# RENEWABLE ENERGY

Solar Energy

HB 10-1282 (Enacted)

Moratorium Coal-solar Power Plant Close

HB 10-1342 (Enacted)

Community Solar Gardens Utility

Electric Standard

**Biomass Energy** 

**SB 10-177** (Enacted)

Promotion Biomass Energy Development

**Geothermal Energy** 

**SB 10-174** (Enacted)

Promote Geothermal Energy Development

Renewable Energy Property Ownership and Tax Valuation

HB 10-1158 (Postponed Indefinitely)

Clarify Wind Rights

SB 10-019 (Enacted)
Valuation of New Hydroelectric

Facilities

HB 10-1267 (Enacted)
Property Tax of Independent
Residential Solar

HB 10-1431 (Signed into Law)

Renew Energy Facility Property Tax

Valuation

**State Energy Consumption** 

HB 10-1349 (Enacted)

**SB 10-207** (Enacted)

Re-energize Colorado Renewable Electricity for Parks Finance State Energy Efficiency

Projects

Renewable Energy Portfolio Standard

HB 10-1001 (Enacted)

Renewable Energy Standards Solar

Certification

SB 10-134 (Postponed Indefinitely) Electric Utility Renewable Portfolio Standard More Credit for

HB 10-1418 (Enacted)
Community-based Renewable
Energy Projects

**Local Energy Improvement Districts** 

**SB 10-100** (Enacted)

HB 10-1328 (Enacted)

Cross-boundary Energy Improvement

New Energy Jobs Creation Act

Distributed Generation

District

**Financing Renewable Energy Transmission** 

HB 10-1182 (Enacted)

Clean Energy Development Authority

Financing Limits

During the 2010 legislative session, the Colorado legislature considered a broad range of renewable energy bills. The General Assembly addressed issues related to various types of renewable resources, tax issues, energy consumption, the state renewable energy portfolio standard, local improvement districts, and renewable energy transmission.

### Solar Energy

The General Assembly enacted two bills relating to solar energy and a third bill was lost. **House Bill 10-1342** directs the Public Utilities Commission (PUC) to adopt new rules related to the renewable energy portfolio standard by October 1, 2010. The rules must specify that rebates and renewable energy credits can apply to solar generation facilities jointly owned by 10 or more customers at a shared location, defined as community solar gardens (CSGs), and that CSGs qualify as retail distributed (on-site) generation under House Bill 10-1001. House Bill 10-1001 increases the renewable portfolio standard (RPS) for investor-owned utilities and is discussed in greater detail below. House Bill 10-1342 allows the creation of a community solar garden by a subscriber organization whose sole purpose is owning and operating the CSG. Beginning in 2011, the act specifies that qualifying investor-owned utilities must purchase half of their electricity from CSGs that are 500 kilowatts or smaller.

House Bill 10-1282 would have prohibited the closure of any coal-solar power plant until August 31, 2011. The act defined a "coal-solar power plant" as an investor-owned, coal-fired electric generation facility that integrates concentrated solar power systems. These solar power systems use lenses or mirrors to focus a large area of sunlight onto a small area. Electrical power is produced when the concentrated light is directed onto photovoltaic surfaces or used to heat a transfer fluid. The act was deemed lost in the House on Second Reading.

A third bill, **House Bill 10-1267**, concerning Property Tax of Independent Residential Solar, is described under the Renewable Energy Property Tax Valuation section.

#### **Biomass Energy**

The General Assembly enacted one bill relating to biomass energy. **Senate Bill 10-177** defines biomass and biomass energy facilities for purposes of renewable energy generation. Under current law, in valuing hydroelectric facilities for tax purposes assessors are allowed to use one of three approaches to valuation: the cost approach, where the cost to replace or replicate the facility is estimated; the market approach, where the sale of other similar facilities are used to estimate value; or the income approach, where the value is based on the projected gross revenue of facilities. Traditionally, assessors have used the cost approach. The act specifies that a biomass facility must be valued for property tax purposes in the same manner as wind and solar energy facilities, using the income approach. The act also specifies that biomass facilities qualify as clean energy and energy-efficient technologies when the PUC considers energy generation acquisitions. Finally, the act makes changes to the renewable energy credit system used by utilities to comply with the renewable portfolio standard.

### **Geothermal Energy**

One geothermal energy bill was enacted in 2010. Geothermal energy is derived from the natural heat and water resources within the earth. Recent technological advances have expanded the applications of these resources so that they may be used to heat water, heat and cool homes and buildings, and generate electricity. **Senate Bill 10-174** authorizes federal mineral lease revenues from

geothermal resource development on federal lands to be used to provide grants to state agencies, school districts, and political entities through the Geothermal Resource Leasing Fund. The act also requires the state engineer to deny applications to appropriate groundwater for geothermal purposes if the appropriation will affect a prior geothermal property right. The act specifies that geothermal energy facilities must be valued for property taxes in the same manner as wind and solar energy facilities, using the income approach. The act also allows municipalities and counties to designate the use of geothermal resources as an activity of state interest under House Bill 74-1041. This provides local governments with the authority to adopt regulations governing a wide range of environmental, developmental, and construction-related impacts in order to protect the utility, value, and future of the land.

### Renewable Energy Property Ownership and Tax Valuation

The General Assembly enacted three bills on renewable energy property ownership and tax valuation and postponed another indefinitely. **House Bill 10-1267** exempts third-party owned (leased) residential solar energy systems from property tax by defining these facilities as household furnishings. To qualify for the exemption, the act specifies that solar electric generation facilities may not be owned by the residential property owner, may not have a production capacity in excess of 100 kilowatts, and may not produce income for the homeowner.

**Senate Bill 10-019** specifies that for purposes of property taxation, new hydroelectric energy facilities will be valued using the income approach if:

- energy production begins on or after January 1, 2010, and
- generation capacity is more than 5 megawatts.

Bills requiring that solar and wind energy facilities be valued using the income approach were passed in 2009, and Senate Bills 10-177, described in the Biomass Energy section, and Senate Bill 10-174 described in the Geothermal Energy section also require that biomass facilities be valued using this approach.

House Bill 10-1431 codifies the methodology that the property tax administrator uses to determine the actual value of renewable energy facilities for purposes of property taxation. Current law requires that the administrator not include the incremental cost of a renewable energy facility relative to a nonrenewable facility in the valuation of the facility. This bill limits taxation to the value of the land used and the cost of the equipment. The act specifies that for renewable facilities that begin generating energy before January 1, 2012, the property tax administrator must include only the cost of all property required to generate and deliver renewable energy to the interconnection meter that does not exceed the cost of the property required to generate nonrenewable energy to the interconnection meter that does not exceed the cost of property required to generate and deliver renewable energy to the interconnection meter that does not exceed the cost of property required to generate and deliver nonrenewable energy to the interconnection meter.

Under current law, the space above the lands and waters of the state belongs to the surface owner. However, the law does not specify whether wind is part of that space and whether the landowner may sell or transfer wind rights to another while retaining ownership of the surface. **House Bill 10-1158** would have clarified several aspects of the ownership and right to use wind that blows across real property. The bill would have allowed wind rights to be "severed" or separated from the land and sold or leased, as mineral rights are currently handled. The bill would have specified that the wind right belongs to the surface owner unless the right is separated from the surface property. The bill was postponed indefinitely.

### **State Energy Consumption**

There were two bills this year concerning the state government's energy efficiency and use of renewable energy resources. **House Bill 10-1349** creates the Re-energize Colorado Program in the Division of Parks and Outdoor Recreation (division) in the Department of Natural Resources (DNR). The act establishes the goal of generating or offsetting 100 percent of the division's electrical consumption by 2020 using energy resources on land owned, leased, or controlled by the division. In support of this goal, a qualifying retail utility can waive some of the existing limits placed on net metering (the way retail credits are determined for a customer's electricity generation) and energy generated on a customer's property. The act also requires the Governor's Energy Office (GEO) to conduct a Geographic Information System (GIS) analysis to determine the optimum state park land for renewable energy development. The act also authorizes the division to acquire lands that have the potential to support renewable energy generation development.

**Senate Bill 10-207** authorizes the Governor's Energy Office to propose a prioritized list of projects that will improve the energy efficiency of state buildings or facilities. If the list is approved by the Office of State Planning and Budgeting and Capital Development Committee, the State Treasurer may enter into lease-purchase and ancillary agreements on behalf of the state to finance the projects. The act limits the total par value of any lease-purchase agreement to \$73 million and grants the State Treasurer the sole discretion of determining the timing of any agreements. The act also establishes parameters and required terms that must be included in any agreements.

#### Renewable Energy Portfolio Standard

The General Assembly considered three bills concerning the Renewable Energy Portfolio Standard (RPS). Two bills were enacted and one was postponed indefinitely. The Renewable Energy Portfolio Standard is a state policy that requires electricity providers to obtain a minimum percentage of their power from renewable energy sources by a specific date. Colorado voters passed a ballot initiative in 2004 requiring utilities serving 40,000 or more customers to generate or purchase enough renewable energy to supply 10 percent of their retail electric sales. In 2007, the General Assembly increased this percentage to 20 percent by 2020.

**House Bill 10-1001** increases the RPS for investor-owned utilities in order to achieve 30 percent renewable energy generation by 2020 according to a graduated schedule. The act requires that a portion of the RPS be met through distributed generation, which does not require additional transmission facilities to connect to the grid. Utilities must pay rebates as an incentive for new

customer-sited renewable generation facilities, such as solar panels, and the standard rebate amount is set to a minimum of \$2.00 per watt. The act also allows qualifying utilities to advance funds from year to year to augment the money collected from retail customers through the renewable energy standard for the acquisition of more renewable energy resources. For all new distributed generation systems funded through ratepayer funded incentives, the act requires that the installation of photovoltaic systems must be supervised by certified practitioners. The act also specifies required minimum ratios for certified practitioners and assistants and minimum qualifications for workers involved with the installation of such systems.

Electricity generated at a "community-based project" in the service territory of electric cooperatives and municipal utilities receives a 150 percent credit for RPS compliance purposes. **House Bill 10-1418** modifies the definition of a community-based project within the context of the RPS to mean either a project that interconnects to electric transmission or distribution facilities owned by a Colorado cooperative electric association (CEA) or municipally-owned utility (MOU) or a project owned by an organization or cooperative controlled by community residents. The act then specifies that each kilowatt-hour of electricity generated from renewable resources at a community-based project be counted as two kilowatt-hours for purposes of RPS compliance. Finally, the act clarifies that utilities may not claim this multiplier for electricity designated as distributed generation under the provisions of HB 10-1001.

Under existing law, electric utilities are required to generate an increasing percentage of their electricity from "eligible energy sources" which includes renewable sources and recycled energy, and allows those utilities to earn renewable energy credits as a means of encouraging and measuring their progress in meeting the RPS. **Senate Bill 10-134** would have created a 2-to-1 multiplier for renewable energy credits earned as a result of installing eligible distributed electric generation facilities. The bill would have defined "distributed electric generation" as wholesale generation from eligible resources, not exceeding 30 megawatts in capacity, that interconnects directly with transmission lines owned by cooperative electric associations or municipally owned utilities. The bill would have specified that each kilowatt-hour of electricity generated from distributed generation resources counts as 2 kilowatt-hours for the purposes of compliance with the RPS.

#### **Local Energy Improvement Districts**

Two bills concerning local energy improvement districts were considered in 2010. Local improvement districts are created as a way for a community to make improvements by allowing residents to share the costs of improvement projects. Current law prohibits local improvement districts for energy efficiency improvements and renewable energy improvements that cross county boundaries. **Senate Bill 10-100** allows local improvement districts for renewable energy to cross county boundaries and include properties in multiple counties if the county commissioners of the affected counties have entered into an intergovernmental agreement or a memorandum of understanding to share district costs. The act also expands the definition of renewable energy improvements for local improvement districts to include improvements located at a qualified community location rather than directly on a residential or commercial building.

House Bill 10-1328 creates the Colorado New Energy Improvement District to administer and finance a New Energy Improvement Program for home energy efficiency and renewable energy improvements. The energy improvements will be financed by bonds issued by the district that are paid by special assessments levied on homes that choose to participate in the program. Bonds are exempt from all taxation and assessments in the state. The amount of the assessment will be based on the cost of the home energy improvements to the district, including paying the contractors who make the energy improvements and district administrative costs. The Colorado New Energy Improvement District will include all residential properties that apply to and are accepted to join the district. However, the program may be conducted only in counties where the board of county commissioners has explicitly authorized the program. The act also requires the State Auditor's Office to conduct a performance audit of the Colorado New Energy Improvement District and the New Energy Improvement Program every five years starting no later than June 30, 2014. The New Energy Jobs Creation Act will be repealed January 1, 2016, unless the district has issued bonds that have not been repaid in full by that date.

## Financing Renewable Energy Transmission

The General Assembly enacted one bill concerning financing renewable energy transmission projects. **House Bill 10-1182** expands the types of loans and financing agreements the Colorado Clean Energy Development Authority (CEDA) may make to facilitate electric power interconnection projects. Specifically, the act authorizes CEDA to enter into commercial loan agreements in the limited instance of providing financing for projects that connect clean energy generating facilities to the utility transmission grid. Such projects include step-up transformers, transmission lines and structures, and circuit breakers or other protective devices.