



WISCONSIN LEGISLATIVE COUNCIL

December 8, 2009

Climate Change Legislation

LRB-3883/1

Description of Legislation

On July 24, 2008, the Governor's Task Force on Global Warming approved an extensive set of policy recommendations designed to reduce the emissions of greenhouse gases (GHG), to lessen the potential for climate change¹ related to those emissions. Some recommendations are amenable to implementation administratively, and state agencies have implemented or are implementing a number of these recommendations. Others require legislation to be put in place; **LRB-3883/1** contains initiatives to implement many of these latter recommendations.

This report provides a detailed description of **LRB-3883/1**, hereafter the bill. For a brief overview, see the companion report, *Overview of Legislation*; for a tool to help find the text of individual provisions, see *Topical Index to Legislation*.

To help readers find the text of individual provisions of the bill, section numbers are indicated throughout this report in brackets following the text describing the indicated sections. References in the form s. __, Stats., are to statutory sections; references in the form SEC. __ are to sections of the bill.

These references are to the substantive provisions described in the text preceding the citations. They do not cite provisions that make technical or conforming changes. Also, in many instances to simplify these references, the citation is to a higher level provision in the statutes that includes the actual statute affected by the bill. These references are also included in the separate document referred to above, *Topical Index to Legislation*.

Three statutes that are affected by the bill, the energy efficiency and renewable resource programs (s. 196.374, Stats.), renewable portfolio standard (s. 196.378, Stats.), and the statute relating to the review and approval of new nuclear power plants by the Public Service Commission (PSC) (commonly referred to as the "nuclear moratorium" statute) (s. 196.493, Stats.), are particularly difficult

¹ This report uses the term "climate change" rather than "global warming" because, while an increase in average global temperatures are fundamental to the physical phenomena at issue, the anticipated results are a far more complex array of changes in global climatic patterns.

to follow in the bill, due to extensive renumbering of provisions and some reorganization of those statutes.

As an aid to those who want to review the treatment of those statutes in detail, engrossed versions of these statutes, as affected by the bill, prepared by the Legislative Reference Bureau are also posted on the Legislative Council’s Internet site, under the titles *Energy Efficiency and Renewable Resource Programs; Engrossed Text, Renewable Portfolio Standard; Engrossed Text* and *Nuclear Power Plant Review and Approval; Engrossed Text*. These documents include the entire text of these statutes – text added by the bill is underscored, text deleted by the bill has a line through it, and text not affected by the bill has neither of these treatments.

Except as noted otherwise in this report, all provisions of the bill take effect on the day after its publication.

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GOALS; PROGRAM COORDINATION AND EVALUATION; PUBLIC EDUCATION

GOALS

Statewide Goals

The bill declares statewide goals for the state for GHG emission reductions, energy conservation, generation of electricity from renewable resources, and new building energy use, as follows:

GHG emission reductions goals

- Annual net GHG emissions in 2014 are no greater than annual net GHG emissions in 2005.
- Annual net GHG emissions in 2022 are at least 22% less than annual net GHG emissions in 2005.
- Annual net GHG emissions in 2050, and each year thereafter, are at least 75% less than annual net GHG emissions in 2005.
- Continuous progress is made in reducing net GHG emissions in order to achieve the above goals.

As used in the bill, “GHG” means carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, nitrogen trifluoride, a hydrofluorocarbon, a perfluorocarbon, or any other gas identified by the Department of Natural Resources (DNR) by rule. “Annual net GHG emissions” means the amount of GHG, measured as tons of carbon dioxide equivalent, emitted to the atmosphere by all sources and activities in this state in a year minus the amount of GHG, measured as tons of carbon dioxide equivalent, removed from the atmosphere by all sources and activities, including by carbon sequestration, in this state in the year.²

Energy Conservation Goals

Reduce the statewide consumption of electricity in each year by an amount not less than the product of the PSC’s projection of the statewide consumption of electricity for the year and the following percentages:

² The bill also includes definitions of “carbon dioxide equivalent,” “carbon sequestration,” “global warming potential,” and “radiative effect.” See s. 299.03 (1), Stats., for these technical definitions.

- In 2011, 1%.
- In 2012, 1.25%.
- In 2013, 1.5%.
- In 2014, 1.75%.
- In 2015 and each year thereafter, 2%.

Reduce the statewide consumption of liquefied petroleum gas, heating oil, and natural gas in each year by an amount not less than the product of PSC's projection of statewide consumption of these fuels for the year and the following percentages:

- In 2011, 0.5%.
- In 2012, 0.75%.
- In 2013 in each year thereafter, 1%.

Electricity from Renewable Resources Goals

- By the end of 2013, 10% of all electric energy consumed in the state is renewable energy.
- By the end of 2020, 20% of all electric energy consumed in the state is renewable energy and 6% is generated by renewable facilities in the state.
- By the end of 2025, 25% of all electric energy consumed in the state is renewable energy and 10% is generated by renewable facilities in the state.

New Building Energy Use Goal

- By 2030, all newly constructed residential and commercial buildings are zero net energy buildings.³

[ss. 299.03 (1) to (4), and 196.378 (2) (a), Stats.]

State Agency Goals

The bill declares goals for state agencies for GHG emission reductions, energy conservation, and energy derived from biomass, as follows:

³ The bill defines "zero net energy building" to mean either a building that annually, based on a three-year average, uses no more energy than is provided by on-site renewable energy generation; one of two or more buildings that have an integrated system of energy supply and use and that together annually, based on a three-year average, use no more energy than is provided by renewable energy generation that is part of the integrated system.

GHG Emission Reductions Goals

- By January 1, 2020, each agency's annual GHG emissions is 22% less than the annual amount attributable to the agency in 2005.

Energy Conservation Goals

- By 2030, overall energy use by all state agencies is 30% less than in 2005.

Energy Derived from Biomass Goals

Overall use by all agencies of energy derived from biomass, expressed as the following percentages of total energy use:

- 10% by 2010.
- 15% by 2015.
- 20% by 2020.
- 25% by 2025.

[s. 16.954 (4) and (5) and 299.045 (3) (a), Stats.]

Other Goals

The bill also directs a number of state and local government agencies to develop goals as part of their implementation of a climate change related program. These goals are described elsewhere in this report as part of the description of the program.

CLIMATE CHANGE COORDINATING COUNCIL

The bill creates in DNR the Climate Change Coordinating Council, modeled on the Groundwater Coordinating Council, for the purpose of coordinating state programs and actions related to climate change and advising policymakers on related matters.

Membership

The council consists of one person to represent the Governor, appointed to a four-year term, and the following other members or their designees: the secretaries of administration; natural resources; commerce; agriculture, trade and consumer protection; health services; and transportation; and the University of Wisconsin (UW)-System president, PSC chairperson, and Office of Energy Independence (OEI) executive director.

A designee may be appointed only if the designee is an employee or appointive officer of the appointer's agency.

[s. 15.347 (3), Stats.]

Duties and Powers; Support

The duties of the council are to:

- Assist state agencies in improving and coordinating their programs relating to climate change.
- Prepare the policy review and report described in the following section titled *Program Evaluation*.
- Promote and coordinate state educational and training programs related to climate change described in the subsequent section titled *Public Education and Information*.

The bill authorizes the council to create subcommittees to assist in its work. Subcommittee members are not limited to members of the council or employees of the agencies with members on the council.

The bill directs state agencies with membership on the council and its subcommittees to provide adequate staff to conduct the functions of the council.

[s. 299.035, Stats.]

PROGRAM EVALUATION

The bill establishes a multi-step process for the creation of a quadrennial report to the Legislature and Governor by the Climate Change Coordinating Council that evaluates whether the state is achieving its statewide GHG emission reduction goals and whether any state or local climate change related programs should be modified or created. These steps include DNR, with the assistance of other state agencies: (1) periodically collecting or estimating GHG emissions data from man-made and natural sources; (2) preparing a GHG emissions inventory and analysis of information in the inventory; and (3) preparing an assessment of changes in net GHG emissions and whether current and future statewide GHG emission reduction goals are being, or will be, met.

The schedule for the council to submit this report - by June 1, 2014, and every four years thereafter - is designed to have this report provide input to the Governor and state agencies at the beginning of alternating state biennial budget cycles.

Information and Analyses

Emissions and Sequestration Information

The bill directs DNR to periodically collect or estimate information concerning the following:

- Amounts of GHG emissions from sectors of Wisconsin's economy and from natural systems in the state associated with various types of land uses.
- Amounts of carbon sequestered by natural systems in the state associated with various types of land uses.

[s. 299.03 (5) (a), Stats.]

Comprehensive Accounting System

As part of this data collection and estimation, DNR must develop and maintain a comprehensive accounting system to estimate the net annual GHG emissions from natural systems in the state in 2005 and changes in these emissions in subsequent years due to significant changes in land cover or in the management of land. This system must identify GHG emissions from at least agricultural, forestry, grassland, wetland, urban, and suburban land uses.

The department must design and operate this accounting system to produce statistically valid data, for use in each of its assessments, described below, that can be used to estimate the emissions and changes in emissions from natural systems. The system must be designed to provide information for the smallest land areas consistent with economic practicality, but in no case larger than a county, and to include a land cover database. The DNR may design and operate the accounting system to serve other purposes, including use in public education programs on climate change, the management and supply of bioenergy feedstocks, and sustainable forest management.

[s. 299.03 (5) (b), Stats.]

Inventories and Analyses

The bill directs DNR to periodically prepare inventories and analyses based on these GHG emissions data and estimates. The inventories must include baseline inventories of GHG emissions from man-made sources in 2005 and net GHG emissions from natural systems in 2005. The inventories must also include trends in GHG emissions from man-made sources and of net GHG emissions from natural systems adjusted for the following:

- Meteorological, economic, and other variable factors that cause significant deviations from normal trends.
- Changes in energy use, fuel composition, and other factors likely to permanently affect future emissions or sequestration of GHG.

[s. 299.03 (5) (c), Stats.]

Emission Reporting Requirements

As part of its GHG emissions data collection, the bill directs DNR to, by rule, revise its air contaminant emissions reporting requirements to set the reporting level for carbon dioxide at 10,000 tons per year and to require persons owning or operating a stationary source who is required to report carbon dioxide emissions to also report methane and nitrous oxide emissions from the combustion of a solid, liquid, or gaseous fuel.

[s. 299.03 (5) (d), Stats.]

DNR Quadrennial Assessment

No later than March 1, 2014, and every four years thereafter, the bill directs DNR to prepare an assessment of the changes in net GHG emissions in the state and of public and private climate change goals and programs, based on the inventories and analyses, described above, and other relevant information. This other information includes a number of reports and assessments relating to GHG emission reductions and other climate change related activities that the bill directs other state agencies to submit to DNR or the Climate Change Coordinating Council. (These directives are identified in this report in the descriptions of specific programs.) The deadlines for their submissions are coordinated with the schedule for DNR to prepare its quadrennial assessments.

The department must address at least all the following in each assessment:

- Whether the state is achieving the applicable statewide GHG emission reduction goal.
- Whether the state is making continuous progress in reducing net GHG emissions.
- If the state is not achieving the applicable GHG emission reduction goal or is not likely to achieve its future GHG emission reduction goals, proposals for alternative programs for meeting the goals.
- Whether any state or local governmental climate change goal or nonregulatory program:
 - Should be modified to make the program more effective at reducing net GHG emissions or mitigating the effects of climate change or less costly to implement.
 - Should be modified or created to respond to a new federal initiative relating to climate change or a new scientific understanding of climate change processes or effects.
- Estimates of the likely reductions in net GHG emissions and of the effects on energy use in the state and on the state's economy associated with each new program or program change analyzed under the activities described in the previous bullet points.

[s. 299.03 (6), Stats.]

Climate Change Coordinating Council Policy Review and Report

No later than June 1, 2014, and every four years thereafter, the bill directs the Climate Change Coordinating Council to submit a report to the Legislature and the Governor on all of the following:

- Whether the state is:
 - Achieving the applicable statewide GHG emission reduction goal.
 - Making continuous progress in reducing net GHG emissions.
 - Likely to achieve its future statewide GHG emission reduction goals and, if not, recommended changes in programs needed to achieve the goals.

- Other recommended changes in state and local governmental climate change goals and programs.
- The likely reduction in net GHG emissions and effects on energy use in the state and on the state's economy associated with each program change recommended under the previous bullet points.
- Whether any climate change goals should be modified or new climate change goals should be created.

The council must base this report on DNR's quadrennial assessment, described above, and other information received by the council. The bill directs the council to include in this report a summary of the assessments and reports related to climate change that state agencies are required to submit to DNR or the council.

[s. 299.03 (9), Stats.]

Public Review

The report directs DNR to provide an opportunity for public review and comment on its GHG inventories, methodologies it uses to estimate the effects of policies and other factors on changes in net GHG emissions, and quadrennial assessments.

[s. 299.03 (8), Stats.]

Consultation and Assistance

The bill requires DNR to consult with the Climate Change Coordinating Council in fulfilling its duties described in this section of the report. The bill directs other state agencies to assist DNR to the fullest extent possible in fulfilling these duties and in establishing and maintaining its Internet site on climate change.

[s. 299.03 (7), Stats.]

PUBLIC EDUCATION AND INFORMATION

The bill directs the Climate Change Coordinating Council to promote and coordinate state educational and training programs related to climate change, including programs to provide information on all the following:

- State goals for the reduction of GHG emissions and other related state goals for reducing the consumption of fossil fuels, described above.
- Assessments of changes in net GHG emissions in the state and of state climate change goals and programs, described above.

- Activities by state agencies to meet goals for the reduction of their GHG emissions and to meet their related goals for energy efficiency and the use of energy derived from renewable resources, described above.
- State, local, and federal governmental programs related to or affecting climate change.
- Actions that persons can take to reduce the amount of their GHG emissions.
- Other significant mitigation and adaptation strategies that address climate change.
- The causes and effects of climate change.

The bill requires the council, in fulfilling this duty, to consult with the administrator of the statewide energy efficiency and renewable resource programs,⁴ described below in the part of this report titled *Public Service Commission*, and other appropriate public and private entities providing educational and training programs on climate change to the public. In conducting these activities, the council must give priority to promoting and coordinating education and information programs that are for students and their teachers.

In addition, the bill directs DNR to establish and maintain an Internet site on climate change, in consultation with the Climate Change Coordinating Council, the administrator of the statewide energy efficiency and renewable resource programs, and other appropriate public and private entities providing educational and training programs on climate change to the public. This site is intended to be the central state Internet site on climate change. The DNR must make available on the site the data, inventories and analyses, assessments, and reports used in or prepared under the various stages of the evaluation of changes in net GHG emissions in the state and of public and private climate change goals and programs described in the preceding section.

[ss. 299.03 (10) and 299.035 (2) (c) and (d), Stats.]

PUBLIC SERVICE COMMISSION

ENERGY EFFICIENCY AND RENEWABLE RESOURCE PROGRAMS

Under current law, a set of programs provide a variety of energy efficiency and renewable resource services to all users of electricity and natural gas, including residential, commercial, institutional, agricultural, and industrial users, who receive service from investor-owned utilities, municipal utilities, and retail electric cooperatives. The purpose of the programs is captured in the following directive to PSC in regard to its program coordination and oversight role:

The commission shall give priority to programs that moderate the growth in electric and natural gas demand and usage, facilitate markets and assist market providers to achieve higher levels of energy efficiency, promote energy reliability and adequacy, avoid adverse environmental impacts

⁴ This is the administrator of the Focus on Energy program.

from the use of energy, and promote rural economic development. [s. 196.374 (3) (b) 1., Stats.]

The bill expands the scope of the energy efficiency and renewable resource programs to include users of liquid petroleum (LP) gas and heating oil, creates a new planning process for setting program goals and budgets, expands the funding sources, allows energy utilities to earn a return on investments in energy efficiency, and makes a number of other changes to the programs. Some of the changes codify current interpretations of the program or authorize current practices that are not specifically contemplated in the statutes.

Program Design and Administration

Program Participants

Under current law, only the users of electricity and natural gas are eligible to participate in the energy efficiency and renewable resource programs, while users of LP gas or heating oil may participate only to the extent that they are also users of electricity or natural gas.

The bill expands the programs to allow full participation by all users of any of these fuels. The bill refers to electricity and natural gas as “regulated fuels,” LP gas and heating oil as “unregulated fuels,” and the four together as “target fuels.”

[s. 196.374 (2) (a), Stats.]

Statewide Programs

Under current law, customers of investor-owned utilities receive services under a single, statewide program. The utilities are required, by statute, to collectively contract for the administration of the program, which is conducted under the name Focus on Energy. The PSC has general oversight of the program, which is subject to PSC rules.

Apart from the addition of unregulated fuel users and wording changes to conform to changes made by other provisions, the bill does not affect the statewide programs except to clarify that PSC must determine how to allocate responsibilities among contractors, if the utilities contract with more than one program administrator.

[s. 196.374 (2) (a), and (3) (c) 1., Stats.]

Utility- and Customer-Administered Programs

Under current law, a utility may administer or fund a portion of the statewide program to provide energy efficiency services to its own large commercial, industrial, institutional, or agricultural customers. A utility may also administer or fund energy efficiency and renewable resource programs that are in addition to the statewide program. In addition, a large energy customer may self-fund and administer its own energy efficiency program in lieu of contributing to the cost of the statewide program. These utility-administered programs, supplemental utility programs, and large energy customer programs are all subject to PSC approval and oversight.

The bill expands the scope of utility-administered programs to apply to all customers of a utility and expands the scope of large energy customer programs to include renewable resource programs, as well as energy efficiency programs. It clarifies that: (1) both utility-administered programs and supplemental utility programs are limited to services related to regulated fuels; (2) supplemental utility programs are limited to the utility's customers (as utility-administered programs are limited under current law); and (3) a utility may request at any time for PSC approval to establish, modify, or discontinue either type of program (as large energy customers may do under current law).

Under current law, PSC is required to approve a utility's request to conduct a utility-administered program or supplemental utility program if it determines that the program: (1) is in the public interest; (2) has specific savings targets and performance goals approved by the commission; and (3) is subject to independent evaluation by PSC. The bill applies these standards to large energy customer programs, as well, and replaces the term "performance goals" with the more precise term "measurable performance-based goals." The bill establishes the following additional criteria for PSC approval of utility-administered programs and supplemental utility programs:

- The individual elements of the program do not duplicate elements of the statewide programs. This criterion applies only to utility-administered programs.
- Implementation of the program will complement the statewide programs and enhance the ability of those programs to meet or exceed their goals.
- Implementation of the program will enhance the ability of the state to meet its GHG emission reduction goals.
- The costs of the program are reasonable, considering alternatives to the program.
- The benefits of the program exceed the costs of the program.

[s. 196.374 (2) (b) and (c), and (3) (c) 2., Stats.]

Programs of Municipal Utilities and Cooperatives

Under current law, municipal utilities and retail electric cooperatives are required to annually collect from their members and customers, revenues equal to an average of \$8 per meter. In collecting these revenues, in any month, the fee to an individual member or customer may not exceed the lesser of 1.5% of all other charges on the bill or \$375. Municipal utilities and retail electric cooperatives are given the option to either participate in the statewide programs or administer separate programs for their customers or members, termed commitment to community programs.

The bill specifies that a municipal utility or a retail electric cooperative may meet its program obligations through any combination of the following mechanisms:⁵

⁵ Note that all of these options reflect current practices, some of which are not specifically contemplated in the statutes.

- Commitment to community programs administered individually or jointly with other municipal utilities or cooperatives.
- Contracts with the administrators of the statewide programs to provide energy efficiency and renewable resource services to their customers or members.
- Contracts with wholesale suppliers of electricity⁶ to administer commitment to community programs in their service territories.
- Assignment of all of its program obligations to a wholesale supplier.

The bill also repeals the cap on charges on individual bills.

Under current law, PSC annually prepares a statement describing all of the energy efficiency and renewable resources programs, other than the commitment to community programs, and presenting cost and benefit information for those programs. Investor-owned energy utilities provide copies of this statement to their customers. The bill requires that municipal utilities and retail electric cooperatives prepare similar statements regarding commitment to community programs and that they provide copies to their members and customers.

The bill also provides a more complete definition of “commitment to community program” than in current law, including renewable resource programs as well as energy conservation and efficiency.

[s. 196.374 (1) (b) and (7), Stats.]

Quadrennial Planning Process

Under current law, PSC has oversight of the statewide, utility-administered, supplemental utility, and large energy customer programs, and is directed to coordinate these programs and all other programs with a similar purpose. At least every four years, PSC is required to evaluate the energy programs, set or revise goals, priorities, and measurable targets for the programs. Also under current law, utilities are required to collect from their customers an amount equal to 1.2% of their operating revenues and remit that amount to the statewide program administrators, to fund those programs.⁷ As noted earlier, municipal utilities and retail electric cooperatives are required to collect an average of \$8 per service meter per year from their customers and members to fund their programs.⁸

⁶ A “wholesale supplier” is an entity that provides electricity to municipal utilities or cooperatives for resale to their customers or members. In the case of cooperatives, these are wholesale electric cooperatives; in the case of municipal utilities, they are termed “municipal electric companies.”

⁷ The annual funding for the statewide programs is calculated on a rolling three-year average of annual operating revenues. In 2009, this amount is about \$86 million; in 2010, it will be about \$94 million. The reduction of energy demand that has resulted from the current economic recession has not yet affected this calculation, but it is clear that program funding under the current funding formula will decrease in the next few years.

⁸ This amounts to about \$6 million per year for all municipal utilities and retail electric cooperatives, collectively.

The bill does not affect PSC's oversight role, but it replaces the periodic (at least every four years) review and the current funding formula for the statewide programs with a much more structured quadrennial proceeding to assess program potential, establish program goals and budgets, and allocate funding obligations; this process also establishes program goals, but not budgets, for the municipal utilities and retail electric cooperatives. The overall result of the new process is to replace the current funding formula, 1.2% of investor-owned utilities' operating revenues plus \$8 per meter of municipal utilities and retail electric cooperatives, with a level of funding that PSC determines is sufficient to accomplish all cost-effective energy savings that can potentially be accomplished in such programs.

[s. 196.374 (3) (bc), Stats.]

Assessment of Potential Energy Savings

The quadrennial proceeding begins with what are termed "potential studies." The current program is based in part on studies of the potential energy savings that could be realized under energy efficiency and renewable resource programs. The bill expands on these potential studies to require evaluations of energy savings that could be realized under these and all other programs and policies. Specifically, it requires PSC to assess the reduction in the use of and demand for each target fuel that can be achieved in each year of the upcoming quadrennium through each of the following:

- Cost-effective energy efficiency and renewable resource programs administered by energy providers or others (the programs affected by the bill).
- The state's low-income weatherization programs (which are a subset of the programs identified in the preceding bullet point).
- Other programs and policy mechanisms under PSC's jurisdiction, such as the renewable portfolio standard (described in the next section), renewable resource tariffs (described later in this report), and utilities' demand response and load management programs.
- All other programs and policy mechanisms, such as appliance and equipment efficiency standards, mandatory building codes, and voluntary certification programs.

[s. 196.374 (3) (bg), Stats.]

Program Goals

Next, PSC is directed to establish program goals for the reduction in use of or demand for each of the target fuels for each year of the quadrennium. It is to establish one set of goals for the statewide programs and a separate set of goals for each municipal utility and each retail electric cooperative. While the formula in the bill for calculating the goals for regulated fuels is complicated, the concept is simple.

The collective goal of all programs for a regulated fuel is the reduction in use of or demand for the fuel achievable through energy efficiency and renewable resource programs minus the reductions anticipated to be achieved through low-income weatherization programs. The goal for an individual fuel in an individual program is the collective goal multiplied by the proportion of total sales of that fuel in

the state that are attributable to the participants in that program. For example, the statewide programs' goal for natural gas is the collective goal for natural gas multiplied by the proportion of total sales of natural gas attributable to investor-owned utilities; the goal for a municipal utility or retail electric cooperative for electricity is the collective goal for electricity multiplied by the municipal utility's or retail electric cooperative's proportion of total sales of electricity. The goals for unregulated fuels are based on the same concept, but their calculation is simpler because the entire goal is assigned to the statewide programs.

The PSC may revise the goal for a municipal utility or retail electric cooperative if the commission determines that the goal is unreasonable considering the composition of the utility's or cooperative's customer or membership base.

[s. 196.374 (3) (bn), Stats.]

Program Budgets

As program goals are based on the potential studies, program budgets are based on the program goals. The PSC determines the funding required to achieve the goals for the statewide programs for each target fuel. The budget for the statewide programs is the sum of these amounts minus any amounts PSC has authorized to be spent in utility-administered programs or large energy customer programs. Municipal utilities and retail electric cooperatives are required to determine the amounts necessary to achieve their goals and to set those amounts as their budgets.

[s. 196.374 (3) (br), Stats.]

Program Funding

Municipal utilities and retail electric cooperatives raise the amount of their program budgets in rates charged to customers and members.

The funding of statewide programs is more complicated. As under current law, the bill bases the funding of statewide programs on energy sales, collecting revenues related to electricity and natural gas from utilities and revenues related to LP gas and heating oil from the prime suppliers of those fuels. A "prime supplier" is a person that imports a fuel into this state for use in this state. The bill directs the PSC to determine each utility's and each prime supplier's proportional share of the statewide programs' budget. Each utility and prime supplier must pay its proportional share directly to the program administrators, except that, as under current law, the amount a utility pays to the program administrator is reduced by any amount PSC has authorized the utility to spend on utility-administered programs and any amount PSC has authorized the utility's customers to spend on large energy customer programs.

[s. 196.374 (3) (bw) and (7) (am), Stats.]

Program Outcomes

Audits and Reports

Under current law, PSC is required to annually contract for an audit of the statewide programs and any utility-administered, supplemental utility, and large energy customer programs it has approved. It must prepare and post on its Internet site a report summarizing, at a minimum: (1) the expenses incurred in administering or participating in the programs by PSC, the utilities, and program administrators; (2) the effectiveness of the programs in reducing demand for electricity and increasing the use of end user-sited renewable energy systems; and (3) results of the audit.

Also under current law, each municipal utility or retail electric cooperative that conducts a commitment to community program must contract for an independent audit of its program and submit to PSC a report that includes the same information included in the PSC report described in the preceding paragraph.

The bill does the following:

- Specifies that, if an audit indicates that a program, other than a commitment to community program, has failed to meet any goal for any one year, PSC must consult with the person administering the program regarding ways to modify the program to ensure that it meets its goals.
- Requires PSC to include a description of commitment to community programs in its report.
- Adds to the subject matter of audits and reports regarding commitment to community programs an assessment of whether the programs have met their goals.

[s. 196.374 (3) (d), (dm), and (e) and (7) (e), Stats.]

Compliance and Enforcement

Current law does not directly address compliance with and enforcement of its requirements regarding energy efficiency and renewable resource programs, except to state that an investor-owned electric or natural gas utility that has spent the amount it is required to spend in support of the programs in a year “is considered to have satisfied its requirements under [the programs] for that year.” The bill extends this treatment to a municipal utility or retail electric cooperative that contracts with the statewide programs to meet all of its goals.

The bill also creates a program compliance and enforcement procedure for the various programs. It directs PSC to determine whether the statewide and commitment to community programs have met their goals on average over each quadrennium. It also directs PSC to determine whether utility-administered, supplemental utility, and large energy customer programs have met their goals on average over the period of the program or another time period determined by PSC. If a wholesale supplier has accepted assignment of program responsibilities from more than one of its member municipal utilities or retail electric cooperatives, whether a program has met its goals is to be determined in the aggregate, treating all the programs administered by the wholesale supplier as a single program.

If a program has failed to meet one or more goals over these time periods, PSC must determine the reason for that failure. If PSC determines that the person responsible for the program made a good faith effort to meet the goals and that the failure to do so was due to factors outside that person's control, it must take those factors into account in modifying goals for and, where applicable, approving future programs administered by that person.

If PSC determines that the person responsible for the program did not make a good faith effort to meet the goals or that the failure to do so was due to factors within that person's control, it must implement remedies according to its rules. The PSC may find that a person did not make a good faith effort only if it finds one or more of the following:

- The person has repeatedly or grossly failed to meet a goal.
- In the case of a commitment to community program, the person administering the program did not set a budget for the program that could reasonably be considered necessary to meet the goal.
- Any other condition specified by PSC in rules.

The bill directs PSC to specify in rules remedies to implement in cases in which a person administering a program failed to meet a goal and did not make a good faith effort to meet the goal or did not control the factors that resulted in the failure. The remedies must be in proportion to the magnitude of the failure and the degree to which the person did not make a good faith effort or did not control the relevant factors, and must include the following remedies:

- An order that the person take corrective actions, which may include meeting the goal in a time frame specified by PSC, in addition to meeting any other goals that apply during that time frame.
- For the statewide programs:
 - An order that the energy utilities invoke any provisions in the contract with the program administrator, or that the administrator invoke any provision in a subcontract, that imposes monetary penalties for failure to meet a goal.
 - An order that the energy utilities modify or terminate the contract with the program administrator, or that the administrator modify or terminate a subcontract.
- For utility-administered programs and large energy customer programs, an order modifying or terminating the program.
- For a goal of a municipal utility or retail electric cooperative, an order requiring either or both of the following:
 - Modification or termination of a contract with or assignment to a wholesale provider.
 - Entering into a contract with the statewide programs administrator.

[s. 196.374 (8), Stats.]

Utility Earnings on Investments in Energy Conservation

In broad terms, the rates of investor-owned utilities consist of two components: revenues required to cover the cost of providing utility service; and revenues to provide the utility “return on equity.” This latter component is expressed as a percent of the utility’s capital assets.

The bill authorizes PSC to allow an investor-owned utility to earn a return on capital invested in energy conservation or efficiency equipment under a utility-administered program or a supplemental utility program, if it determines that the investment is prudent and “a cost-effective means of advancing energy conservation or efficiency.” This authority applies to equipment that is installed on a customer’s premises, including equipment that will be owned by the utility or by the customer.

A utility may earn a return only on that portion of an investment that can be attributed to improving energy conservation or efficiency. If the investment is made to replace existing equipment, the improvement in energy conservation or efficiency is determined in comparison to the existing equipment. If the investment does not replace existing equipment, the improvement in energy conservation or efficiency is determined in comparison to generally available alternative equipment.

The bill directs PSC to promulgate rules to implement this authority, including rules specifying the energy conservation or efficiency equipment that qualifies for this treatment.

[s. 196.374 (9), Stats.]

Other Provisions

Program Costs and Benefits; Equitable Sharing

Under current law, PSC is required to ensure that the cost of the statewide and utility administered programs is equitably divided among customer classes “so that similarly situated ratepayers contribute equivalent amounts for the programs.” Further, on an annual basis, PSC must ensure that each customer class of an energy utility has the opportunity to receive grants and benefits under the programs in an amount equal to the amount that is recovered from the customer class to fund the programs. The bill specifies that, as an exception to this, PSC may allow a customer class to receive grants and benefits not equal to the amount recovered from it if PSC finds that to do so is in the public interest and promotes the cost effective achievement of the program goals.

[s. 196.374 (5m), Stats.]

Utility Cost Recovery

Under current law, PSC must allow an investor-owned utility to recover its costs of complying with these programs in rates. The bill applies the same treatment to municipal utilities.

[s. 196.374 (7) (cm), Stats.]

PSC Cost Recovery

In general, PSC recovers the cost of its operations through assessments on the entities that it regulates for the cost of the proceedings in which those entities are involved. The PSC's recovery of costs related to administration of the energy efficiency and renewable resource programs, including the cost of annual program audits, is an exception to this; these costs are currently paid from the revenues collected by utilities to fund those programs. The bill specifies that PSC will recover these costs through assessments on investor-owned and municipal utilities, retail electric cooperatives, and prime suppliers.

[ss. 196.374 (3) (d) and 196.85 (1m) (e), Stats.]

Large Energy Customer Rules

The bill directs PSC to study its rules specifying procedures and criteria for its review and approval of utility-administered, supplemental utility, and large energy customer programs to determine whether those rules provide adequate opportunities for creating large energy customer programs. Within six months of the effective date of this legislation, PSC must submit a report to the Legislature and Governor describing its findings and actions it has taken or intends to take to correct any deficiencies in the rules.

[SEC. 9141 (4).]

ENHANCED RENEWABLE PORTFOLIO STANDARD (RPS)

A RPS is a policy that requires providers of electricity (electric utilities and retail electric cooperatives) to ensure that a specified percentage of the electricity they sell is derived from renewable resources. Most states' RPS policies, including Wisconsin's RPS, include a credit trading system, which provides a market-based mechanism to allow electric providers to meet their obligations under the RPS in the most cost-effective way they can.

Legislative Findings

The bill adds a list of legislative findings to the current RPS statute. The gist of these findings is that: (1) it is essential to maintain a reliable electricity supply, including limiting reliance on electricity imported from other states; (2) it is essential to take steps to mitigate global climate change, including reducing reliance on fossil fuels; (3) currently, the most abundant and affordable sources of renewable energy are in neighboring states to the west; and (4) to balance the first two points, in light of the third point, it is essential to adopt an RPS that includes requirements for the use of in-state sources of renewable energy.

[s. 196.378 (1g), Stats.]

The Standard

Wisconsin's current RPS does not set a fixed percentage of sales that each electric provider must meet with renewable resources; rather, it directs each electric provider to determine a baseline – the

average of the percentages of its sales from 2001, 2002, and 2003 that were renewable energy – and increase from that baseline according to the following schedule:

- 2006-2009: Total renewable energy sales must be not less than the baseline.
- 2010-2014: Total renewable energy sales must be at least two percentage points above the baseline.
- 2015 and thereafter: Total renewable energy sales must be at least six percentage points above the baseline.

This schedule was established with the goal of 10% of all electricity sales in Wisconsin being renewable energy by 2015, and is based on the fact that the statewide sales were at about 4% when this schedule was established in 2005. The PSC is required to report to the Legislature and the Governor in 2016 as to whether the 10% goal has been met.

The bill adds a requirement for electricity sales from renewable resources located in Wisconsin and replaces the schedule in current law with the following schedule:

- 2010-2012: Total renewable energy sales must be at least two percentage points above the baseline.
- 2013-2019: Total renewable energy sales must be at least six percentage points above the baseline.
- 2020-2024:
 - Total renewable energy sales must be at least 16 percentage points above the baseline.
 - Electricity sales from renewable resources in Wisconsin must be at least 30% of the total renewable energy sales required in those years.⁹
- 2025 and thereafter:
 - Total renewable energy sales must be at least 21 percentage points above the baseline.
 - Electricity sales from renewable resources in Wisconsin must be at least 40% of the total renewable energy sales required in those years.¹⁰

The bill replaces the reporting requirement described above with a series of reports, as follows:

- A report in 2014, stating whether the goal of 10% of all electricity sales being from renewable resources was met by 2013.

⁹ Assuming a baseline of 4%, this comes to 6% of total electricity sales.

¹⁰ Again, assuming a baseline of 4%, this comes to 10% of total electricity sales.

- A report in 2021, stating whether the goal of 20% of all electricity sales being from renewable resources and the goal of 6% of all electricity sales being from renewable resources located in Wisconsin were met by 2020.
- A report in 2026, stating whether the goal of 25% of all electricity sales being from renewable resources and the goal of 10% of all electricity sales being from renewable resources located in Wisconsin were met by 2025.

[s. 196.378 (2) (a), Stats.]

Energy Sources Deemed “Renewable”

With some exceptions, described below as pertinent, only renewable energy, defined as electricity derived from a renewable resource, counts toward compliance with the RPS. Current law defines “renewable resource” as follows:¹¹

196.378 (1) (h) “Renewable resource” means any of the following:

1. A resource that derives electricity from any of the following:
 - a. A fuel cell that uses, as determined by the commission, a renewable fuel.
 - b. Tidal or wave action.
 - c. Solar thermal electric or photovoltaic energy.
 - d. Wind power.
 - e. Geothermal technology.
 - g. Biomass.
- 1m. A resource with a capacity of less than 60 megawatts that derives electricity from hydroelectric power.
2. Any other resource, except a conventional resource, that the commission designates as a renewable resource in rules ...

“Conventional resource” is defined as energy derived from coal, oil, nuclear power, or natural gas, except natural gas used in a fuel cell.

Hydroelectric Energy

Under current law, an electric provider may not count hydroelectric power toward compliance with the RPS if it is generated at a facility that has 60 megawatt (MW) or greater generation capacity.¹²

¹¹ As described later in this report, the bill repeals this definition and instead refers to the definition of that term in the statute governing energy efficiency and renewable resource programs, to provide a single, consistent definition for this term in the statutes.

The bill makes an exception to this for electricity generated after December 31, 2013 at a hydroelectric facility that: (1) has 60 MW or greater generation capacity; (2) was placed in service on or after the effective date of the bill; and (3) is located outside of Wisconsin. As a result of this last condition, such electricity qualifies for the general RPS, but does not qualify for the in-state portion.

The bill also sets conditions on electricity from hydroelectric facilities that: (1) have 60 MW or greater generation capacity; (2) are placed in service after the effective date of the bill; and (3) are located in the Province of Manitoba. Specifically, such electricity does not count toward compliance with the RPS unless two conditions are met:

- The Province of Manitoba has informed PSC in writing that: (1) the interim licenses under which two specific projects of Manitoba Hydro currently operate have been replaced with final licenses; and (2) those projects have received all final approvals, licenses, and permits applicable to them under Canadian law.
- The PSC determines that such final licenses and any other actions taken by the Province of Manitoba or Manitoba Hydro-Electric Board constitute a reasonable resolution of the concerns of the First Nations¹³ affected by those projects.

[s. 196.378 (2) (b) 1r., Stats.]

Solid Waste

In general, electricity derived from the combustion of solid waste does not count toward compliance with the RPS. However, electricity generated by the combustion of refuse-derived fuel does qualify, if burned in a facility that was in service before January 1, 1998. The bill specifies that electricity generated by the combustion of solid waste also counts toward compliance if the solid waste: (1) has been subject to a process to remove recyclable and noncombustible materials; and (2) is burned in a facility owned by a county in this state that was in service before January 1, 1998.¹⁴

[s. 196.378 (1r) (fg) 2. and 3., Stats.]

Nonelectric Energy

The bill specifies that the following forms of nonelectric energy count toward compliance with the RPS:

- The thermal output from any of the following:

¹² Under current law, this policy is accomplished through the definition of “renewable resource.” The bill retains the policy, but moves it from the definition to the new s. 196.378 (2) (b) 1r. a., Stats.

¹³ “First Nation” is the Canadian equivalent of the American term “American Indian tribe.”

¹⁴ The exception in current law is found in the definition of “biomass.” The bill moves it to the definition of “renewable energy,” and places the new exception in that definition, as well.

- A cogeneration production plant.¹⁵
- A biomass-fueled boiler that was converted from a fossil fuel-fueled boiler after the effective date of this legislation.
- A geothermal system.
- A solar water heating system.
- Biogas that is put into a natural gas transmission or distribution pipeline.
- Useable light delivered by a solar light pipe.
- Other nonelectric energy derived from a renewable resource specified by the PSC by rule.

An electric provider may apply nonelectric energy toward compliance with the RPS only if all of the following apply:

- The energy was generated at a facility that is located in this state and that was placed in service after the effective date of the bill.
- The energy displaces the use of fossil fuel in this state.

Generation of nonelectric energy does not result in the creation of a renewable resource credit (described below) however, the person that generated the energy may create a certificate documenting the energy. A person that generates qualifying nonelectric energy may sell a certificate to an electric provider or, if the person is an electric provider, apply the energy toward its compliance with the RPS. An electric provider that buys a certificate may resell the certificate to other electric providers, but not to any other person. Nonelectric energy may be applied toward compliance with the RPS only in the year in which the energy was generated.

The bill directs PSC to promulgate rules that, among other matters, specify requirements and procedures for all of the following:

- Determining the MW equivalent of nonelectric energy.
- Measuring and verifying nonelectric energy.
- Demonstrating that nonelectric energy has displaced fossil fuel use in this state.
- Creating certificates documenting nonelectric energy.

The PSC must submit draft rules to the Legislative Council Rules Clearinghouse within six months of the effective date of this legislation.

¹⁵ A cogeneration production plant is an electric generating facility that produces electricity and another form of energy, including heat or steam, that is used for industrial, commercial, heating, or cooling purposes.

[s. 196.378 (1r) (dm) and (3m), Stats., and SEC. 9141 (3).]

Renewable Resource Credits

Current Law

Compliance with the RPS is based on an electric provider's "renewable energy percentage," the percentage of the electric provider's total energy sales that are renewable energy. Under current law, an electric provider demonstrates compliance with the RPS by documenting in a report to the PSC that its renewable energy percentage is equal to or greater than the amount required under the RPS. If an electric provider has sold more renewable energy than it is required to sell under the RPS, it may create a credit.

An electric provider may bank credits for use toward compliance in a later year, or sell them to another electric provider. In general, banked credits expire after the fourth year after the year in which they are created, except that credits created before 2005 expire at the end of 2011. The PSC is directed to promulgate rules for the administration of credits and to participate in a regional system for the tracking and interstate trading of credits. Note that the actual administration of credits, in Wisconsin and in the Midwest Renewable Energy Trading System, the tracking system used by the PSC, does not follow this statutory scheme in certain, important regards.

The Bill

The bill repeals and recreates the statute relating to credits, establishing a scheme that reflects current practice. It specifies that credits are created at the time that renewable energy is generated and that the person that generates the renewable energy may sell the renewable energy and associated credits to another person or separate the credits from the renewable energy. For renewable energy that is sold at wholesale, the sale is considered to include the associated credits unless an agreement between the parties specifies otherwise.

For credits that are separated from the renewable energy, in general, the person that generated the renewable energy may sell, trade, transfer, assign, bank for future use, or permanently retire the credits; if that person is an electric provider, it may also apply the credits toward its compliance with the RPS. A person that buys renewable energy from which the credits have not been separated has all the same options as the person that generated the renewable energy, and a person that purchases renewable resource credits has all the same options as the person that separated the credits from the renewable energy with which the credits were created.

The bill specifies that, when renewable energy is sold at wholesale, the sale is considered to include the associated credits unless the parties agree otherwise. The bill restates this policy with regard to energy purchased under an advanced renewable tariff, described in the next section of this report.

Under the bill, as under current law, an electric provider demonstrates compliance with the RPS by documenting in a report to PSC that its renewable energy percentage is equal to or greater than the amount required under the RPS. The difference is that, under the bill, the report is based on documentation of credits that have been tracked in a regional credit tracking system, rather than documentation of energy sales. As an exception, the bill directs PSC to promulgate rules specifying

circumstances in which an electric provider may include documentation of the sale of renewable energy from which the credits have not been separated, instead of credits under the tracking system. The bill also specifies that credits do not expire until an electric provider has applied the credit toward compliance with its RPS requirements or until the owner of the credit retires the credit.

Under current law, the amount of energy that an electric provider generates at existing hydroelectric facilities that the electric provider owns or operates that it may apply toward compliance with the RPS is based on a formula related to generation capacity, rather than actual power generation and sale.¹⁶ Specifically, that amount is the average of the output from the electric provider's hydroelectric facilities in 2001, 2002, and 2003, adjusted to reflect increases or decreases in the generation capacity of those facilities since 2003. The bill specifies that, as an exception to the general rule, the credits associated with the energy determined under this formula may not be banked, sold, or traded; the electric provider may only apply the credits toward compliance with the RPS in the year in which they are created.

[ss. 196.378 (3) and 196.379 (6), Stats.]

Other Provisions

Calculations Related to Co-Fired or Cogeneration Facilities

Current law specifies a formula for determining the amount of energy generated in a facility that burns biomass in combination with a fossil fuel that may be applied toward compliance with the RPS. That formula starts by calculating the ratio of the energy content of the biomass to the energy content of all fuel burned; it multiplies this ratio by the total amount of the energy the facility is capable of generating to determine the total amount of qualifying energy.

The bill makes two significant changes to this formula. First it expands the ratio included in the formula to account for the co-firing of any combination of biomass, solid waste, or refuse-derived fuel with fossil fuels; it creates the defined term "energy content ratio" to refer to this ratio. Second, it multiplies the energy content ratio by the actual amount of energy generated by the facility, rather than the total amount of energy the facility is capable of generating.

The bill also creates a nearly identical formula for determining the amount of thermal energy generated by a cogeneration facility that may be applied toward compliance with the RPS.

[s. 196.378 (2) (bm), Stats.]

Delayed Compliance

Under current law, several provisions allow for delays in compliance with the RPS for reasons related to matters such as cost impact on ratepayers, the availability of renewable energy for purchase, and delays in the ability of an electric provider to construct renewable energy facilities. Electric

¹⁶ The reason for this treatment is that hydroelectric production depends on river flows, which vary from year to year. The formula provides a surrogate for actual energy sales that "smoothes out" some of this variability.

providers may apply to the PSC for permission to delay compliance; a wholesale supplier may delay compliance for its members or customers by notifying the PSC; and an energy consumer advocacy organization may apply to the PSC for a delay for an electric provider that serves one or more members of the organization.

Wholesale suppliers are covered by the first two scenarios described in the preceding paragraph. The bill deletes them from the first (an electric provider may apply to the PSC for a delay) and leaves them covered by the second (a wholesale supplier may delay compliance on behalf of their members or customers by notifying PSC).

The bill also specifies that, for purposes of delaying compliance with the RPS in any year, the overall RPS and the in-state portion of the RPS are treated as separate requirements. An electric provider seeking a delay in both of these requirements must justify the delay for each of them, individually.

[s. 196.378 (2) (e) (intro.) and (h), Stats.]

Wholesale Suppliers

The bill specifies that a wholesale supplier¹⁷ may demonstrate compliance with the RPS on behalf of its members or customers, individually or in the aggregate. In other words, a wholesale supplier may submit the required reports to PSC demonstrating that one of its members or customers is in compliance with the RPS, or may submit a single report for multiple members or customers demonstrating that those members or customers, collectively, are in compliance.

[s. 196.378 (2) (b) 2., and (c) 1., Stats.]

RENEWABLE (“FEED-IN”) TARIFFS

A renewable tariff (also referred to as a “feed-in” tariff) is a policy that requires electric utilities to offer to purchase electricity generated from a renewable resource under standard, predefined purchase terms and conditions prescribed by the entity regulating the utilities.

Purpose

The bill specifies that the purpose of renewable tariffs is to maximize the development and deployment of distributed renewable energy generation technologies used at renewable facilities without unreasonable impacts on electric utility rates.

[s. 196.379 (2), Stats.]

¹⁷ A “wholesale supplier” is an entity that provides electricity to municipal utilities or cooperatives for resale to their customers or members. In the case of cooperatives, these are wholesale electric cooperatives, such as Dairyland Power Cooperative; in the case of municipal utilities, they are termed “municipal electric companies,” such as Wisconsin Public Power, Inc.

Requirement

The bill directs PSC to issue an order directed to each investor-owned and municipal electric utility that sells at retail requiring the utility to offer to purchase renewable energy generated at renewable facilities within the utility's service territory that are constructed after the effective date of the order. These offers to purchase must be under the standard purchase terms and conditions described below.

As used in these provisions, "renewable energy" is electricity derived from a renewable facility. A "renewable facility" is an electric generating facility that is a small-scale facility, as determined by PSC, and that derives energy from any of the following:

- Photovoltaic energy.
- Wind power.
- Gas made from a renewable resource.
- Any other renewable resource specified by PSC.

"Renewable resource" has the same meaning as in the energy efficiency and renewable resource programs described in a preceding section.

The bill establishes the following three exceptions to this renewable tariff order requirement:

- If PSC finds that a large electric utility's voluntary initiatives are consistent with the purposes of these provisions, it may exempt the utility from the order requirement or, in a renewable tariff order directed to the utility, provide that the utility is not required to purchase renewable energy generated at particular types of renewable facilities. A "large electric utility" is an electric utility that had retail sales in 2008 of 2,500,000 MW hours or more.¹⁸
- PSC may provide that a small electric utility is not required to purchase renewable energy generated at particular types of renewable facilities in a renewable tariff order directed at the utility. A "small electric utility" is an electric utility that is not a large electric utility.
- An electric utility may purchase renewable energy generated at a renewable facility under terms and conditions that differ from those specified in a renewable tariff order directed to the utility if the utility and owner or operator of the renewable facility mutually agree to the terms and conditions.

In addition, the bill authorizes PSC to limit the requirement of an electric utility to purchase renewable energy under a renewable tariff order if PSC finds that the limit is consistent with the purpose of the provisions identified above. The PSC may base the limit on any of the following:

¹⁸ The following five electric utilities in the state are "large electric utilities" under this definition: Alliant Energy, Madison Gas and Electric Co., Northern States Power (d/b/a Xcel Energy), Wisconsin Energy Corporation (d/b/a WE Energies), and Wisconsin Public Service Corp.

- The number or total installed generating capacity of renewable facilities from which the utility must purchase renewable energy.
- The total amount of renewable energy that the utility must purchase.

[s. 196.379 (1), (3) (a) and (b) and (4), Stats.]

Terms and Conditions

A renewable tariff order issued by PSC must specify the standard purchase terms that apply for each type of renewable facility, including all the following:

- The price paid for renewable energy, based on PSC's consideration of all the following:
 - The cost of producing renewable energy at the type of facility.
 - A reasonable rate of return on investment for the type of facility.
 - State and federal financial incentives that are available to owners or operators of the type of facility.
- A schedule of payments for the renewable energy over a sufficient period of time to allow for recovery of the construction and operation costs for the type of facility.
- A maximum limit on the generating capacity for the type of facility.

The PSC may also include in a renewable tariff other conditions, including any of the following:

- Requirements for adjusting the standard purchase terms described above based on changes in operating costs for a type of facility.
- Different prices for renewable energy generated at the same type of facilities that have different generating capacities.

A renewable tariff order must also prescribe for each type of renewable facility a standardized agreement that includes the standard purchase terms and conditions applicable to the electric utility's purchase of renewable energy under the tariff.

The bill specifies that, in general, an electric utility purchasing renewable energy under a renewable tariff acquires, in addition to the renewable energy, the renewable resource credits associated with the generation of that energy.¹⁹ (Note that, as with other conditions, this condition does not apply if the utility and owner or operator of the renewable facility generating the renewable energy agree to a different treatment of these credits.)

¹⁹ Renewable resource credits are described in the previous section of this report, regarding the RPS.

[ss. 196.378 (3) (a) 1. and 196.379 (3) (c) to (e), and (6), Stats.]

Reviews

The bill directs PSC to periodically review its renewable tariff orders and, as appropriate, revise the standardize agreements prescribed in the orders to change the standard purchase terms and conditions. A revision under this review does not apply to a standardized agreement entered into by an electric utility and an owner or operator of a renewable facility before the effective date of the revision.

[s. 196.379 (5), Stats.]

NEW NUCLEAR POWER PLANTS

Applicability; Delayed Effective Date

The bill makes a number of changes to the regulation of nuclear power plants by PSC, including the review and approval by PSC to construct a new nuclear power plant.

The bill delays the effective date of these changes until after PSC has promulgated all rules and issued all orders necessary to initially implement the enhanced energy efficiency and renewable resource programs and enhanced RPS created by the bill. The bill accomplishes this delay by directing PSC to publish a notice in the Wisconsin Administrative Register specifying the date on which all of these actions are in effect and then delaying the relevant provisions until on or after the date specified in this notice. Other than changes related to the issuance by PSC of a certificate of public convenience and necessity (CPCN) for a nuclear power plant and the related nuclear moratorium law, the changes apply to a nuclear power plant, or its owner or operator, for which PSC has issued a CPCN on or after the date specified in this notice.

Furthermore, all of the changes in these regulations apply to all nuclear power plants irrespective of their capacity.

To reflect this delay and applicability, this section of the report refers to a “new nuclear power plant” (though the bill does not use this term). Where the subject of the provision being described deals with the approval of the construction of a nuclear power plant (that is, in the “nuclear moratorium” statute or the CPCN statute, described below), a new nuclear plant is a nuclear power plant of any capacity proposed to be constructed on or after the date specified in PSC’s notice described above. For all other provisions, a new nuclear power plant is a nuclear power plant of any capacity that has been issued a CPCN on or after the date specified in PSC’s notice.

[ss. 196.491 (1) (j) and 196.493 (3), Stats.]

Construction of Nuclear Power Plants (Nuclear Moratorium Law)

PSC Review and Approval

Under the current law relating to the construction of nuclear power plants (commonly referred to as the nuclear moratorium statute, s. 196.493, Stats.), PSC may not grant a CPCN or a certificate of

authority (CA) for a nuclear power plant,²⁰ unless the proposed plant meets the requirements of the applicable certification and the PSC also makes the following findings:

- A federally licensed facility with adequate capacity to dispose of high-level nuclear waste from all of nuclear power plants operating the state will be available for disposal of the waste (the radioactive waste disposal finding).²¹
- The proposed plant, in comparison with feasible alternatives, is economically advantageous to ratepayers (the comparative economic benefit finding). The PSC must base this finding on all of the following:
 - The existence of a reliable and adequate nuclear fuel supply.
 - The cost for construction, operation and decommissioning of nuclear power plants and for nuclear waste disposal.
 - Any other factor having an impact on the economics of nuclear power plants identified by PSC.

The bill applies these findings, as modified by the bill, to applications for a CPCN or CA for a new nuclear power plant.

The bill replaces the radioactive waste disposal finding with a requirement that PSC find that the plan for managing the nuclear waste from the proposed plant is economic, reasonable, stringent, and in the public interest, given the safety and other risk presented by the waste.

The bill makes two changes to the comparative economic benefit finding: (1) it requires the finding to be based on the plant being economically advantageous to ratepayers of public utilities or members of electric cooperatives in this state (hereafter in this section, “utility ratepayers or co-op members”);²² and (2) it adds an additional basis that PSC must address in making this finding, namely, the benefits to the state and the environment resulting from reductions of air pollutant emissions from the proposed plant compared to emissions from feasible alternatives.

The bill also adds two findings that PSC must make:

²⁰ The CPCN statute applies to the construction of an electric generating facility (i.e., a power plant) with a capacity of 100 MW or more, regardless of the ownership of the facility. The CA statute applies to the construction of a power plant with a capacity less than 100 MW or installation of other equipment and facilities owned by a public utility, or to the modification of any size power plant or other equipment and facilities owned by a public utility.

²¹ This criterion may also be met by a facility outside of the United States if PSC determines the facility will satisfy public welfare requirements.

²² This modification addresses the situation where a wholesale electric cooperative proposes to build a nuclear power plant to provide electricity to its members.

- The proposed plant will provide electricity to utility ratepayers or co-op members at a reasonable cost (the reasonable cost finding). The PSC must base this finding on all of the following:
 - The existence of a reliable and adequate nuclear fuel supply.
 - The cost for construction, operation, and decommissioning of nuclear power plants and for nuclear waste disposal.
 - Any other factor having an impact on the economics of nuclear power plants identified by PSC.
- The entire output of electricity produced by the plant will be needed and used to meet the expected requirements for electricity of ratepayers or co-op members and the applicant demonstrates to PSC's satisfaction that the output will be needed and used for this purpose (the entire output finding).

[s. 196.493 (2), Stats.]

Legislative Findings

The bill adds a list of legislative findings to the nuclear moratorium statute. These findings: (1) assert the interest of the state in determining the need for the construction of, and controlling the land use and siting of, electric generating facilities, in general, and nuclear power plants, in particular; (2) address the failure of the federal government to provide for the safe and effective disposal of spent nuclear fuel from nuclear power plants and the risks and potential expenses of accidental releases of radioactive materials from the on-site handling and storage of spent nuclear fuel, while considering the recent safety record of the nuclear power industry; (3) identify three policy objectives as means to limit, distribute, and offset the risks associated with the long-term storage of spent nuclear fuel at the sites of nuclear power plants and with the operation of nuclear plants; and (4) state that the most effective policy to achieve these objectives is to require that the entire output from any new or expanded nuclear power plant constructed in the state will be needed and used to meet the expected requirements for electricity of electric utility ratepayers and electric cooperative members in the state (this policy is set forth in the entire output finding described above).

The bill also repeals the legislative findings in the act that created the nuclear moratorium statute, 1983 Wisconsin Act 401, SECTION 1.

[s. 196.493 (1g), Stats., and SEC. 313.]

Decommissioning

The bill adds requirements for decommissioning a new nuclear power plant to the nuclear moratorium statute. These requirements authorize PSC to, by order: (1) specify the method for an owner or operator of a new nuclear power plant to provide reasonable assurance that funds in an amount determined by PSC will be available to decommission the plant and to dispose of spent nuclear fuel from the plant; and (2) require the owner operator to provide this assurance.

[s. 196.493 (4), Stats.]

Certificate of Public Convenience and Necessity

The CPCN statute, s. 196.491 (3), Stats., identifies a number of determinations PSC must make for it to issue a CPCN. These determinations include that the proposed facility satisfies the reasonable needs of the public for an adequate supply of electric energy (the needs determination) and that the design and location of the facility is in the public interest considering alternative sources of supply, alternative locations, individual hardships, engineering, economic, safety, reliability and environmental factors (the design determination). Neither the needs test nor the components of the design test relating to alternative sources of supply, engineering or economic factors apply if the application is for a wholesale merchant plant.²³

The CPCN statute directs PSC to take final action on an application for a CPCN within 180 days after the application is determined or considered to be complete and authorizes PSC to petition the Circuit Court for Dane County within this period for a 180-day extension. If PSC failed to take final action on the application within the applicable period, then PSC is considered under this statute to have issued the CPCN.

The bill makes the following changes to the CPCN statute:

- As noted earlier, it applies the CPCN statute to new nuclear power plants, including those with a capacity of less than 100 MW.
- It excludes from the definition of “wholesale merchant plant” any new nuclear power plant that is owned and operated by a person that is not a public utility or, with PSC approval, by an affiliated interest of a public utility. (The bill defines these plants as “nonutility nuclear power plants” and establishes the procedures and standards for PSC to approve an affiliated interest of a public utility owning, controlling, or operating a new nuclear power plant that is a nonutility nuclear power plant based on the procedures and standards applicable to PSC review of an affiliated interest in owning, controlling, or operating a wholesale merchant plant.) The effect of this change in the CPCN statute is to apply the design determination, described above, to CPCN applications for all new nuclear power plants, irrespective of their ownership.
- Consistent with the creation of the entire output finding in the nuclear moratorium statute, the bill excludes new nuclear power plants from the needs determination in the CPCN statute.
- The bill authorizes PSC to subject any CPCN approval for a new nuclear power plant to any conditions that PSC determines are in the public interest. The bill also specifies that any

²³ In general, a “wholesale merchant plant” is an electric generating facility in the state that does not provide service to any retail customer and is owned and operated by either a person that is not a public utility or that is, with PSC approval, an affiliated interest of a public utility. [s. 196.491 (1) (w), Stats.]

conditions PSC imposes under this provision apply to any successor in interest of the applicant.

- The bill authorizes the Circuit Court for Dane County to extend the period for PSC to review a CPCN application for a new nuclear power plant for an additional 360 days rather than 180 days.

[s. 196.491 (3) and (3m), Stats.]

Certificate of Authority

Under the current CA statute, s. 196.49, Stats., a public utility may not begin the construction, installation, or operation of any new equipment or facility or the construction or installation of any extension, improvement, or additions to its existing equipment or facilities unless the utility has complied with any applicable PSC rule or order and obtained any necessary CA from PSC for these projects. The PSC may also require a public utility to submit plans, specifications, and estimated costs of any project to construct new equipment or facilities, or extend, improve, or add to existing equipment or facilities which PSC finds will materially affect the public interest.

The bill specifies that these requirements also apply to the owner or operator of a new nuclear power plant that is not a public utility (i.e., a “nuclear power plant owner or operator”).

As for a CPCN approval, the bill also authorizes PSC to attach to the issuance of a CA for one of the projects specified in the first paragraph in this subsection by a nuclear power plant owner or operator any terms and conditions that PSC determines are in the public interest. These terms and conditions also apply to any successor in interest to the nuclear power plant owner or operator to whom the certificate is issued.

[s. 196.49, Stats.]

Other Regulations

In addition to the provisions described in the preceding subsections, the bill applies the following regulations in ch. 196, Stats., that are currently applicable to public utilities, to new nuclear power plants or their owners or operators, irrespective of whether the owner or operator is a public utility:

- Questionnaires, s. 196.25, Stats.
- Service standards for inspecting, maintaining, and repairing, and for the safe and reliable operation of, electric generation facilities, s. 196.491 (5), Stats.
- Penalties relating to information and records, s. 196.65, Stats.
- General forfeiture provisions, s. 196.66, Stats.
- PSC consent and approval for the sale, acquisition, leasing, or renting of plant or property constituting an operating unit or system of a power plant, s. 196.80 (1m) (e).

[ss. 196.25, 196.491 (5), 196.65, 196.66, and 196.80, Stats.]

Nonseverability Clause

Under the statutes governing the construction of the state statutes, the provisions of the statutes are severable, and, if the application of any provision of the statutes is invalidated by a court, such invalidity shall not affect other provisions of the statutes which can be given effect without the invalid provision.

[s. 990.001 (11), Stats.]

The bill establishes that, notwithstanding this general construction of the statutes, if a court finds that the entire output finding for new nuclear power plants created by the bill in the nuclear moratorium statute is unconstitutional, then all of the provisions described in this section of the report regarding the regulation of nuclear power plants are void.

[SEC. 9141 (1).]

Reconciliation of the Treatment of Wholesale Merchant Plants

The bill also makes technical changes to a number of other statutes within and outside of ch. 196, Stats., that refer to wholesale merchant plants. The bill is intended to not affect these statutes. Since the bill excludes new nuclear power plants from the definition of wholesale merchant plants, the bill applies these statutes to nonutility nuclear power plants or owners or operators of nonutility nuclear power plants, as appropriate. This has the effect of continuing to apply the statute to a new nuclear power plant that is owned by a person other than a public utility or by an affiliate of a public utility, or that plant's owner or operator, and thus results in no substantive change to the provision. The bill makes these technical changes in the following statutes:

- Definition of “qualified wholesale electric company” in the license fee for light, heat, and power companies, s. 76.28 (1) (gm).
- Public utility distribution (also known as public utility shared revenue), s. 79.04 (6), Stats.
- Definition of “electric provider” in electric wiring and electricians’ regulation, s. 101.80, Stats.
- Asset cap in the public utility holding companies law, s. 196.795 (6m), Stats.
- PSC direct assessments, s. 196.85 (1m), Stats.

[ss. 76.28 (1), 79.04 (6), 101.80, s. 196.795 (6m), and 196.85 (1m), Stats.]

OTHER PROVISIONS AFFECTING THE PSC AND OTHER AGENCIES

The bill makes extensive revisions to several major programs under the jurisdiction of PSC and creates one new program, as described in this part of this report.

General Directive to Reduce Energy Use and Demand

Related to these program changes but not specifically a part of the programs, the bill makes a very broad directive to PSC to “exercise its regulatory authority to ensure that the maximum reduction in the use of and demand for electricity and natural gas ... while taking account of the costs and benefits for customers and the need to maintain a highly reliable system capable of delivering an adequate supply of electricity and natural gas at reasonable cost,” are achieved through the following:

- Implementation of cost-effective energy conservation and efficiency programs.
- Utility demand response and load management programs.
- Tariffs designed to reduce energy use.

[s. 196.025 (1) (e), Stats.]

PSC Authority to Order Additional Programs

Energy Conservation and Efficiency Programs

In a number of separate provisions, the statutes state that the PSC may not require entities to engage in energy conservation or efficiency programs beyond what is required under the statewide programs, if the entity is fully complying with those requirements. The most general statement of this concept is in two parts, which the bill amends as follows:

- Current s. 196.025 (1) (b) 1., Stats., applies this concept to investor-owned electric utilities; the bill expands this treatment to municipal electric utilities.
- Current s. 196.025 (1) (b) 2., Stats., applies this concept to wholesale suppliers; the bill applies this treatment to wholesale suppliers that have accepted assignment of program obligations from one or more municipal utilities or retail electric cooperatives and to the municipal utilities or retail electric cooperatives that made that assignment.

In the current form of these provisions, an investor-owned utility is considered to be in compliance with its program requirements if it has spent the funds it is required to spend in support of the programs, and a wholesale supplier is considered to be in compliance if its members are, in aggregate, substantially in compliance with their program obligations. The bill does not change the treatment of investor-owned utilities but specifies that, for municipal utilities, retail electric cooperatives, and wholesale providers, compliance is based on that entity having met the program goals set for it, on average, in the preceding four years, or having made a good faith effort to do so.

[s. 196.025 (1) (b) 1. and 2., Stats.]

Renewable Resource Programs

Similarly, a number of separate provisions state that the PSC may not require entities to engage in renewable resource programs beyond what is required under the RPS, if the entity is fully complying with the RPS. One of these provisions (s. 196.378 (4m), Stats.), applies to investor-owned utilities,

municipal utilities, and retail electric cooperatives (collectively, “electric providers”); another (s. 196.025 (1) (c) 1., Stats.), applies only to investor-owned utilities; a third (s. 196.374 (2) (a) 3., Stats.), applies to energy utilities.

The bill applies this second statute, s. 196.025 (1) (c) 1., Stats., to municipal, as well as investor-owned utilities. (It does not apply the second statute to retail electric cooperatives because they are not subject to PSC jurisdiction in the context of that statute.) The bill also specifies that this statute does not limit the authority of PSC to enforce a public utility’s obligations under the energy efficiency and renewable resource programs statute (s. 196.374, Stats.), or the renewable tariff statute (s. 196.379, Stats.).

In addition, the bill specifies that the energy efficiency and renewable resource programs statute (s. 196.374 (2) (a) 3., Stats.), and the RPS statute (s. 196.378 (4m) (a), Stats.), do not limit the authority of PSC to enforce an energy utility’s or electric provider’s obligations under the renewable tariff statute (s. 196.379, Stats.).

[ss. 196.025 (1) (c) 1., 196.374 (2) (a) 3., and 196.378 (4m) (a), Stats.]

PSC Review of Proposed Renewable Energy Facilities

Consideration of Alternative Sites for Large Wind Projects

Under current law, when reviewing an application for approval to construct any utility facilities or any large electric generating facility, the PSC and DNR are required to consider alternatives to the proposed facility. With regard to the consideration of alternative locations, sites, or routes for a project, current law specifies that the PSC and DNR are not required to consider more than the location, site, or route for the project identified in the application and one alternative. The bill specifies that, with regard to an application for a large electric generating facility (one with an operating capacity of 100 MW or greater) that generates electricity from a renewable resource, the PSC is not required to consider alternatives to the location, site, or route identified in the application.

[s. 196.025 (2m) (c) and 196.491 (3) (d) 3., Stats.]

Action Deadline for Small Renewable Projects

The bill specifies that, with regard to an application by an electric provider for a small electric generating facility (one with an operating capacity less than 100 MW) that generates electricity from a renewable resource, the PSC must take final action on the application within 270 days of issuing a notice to open a docket on the application. If the PSC is required to prepare an environmental impact statement for the proposed facility, it may extend this review period by not more than 90 days; also, if another state is required to approve the proposed facility, the PSC may extend the review period until not more than 90 days after the other state takes final action on the proposal. If the PSC fails to take final action within the original or extended review period, the PSC is considered to have approved the application.

[s. 196.49 (5m), Stats.]

Priority for Renewable Energy Projects in Scheduling PSC Business

The bill directs the PSC, in scheduling its business, to give priority to the consideration of applications for approval to construct renewable energy facilities.

[s. 196.025 (1) (c) 3., Stats.]

Statewide Energy Conservation Goals Assessment

The bill directs PSC, no later than July 1, 2013, and at least every four years thereafter, to prepare and provide to DNR an assessment of progress toward meeting the statewide energy conservation goals for reducing the consumption of electricity and of liquefied petroleum gas, heating oil, and natural gas described in the first part of this report.

[s. 196.025 (7), Stats.]

PSC Study to Ensure the Ability of Electric Providers to Comply with the RPS

The bill directs the PSC to study options for ensuring that electric providers are able to comply with the RPS. The study must include consideration of all of the following options relating to the construction of renewable energy facilities:

- Streamlining the regulatory approval and siting process.
- Encouraging proposals that encompass multiple projects, with multi-project, integrative plans for the acquisition of sites, equipment, and contractors.
- Approving multi-year commitments for the acquisition of necessary equipment in a timely manner, with appropriate recovery of development costs.
- Encouraging larger electric providers to partner with smaller electric providers.

The bill requires PSC to submit a report to the Legislature and the Governor within six months of the effective date of this legislation that describes actions the PSC has taken or proposes to take to implement the options listed above and any recommendations for legislation necessary to fully implement the options.

[SEC. 9141 (2).]

Department of Transportation (DOT) Report on Transport of Wind Turbine Components

The bill directs DOT to review regulatory barriers to the transport of wind turbine components over the state's highways. It requires DOT to submit a report to the Legislature and the Governor within six months of the effective date of the bill that describes actions the PSC has taken to remove such barriers and any recommendations for legislation necessary to fully remove such barriers.

[SEC. 9150 (1).]

Technical Provisions

Organization

To accomplish some of the policy changes and, in particular, to insert legislative findings, the bill extensively renumbers and to some extent reorganizes some of the affected statutes, the statute governing the energy efficiency and renewable resource programs, the RPS statute, and the statute relating to PSC's review and approval of new nuclear power plants, in particular. As was noted in the introduction of this report, engrossed versions of these statutes (versions that show the statutes as affected by the bill) are available on the Joint Legislative Council's Internet site.

Repeal of Obsolete Language

A number of provisions of current law are made obsolete by the change the bill makes in demonstrating compliance with the RPS by using credits, as opposed to demonstrating compliance by reporting sales of electricity. These provisions have to do with matters such as allocation of credit for renewable energy among the affiliates of an electric provider or among the members or customers of a wholesale provider.²⁴ The bill repeals these provisions.

The bill also repeals s. 196.377 (2), Stats., a law enacted in 1998 requiring electric utilities in eastern Wisconsin to construct an aggregate total of 50 MW of new renewable electric generation facilities by the end of 2000.

The bill also repeals all references to "ordered programs," a term in current law referring to certain programs under PSC orders that are now expired.

Other Terminology Changes

The bill makes a number of changes to the terminology used in the statutes relating to the energy efficiency and renewable resource programs and the RPS. Under current law, the term "biomass" and "renewable resource" are used in both of these statutes, as well as elsewhere in the statutes. The bill provides a single definition for each of these terms, places it in the statute for the energy efficiency and renewable resource programs, and provides cross-references to those definitions in the RPS statute and other statutes, as appropriate.

In addition, the bill makes numerous terminology and other changes to refine the drafting of the current law. For example, current law refers to statewide, utility-administered, supplemental utility, and large energy customer programs by referring to the statute under which those programs are created. The bill creates definitions for each program type and replaces the statutory references with those defined terms. The same is true regarding the term "RPS." The bill also replaces the many references to the members of a wholesale supplier with references to members or customers.

²⁴ See, in particular, ss. 196.378 (1) (o) 1. and 2. and (2) (b) 4. and 5.

VEHICLES; FUELS; PLANNING; TRANSPORTATION INFRASTRUCTURE

CALIFORNIA VEHICLE EMISSION STANDARDS

Under the federal Clean Air Act, the U.S. Environmental Protection Agency (EPA) sets limits on the types and amounts of pollutants that may be emitted by motor vehicles. It generally prohibits states from enacting motor vehicle emission limitations that differ from the federal limitations. The Act does allow California to enact limitations that differ from the federal limitations under specified conditions and subject to obtaining a waiver for the limitations from the EPA administrator. The Clean Air Act allows other states to enact motor vehicle emission limitations for a class of motor vehicles that are identical to all of California's emission limitations applicable to the class of vehicles.

The bill directs DNR to promulgate rules specifying statewide emission limitations, for passenger cars, light-duty trucks, and medium-duty vehicles that are passenger vehicles and have gross vehicle weights of 10,000 pounds or less. The limitations must be identical to the California GHG emission standards and other emission standards applicable to those vehicles promulgated by the California Air Resources Board (CARB).²⁵

The bill authorizes DNR to promulgate rules specifying statewide emission limitations for motor vehicles that are identical to the California emission standards for zero emission vehicles promulgated by CARB, if DNR determines that adopting these limitations would be an effective and efficient part of the state's strategy for meeting the statewide GHG emission reduction goals described in the first part of this report.

The DNR must ensure that its rules promulgated under this initiative comply with the federal requirement that the rules must be adopted at least two years before the start of the vehicle model year to which the rule first applies, as determined by EPA regulations. The DNR's rules may not apply before the EPA administrator grants a waiver for the applicable California standard. In addition, DNR must revise its rules as necessary to maintain consistency with the relevant California standards.

The bill also directs DNR to study any GHG emission reduction regulations for motor vehicles, other than the ones subject to California's GHG emission standards identified above, that California adopts after October 1, 2009. The DNR must report its study results, including its conclusion on whether adopting the new California regulations would be an effective and efficient part of the state's strategy for meeting the statewide GHG emission reduction goals, to the Legislature no later than six months after this legislation's effective date or six months after California adopts a regulation, whichever is later.

The bill conforms the current state inspection and maintenance program with these new emission limitations and specifies that this program shall be designed to not only determine compliance with motor vehicle emission limitations and tampering prohibitions specified in current law but also with the California emission standards required or authorized under this initiative.

²⁵ The other California emissions standards applicable to these vehicles are its low emission vehicle II standards for non-methane organic gases, carbon monoxide, oxides of nitrogen, formaldehyde, and particulates.

[ss. 110.20, 285.30, and 285.305, Stats.]

ENGINE IDLE REDUCTION

Freight Truck Idling

The bill specifies as part of the rules of the road for highway users in the state that, after January 1, 2011, the operator of a motor truck, truck tractor, or road tractor²⁶ may not allow the primary propulsion engine of the motor vehicle to idle, on or off a highway, for more than five minutes in any 60 minute period, except under any of the following circumstances:

- When the vehicle is forced to remain motionless because of traffic conditions.
- When the outdoor temperature is below 10°F or above 90°F.
- When the medical needs of the vehicle operator or a passenger require the use of equipment that is necessary for the health of the operator or passenger and the equipment is not part of the vehicle and is powered from the vehicle's primary propulsion engine.
- When necessary to power equipment needed to load or unload property into or from the vehicle or a vehicle combination that includes the vehicle.
- When necessary to regenerate an emission filtration device on the vehicle.
- When performing maintenance procedures, including vehicle repair.
- If the vehicle contains a heavy-duty highway diesel engine that complies with the air pollutant emission standards promulgated by the federal EPA under 42 U.S.C. s. 7521 for engine model year 2007, or later.

The bill establishes the following forfeitures for violations of the above idling restriction: between \$20 and \$40 for the first offense; between \$100 and \$500 for the second conviction within a year; and between \$500 and \$1,000 for the third or subsequent conviction within a year.

[ss. 346.94 (21) and 346.95 (11), Stats., and SEC. 9450 (1).]

²⁶ These types of vehicles are defined in s. 340.01, Stats., as follows: a "motor truck" is a motor vehicle designed, used, or maintained primarily for the transportation of property (sub. (34)); a "truck tractor" is a motor vehicle designed and used primarily for drawing other vehicles [including semi trailers] and not so construed as to carry a load other than a part of the weight of the vehicle and load so drawn (sub. (73)); and a "road tractor" is a motor vehicle designed and used for drawing other vehicles and not so constructed as to carry any load thereon either independently or any part of the weight of the vehicle or load so drawn (sub. (53)).

Study of Other Engine Idling

The bill directs DNR to study emissions of GHG from the idling of engines in “mobile sources,” other than the three types of trucks subject to the freight truck idling restriction described above. For purposes of this study, a “mobile source” is defined as in DNR’s air pollution rules to mean:

... any motor vehicle, vessel, aircraft or equipment other than a semistationary source which is capable of emitting any air contaminant while moving or idling on the ground or in the water. Mobile sources include automobiles, motorcycles, trucks, buses, snowmobiles, motorboats, steamships, earthmoving equipment, locomotives and aircraft. [s. NR 400.02 (98), Wis. Adm. Code.]

As part of this study, DNR must recommend incentives, technical assistance, or regulations, or a combination of these approaches, to achieve technically and economically feasible reductions in these emissions. The DNR must base the study on a review of the existing literature and governmental policies designed to reduce these emissions.

The DNR must report the results of this study to the Legislature and the Governor within three months after the effective date of this legislation.

[SEC. 9137 (1).]

LOW CARBON FUEL STANDARD

A low carbon fuel standard specifies the allowable weight of GHG emissions per unit energy content of transportation fuels sold by a provider. This weight is often referred to as a fuel’s “carbon intensity.” The standard is typically expressed as a percentage reduction in the carbon intensity of a fuel relative to a baseline amount.

Under a low carbon fuel standard, the GHG emissions for a transportation fuel are determined for all steps in the production, distribution, and use of the fuel; that is, these emissions are based on a life cycle analysis. If a provider sells multiple types of fuel, the carbon intensities of all of the types are averaged in a calculation weighted in proportion to the total amount of energy contained in each type of fuel.

The bill directs DNR to promulgate, by rule, a state low carbon fuel standard if all of the following conditions are met:

- The Low Carbon Fuel Standard Advisory Group makes recommendations on the design of state low carbon fuel standards. This group is a body established by the Midwestern

Governors Association (MGA) in 2009 to make recommendations on the design of these standards.²⁷

- These recommendations are endorsed by the governors of a majority of the states whose governors endorsed the MGA Energy Security and Climate Stewardship Platform at the Midwestern Energy Security and Climate Stewardship Summit on November 15, 2007, including the Governor of Wisconsin.²⁸

Any standard established under this provision must be consistent with the Low Carbon Fuel Standard Advisory Group's recommendations and require a reduction in the carbon intensity of transportation fuels sold in the state as of a date specified in the rule.

If DNR promulgates this standard, then the department must do all the following:

- Cooperate with other states in effectuating the standard, including cooperating in operating a regional system for trading credits that may be used to comply with the standard.
- Consult with the Department of Agriculture, Trade, and Consumer Protection (DATCP), Commerce, PSC, OEI, and UW-Extension in determining the carbon intensities for different types of transportation fuels necessary to implement the standard.
- Consult with DATCP, Commerce, PSC, OEI, and the Department of Revenue (DOR) to determine the method of collecting information needed to implement and enforce the standard that is most cost-effective for state government and least burdensome for the persons subject to the reporting requirements.

If an agency identified in the third bullet point, above, has the authority under another law to collect information needed to implement and enforce the standard, DNR may enter into an agreement with the agency to have the agency collect the information. In addition, DOR may collect information needed to implement and enforce the standard in the reports that it collects as part of its administration of the motor vehicle fuel tax.

The bill establishes a forfeiture for any person who sells a transportation fuel in violation of the standard of not more than \$5,000 for each violation. Any person who fails to provide information

²⁷ The membership of this group and information on the work of the group is posted at <http://www.midwesterngovernors.org/LCFS.htm>.

²⁸ The text of the MGA Energy Security and Climate Stewardship Platform is posted at <http://www.midwesterngovernors.org/energysummit.htm>. One of the policy options relating to Biobased Products and Transportation specified in this platform is to “create a uniform, regional low-carbon fuels policy – implemented at the state level as a standard, objective or incentive – and report annually on progress....” [See page 13 in the platform.] The Governors of the States of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Ohio, South Dakota, and Wisconsin, and the Premier of Manitoba endorsed the original MGA Energy Security and Climate Stewardship platform. [See page 6 in the platform.]

requested by a state agency under these provisions is subject to a forfeiture of not more than \$1,000 for each violation. The bill specifies that each sale in violation of the standard and each failure to provide required information constitute a separate offense, and each day of continued violation is a separate offense.

The bill also directs a court, in imposing either of these forfeitures, to consider all the following in determining the amount of the forfeiture:

- The appropriateness of the amount of the forfeiture considering the volume of business of the person subject to the forfeiture.
- The gravity of the violation.
- Any good faith attempt to achieve compliance after the person receives notice of the violation.

[s. 285.795, Stats.]

CARBON-AUDITED TRANSPORTATION INVESTMENTS

Environmental Review of Transportation Projects

The bill directs DOT, if the department prepares an environmental impact statement or an environmental assessment for a transportation project, to include in the statement or assessment an evaluation of all the following:

- The GHG emissions and energy use that will result from the project, over the project's life cycle.
- If any other transportation project is being considered as an alternative to the project that is the subject of the statement or assessment, the GHG emissions and energy use that will result from each alternative, over its life cycle.

A "transportation project" is any construction, reconstruction, rehabilitation, or other improvement of infrastructure related to any mode of transportation that is funded in whole or in part from any appropriation to DOT under s. 20.395, Stats. (direct appropriations to DOT), or s. 20.866 (2), Stats. (appropriations for capital improvements to the Building Commission for state agencies, including DOT).

Any evaluation required under these provisions must take into consideration all the following related to the project: transportation mode; product materials; project construction methods; maintenance requirements; transportation use derived from the project (including predicted vehicle miles traveled and congestion), if applicable; and other pertinent factors.

The bill also directs DOT, in performing any cost-benefit analysis related to a transportation project subject to this required evaluation, to consider the monetary value of GHG emissions and energy use that will result from the life cycle of the project. The bill requires DOT to promulgate rules for

calculating these monetary values to be used in performing cost-benefit analyses of transportation project options, and to submit these proposed rules to the Legislative Council Rules Clearinghouse within 18 months after the legislation's effective date.

The DOT, in consultation with DNR, must appoint a technical advisory committee to make recommendations to DOT on the factors to be considered, and the methodology to be used, in preparing the evaluations required by these provisions. The committee must also make recommendations to DOT on setting a monetary value for GHG emissions and energy use, based on factors such as social costs, market rates for carbon credit, and energy costs.

[s. 85.021 (1) (d), (2), and (4), Stats., and SEC. 9150 (2) and (4).]

DOT's 2030 Plan

The bill directs DOT, as part of the environmental evaluation of its "2030 Plan," to consider GHG and energy use in identifying, prioritizing, evaluating, or assessing transportation facility or service needs for the statewide transportation system. The "2030 Plan" is DOT's statewide long-range multimodal transportation plan for the 20-year period ending in 2030.

In addition, in any revision, modification, or update of the 2030 Plan, and in any of its other statewide long-range multimodal transportation plans, DOT must consider GHG emissions and energy use in identifying, prioritizing, evaluating, or assessing transportation facility or service needs for the statewide transportation system.

If DOT completes its final 2030 Plan prior to the legislation's effective date, then the bill directs DOT to revise the final 2030 Plan to incorporate the above requirements.

[s. 85.021 (3), Stats., and SEC. 9150 (3).]

PLANNING GRANTS FOR COMPACT DEVELOPMENT

DOA is authorized under s. 16.965 (2), Stats., to provide grants to local governmental units to fund the costs of local planning activities and related computer hardware, software, and data. Current law also requires DOA to give preference to grant applications that contain six specified elements.

The bill directs DOA to require any local governmental unit receiving one of these grants to consider, as part of the funded planning activities, all of the following:

- Whether any area considered for "traditional neighborhood development"²⁹ is any of the following:
 - Surrounded by or adjacent to existing development.

²⁹ "Traditional neighborhood development" means a compact, mixed-use neighborhood where residential, commercial, and civic buildings are within close proximity to each other. [s. 66.1027 (1) (c), Stats.]

- Within a sewer service territory in the sewer service area provisions of an area wide water quality management plan prepared under s. 283.83, Stats., that has been approved by DNR.
- An area consisting primarily of blighted properties.
- An area that meets other criteria specified by DOA, by rule, designed to ensure that the project reduces GHG emissions.
- With respect to the transportation element of the planning activities, whether making any area a traditional neighborhood development would result in a reduction of travel, energy use, or GHG emissions.

The bill also adds a seventh element for a grant application to receive preference; namely, that the planning efforts funded by the grant must include consideration of traditional neighborhood development.

[s. 16.965, Stats.]

MODEL PARKING ORDINANCE

The bill directs UW-Extension to develop a model market-pricing parking ordinance. The ordinance must include market pricing methods for on-street parking and preferred parking opportunities for vehicles with relatively low GHG emissions. In developing this ordinance, UW-Extension must evaluate current practices with respect to mandatory minimum parking space requirements for public buildings.

The bill also requires UW-Extension to appoint and convene an advisory committee to provide guidance to it in developing this ordinance.

Upon completion of the model ordinance, UW-Extension must make the ordinance publicly available to interested persons and provide it to organizations representing local units of government in this state.

[s. 36.605, Stats.]

SURFACE TRANSPORTATION PLANNING

GHG Emission Reduction Goals

The bill directs DOT, in consultation with DNR, to establish statewide goals for reducing GHG emissions from surface transportation in Wisconsin that, if achieved, will contribute to the state achieving the statewide GHG emission reduction goals described in the first part of this report.

The bill also directs each metropolitan planning organization (MPO)³⁰ in the state, in consultation with DOT, to establish goals for reducing GHG emissions from surface transportation in its planning area that are consistent with DOT's statewide goals.

After establishing their respective GHG emission reduction goals, DOT or an MPO must revise the goals whenever appropriate.

[ss. 66.0309 (17) (b) and 85.0215 (2), Stats.]

Development of Strategies and Planning Methods and Procedures

The bill requires DOT, in consultation with DNR, DOA, appropriate units in the UW-System designated by the UW President, and MPOs, to identify strategies for reducing GHG emissions from surface transportation and to develop methods and procedures for preparing multimodal transportation plans and transportation improvement programs that incorporate these strategies. This provision calls for strategies other than for reducing GHG emissions from motor vehicles or railroad trains through emission limitations or reduced fuel consumption per mile traveled or through improvements in the GHG performance of transportation fuels.³¹ Where applicable and to the extent practicable, this planning and program preparation must be based on maximizing the accessibility to destinations provided by the affected transportation system using all relevant travel modes, including walking and bicycling.

In identifying these strategies, DOT must consider the following 10 potential strategies:

- Efforts to increase public transportation ridership, including through service improvements, capacity expansions, and access enhancement.
- Efforts to increase walking, bicycling, and other forms of non-motorized transportation.
- Implementation of zoning and other land-use regulations and plans to support increases in population density, transit-oriented development or redevelopment, or mix-use development.
- Travel demand management programs, including car pool, van pool, or other car-share projects; transportation pricing measures; parking policy; and programs to promote telecommuting, flexible work schedules, and satellite work centers.
- Surface transportation system operation improvements, including intelligent transportation systems or other improvements to reduce congestion and improve system management.
- Intercity passenger rail improvements.

³⁰ MPOs are required by federal law in metropolitan areas that have a population of at least 100,000. The DOT's description of MPOs and their role in transportation planning, and a map of the 14 MPOs in Wisconsin, is posted at <http://www.dot.wisconsin.gov/projects/planorg/mpo.htm>.

³¹ These two strategies are addressed in other provisions in the bill, the California vehicle emissions standards and the low carbon fuel standard.

- Intercity bus improvements.
- Freight rail improvements.
- Use of materials or equipment associated with the construction or maintenance of transportation projects that reduce GHG emissions.
- Public facilities for supplying electricity to electric or plug-in hybrid-electric vehicles.

[s. 85.0215 (3), Stats.]

Use of Strategies and Planning Methods and Procedures

Beginning two years after the legislation's effective date, the bill requires DOT, to the extent practicable, to do all the following in preparing its long-range statewide transportation plans and statewide transportation improvement programs:

- Use the methods and procedures it develops under this initiative in preparing these plans and programs.
- Incorporate the GHG emission reduction strategies it develops under this initiative into these plans and programs.

Similarly, the bill requires each MPO in the state, beginning two years after the legislation's effective date and to the extent practicable, to use the planning methods and procedures DOT developed under this initiative in preparing, and to incorporate DOT's GHG emission reduction strategies into, its transportation plans and transportation improvement programs for its planning area.

[ss. 66.0309 (17) (c) and 85.0215 (4), Stats.]

Reports and Assessments

The bill directs each MPO in this state to report to DOT by March 1, 2013, and at least every four years thereafter, all of the following:

- The strategies for reducing GHG emissions from surface transportation that it included in its most recent transportation plan and transportation improvement program.
- The status of the implementation of these strategies.
- Its progress in achieving its goals for reducing GHG emissions from surface transportation in its planning area.

By July 1, 2013, and at least every four years thereafter, the bill requires DOT to assess its progress in achieving its statewide goals for reducing GHG emissions from surface transportation in the state, as well as the progress of MPOs in achieving their GHG emission reduction goals, and to report its findings to DNR.

[ss. 66.0309 (17) (d) and 85.0215 (5), Stats.]

Financial Assistance to MPOs

After DOT has identified strategies for reducing GHG emissions from surface transportation and developed methods and procedures for preparing multimodal transportation plans and transportation improvement programs described above, the bill prohibits DOT from providing financial assistance to a MPO unless the MPO has made a good faith effort to use the methods and procedures developed by DOT in preparing, and incorporate the strategies developed by DOT into, its transportation plans and transportation improvement programs for its planning area.

[s. 85.0215 (6), Stats.]

Conformance with Federal Law

If a federal law enacted after this legislation's effective date conflicts with the requirements in this initiative, the bill requires DOT to modify, by rule, the conflicting requirements so that they comply with the federal law.

[s. 85.0215 (7), Stats.]

GROWTH ACCOMMODATION INCENTIVES

The bill authorizes the agencies administering five state economic development grant or loan programs to give greater weight in determining whether to award a grant or make a loan under the program to an application from a municipality (including a county) if the application is for a qualifying project. The programs, and their administering agency, included in this initiative are:

- Transportation Facilities Economic Assistance and Development Program (DOT).
- Brownfields Site Assessment Grants (DNR).
- Main Street Program (Commerce).
- Brownfields Grant Program (Commerce).
- Forward Innovation Fund (Commerce).

A “qualifying project” is a project, improvement, or eligible activity that will result in a reduction of travel, energy use, or GHG emissions. In lieu of making this demonstration, an applicant may establish that the application contains a qualifying project by showing that *one* of the following applies to the location of the project, improvement, or eligible activity that is the subject of the application:

- It is located in an area that is designated for traditional neighborhood development in an adopted comprehensive plan and at least one of the following applies:
 - The area is surrounded by or is adjacent to existing development.

- The area is within a sewer service territory in the sewer service area provisions of an areawide water quality management plan approved by DNR.
- The area consists primarily of blighted properties.
- The area meets other criteria, specified by the administering agency, by rule, designed to ensure that the project, improvement, or eligible activity reduces GHG emissions.
- It is located in a municipality that has adopted the voluntary environmental design code required by this bill (i.e., the green building code described in the part of this report titled *Buildings and Equipment*) and is in an area in the municipality subject to these design standards.
- It is located in an area subject to an eligible Green Tier charter, Tier I program, or Tier II participation contract,³² based on the following:
 - The municipality in which the area is located is involved in the applicable Green Tier program in one of the following ways:
 - The charter was issued to an association of entities that includes the municipality.
 - The municipality is participating in Tier I.
 - The municipality has entered into a Tier II participation contract.
 - DNR has determined, in consultation with Commerce, DOA, PSC, and OEI, that implementation of the charter or participation contract, or the participation in Tier I, is likely to result in significant reductions in GHG emissions or in energy use by public or private entities within the municipality.

The bill also makes a number of specific changes in these economic development programs relating to the amount of assistance to or required, match by the recipient to further encourage the implementation of qualifying projects. In particular, it authorizes DOT to establish, by rule, under the Transportation Facilities Economic Assistance and Development Program a grant ceiling for a qualifying project that is higher than the statutory limit and different standards related to job creation and retention than those that would otherwise apply to an improvement funded under the program.

The bill authorizes DNR to specify, by rule, a minimum contribution of matching funds by an applicant for a Brownfields site assessment grant that is less than 20% of a grant for the project if the project is a qualifying project.

³² The Green Tier statute is s. 299.83, Stats.

The bill authorizes Commerce to specify, by rule, a minimum contribution of matching funds by a recipient of a Brownfields grant that is less than the statutorily specified percentage of the cost of the project if the project is a qualifying project and the grant recipient is a municipality.

The bill authorizes Commerce to specify, by rule, a minimum contribution of matching funds by an eligible recipient of a Forward Innovation Fund grant or loan that is less than 25% of the grant or loan if the eligible activity is a qualifying project and the eligible recipient is a municipality.

[ss. 84.185, 292.75, 560.081, 560.13, 560.302, and 560.305, Stats.]

ENERGY EFFICIENT BUILDINGS AND EQUIPMENT

The bill contains a number of provisions to address the efficiency of energy use by buildings and equipment, including mandatory and voluntary building codes administered by the Department of Commerce (Commerce), appliance efficiency standards administered by DATCP, and mandatory annual inspections of industrial boilers. These provisions are described in this part of this report.

ENERGY EFFICIENCY OF BUILDINGS

Mandatory Building Codes

Commerce maintains a number of building codes, including a code applicable to “public buildings and places of employment” (commonly known as the commercial building code) and another applicable to one- and two-family homes (known as the one- and two-family dwelling code). Both of these codes include elements related to energy conservation.

The bill directs Commerce to promulgate energy conservation codes as part of the commercial building and one- and two-family dwelling codes. The codes must conform to a “generally accepted code,” defined as the applicable International Energy Conservation Code (IECC) or another energy efficiency code that provides at least as great energy conservation benefit and is generally accepted and used by architects, engineers, and the construction industry. Commerce may set particular design standards that are *less* strict than the generally accepted code if: (1) application of the generally accepted code is unreasonably burdensome because of conditions specific to this state; and (2) the less strict standard provides the greatest energy conservation benefits that are consistent with the specific conditions. Commerce may set particular design standards that are *more* strict than the generally accepted code if it takes into account the cost of complying with the stricter standards in relationship to the benefits, including the reasonably foreseeable economic and environmental benefits to the state from any reduction in the use of fossil fuels and emissions of GHG. (The provision regarding stricter standards is a modification of a provision of current law applicable to the commercial building code.)

Under current law, Commerce is required to revise energy conservation provisions of the commercial building code whenever the IECC is revised, but at least once every three years. In the case of revisions made in response to changes in the IECC, Commerce is required to submit its revised rules to the Legislature within 18 months after publication of the revised IECC; in the case of revisions made because three years have elapsed since the last revision, Commerce is required to submit its revised rules

to the Legislature within nine months of the end of the three years.³³ The bill replaces references to the IECC in these requirements with references to the generally accepted code on which the energy efficiency code is based, and applies identical requirements to the energy conservation code that is part of the one- and two-family dwelling code.

[ss. 101.027 (1g) to (3) and 101.63 (1) and (1m), Stats.]

Voluntary Commercial Green Building Code

The bill directs Commerce to promulgate rules that set voluntary design standards for the purpose of reducing the environmental impact of constructing, maintaining, and using public buildings and places of employment (referred to by some as a “green building code”). It must base the standards on standards jointly established by the American National Standards Institute, the American Society of Heating, Refrigerating, and Air Conditioning Engineers, the U.S. Green Building Council, and the Illuminating Engineering Society of North America. Alternatively, Commerce may base the standards on similar standards that are generally accepted and used by architects, engineers, and the construction industry if the alternative standards provide environmental benefits that are at least as great as the jointly established standards.

The voluntary design standards must provide “significantly greater energy conservation benefits” than the energy conservation code promulgated as part of the commercial building code.

[s. 101.027 (4), Stats.]

Agricultural Energy Conservation Code

The bill directs Commerce to establish an energy conservation code applicable to agricultural facilities. At a minimum, the code must apply to barns and milking parlors. Commerce must consult with DATCP before promulgating this code. Commerce must submit draft rules to the Legislative Council Rules Clearinghouse within two years of the effective date of this requirement.

[s. 101.028, Stats., and SEC. 9110 (1).]

Design Standards for State Buildings

The Department of Administration (DOA) is responsible for the design and construction of all state facilities. Current law includes a number of provisions requiring DOA to ensure that state facilities and equipment used in them are energy efficient. The bill builds on these requirements by directing DOA to ensure that all major state construction projects conform to the voluntary environmental design code, described above, and that all minor state construction projects conform to that code to the extent that compliance is technically feasible and cost-effective. These requirements do not apply if another law requires DOA or the Building Commission to apply a stricter standard.

³³ Current law is imprecise in this requirement; it does not specify whether Commerce must submit draft rules to the Legislative Council Rules Clearinghouse within this time limit, or if it must submit final rules for review by standing committees. Such requirements are usually framed in terms of the former.

For purposes of this requirement, the bill defines “major construction project” as any of the following:

- A project to construct or expand a state building.
- A project to repair, renew, or renovate an existing state building that affects at least 35,000 square feet of enclosed space.
- A project that affects the envelope or heating, ventilating, or air conditioning system of an existing state building.

The bill defines “minor construction project” as any other project to construct, repair, renew, renovate, or expand a state building.

[s. 16.856, Stats., and SEC. 9401 (1).]

New Building Energy Use Goal Assessment

The bill directs Commerce, no later than July 1, 2013, and at least every four years thereafter, to prepare and provide to DNR an assessment of progress toward meeting the goal that, by 2030, all newly constructed residential and commercial buildings will be zero net energy buildings. This goal was described in the first part of this report.

[s. 101.02 (23), Stats.]

APPLIANCE EFFICIENCY STANDARDS

In general, federal law preempts state appliance efficiency standards, although states may act where the federal government has not. The bill establishes certain appliance efficiency standards modeled on standards in place in California and several other states. It prohibits the sale or offering for sale or retail of any of the following:

- A compact audio device without a permanently illuminated clock that uses more than two watts in standby mode.³⁴
- A compact audio device with a permanently illuminated clock that uses more than four watts in standby mode.
- A television that uses more than three watts in standby mode.
- A digital versatile disc (DVD) player or recorder that uses more than three watts in standby mode.

³⁴ The bill defines “standby mode” as “the condition in which a device is connected to a power source and does not produce video or audio output signals, but can be switched into another mode with a remote control unit or an internal signal.”

The bill defines “compact audio device” as:

... an integrated audio system that is encased in a single housing; that includes an amplifier, radio tuner, and attached or separable speakers; and that can reproduce audio from magnetic tape, compact disc, digital versatile disc, or flash memory, except that “compact audio device” does not include any of the following:

1. A device that can only be powered by internal batteries.
2. A device that has a powered external satellite antenna.
3. A device that can produce a video output signal.

The bill defines “DVD” as “a laser-encoded plastic medium capable of storing large amounts of digital audio, video, or computer data.”

The foregoing standards are enforced by DATCP. The bill establishes a forfeiture of not more than \$100 for each violation and specifies that each device sold or offered for sale in violation of the standards constitutes a separate violation.

The appliance efficiency standards take effect one year after the legislation’s effective date.

[s. 100.215, Stats., and SEC. 9403 (1).]

INDUSTRIAL BOILER EFFICIENCY

The bill requires the owner of an industrial boiler to annually inspect the boiler to assess its energy efficiency, and to take such actions based on the results of the inspection as are necessary to maximize the boiler’s energy efficiency and to minimize its emissions of GHG. In general, this requirement does not apply to a boiler used to generate electricity. However, it does apply to a “self-generator,” meaning a person that generates electricity and, on each day, uses at least 70% of the electricity it generates for manufacturing processes on the site where it generates the electricity.

The bill authorizes Commerce to promulgate rules to implement and enforce these requirements. The bill does not specify a penalty for violation of these new requirements. As a result, the general penalty found in s. 101.02 (13), Stats., applies, which is a forfeiture of not less than \$10 nor more than \$100.

[s. 101.173, Stats.]

STATE AND LOCAL GOVERNMENT

The bill contains a number of provisions relating to state and local GHG emissions and energy use, described in this part of this report.

STATE GOVERNMENT AS LEADER

State Agency GHG Emissions

The bill establishes a program for the assessment and reduction of GHG emissions by selected state agencies. The program applies to those agencies that are significant users of energy and that have significant GHG emissions, specifically, the Departments of Administration (DOA), Agriculture, Trade, and Consumer Protection, Corrections, Health Services, Natural Resources, Transportation, and Veterans Affairs, and the UW-System.

Duties of Individual Agencies

The bill directs each of these agencies to prepare an analysis that estimates the amount of GHG emissions that are attributable to activities of the agency in calendar years 2005 and 2010. Agencies must complete this analysis within one year of the DOA establishing the initial guidelines and protocols for this activity, described below. Next, the agency must establish achievable goals for the reduction of its GHG emissions, which must, at a minimum, call for reducing the agency's GHG emissions to a level 22% below its 2005 emissions by January 1, 2020. The agency must then develop a plan to achieve those goals. In developing its plan, each agency must consider all cost-effective and technically feasible opportunities to reduce GHG emissions, including all of the following:

- Increasing the efficiency of energy use.
- Installing renewable energy systems.
- Purchasing energy derived from renewable resources.
- Increasing the efficiency of existing boilers.
- Converting existing boilers to fuels that result in lower net GHG emissions, including biomass fuels.
- Reducing transportation-related emissions by all of the following means:
 - Converting the agency's on-road and off-road vehicle fleet to vehicles that are more efficient, that use renewable fuels, or both.
 - Encouraging teleconferencing in place of in-person meetings where travel would be required.
 - Encouraging employees to telecommute, carpool, bicycle, walk, or use public transit.
 - Reducing the idling of on-road and off-road motor vehicles operated by the agency by persons under contract with the agency.
 - Converting refrigerants used in on-road and off-road vehicles to refrigerants with low global warming potential.

- Purchasing fuels derived in whole or in part from renewable resources.
- Reducing the use of water and materials.
- Increasing the recycling of waste generated.
- Planting trees or deep-rooted, herbaceous, perennial plants on lands controlled by the agency, including highway rights-of-way and building grounds.

Each agency is required to report to the DOA by March 1 of each odd-numbered year, beginning in 2013, concerning its progress toward achieving its GHG emission reduction goals, or success in maintaining adherence to the goals.

[s. 299.045, Stats., and SEC. 9157 (2).]

Duties of DOA, OEI, and DNR

The bill directs DOA to prescribe guidelines and protocols for agencies to use in estimating their GHG emissions, establishing goals for reducing those emissions, and developing plans to achieve the goals. It is required to prescribe initial guidelines within one year of the effective date of the legislation. It also directs DOA to assist the agencies in conducting activities to achieve their goals that relate to energy use in facilities used by the agencies. Finally, it directs DOA to submit a report to DNR by July 1st of each odd-numbered year, beginning in 2013, summarizing the reports it receives from agencies regarding their progress toward achieving their GHG emission reduction goals, or success in maintaining adherence to the goals.

The bill directs OEI to assist the agencies with activities to achieve their GHG emission reductions goals that relate to the use of transportation fuels and to annually compile a report containing state energy use and production statistics. (The OEI presently prepares this report as *Wisconsin Energy Statistics*.) The bill directs DNR to assist the agencies with activities to achieve their GHG emission reductions goals that relate to reduction of idling of agency vehicles.

[ss. 16.954 and 16.956 (3) (f) and (j), Stats., and SECS. 9101 (1) and (2) and 9157 (1).]

Other Provisions Affecting State Government

The bill includes other provisions affecting state government, which are described in detail in other parts of this report. Specifically, these provisions are:

- Goals for state agencies for reduction of overall energy use and for increase of use of energy derived from biomass, are described above in the part titled *Goals; Program Coordination and Evaluation; Public Education*.
- Design standards for state buildings are described above in the part titled *Buildings and Equipment*.

LOCAL GOVERNMENT

Municipal Levy Limit

Under current law, municipalities (cities, villages, towns, and counties) are subject to limits on the amount that they can increase their property tax levy without specific approval in a referendum. The bill creates an exception to this limit for the amount that a municipality levies to pay for energy efficiency measures and renewable energy products that result in avoidance of, or reduction in, energy costs. The amount by which a municipality increases its levy under these provisions does not become a part of the municipality's permanent base for calculating future levies. The bill directs DOA to promulgate rules to implement this provision, including providing definitions of key terms, using the emergency rule-making process.³⁵ This provision applies to fiscal years beginning on or after January 1 of the year after the year in which the legislation takes effect.

[s. 66.0602 (3) (e) 9., Stats., and SECS. 9101 (3) and 9333 (1).]

Public School Districts

The bill directs OEI to provide information to school districts regarding opportunities minimize expenses and environmental impacts through the modification of facilities and operational practices that: (1) maximize the efficiency of energy use; (2) maximize the use of renewable energy resources; and (3) otherwise minimize emissions of GHG. The OEI must also encourage and assist school districts to engage voluntarily in the activities that designated state agencies are required to conduct, that is, to evaluate their GHG emissions, to establish achievable goals for reducing those emissions, and to develop and implement plans to achieve those goals.

The OEI is required to report to DOA and DNR by July 1 of each odd-numbered year, beginning in 2013, concerning voluntary participation of school districts in the establishment of GHG emission reduction goals, development of plans to achieve those goals, the accomplishments of school districts in implementing the plans, and verifiable reductions of energy use, GHG emissions, and school district expenses attributable to implementation of the plans.

[s. 16.956 (3) (g) to (i), Stats.]

BIOENERGY

In addition to several provisions relating to the *use* of energy derived from biomass, described elsewhere in this report, the bill contains a number of provisions to address the *production* of biomass for energy. These provisions are described in this part of this report.

³⁵ This provision is identical to a provision of 2009 Wisconsin Act 28, the 2009-11 Biennial Budget Act, that affects the levy limit applicable to school districts, except that the Department of Public Instruction is directed to promulgate rules relative to that provision, rather than DOA.

ENERGY CROP RESERVE PROGRAM

The bill creates an energy crop reserve program, administered by DATCP, to assist farmers to establish and produce biomass crops for use as an energy resource.

Contracts

The bill directs DATCP to enter into contracts with eligible participants to receive payments for the establishment and production of eligible energy crops on eligible lands. Contracts may have terms up to 10 years and are renewable.

[s. 93.47 (3), Stats.]

Payments

The program provides assistance in the form of three types of payments. **Cost-sharing payments** are a percentage, specified by DATCP, of the cost of establishing an energy crop. The amount of grants vary by crop, and are reflective of the cost of establishing individual crops.

Income replacement payments are a percentage of the average annual net income that the program participant earned from the enrolled land in the five years preceding enrollment in the program. The participant may receive income replacement payments annually until the land becomes eligible for production payments, or for a number of years specified by DATCP, whichever is less. The maximum number of years a participant may receive income replacement payments varies by crop, and are reflective of the time required to establish an individual crop.

Income replacement payments may include a portion, specified by DATCP, of payments the participant had received under the federal Crop Reserve Program (CRP). The DATCP must specify the portion of such payments that may be included in income replacement payments such that the payment will be sufficient to encourage persons who disenroll from CRP to enroll in this program, but small enough that persons enrolled in CRP will not be motivated to disenroll from CRP to receive these payments.

Production payments are an amount determine by DATCP per ton of an energy crop harvested and used to produce energy or fuel. These payments, too, vary by crop depending on the energy or fuel derived from the crop, the cost to produce the crop, and other factors consistent with the objectives of the program.

If available funds are not sufficient to make all payments, DATCP must prorate the funds among eligible participants. The DATCP is directed to set a cap on the amount of payments an individual may receive under the program.

[s. 93.47 (4) and (8) (a) 3. to 7., Stats.]

Eligibility

A person is eligible to enter into a contract if the person owns the land to be enrolled or controls the land under a lease that covers the period of the contract.

Land is eligible to be enrolled if it is suitable for growing eligible crops. The following lands are not eligible:

- Federally owned land, other than land held in trust for an American Indian or an American Indian tribe or band.
- Land owned by a municipality, broadly defined, including the state.
- Land enrolled in the Wisconsin Forest Crop or Managed Forest Land Program.
- Land enrolled in the federal Conservation Reserve, Wetlands Reserve, or Grasslands Reserve Program.
- Land enrolled in the federal Biomass Crop Assistance Program.

A crop is eligible for the program if it is a perennial herbaceous or short rotation woody crop to be harvested and used to produce energy or fuel. The following crops are not eligible:

- A crop that is produced and harvested for a purpose other than the production of energy or fuel, even if the residue of the crop may be used to produce energy or fuel.
- A plant identified by DNR as invasive or having the potential to become invasive.
- Any other crop identified by DATCP, by rule.

[s. 93.47 (5) to (7) and (8) (a) 2., Stats.]

Other Requirements of Participants

A person who enters into a contract under the program is required to comply with planting and harvesting guidelines established by DATCP for the specific crops. In addition, participants are required to comply with the performance standards, prohibitions, conservation practices, and technical standards under the nonpoint source water quality protection program. Both requirements apply to all lands under the participant's control, not only those under contract under the program, for the duration of the participant's contract.

[s. 93.47 (3) (d), Stats.]

Program Outcomes and Reports

The bill directs DATCP to submit a report to DOA and DNR by July 1 of each odd-numbered year containing the following information about the Energy Crop Reserve Program:

- The number of acres enrolled in the program.
- The number of tons and the energy content of each crop harvested under the program.
- Costs of the program.
- The extent to which the program complements and is coordinated with the federal Biomass Crop Assistance Program.
- Any recommendations for legislation to improve the program.

[s. 93.47 (9), Stats.]

DATCP Rules

The bill directs DATCP to specify many details of the program in rules. In addition to various administrative matters, the rules must specify the following:

- Any additional crops not eligible for the program.
- The amount of, limits on, and procedures for calculating the various types of payments.
- Procedures and criteria for allocating funds between the various types of payments.
- Limits on the amount of payments that a person may receive under the program under any payment category, in any year, or over the duration of a contract.
- Requirements for sustainable planting and harvesting practices, including practices to minimize consumptive water use and maximize water conservation, with which program participants must comply.

In addition, DATCP may promulgate rules to establish priorities for entering into contracts with persons and enrolling land in the program, based on attributes of the land, the agricultural practices of the person, or any other pertinent factors. The purpose of the priorities is to advance one or more of the following objectives:

- Maximizing carbon sequestration.
- Minimizing life-cycle GHG emissions from the production, harvesting, processing, and distribution of the energy crop by minimizing any of the following:
 - The distance the crop must be transported between the point of production and the point of end use.
 - The use of fossil fuels to plant, cultivate, and harvest the crop.
 - The application of fertilizers and pesticides in connection with production of the crop.

- Other energy-consuming practices.
- Preserving farmland through farmland preservation agreements or zoning.
- Providing soil and water conservation or wildlife habitat benefits.

The bill directs DATCP to consult with DNR in the preparation of any rules that affect the natural resources of the state.

[s. 93.47 (8), Stats.]

Effective Date and Delayed Funding

The creation the Energy Crop Reserve Program takes effect on July 1, 2011. That date being the start of the next fiscal biennium, this bill cannot appropriate funds for the program.

[SEC. 9403 (2).]

SUSTAINABLE FOREST MANAGEMENT AND CARBON SEQUESTRATION

Private Forest Landowner Grant Program

Under the Private Forest Landowner Grant Program, DNR makes grants to the owners of parcels of non-industrial forests not larger than 500 acres to develop and implement forest stewardship management plans.

Current law requires that grant recipients provide a matching share, which DNR rules specify shall be 35% to 50% of the project costs. The bill specifies that, for grants to implement plans that require the recipient to plant and maintain trees, the required match may not be more than 25% of the cost of planting and maintaining the trees.

Current DNR rules specify a number of practices that are eligible for funding as part of a forest stewardship management plan. The bill requires that these rules include the following specific practices, not included in the current rules:

- Establishing and maintaining trees.
- Implementing measures to protect those trees from damage caused by deer.
- Implementing practices that promote forest health, including insect and disease control.

The bill directs DNR to prepare the foregoing rules in draft form within six months of the effective date of the legislation.

[s. 26.38, Stats., and SEC. 9137 (3).]

GHG Emission reduction Credits for Forestry Activities

The “cap and trade” model of regulation, discussed in the last part of this report, requires sources of pollution to reduce their emissions of a regulated pollutant below a specified cap. A source that reduces its emissions more than is required may create credits and sell the credits to another source; the purchaser of the credits may use them for partial compliance with its required emission reductions, in lieu of actual emission reductions. In addition, other activities that have the effect of reducing emissions of the regulated pollutant may be used to create offset credits, which the creator of the credit can sell to a source of the pollutant for use in compliance with its emissions reduction requirements.

In the case of a cap and trade program to address global climate change, the target pollutant (or one of the target pollutants) would be carbon dioxide. Since plant growth takes carbon dioxide from the atmosphere, various agricultural and forestry practices that capture atmospheric carbon dioxide and sequester it in plant tissue or in soil can potentially be used to create offset credits for a cap and trade program to control carbon dioxide emissions.

The bill directs DNR, in cooperation with DATCP, UW-Extension, and the Council on Forestry, to specify standards and practices for monitoring and measuring carbon sequestration by forests, including standards and practices for voluntary carbon accounting on private forest lands. It requires that the standards and practices conform with regional or national systems for trading credits for GHG emissions. This requirement does not apply until a regional or national cap and trade program that applies in Wisconsin is created.

The bill further directs DNR, in cooperation with DATCP and UW-Extension, to provide technical assistance to the owners of private forest lands related to two subject matters. First, it must provide assistance to promote the use of sustainable forestry practices that increase carbon sequestration. Second, it must assist private forest owners to generate offset credits through the use of those practices and to sell the credits.

[s. 26.42 (2) and (3), Stats.]

Outreach to Private Forest Owners

The bill directs DNR to identify, to the extent practicable, the owners of private forest lands who do not participate in the forest management programs it administers. It directs DNR to use the following resources to identify these forest land owners:

- The land cover database described in the second section of the first part of this report.
- County land records.
- Geographic information systems.
- Other methods.

The bill directs DNR to notify the owners of private forest lands identified in this effort about information and technical assistance available from DNR regarding carbon sequestration and sustainable forest management.

[s. 26.42 (4), Stats.]

BIOENERGY FEEDSTOCK PRODUCTION INCENTIVE STUDY

The bill directs DATCP, in consultation with DNR, to conduct a study of the adequacy of current incentives for the production of biomass for use as a bioenergy feedstock, including incentives in the private market and incentives provided in government programs. Specifically, the study must consider “whether current and projected markets for bioenergy feedstocks and state and federal programs ... provide adequate financial incentives to prompt producers of bioenergy feedstocks to sustainably produce a supply of biomass that, as a result of the use of that biomass as bioenergy feedstocks, will significantly contribute to the achievement of [the statewide] greenhouse gas emission reduction goals ...” created by the bill. The DATCP and DNR must prepare a report on the study in consultation with the following:

- The PSC, OEI, and UW-System.
- The administrator of the statewide energy efficiency and renewable resource programs.³⁶
- Representatives of natural resources and environmental organizations.
- Representatives of sectors of the economy in this state that are affected by the programs.

If DATCP and DNR determine, under the study, that the incentives are insufficient for the stated purposes, and that additional incentives are warranted, they must recommend changes to improve the effectiveness of incentives under current state programs and propose new legislation to offer additional incentives for those purposes. In making their recommendations, they must consider all of the following:

- Methods to reduce financial risks of bioenergy feedstock producers, such as loan guarantees and insurance.
- The creation of credits, under a cap and trade program or a voluntary GHG emissions reduction offset program, for producers of bioenergy feedstocks who reduce GHG emissions from the production of those feedstocks by adopting appropriate management practices.
- The creation of “renewable resource credits,” under the RPS³⁷ for nonelectric energy that is produced or generated from biomass.

The DATCP and DNR must submit their report on the foregoing to the Climate Change Coordinating Council, created by the bill, no later than July 1, 2013.

³⁶ The statewide energy efficiency and renewable resource programs are discussed in the first section of the part of this report titled *Public Service Commission*.

³⁷ The RPS is discussed in the second section of the part of this report titled *Public Service Commission*.

[s. 93.475, Stats.]

INDUSTRIAL EFFICIENCY INCENTIVES

AIR PERMITTING STREAMLINING

The DNR is required to continually assess air pollution permit obligations under Wisconsin law and implement measures to streamline those measures that are consistent with state law and the federal Clean Air Act.

The bill establishes that as part of this continual assessment in 2010 and 2011, DNR must develop and implement measures to lessen air pollution permit obligations for the construction, reconstruction, replacement, or modification of a stationary source if all of the following apply:

- The owner or operator of the source is not required to obtain a major source construction permit for the proposed project.
- The project would significantly reduce GHG emissions.
- The proposed project satisfies other requirements specified by DNR by rule.

The bill directs DNR to submit its rules implementing this air permit streamlining in proposed form to the Legislative Council Rules Clearinghouse by 1½ years after the legislation's effective date.

[s. 285.60 (11), Stats., and SEC. 9137 (2).]

INDUSTRIAL DEVELOPMENT REVENUE BOND ALLOCATION

Under federal law, the income earned on certain revenue bonds issued by a state or municipality may be exempt from federal income taxes. Federal law refers to these bonds as "private activity bonds." Federal law imposes a limit, or volume cap, on the total aggregate dollar amount of certain tax-exempt revenue bonds that may be issued by eligible entities in the state in any calendar year. Current state law, s. 560.032, Stats., directs Commerce to establish, by rule, and administer a system for the allocation of the federal volume cap on the issuance of private activity bonds among municipalities, corporations formed on behalf of municipalities, the state, the Wisconsin Health and Educational Facilities Authority, the Wisconsin Air Space Authority, and the Wisconsin Housing and Economic Development Authority.

Under current state law, municipalities may issue industrial development revenue bonds for a variety of purposes. If Commerce allocates a portion of the federal volume cap to a municipal project and industrial development revenue bonds are issued in accordance with state and federal laws, these bonds are private activity bonds and are exempt from federal income tax.

The bill directs Commerce to, by rule, annually dedicate 25% of the portion of the volume cap allocated to municipalities and corporations formed on behalf of municipalities for industrial development revenue bonds that are private activity bonds, and that are issued to finance clean energy manufacturing facilities and renewable power generating facilities. A "renewable power generating facility" is a facility owned by a person that is not a public utility or electric cooperative with equipment

to generate electricity or another form of energy from a renewable resource if a manufacturing processes at the site where the equipment is located is projected to consume no less than 70% of the energy generated by that equipment. A “clean energy manufacturing facility” is a facility that manufactures any of the following:

- Energy efficient fixtures or building components, metering equipment, or appliances.
- Equipment used to produce energy from a renewable resource or components of that equipment.
- Equipment used to produce fuel made from a renewable resource or components of that equipment.
- Renewable fuel, flex fuel, advanced diesel, hybrid, electric, or other advanced drive train vehicles designed to operate on highways.
- Any component of any vehicle identified in the previous bullet point.

For purposes of these provisions, a “renewable fuel” is a fuel produced from a renewable resource. “Renewable resource” has the meaning given to that term in the state’s energy efficiency and renewable resource programs administered by the PSC.

Beginning on September 1 of any year, Commerce may reallocate any portion of the 25% allocated to clean energy manufacturing facilities and renewable power generating facilities for which no industrial development revenue bonds have been issued except that Commerce may not reallocate a prior allocation if the recipient of the allocation has adopted a resolution authorizing the issuance of the bonds.

[s. 560.032, Stats.]

CAP AND TRADE PROGRAM REPORT

The bill requires DNR to report to the appropriate standing committees of the Legislature and the Governor on a regional or federal cap and trade program if any of the following occurs:

- Federal legislation is enacted that creates a federal cap and trade program.
- A federal regulation is adopted that creates a federal cap and trade program.
- The governors of Midwestern states, including the Governor of this state, recommend a regional cap and trade program that would be applicable to any person in Wisconsin.

As used in this provision, a “cap and trade program” is a program that imposes limits on GHG emissions from specified sources of and that provides for the trading of allowances that may be used to satisfy those limits.

The department must include in this report a description of the cap and trade program and recommendations on any legislation that would be necessary to implement the program in this state. In preparing the report, DNR must consult with state agencies that would be affected by the program.

[s. 299.04, Stats.]

This report was prepared by *David L. Lovell, Senior Analyst*, and *John Stolzenberg, Chief of Research Services*.

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