

EMPIRE ELECTRIC ASSOCIATION

Echoes of the Empire

FEBRUARY 2024

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Empire Electric 2024 Annual Meeting

BY JOSH DELLINGER GENERAL MANAGER



JOSH DELLINGER

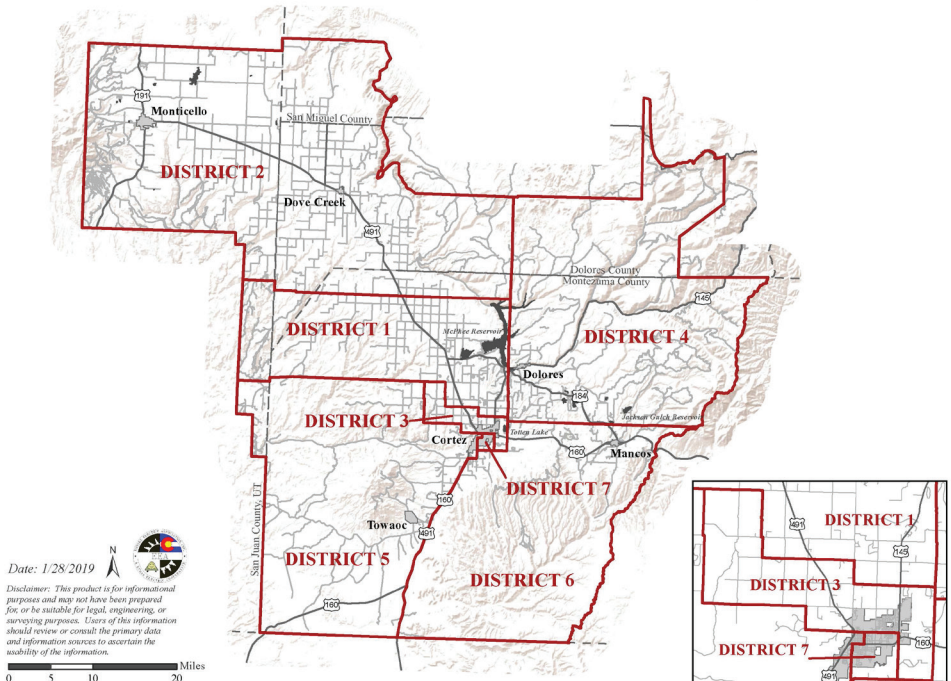
Empire Electric Association's 2024 annual member meeting is scheduled for Thursday, June 20 at EEA's Engineering and Operations Center, which is located at 23999 Road L.4, Cortez, Colorado. Registration will begin at 4:30 p.m. and the meeting will begin at 5:30 p.m. This will be a business meeting only. Members who attend will get a \$10 credit on their electric bill.

The EEA Board considered present board district composition at its December 2023 meeting and determined no changes to board district boundaries are needed at this time. As of December 2023, the district with the most members had 1,956; the district with the least members had 1,856; and the average number of members per district was 1,913.

There are two board seats up for election this year: District 4 (Norman Butler, incumbent) and District 7 (Larry Archibeque, incumbent). The winning candidates will serve a four-year term. In order to serve on EEA's seven-member board of directors, our bylaws require the following qualifications. The director shall,

- Be a member of the cooperative for at least one (1) year immediately prior to becoming a director.
- Be a bona fide resident of the district represented for at least one-hundred twenty (120) days prior to becoming a director, which means that the person must be a permanent occupant receiving electric service from the cooperative at his or her primary residential abode.

Empire Electric Association Board Districts Map



ENERGY EFFICIENCY TIP OF THE MONTH

Area rugs are an easy, cost-effective solution to cold floors. Adding area rugs to hard-surface flooring can add warmth to any room and keep your feet cozy on cold winter days.

Choose rugs made from wool or other natural fibers and plush or high-pile textures for the most insulation. Place rugs in areas where you need additional warmth, like the foot of a bed or under a coffee table. Area rugs can enhance the aesthetic of your home and keep you cozier.



Empire Electric 2024 Annual Meeting *continued*

- Be a citizen of the United States of America and a registered voter in the person's director district.
- Be at least eighteen (18) years of age.
- Not be an employee of the cooperative.
- Complete campaign contributions reports in accordance with Policy 31 – Campaign Contributions Reporting.

Districts 4 and 7 are generally described as follows:

District 4

Generally, the northeastern portion of the service area including the town of Dolores. The eastern boundary is the eastern boundary of the service area. The northern boundary is the northern boundary of the service area. The western boundary is generally the mid-section lines beginning at T40N R15W S05 and continuing south (coincident with Road 28) until the mid-point of T36N R15W S17. From there the district boundary generally follows section mid-lines east (coincident with Road L) to the point of beginning.

District 7

Generally, this is the eastern and southern portions of the city of Cortez and the Montezuma County area south of Cortez and north of County Road H. The eastern boundary begins at the intersection of County Road 27 and County Road H and runs north along section lines (generally coincident with County Road 27) until it reaches Empire St. The boundary then travels west along Empire St to its intersection with Washington St, then south along Washington St to Main St/Highway 160, and then west along Main St/Highway 160 to its intersection with S Maple St. The boundary then travels south along S Maple St, continues along S Oak St, and then continues along Road 25 to the intersection with Road H. The boundary then follows Road H east to the point of beginning.

Candidates may be nominated by petition only and such petitions must include the signatures of at least fifteen (15) members of the cooperative whose bona fide residences are within the candidate's district. Qualifying candidates may pick up a nominating petition from our main office during normal business hours. Petitions will be available beginning on March 22, 2024 and must be submitted to EEA by April 22, 2024. The secretary will post a list of qualifying nominees in our main office at the end of the workday on April 23, 2024.

Each member of the cooperative is entitled to one vote on all issues properly brought before the membership, including the election of directors. Members may vote either in-person at the annual meeting or through mail-in ballots provided by the cooperative. Mail-in ballots will be mailed to members on or before June 5, 2024. In order to be counted, mail-in ballots shall be received by Survey and Ballot Systems (EEA's election contractor) no later than 5:00 p.m. on June 14, 2024. All members are strongly encouraged to vote.

If you have additional questions about this year's election, annual meeting, or any other cooperative business, please visit our website at www.eea.coop or give us a call at 970-565-4444. We hope to see you at the meeting!

COMPARING HOME HEATING COSTS

BY ANDY CARTER MEMBER ENGAGEMENT MANAGER

According to a Colorado State University study, 54% of all energy expenses for the average home in Colorado go toward space heating. If your current heating system is ready to be replaced or you are looking to take advantage of tax incentives and rebates offered to upgrade your heating system, it makes sense to look at how much each different type of heating system costs to operate so you know what to expect your monthly energy bill will look like.

Heat for your home can be produced by burning a fuel like propane or natural gas, or by using an electric heater that produces heat by running current through a resistance heating element or powering a compressor unit in a heat pump. Most of these heaters also use some electricity to power a fan to move the heated air around your home.

An air source heat pump is a heating and cooling system that uses electricity to power

a refrigeration unit that can transfer heat in or out of your home. Technology advances for this basic system used to keep the food cold in your refrigerator have moved to the point where it can heat your entire home even in a cold winter climate like we experience and then provide air conditioning in the warmer summer months.

Using electricity to transfer heat is more economic than creating heat using a resistive element. Electric resistance heat is a nearly 100% efficient process, but the dollar per BTU for electricity is expensive compared to propane or natural gas. Heat pumps undergo testing to see just how efficient they are. The testing provides a Heating Season Performance Factor included in the specifications for each heat pump and makes comparing heat pumps easier. The higher the HSPF, the more efficient the unit. The HSPF is a ratio of heat energy produced compared to the electricity required to run the compressor to



ANDY CARTER

transfer the heat. An HSPF of 10 means that for every watt-hour of energy consumed the heat pump transfers 10 BTUs of heat. To calculate the efficiency percentage, we need to divide the BTUs transferred by the number of BTUs in a watt hour or divide 10 BTU by 3.412 BTU per watt-hour. The efficiency is calculated to be 2.93 or 293%! This is possible because we are not creating heat but using a mechanical process to move it.

For comparing costs to heat by different fuels and heating systems, I assumed a 1,500 square foot home with a typical heating requirement of 30 BTU per hour per square foot. The calculations in the side bar show that an air source heat pump with an HSPF of 10 will only cost \$381.26 for the heating season, followed by \$486.57 for natural gas, \$973.14 for propane, and then \$1,117.08 for electric resistance heating. Keep in mind these cost comparisons don't include all costs or charges on energy bills and assume a home with average heat loss. They do provide an indication of the difference in cost between fuel and heater types.

If you do choose to pursue an upgrade in your heating system, remember to talk to Empire Electric Association first to make sure we have adequate capacity to serve your new heating system, especially if you are switching fuels from gas to electric. We can also help provide other information on making your home more energy efficient as well as information on rebates that we offer.

HOME HEATING COST COMPARISON

Assumptions

1,500 sq. ft. home requiring 45,000 BTU/hour of heat that operates at full capacity for a total of 856¹ hours per heating season.

Propane Heater rated at 95% efficiency

1 Gallon = 91,500 BTU \$2.24/gallon² ÷ 91,500 BTU/gal = \$0.000024/BTU

Annual Heating Cost (45,000 BTUH * 856 hours * \$0.000024/BTU) ÷ 0.95 = \$973.14

Natural Gas Heater rated at 95% efficiency

100 CCF = 95,000 BTU \$1.15/CCF³ ÷ 95,000 BTU/gal = \$0.000012/BTU

Annual Heating Cost (45,000 BTUH * 856 hours * \$0.000012/BTU) ÷ 0.95 = \$486.57

Electric Resistance Heater rated at 100% efficiency

1 kWh = 3,412 BTU \$0.0977/kWh⁴ ÷ 3,412 BTU/kWh = \$0.000029/BTU

Annual Heating Cost (45,000 BTUH * 856 hours * \$0.000029/BTU) ÷ 1 = \$1,117.08

Air Source Heat Pump with an HSPF of 10 (efficiency rating 293%)

1 kWh = 3,412 BTU \$0.0977/kWh⁴ ÷ 3,412 BTU/kWh = \$0.000029/BTU

Annual Heating Cost (45,000 BTUH * 856 hours * \$0.000029/BTU) ÷ 2.93 = \$381.26

¹Effective Full Load Heating Hours for Western Slope. ²EIA 1/1/24 Residential Propane Price CCF = 100 ft.³, Atmos Energy Colorado Gas Tariff ⁴EEA TOUD Rate 31% On Peak, 61% Off Peak



^ "Moon Rising Over the La Plata Mountains" by Braden Gunem.



Monthly Calendar

February 2 – Groundhog Day

February 9 – EEA's board meeting begins at 8:30 a.m. at its headquarters in Cortez. The agenda is posted 10 days in advance of the meeting at eea.coop. Members may attend in person or remotely. Instructions to attend remotely are included on the agenda.

February 15 – EEA Scholarship Deadline

February 19 – Presidents Day

STUDENTS DON'T FORGET!

Scholarship Deadline
February 15, 2024

Fill out your application
on our website eea.coop

- \$1,000 Adult
- \$1,000 Public High School Student
- \$1,000 Home School Student
- \$1,000 Lineman
- \$500 Electrical Trade Related



Safety Tip

Know how to open your powered garage door manually after a power outage. Refer to manufacturer's instructions and teach other drivers and older kids in your home how to operate an electric garage door during a power outage, especially if there is an emergency.



Safe
Electricity.org®

EEA has a NEW
Pay by Phone Number!

833-923-1409

This number is for payments only.

Members should still call 970-565-4444 to report an outage or to speak with an EEA representative.

EEA must make the change in conjunction with upgrades to our electronic payment software.