

APPENDIX A: EXTERIOR RENEWABLE ENERGY MITIGATION PROGRAM  
(EREMP)

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**Add Appendix A to read as follows:**

**“Exterior Renewable Energy Mitigation Program (EREMP)”**

**SECTION A101 SCOPE AND ADMINISTRATION.**

**Section A101.1 Scope.** Snowmelt, outside pool, or outside spa systems and equipment may be installed only if 50% of the supplemental energy meets the requirements of the Exterior Renewable Energy Mitigation Program (*EREMP*) of 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.

**Section A101.2 Mandatory requirements.** R-10 insulation shall be installed under all areas to be snow melted. R-5 insulation may be used when the insulation extends up the sides of the slab.

**Section A101.3 Exterior Renewable Energy Mitigation Program (EREMP) Option.** Exterior energy use for residential exterior snowmelt systems, outdoor spas, and outdoor pools are calculated as directed by Section 201.

**Section A101.4 On-site Renewable Credits Option.** Renewable credit options are calculated as directed by Section 301.

**Section A102 Credits for on-site renewable energy.** Applicants interested in exterior energy use systems can choose to produce on-site renewable energy with solar photovoltaics and/or solar hot water and/or micro-hydro to offset the payment option. The energy efficient technology of ground source heat pumps is also permitted for supplemental on-site energy.

**Section A103 Payment option.** The *EREMP* payment option is the difference in energy use calculated in Section A201 and on-site renewable credits calculated in Section A301 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 and shall be spent in accordance with a resolution by the Board of Blaine County Commissioners.

**Section A104 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 A301.

**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 A201 EXTERIOR ENERGY USE CALCULATIONS**

**Section A201.1 Snowmelt.** Fifty percent (50%) of the total square footage associated with snowmelt energy consumption shall be calculated as an *EREMP* payment option at \$34.00 per square foot divided by the boiler efficiency (AFUE).

**Section A201.2 Outdoor Pool.** Fifty percent (50%) of the total square footage associated with outdoor pool energy use shall be calculated as a *EREMP* payment option at \$136.00 per square foot divided by the boiler efficiency (AFUE). Outdoor pools with not more than 200 square feet of water surface are exempt.

**Section A201.3 Outdoor Spa.** Fifty percent (50%) of the total square footage associated with spa energy use shall be calculated as a *EREMP* payment option at \$176.00 per square foot divided by the boiler efficiency (AFUE). Package spas with not more than 64 square feet of water surface area are exempt.

**Section A202 Total *EREMP* payment.** The total *EREMP* payment is the total sum of exterior energy use of Sections A201.1, A201.2 and A201.3.

## **Section A301 ON-SITE RENEWABLE CREDITS**

**Section A301.1 Photovoltaic.** 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 NABCEP (North American Board of Certified Energy Practitioners) or the system must be installed per the manufactures design specifications.

**Section A301.2 Solar Hot Water.** On-site renewable credit shall be calculated as \$224.65 per 1 square foot of the system design.

**Section A301.3 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. Each ground source heat pump system shall be tested and balanced and the design engineer shall certify in writing that it meets a design coefficient of performance of 3.0 exclusive of source pump power. The ground loop system must be

designed by a CGD (Certified GeoExchange Designer certified by the Association of Energy Engineers) or a professional engineer with IGSHPA (International Ground Source Heat Pump Association). The mechanical system must be installed by a certified IGSHPA contractor or an energy design professional.

**Section A302 Total EREMP renewables.** The total *EREMP* on-site renewable credit is the total sum of Sections A301.1, A301.2 and A301.3.

#### **PUBLIC DOMAIN SOFTWARE**

**Section A401** A free calculation program known as *EREMP* 2009 shall be made available to the public.

#### **EXAMPLE CALCULATION FOR EXTERIOR RENEWABLE ENERGY MITIGATION PROGRAM**

**Snowmelt Example: 800 sq. ft of snowmelt requested  
(50% required to meet EREMP)**

$(\$34.00 * (800 * .50)) / 0.91$  (efficiency rating of boiler) = \$14,945  
**EREMP payment option for exterior energy use will be \$14,945**

#### **ON-SITE RENEWABLE CREDITS**

40 square feet of solar hot water panels \* \$224.65 per square foot = \$8,986  
**EREMP payment option will be \$5,959**

**OR**

2.58 KW photovoltaic system \* \$6,241.20 per kilowatt = \$16,102  
**EREMP payment option will be \$0**