

**ORDINANCE NO. 11
(SERIES 2009)**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ASPEN, COLORADO, AMENDING TITLE 8 OF THE ASPEN MUNICIPAL CODE BY THE ADDITION OF A NEW CHAPTER 8.46 TO ADOPT THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE, AMENDING 8.16.020 (v) "Energy Efficiency", AMENDING 8.20.020 (f) "Energy" AND DELETING 8.54 "Efficient Building Code".

WHEREAS, the City of Aspen is nationally recognized as a leader in developing, adopting and administrating progressive energy codes; and

WHEREAS, in 1995 the City of Aspen was the first jurisdiction in the country to regulate exterior energy use; and

WHEREAS, in 2000 the City of Aspen was the first jurisdiction in the country to adopt a mandatory Renewable Energy Mitigation Program; and

WHEREAS, the American Recovery and Reinvestment Act requires the 2009 International Energy Conservation Code be adopted to qualify for monies designated for energy rebates; and

WHEREAS, it is in the best interest of the citizens of and visitors to our community to continue and maintain a leadership role in energy code adoption and administration.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ASPEN, COLORADO, THAT:

Section 1.

Title 8 of the Aspen Municipal Code is hereby amended by the addition of a new Chapter 8.46, which chapter shall read as follows:

**Chapter 8.46
International Energy Conservation Code**

Sec. 8.46.010. Adoption of the 2009 Edition of the International Energy Conservation Code.

Pursuant to the powers and authority conferred by the laws of the State and the Charter of the City, there is hereby adopted and incorporated herein by reference as if fully set forth those regulations contained in the International Energy Conservation Code, 2009 Edition, as published by the International Code Council except as otherwise provided by amendment or deletion as contained in Section 8.46.020 of this Chapter. At least one (1) copy of the International Energy Conservation Code shall be available for inspection during regular business hours in the City Clerk's Office, second floor of City Hall.

Sec. 8.46.020. Amendments.

The International Energy Conservation Code, 2009 Edition, the addition of Appendix A "Residential Renewable Energy Mitigation Program" and Appendix B "Commercial Renewable Energy

Mitigation Program” as adopted by the City at Section 8.46.010, is hereby amended to provide and read as follows:

(a) Section 101.1 Insert: "City of Aspen" for [NAME OF JURISDICTION].

(b) Section 107.2 “Schedule of permit fees” is hereby amended and to read as follows:

"A permit shall not be valid until the fees prescribed by Section 2.12.100 of this Code are paid in full."

(c) Section 109 "Means of appeal" is deleted in its entirety and shall read as follows:

"Section 109.1 Appeals shall be in accordance with Chapter 8.08 of this Code."

(d) Add Section 110 “Liability” to read as follows:

"The Building Official or his or her authorized representative charged with the enforcement of this code, acting in good faith and without malice in the discharge of his or her duties, shall not thereby render himself or herself personally liable for any damage that may accrue to persons or property as a result of any act or omission in the discharge of his or her duties.

"This Code shall not be construed to relieve or lessen the responsibility of any person owning, operating or controlling any building or structure for any damage to persons or property caused by defects on or in such premises, nor shall the code enforcement agency, any employee thereof or City be held as assuming any such responsibility or liability by reason of the adoption of this code or by the exercise of inspections authorized and carried out hereunder or by the issuance of any permits or certificates issued pursuant to this code."

(e) Section 301 “Climate zones” is deleted in its entirety and shall read as follows:

“The City of Aspen, Colorado and Pitkin County, Colorado shall use Climate Zone 7 in determining the applicable requirements from Chapters 4 and 5”.

(f) Section 402.4.2 “Air sealing and insulation” is hereby amended and to read as follows:

“Building envelope air tightness and insulation installation shall be demonstrated to comply with the testing option section 402.4.2.1:

402.4.2.1. Testing option. Building envelope air tightness and insulation installation shall be considered acceptable when tested air leakage is less than 0.35 air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psf (50 Pa). *The remainder of the section remains unchanged.*

402.4.2.2 is deleted in its entirety.

Add “Appendix A” to read as follows:

“Residential Renewable Energy Mitigation Program”

SECTION 101 SCOPE AND ADMINISTRATION

Section 101.1 Scope. Residential snowmelt, outside pool, or outside spa systems and equipment may be installed only if the supplemental energy meets the requirements of the **Residential Renewable Energy Mitigation Program (RREMP)** Appendix A. This applies to all installations for which an application for a permit or renewal of an existing permit is filed or is by law required to be filed with or without an associated Building Permit that include systems described in section 101.1.

Section 101.2 Residential Renewable Energy Mitigation Program (RREMP) Option – Exterior energy use for residential snowmelt systems, outdoor spas, and outdoor pools are calculated as directed by Section 201.

Section 101.3 On-site Renewable Credits Option – Renewable credit options are calculated as directed by Section 301.

Section 102 Payment option. The RREMP payment option is the difference in energy use calculated in section 202 and on-site renewable credits calculated in section 302 and shall be paid at the time of issuance of the building permit. The payment, if any, is based on the amount of energy required, expressed as dollars per square foot, to operate the exterior energy use systems. No payment shall be made to an applicant that exceeds the energy use with on-site renewable credits. All monies collected pursuant to this section shall be recorded in a separate fund by the City Finance Director and shall be spent in accordance with a joint resolution by the Aspen City Council and Pitkin County Board of County Commissioners.

Section 103 Credits for on-site renewable energy. This RREMP payment option is voluntary. Applicants interested in exterior energy use systems can alternatively choose to produce on-site renewable energy (Section 301) with solar photovoltaics and/or solar hot water. Also the energy efficient technology of ground source heat pumps is permitted for supplemental on-site energy. Micro-hydro and wind generation systems will be credited according to industry standard site specific production reports.

Section 104 Pre-existing systems. Pre-existing snowmelt, pools or spas which are being overhauled or renovated qualify for exterior energy credit. This credit can only be applied towards an installation of exterior energy on the same parcel. The calculation of the credit shall be based on section 301.

SECTION 105 - RESIDENTIAL REPAIRS. Repairs to building components, systems, or equipment which do not increase their pre-existing energy consumption need not comply with RREMP. All replacement mechanical equipment shall be Energy Star© rated.

Section 201 Exterior Energy Use Calculations

Section 201.1 Snow melt energy consumption shall be calculated as a RREMP payment option at \$34.00 per square foot divided by the boiler efficiency (AFUE).

Section 201.2 Outdoor pool energy use shall be calculated as a RREMP payment option at \$136.00 per square foot divided by the boiler efficiency (AFUE).

Section 201.3 Spa energy use shall be calculated as a RREMP payment option at \$176.00 per square foot divided by the boiler efficiency (AFUE). Package spas not more than 64 square feet are exempt.

Section 202 The total RREMP payment option is the total sum of exterior energy use of sections 201.1, 201.2 and 201.3.

Section 301 ON-SITE RENEWABLE CREDITS

Section 301.1 Photovoltaic Systems – On-site renewable credit shall be calculated as \$6,241.20 per 1 KiloWatt of the system design. Solar electric (photovoltaic) systems tied to the electric grid, are eligible for on-site renewable credit. Systems must be sited, oriented and installed for solar electric panels to supply at least 90% of rated capacity of the installed KW. System designer/installer must be certified by COSEIA (Colorado Solar Energy Industries Association).

Section 301.2 Solar Hot Water - On-site renewable credit shall be calculated as \$224.65 per 1 square foot of the system design.

Section 301.3 Ground Source Heat Pump - On-site renewable credit shall be calculated as \$6.84 per 100,000 BTU per year of the system design. In order to use a GSHP for on-site renewable credit the GSHP system must supply at least 20% of the peak load for heating the house and all the exterior energy uses.

Section 302 The total RREMP on-site renewable credit is the total sum of sections 301.1, 301.2 and 301.3.

PUBLIC DOMAIN SOFTWARE

Section 401 A free calculation program known as RREMP 2009 shall be made available to the public.

EXAMPLE CALCULATION FOR RESIDENTIAL RENEWABLE ENERGY MITIGATION PROGRAM

<p style="text-align: center;">Snowmelt Example</p> <p style="text-align: center;">(Snowmelt requested 800 sq. ft.)</p> <p style="text-align: center;">$\\$34.00 * 800 / .91$ (efficiency rating of boiler) = \$29,890.11</p> <p style="text-align: center;">RREMP payment option for exterior energy use will be \$29,890.11</p>
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ON-SITE RENEWABLE CREDITS

96 square feet of solar hot water panels*\$224.65 per square foot = \$21,566.24

RREMP payment option will be \$8,323.87

OR

4.8 KW photovoltaic system *\$6,241.20 per kilowatt = \$29,957.76

RREMP payment option will be \$0

Add "Appendix B" to read as follows:

"Commercial Renewable Energy Mitigation Program"

SECTION 101 SCOPE AND ADMINISTRATION

Section 101.1 Scope. Commercial snowmelt, outside pool, or outside spa systems and equipment may be installed only if the supplemental energy meets the requirements of the **Commercial Renewable Energy Mitigation Program (CREMP)** Appendix B. This applies to all installations for which an application for a permit or renewal of an existing permit is filed or is by law required to be filed with or without an associated Building Permit that include systems described in section 101.1.

Section 101.2 Commercial Renewable Energy Mitigation Program (CREMP) Option – Exterior energy use for residential snowmelt systems, outdoor spas, and outdoor pools are calculated as directed by Section 201.

Section 101.3 On-site Renewable Credits Option – Renewable credit options are calculated as directed by Section 301.

Section 102 Payment option. The CREMP payment option is the difference in energy use calculated in section 202 and on-site renewable credits calculated in section 302 and shall be paid at the time of issuance of the building permit. The payment, if any, is based on the amount of energy required, expressed as dollars per square foot, to operate the exterior energy use systems. No payment shall be made to an applicant that exceeds the energy use with on-site renewable credits. All monies collected pursuant to this section shall be recorded in a separate fund by the City Finance Director and shall be spent in accordance with a joint resolution by the Aspen City Council and Pitkin County Board of County Commissioners.

Section 103 Credits for on-site renewable energy. This CREMP payment option is voluntary. Applicants interested in exterior energy use systems can alternatively choose to produce on-site renewable energy (Section 301) with solar photovoltaics and/or solar hot water. Also the energy

efficient technology of ground source heat pumps is permitted for supplemental on-site energy. Micro-hydro and wind generation systems will be credited according to industry standard site specific production reports.

Section 104 Pre-existing systems. Pre-existing snowmelt, pools or spas which are being overhauled or renovated qualify for exterior energy credit. This credit can only be applied towards an installation of exterior energy on the same parcel. The calculation of the credit shall be based on section 301.

SECTION 105 - Commercial REPAIRS. Repairs to building components, systems, or equipment which do not increase their pre-existing energy consumption need not comply with CREMP.

Section 201 Exterior Energy Use Calculations

Section 201.1 Snow melt energy consumption shall be calculated as a CREMP payment option at \$60.00 per square foot divided by the boiler efficiency (AFUE).

Section 201.2 Outdoor pool energy use shall be calculated as a CREMP payment option at \$170.00 per square foot divided by the boiler efficiency (AFUE).

Section 201.3 Spa energy use shall be calculated as a CREMP payment option at \$176.00 per square foot divided by the boiler efficiency (AFUE). Package spas not more than 64 square feet are exempt.

Section 202 The total CREMP payment option is the total sum of exterior energy use of sections 201.1, 201.2 and 201.3.

Section 301 ON-SITE RENEWABLE CREDITS

Section 301.1 Photovoltaic Systems – On-site renewable credit shall be calculated as \$6,241.20 per 1 KiloWatt of the system design. Solar electric (photovoltaic) systems tied to the electric grid, are eligible for on-site renewable credit. Systems must be sited, oriented and installed for solar electric panels to supply at least 90% of rated capacity of the installed KW. System designer/installer must be certified by COSEIA (Colorado Solar Energy Industries Association).

Section 301.2 Solar Hot Water - On-site renewable credit shall be calculated as \$224.65 per 1 square foot of the system design.

Section 301.3 Ground Source Heat Pump - On-site renewable credit shall be calculated as

\$6.84 per 100,000 BTU per year of the system design. In order to use a GSHP for on-site renewable credit the GSHP system must supply at least 20% of the peak load for heating the building and all the exterior energy uses.

Section 302 The total CREMP on-site renewable credit is the total sum of sections 301.1, 301.2 and 301.3.

PUBLIC DOMAIN SOFTWARE

Section 401 A free calculation program known as CREMP 2009 shall be made available to the public.

EXAMPLE CALCULATION FOR COMMERCIAL RENEWABLE ENERGY MITIGATION PROGRAM

<p style="text-align: center;">Snowmelt area 1200 sq. ft.</p> <p style="text-align: center;">$\\$60.00 * 1,200 / .92$ (efficiency rating of boiler) = \$78,260.87</p> <p style="text-align: center;">Pool area 700 sq. ft.</p> <p style="text-align: center;">$\\$170.00 * 700 / .92$ (efficiency rating of boiler) = \$119,000.00</p> <p style="text-align: center;">Spa area 80 sq. ft.</p> <p style="text-align: center;">$\\$176.00 * 80 / .92$ (efficiency rating of boiler) = \$15,304.35</p> <p style="text-align: center;">RREMP payment option for exterior energy use will be \$222,913.04</p> <p style="text-align: center;">ON-SITE RENEWABLE CREDITS</p> <p style="text-align: center;">448 square feet of solar hot water panels * \$224.65 per square foot = \$100,642.44</p> <p style="text-align: center;">20 KW photovoltaic system * \$6,241.20 per kilowatt = \$124,824.00</p> <p style="text-align: center;">RREMP payment option will be \$0</p>

Section 2.

Section 8.16.020 (v) of the Municipal Code of the City of Aspen, Colorado is amended to read as follows:

(v) Delete Chapter 11 in its entirety and replace as follows:

Chapter 11 Energy Efficiency - The provision of the 2009 International Energy Conservation Code as adopted and amended as Section 8.46 shall apply to all matters governing the design and construction of buildings for energy efficiency.

Section 3.

Section 8.20.020 (f) of the Municipal Code of the City of Aspen, Colorado is amended to read as follows:

(f) Section 101.4.7 “Energy” is hereby amended and to read as follows:

Section 101.4.7 The provisions of the 2009 International Energy Conservation Code as adopted and amended as Section 8.46 shall apply to all matters governing the design and construction of buildings for energy efficiency.

Section 4.

Section 8.54 “Efficient Building Code” is deleted in its entirety.

Section 5.

This ordinance shall become effective 30 days following passage and publication.

Section 6.

This ordinance shall not have any effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of the ordinances repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section 7.

If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held invalid or unconstitutional in a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and shall not affect the validity of the remaining portions thereof.

A public hearing on the ordinance was held on the 11th of May, 2009, in the City Council Chambers, Aspen City Hall, Aspen, Colorado.

INTRODUCED, READ AND ORDERED PUBLISHED as provided by law by the City Council of the City of Aspen on the 27th day of April 2009.

M. Ireland / 5-26-09
Michael C. Ireland, Mayor

ATTEST:

Kathryn S. Koch
Kathryn S. Koch, City Clerk

APPROVED AS TO FORM:

John P. Worcester
John P. Worcester, City Attorney

FINALLY adopted, passed and approved this 11th day of May 2009.

M. Ireland / 5-26-09
Michael C. Ireland, Mayor

ATTEST:

Kathryn S. Koch
Kathryn S. Koch, City Clerk