PARK SPARKS

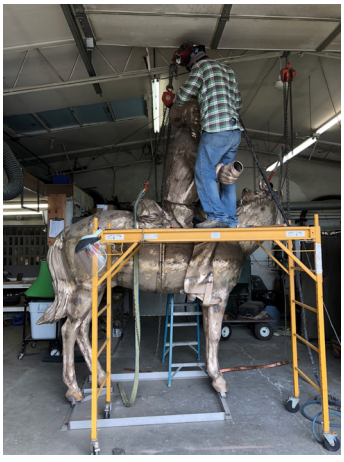
MARCH 2020 PARK ELECTRIC COOPERATIVE, INC. Touchstone Energy® Cooperatives

Meet our Members by Sarah Boyle

Many people don't realize that Park Electric serves part of Gallatin County. The small stretch of lines that bring power to Bear Canyon and the immediate vicinity belong to Park Electric. Nestled at the mouth of Bear Canyon sits Northwest Art Casting. From the outside, it looks like a group of plain white buildings, but when you venture inside, the sights and smells of a fully functioning bronze foundry meet you. The business is filled with artists who are working steadily on each step of the process of "Lost Wax" casting for bronze art. Scott Billis, the owner of Northwest Art Casting, led a tour of the maze of buildings and processes they go through to create a finished piece.

As a business, NWAC produces thousands of pieces each year. They range in size from tiny drawer pulls and belt buckles to larger than life wildlife and tributes to fallen heroes. Each piece starts as an original clay sculpture sent to them by the artist. Some of the larger than life pieces have a foam core to cut down on the weight. Having visited this place, one has a whole new appreciation for the amount of work and energy it takes to create bronze pieces. The process looks something like this:

After NWAC receives the original artwork, the first step in the "Lost Wax" process is creating a rubber mold by painting the outside of the sculpture with liquid rubber. Plaster is applied over the finished rubber mold to add strength. These rubber and plaster molds can be saved for repeated castings in the future. The rubber and plaster mold is then used in the next step; creating the wax model. Hot wax is carefully painted and poured into the rubber mold until it reaches a thickness around a quarter inch. After the wax has hardened, the mold is released and careful sets of eyes and hands go over it to correct any blemishes or air bubbles that may have formed. This wax model must look as close to the original piece as possible. From here, the wax model has long channels known as sprues and cups attached to it. These cups and sprues allow the wax to melt out and eventually provide a channel for the molten bronze to be poured in. Large spinning vats of orange liquid await the delicate wax forms. They are dipped in the orange hued cement sand mixture in the vats several times before being set out to dry. Once fully dry, inside and out, they are baked in a kiln to melt out the wax and completely cure the ceramic mold. This is the step that gives the process of "Lost Wax" its name, as the wax is melted out in the kiln after all that work. The interior of the ceramic shell reveals all the detail brought to it by the wax that had formerly been there. The most dramatic step involves molten bronze heated to just over 2000 degrees which is then poured into the ceramic shell through the cups and sprues and then allowed to cool. That ceramic shell that took so long to dip and set is shattered as soon as the bronze has hardened which reveals the art hiding inside. Sandblasting removes the bits of ceramic residue and the now bronze piece is passed on to be further inspected, cleaned and welded back together, depending on the size. Finally, a patina or finish is added to the finished metal object. This is done with a series of chemicals and heat to create almost every color imaginable. Each step of this process is tedious and must be done with the utmost care and eye for detail. The end result is a near perfect copy of the original artist's piece.



Manager's Comments *by* Matt Haggerty

Park Electric has over 1600 miles of power lines serving over 6,700 meters. Today I would like to focus on our overhead lines and maintenance that we do annually to minimize outages. We have over 900 miles of overhead lines spanning over four counties. On average we have 25 poles per mile, if you multiple 25 poles per mile by 900 miles of line we would have roughly 22,500 poles. One of our forms of preventive maintenance for outages is tree trimming program. Park Electric uses a tree trimming cycle to assure the reliable and safe operation of its electric lines near trees. When tree limbs come in contact with power lines, they are a major cause of electrical outages. Some of these outages are caused when limbs fall or break then land on electric lines. In many cases they bring the lines down with them. To reduce outages and minimize safety hazards caused by tree contacts, Park Electric prunes trees away from its power lines on a planned pruning cycle. In certain situations, we will even remove a tree that is causing interference with our primary powerlines. Removing a tree will only take place if it meets a strict criteria. If you have a tree that is in our primary lines that you want removed call the office for more information. Just remember, Park Electric decides whether it is more cost effective to remove or to continue trimming it. We do not remove trees that are out of our right away. Keeping power lines clear of limbs and brush provides easier access to power lines, which means quicker restoration of power during storms and other times of trouble.

Here are a few tips to ensure your safety; never trim limbs or remove trees around power lines. Let a professional tree trimmer handle these situations or contact Park Electric when the trees are near our primary lines. Do not climb utility poles or trees near power lines. Tree branches or limbs can conduct electricity when touching a power line. In the event of a storm, treat any downed wire as if it is energized, stay away from the line, and call Park Electric. When

trees or branches break during storms, do not attempt to pull tree limbs off lines. Let our trained work crews perform this potentially dangerous work.

If you are planning on planting trees please plant them no less than 25 feet away from our power lines. If you are going to plant trees inside our right away only plant trees that will grow 25 feet tall or less. Please remember if you plant trees that grow taller than 25 feet under our lines, we will all be affected by the outages and costs to maintain them.

Energy Efficiency Tip of the Month

Placing hot food in the refrigerator makes the appliance work harder than necessary, using more energy. Allow food to cool down before you place it in the fridge.