

1.1 A bill for an act
1.2 relating to energy; creating renewable hydrogen initiative; modifying policies
1.3 to foster use of hydrogen energy; appropriating money; amending Minnesota
1.4 Statutes 2006, section 216B.812, subdivisions 1, 2; proposing coding for new
1.5 law in Minnesota Statutes, chapter 216B.

1.6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.7 Section 1. Minnesota Statutes 2006, section 216B.812, subdivision 1, is amended to
1.8 read:

1.9 Subdivision 1. **Early purchase and deployment of hydrogen, fuel cells, and**
1.10 **related technologies by the state.** (a) The Department of Commerce and the Pollution
1.11 Control Agency in conjunction with the Department of Administration shall identify
1.12 opportunities for ~~demonstrating the use of~~ deploying hydrogen, fuel cells, and related
1.13 technologies within state-owned facilities, vehicle fleets, and operations.

1.14 (b) The Department of Commerce and the Pollution Control Agency shall
1.15 recommend to the Department of Administration, ~~when feasible~~, the purchase and
1.16 ~~demonstration~~ deployment of hydrogen, fuel cells, and related technologies, when
1.17 feasible, in ways that strategically contribute to realizing Minnesota's hydrogen economy
1.18 goal as set forth in section 216B.8109, and which contribute to the following nonexclusive
1.19 list of objectives:

- 1.20 (1) provide needed performance data to the marketplace;
- 1.21 (2) identify code and regulatory issues to be resolved;
- 1.22 (3) foster economic development and job creation in the state;
- 1.23 (4) raise public awareness of hydrogen, fuel cells, and related technologies; or
- 1.24 (5) reduce emissions of carbon dioxide and other pollutants.

2.1 (c) The Department of Commerce and the Pollution Control Agency shall also
 2.2 recommend to the Department of Administration changes to the state's procurement
 2.3 guidelines and contracts in order to facilitate the purchase and deployment of hydrogen,
 2.4 fuel cells, and related technologies by all levels of government.

2.5 Sec. 2. Minnesota Statutes 2006, section 216B.812, subdivision 2, is amended to read:

2.6 Subd. 2. **Pilot projects.** (a) In consultation with appropriate representatives from
 2.7 state agencies, local governments, universities, businesses, and other interested parties,
 2.8 the Department of Commerce shall report back to the legislature by November 1, 2005,
 2.9 and every two years thereafter, with a slate of proposed pilot projects that contribute to
 2.10 realizing Minnesota's hydrogen economy goal as set forth in section 216B.8109. The
 2.11 Department of Commerce must consider the following nonexclusive list of priorities in
 2.12 developing the proposed slate of pilot projects:

2.13 (1) ~~demonstrate~~ deploy "bridge" technologies such as hybrid-electric, off-road, and
 2.14 fleet vehicles running on hydrogen or fuels blended with hydrogen;

2.15 (2) ~~develop~~ lead to cost-competitive, on-site hydrogen production technologies;

2.16 (3) demonstrate nonvehicle applications for hydrogen;

2.17 (4) improve the cost and efficiency of hydrogen from renewable energy sources; and

2.18 (5) improve the cost and efficiency of hydrogen production using direct solar energy
 2.19 without electricity generation as an intermediate step.

2.20 (b) For all demonstrations, individual system components of the technology ~~must~~
 2.21 should, if feasible, meet commercial performance standards and systems modeling must
 2.22 be completed to predict commercial performance, risk, and synergies. In addition, the
 2.23 proposed pilots should meet as many of the following criteria as possible:

2.24 (1) advance energy security;

2.25 (2) capitalize on the state's native resources;

2.26 (3) result in economically competitive infrastructure being put in place;

2.27 (4) be located where it will link well with existing and related projects and be
 2.28 accessible to the public, now or in the future;

2.29 (5) demonstrate multiple, integrated aspects of hydrogen infrastructure;

2.30 (6) include an explicit public education and awareness component;

2.31 (7) be scalable to respond to changing circumstances and market demands;

2.32 (8) draw on firms and expertise within the state where possible;

2.33 (9) include an assessment of its economic, environmental, and social impact; and

2.34 (10) serve other needs beyond hydrogen development.

3.1 Sec. 3. **[216B.813] MINNESOTA RENEWABLE HYDROGEN INITIATIVE.**

3.2 Subdivision 1. Road map. The Department of Commerce shall coordinate and
3.3 administer directly or by contract the Minnesota renewable hydrogen initiative. If the
3.4 department decides to contract for its duties under this section, it must contract with a
3.5 nonpartisan, nonprofit organization within the state to develop the road map. The initiative
3.6 may be run as a public-private partnership representing business, academic, governmental,
3.7 and nongovernmental organizations. The initiative must oversee the development and
3.8 implementation of a hydrogen road map, including appropriate technology deployments,
3.9 that achieve the hydrogen goal of section 216B.013. The road map must be compatible
3.10 with the United States Department of Energy's National Hydrogen Energy Roadmap
3.11 and be based on an assessment of the state's opportunities in hydrogen, fuel cells, and
3.12 related technologies, so as to capitalize on strengths. The road map should establish
3.13 a vision, goals, general timeline, and measurable milestones for achieving the state's
3.14 hydrogen goal. The road map should describe how hydrogen and fuel cells fit in
3.15 Minnesota's overall energy system, and should help foster a consistent and predictable
3.16 investment environment. The department must report to the legislature on the progress in
3.17 implementing the road map by November 1 of each odd-numbered year.

3.18 Subd. 2. Grants. (a) The commissioner of commerce shall operate a competitive
3.19 grant program for projects to assist the state in attaining its hydrogen energy goals. The
3.20 commissioner of commerce shall assemble an advisory committee made up of industry,
3.21 university, government, and nongovernment organizations to:

3.22 (1) help identify the most promising technology deployment projects for public
3.23 investment;

3.24 (2) advise on the technical specifications for those projects; and

3.25 (3) make recommendations on project grants.

3.26 (b) The commissioner shall give preference to project concepts included in the
3.27 department's most recent biennial report: Strategic Demonstration Projects to Accelerate
3.28 the Commercialization of Renewable Hydrogen and Related Technologies in Minnesota.
3.29 Projects eligible for funding must combine one or more of the hydrogen production
3.30 options listed in the department's report with an end use that has significant commercial
3.31 potential, preferably high visibility, and relies on fuel cells or related technologies. Each
3.32 funded technology deployment must include an explicit education and awareness-raising
3.33 component, be compatible with the hydrogen deployment criteria defined in section
3.34 216B.812, and receive 50 percent of its total cost from nonstate sources. The 50 percent
3.35 requirement does not apply for recipients that are public institutions.

4.1 Sec. 4. **UNIFORM CODES AND STANDARDS FOR HYDROGEN, FUEL**
4.2 **CELLS, AND RELATED TECHNOLOGIES; RECOMMENDATIONS AND**
4.3 **REPORT.**

4.4 (a) The commissioner of labor and industry, in consultation with the Department of
4.5 Commerce and other relevant public and private interests, shall develop recommendations
4.6 regarding the adoption of uniform codes and standards for hydrogen infrastructure, fuel
4.7 cells, and related technologies, and report those recommendations to the legislature by
4.8 December 31, 2007.

4.9 (b) The goal of the recommendations is to have all regulatory jurisdictions in the
4.10 state have the same safety standards with regard to the production, storage, transportation,
4.11 distribution, and use of hydrogen, fuel cells, and related technologies. The commissioner's
4.12 recommendations must, without limitation, include:

4.13 (1) codes and standards that already exist for hydrogen, fuel cells, and related
4.14 technologies, and how the state should formalize their use;

4.15 (2) codes and standards still under development by various official standard-making
4.16 bodies;

4.17 (3) gaps between existing codes and standards, those under development, and those
4.18 that may still be needed but are not yet being developed;

4.19 (4) the need for, and estimated cost of, additional education and training for
4.20 emergency management and code officials;

4.21 (5) any changes needed to environmental and other permitting processes to
4.22 accommodate the commercialization of hydrogen, fuel cells, and related technologies; and

4.23 (6) recommendations on appropriate codes and standards for educational and
4.24 research institutions.

4.25 Sec. 5. **HYDROGEN REFUELING STATION GRANTS.**

4.26 In addition to the purposes specified in Laws 2005, chapter 97, article 13, section
4.27 4, for which the commissioner of commerce may make grants, the commissioner may
4.28 make grants under that law for the purpose of developing, deploying, and encouraging
4.29 commercially promising renewable hydrogen production systems and hydrogen end
4.30 uses in partnership with industry. The authority of the commissioner to make grants
4.31 and assessments under Laws 2005, chapter 97, article 13, section 4, continues until the
4.32 authorized grants and assessments are made.

4.33 Sec. 6. **APPROPRIATION FOR RENEWABLE HYDROGEN INITIATIVE.**

- 5.1 \$10,000,000 is appropriated from the general fund to the commissioner of commerce
5.2 for the purpose of preparing the hydrogen road map and making grants under Minnesota
5.3 Statutes, section 216B.813. This appropriation is available until expended.