

# Generations

*Building lines, changing lives*



75 years ago, Central Electric Cooperative brought electricity to homes and businesses throughout Central Oregon, changing the lives of area residents forever.

BY COURTNEY LINVILLE

*The history of Central Electric Cooperative's first 75 years*



CENTRAL ELECTRIC  
COOPERATIVE, INC.

# Generations

**Bulding Lines, Changing Lives**

*A story of Central Electric Cooperative, Inc. and how  
vision and determination changed lives and lifestyles*

*By Courtney Linville*

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# CENTRAL ELECTRIC COOPERATIVE, INC.

**1948** ▶

CEC builds its first headquarters on Highland Ave., in Redmond.



**1940**

Articles of Incorporation are filed with the State of Oregon, first employee Clinton Becraft hired, offices rented in Redmond, REA grants first loan of \$244,000.

**1941**

CEC purchased Deschutes Power Co., for \$5,000, begins serving Sisters Area.

**1955** ▼

Power line to summit of Grizzly Mountain complete (6,025 feet above sea level).



**1967** ▲

Power provided to Pine Mountain Observatory.



▼ **1977**

John Norlin, general manager since 1949 retires. Lane Powell takes over.



**1941** ▲

First CEC line energized by Carl H. Baker throwing the switch at Deschutes Junction Substation on May 17. Eleven Redmond area farms energized.

**1941**

Morgan Sharp hired to serve as manager during the WWII years.

**1949**

CEC introduces Capital Credits program.

**1962**

Oregon Public Utility Commission approves service territory boundaries.



**1970** ▲

Brooks Resources starts to transform Old Black Butte Ranch to a resort destination.



◀ **1946**

John Norlin hired as third cooperative manager would guide the company for over 30 years.

**1977** ▶

CEC moves its headquarters in Redmond from Highland to its current location on U.S. Highway 97 North.



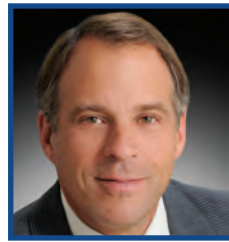
# TIMELINE



**1990 ▲**  
CEC celebrates 50 years of incorporation.

**1978**  
CEC initiates energy conservation program. Expanded to Home Energy Efficiency Program in 1982. Still in effect today.

**1999**  
Central Electric's capital credits retirements exceed \$1 million for the first time in co-op history.



**2006 ▲**  
Dave Markham replaces Al Gonzalez as President & CEO.



**2012 ▲**  
Completed a three-year conversion project of 31,696 electro-mechanical meters to new Advanced Metering Infrastructure (AMI) meters.

**2013**  
CEC introduces online account management tool SmartHub, including the usage monitoring tool My Usage.

**1980**  
CEC installs its first computer.



**1995 ▼**  
CEC and 11 other cooperative members of Power Resources Cooperative build and operate 2.5-megawatt Coffin Butte landfill gas-to-electricity renewable energy facility. Expanded in 2007 to 5.66 megawatts.



**2003**  
CEC named one of the top five electric utilities in the U.S. for Green Power sales (per capita) according to U.S. Department of Energy's National Renewable Energy Laboratory.

**2011**  
Capital Credits repaid to members since 1958 exceed \$15 million.

**2016 ▼**  
In January, CEC energized its Community Solar Project, the first of its kind in Oregon.



**1983 ▲**  
WPPSS bond default causes Northwest public power customers' rates to skyrocket.

**1996 ►**  
In November, Al Gonzalez named President & CEO. Lane Powell, who had led CEC since March 1977, died of a heart attack on October 27, 1996.





# CENTRAL ELECTRIC COOPERATIVE, INC.



**The wonders of electricity have come to mean different things to different generations.**

Photo courtesy of NRECA

# Preface

By using the word “generations” in the title of this book honoring Central Electric’s 75th anniversary, we have chosen a word that says so much about your co-op.

The cooperative’s expansion into the rural reaches of Central Oregon revolutionized a generation that endured The Great Depression and World War II. Electricity eased back-breaking chores and increased productivity.

Next came the baby boomers, who shook things up and rode the wave of one of the most turbulent times in our country’s modern history. During their time, “miracle” appliances such as dishwashers and creature comforts such as hi-fi stereos and color televisions appeared, weaving electricity deeper into the fabric of everyday life.

While those boomers were in the mid-stages of their professional careers and their Gen X, Gen Y and millennial generation offspring were coming onto the scene, we entered the age of computers. This digital technology was at first an amazing and intimidating curiosity. Now we wonder how a day could go by without it.

As these younger generations take society’s steering wheel, mobile devices are seen as one of life’s essential items. Because these phones and tablets move about without an electrical cord, their dependence on electricity can be overlooked. Not only do batteries need to be charged, but all of these devices depend on a vast network of land-based communication technologies and data centers. This infrastructure depends as much on electricity as did the 1940s rancher powering up his first well.

It makes sense to think of Central Electric’s employees and directors in terms of generations. The work we do today is built on the shoulders of those men and women who created our electrical system and business structure from the ground up. In this broad accounting of our history, we honor those Central Electric pioneers, those whose dedication and skills serve the membership today, and all who worked at the co-op in between. One of the most important of all Central Electric assets is the knowledge that passes from one generation of employees and directors to the next. It is not just technical knowledge that is handed down. It includes the values that guide us—the commitment to our members through the seven cooperative principles:

- Voluntary and open membership
- Democratic member control
- Members’ economic participation
- Autonomy and independence
- Education, training and information
- Cooperation among cooperatives
- Concern for community

As I think about the challenges ahead, I admit some of these principles are easier to preserve than others. Specifically, our autonomy and independence is frequently challenged by

policymakers losing sight of the role cooperatives and their not-for-profit structure played in the electrification of rural America. Another is democratic member control. As times grow busier, new generations are less aware of the importance of engaging in their cooperative’s issues.

Yet it is our cooperative principles that give me confidence we can meet

our future challenges. Cooperation among cooperatives gives us strength and influence, ensuring policymakers recognize our concerns. Our commitment to education, training and information also prepares us for the future. We nurture our members’ perception of the value of membership in a not-for-profit electric cooperative in an increasingly impersonal world. We regularly share the information they need to become empowered and knowledgeable members and provide the access they need to act upon that knowledge.

A benefit we all enjoy today dates back to our very beginnings: renewable energy. The Federal Columbia River Power System hydroelectric dams are an invaluable, almost miraculous, source of power generation—there is that word again. Their bounty built the foundation for some of the lowest electricity rates in the nation. We can thank our predecessors for the foresight and commitment it took to create an engineering and construction marvel that became the envy of the world.

Renewable energy issues present a current challenge, although of a different sort. As we face the quandary of how to introduce more power sources that have no carbon emissions, we see pressure to adopt forms of generation that, despite having zero fuel costs, are much more expensive than traditional sources. To address this successfully, we must manage energy’s increasing costs in balance with society’s ability to absorb them.

Meeting such challenges is a matter of managing transition. And after 75 years, there have been plenty.

The heart of the co-op is the members it serves and the people who serve them. To manage change, we must be able to apply experience and wisdom guided by a desire to act in the best interests of all.

The great benefit of reviewing history is applying its lessons to the work that lies ahead. As I review Central Electric’s 75 years of incredible success, and revisit the events that took place and the actions taken by our predecessors, it only increases my confidence. I am certain the years ahead will bring as much success as we experienced in our first three-quarters of a century. ■



Dave Markham

# Origins

With the signing of an executive order in 1935, life for rural America was about to change.

As late as the 1930s, nine out of 10 rural homes were without power. While power was available in bigger cities, life was very different on the family farm. Water was pumped by hand from a well and carried in buckets, irons were heated, and cooking was done on wood stoves. Lighting was provided by coal oil lamps or kerosene lanterns, and the workday was determined by the sunrise and sunset.

On May 11, 1935, President Franklin D. Roosevelt signed Executive Order 7037 and changed the path for rural America forever. Under the order, the Rural Electrification Administration was created to bring electric service to every farm, ranch and home in rural areas.

Many rural farmers would turn to their already established local agricultural cooperative when considering the idea of electrification. A cooperative is a jointly owned enterprise engaging in the production or distribution of goods or supplying of services, operated by its members for their mutual benefit, typically organized by consumers or farmers.

The REA gave federal long-term loans to farmer cooperatives and other public power districts to bring electric power to 90 percent of rural America. However, for many rural farmers across the nation it was a matter of weighing the benefits of an easier way of life against the hardship of the cost of achieving it. Customers often were required to pay the full cost of connection upfront. In those days, hookups ranged anywhere from \$2,000 to \$3,000 per mile. To put this into perspective, the average farm grossed just about \$1,800 a year.

## The Formation of Central Electric Cooperative

By 1938, 10 percent of rural America was electrified. Electricity had even come to Central Oregon; however, many farmers



**Grand Coulee Dam would be immortalized in the words of well-known Oklahoma folk singer Woody Guthrie as “the biggest thing that man has ever done.” This picture was taken May 23, 1939, when the river was spanned.**

Photo provided by U.S. Bureau of Reclamation

stood and watched as private electric companies put up poles and lines to serve the more densely populated cities and towns while choosing to not extend the same service to rural farmers. In those days, private electric companies would expand in more heavily populated, easy-to-reach areas that were much more profitable because there were more customers per mile of line.

A group of nine farmers banded together and decided it was time to form a cooperative to bring electric service to the rural parts of Central Oregon. They reached out to the REA and inquired about creating an electric cooperative formed by neighboring farms and ranches. These early visionaries were Carl H. Baker, W.R. Gerking, John Hohnstein, A.L. Houmard, G.A. Kriger, Bruno D. Reif, Jack Shumway, W. Boyd Simmons and J.E. Thompson.

The tough and often thankless task these men faced was convincing their neighbors not only could they have electric



**President Franklin D. Roosevelt signs Executive Order No. 7037 in an effort to bring electricity to rural America.**

service to their homes and farms, they could have it at an affordable rate.

Ironically, not everyone was convinced electricity would benefit them. Shumway would later recall that some were simply resistant to change while others were concerned about having their hard-earned money go toward a project that could fail. Still deep in the Great Depression, many Central Oregonians were wary of losing all of their money funding what they saw as an experiment.

However, CEC's visionaries pressed on and eventually garnered great enthusiasm amongst neighbors. By March 29, 1940, Central Electric Cooperative, Inc. was formed with the official filing of the articles of incorporation with the state of Oregon. Only a few days later on April 1, 1940, bylaws were adopted and a board of directors was elected. Baker would take the helm as chairman.

The preface to the company's bylaws stated the cooperative's basic vision, which still holds true today.

"The aim of Central Electric Co-op is to make electric energy available to its members at the lowest cost consistent



**An epitaph for an old flame. With the arrival of electricity in Central Oregon's rural areas, the kerosene lamp was no longer needed.**

Photo courtesy of NRECA

with sound economy and good management."



A man takes a bath in the “good old days” before electricity.



In the early days, CEC did not have line crews. Male co-op members were drafted through a lottery process to help build the early lines.

### Building a Grid

Following the creation of CEC, the board took out a \$244,000 loan from the REA to build and operate a barebones electric system in Central Oregon. The board also hired a co-op coordinator, Clinton Becraft, to help start the foundations of the power cooperative.

Becraft rented space in the Clover Adams building at 7th and Glacier in Redmond. He also bought a typewriter, adding machine and safe. His other responsibilities included designing the electrical system, obtaining easements, hiring line construction contractors and administering several programs.

One of those programs enabled customers to finance installation of the wiring needed in their homes. According to co-op records, 260 members used the program with an average loan of \$50. All their homes were wired by September 1940. But caution was necessary. Only a few members were added to the line at a time because each farm had to be thoroughly inspected at the time it was energized. This was due to the possibility of fires, poor wiring and blown fuses.

With homes ready to receive electricity, poles and wire were needed for distribution. Unlike today, CEC had no line crews. In fact, male members in the co-op were drafted through a lottery process (one “winner” per family) and paid for their common labor during line construction.

In some instances, members were allowed to borrow tools to dig their own pole holes and clear their own rights of way.

CEC’s first line crews were contracted. The first full-time lineman was E.L. Skeen, who started working for the organization in 1941. He previously worked on CEC’s initial lines while doing work through Portland contractor Homer Johnson. Skeen’s hiring triggered the slow growth in crewmen and other staffers, with a total of seven by the end of World War II.

Amazingly, in just a little more than a year, CEC and its 500 to 600 members had constructed a network of 250 miles. On May 17, 1941, with a light spring snowfall, the switch was flipped at



Life on the farm was not easy for women who spent their day doing chores by hand. The arrival of electricity provided the option of modern conveniences, changing farm life forever.

Photo courtesy of the Rural Electrification Administration

the Deschutes Junction Substation midway between Redmond and Bend. The first lights came on to serve the 11 farms connected and ready to receive the first current from the system. Many more soon followed. With just a flip and a crackle, the lives of rural Central Oregonians began to change forever. ■

EXECUTIVE ORDER

ESTABLISHMENT OF THE RURAL ELECTRIFICATION ADMINISTRATION

By virtue of and pursuant to the authority vested in me under the Emergency Relief Appropriation Act of 1935, approved April 8, 1935 (Public Resolution No. 11, 74th Congress), I hereby establish an agency within the Government to be known as the "Rural Electrification Administration", the head thereof to be known as the Administrator.

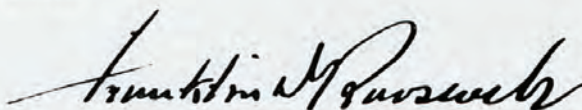
I hereby prescribe the following duties and functions of the said Rural Electrification Administration to be exercised and performed by the Administrator thereof to be hereafter appointed:

To initiate, formulate, administer, and supervise a program of approved projects with respect to the generation, transmission, and distribution of electric energy in rural areas.

In the performance of such duties and functions, expenditures are hereby authorized for necessary supplies and equipment; law books and books of reference, directories, periodicals, newspapers and press clippings; travel expenses, including the expense of attendance at meetings when specifically authorized by the Administrator; rental at the seat of Government and elsewhere; purchase, operation and maintenance of passenger-carrying vehicles; printing and binding; and incidental expenses; and I hereby authorize the Administrator to accept and utilize such voluntary and uncompensated services and, with the consent of the State, such State and local officers and employees, and appoint, without regard to the provisions of the civil service laws, such officers and employees, as may be necessary, prescribe their duties and responsibilities and, without regard to the Classification Act of 1923, as amended, fix their compensation: **Provided**, That in so far as practicable, the persons employed under the authority of this Executive Order shall be selected from those receiving relief.

To the extent necessary to carry out the provisions of this Executive Order the Administrator is authorized to acquire, by purchase or by the power of eminent domain, any real property or any interest therein and improve, develop, grant, sell, lease (with or without the privilege of purchasing), or otherwise dispose of any such property or interest therein.

For the administrative expenses of the Rural Electrification Administration there is hereby allocated to the Administration from the appropriation made by the Emergency Relief Appropriation Act of 1935 the sum of \$75,000. Allocations will be made hereafter for authorized projects.



The White House,  
May 11, 1935

7037

Executive Order No. 7037, the establishment of the Rural Electrification Administration, as signed by President Franklin D. Roosevelt May 11, 1935.

Photo courtesy of NRECA

## In His Words: A View of History from CEC's First President

Carl H. Baker was Central Electric Cooperative's first president of the board. He helped rally local farmers and ranchers to join the cooperative and "flipped the switch" that historic day in May.

When CEC celebrated its 50th anniversary of the incorporation of the cooperative in 1990, the company reached out to Baker, who was 100 years old at the time. He shared some of his memories of the cooperative in the early days, as well as letters relating to company business. The letters from Baker, below, are printed verbatim from the originals.

### Reaching Out

In 1990, CEC President Lane Powell corresponded with Baker about gaining his thoughts and insights for the 50th anniversary book. Following is one of Baker's responses.

*Dear Mr. Powell:*

*How generous and thoughtful of you and John Norlin to remember the first president—one of the "founders" of "Central Electric." Thanks!*

*Those were difficult times: war shortages (copper, trucks, men etc.—even no "example" but we tried long and hard. (No one on coop to consult.) However, we had good wishes of all. Co. Agent G. Y. Hoaglund let us use office space and loaned us a pleasant young man to take notes and type reports—even letters, but "rules" limited us—we couldn't get advice, etc.*

*As to pictures, I know of only one early one. On a cold, windy, stormy day the first line (near Anderson Dairy) was energized—Spokesman camera was there—Board said Chairman should "Let there be light!" (Coat-tail flying in the wind, I, Carl Baker, "threw the switch." (Spokesman printed picture—didn't show my shaky knees) Ha! Well we soon got word "It really worked!" and cautiously—step by cautious step others on line were checked by crew as added. Few of us were "veterans" in electricity.*

*I was happy that such a man as Priday Holmes took my place—a good experience business man and rancher.*

*Congratulations to you and all sir; You and John have led this blessing even beyond my hopes and dreams. (I'll be 100 September 10!?)*

*Good luck and God bless you all for your good honest plans and work.*

*Best regards to you and All,*

*Carl H. Baker*

### 50 Years—A Matchless Era

*We think "1940s." Was that about the time of The Desert Fox in N. Africa, or the matchless "Ike" who feigned a north channel crossing then, a dark night secretly crossed to a southern, less guarded beach! Perhaps some of you were there (maybe girls—"Navy Nurse" and "File Clerk" were not).*

*But how was it here? Rationing food stamps, substitutes—our*



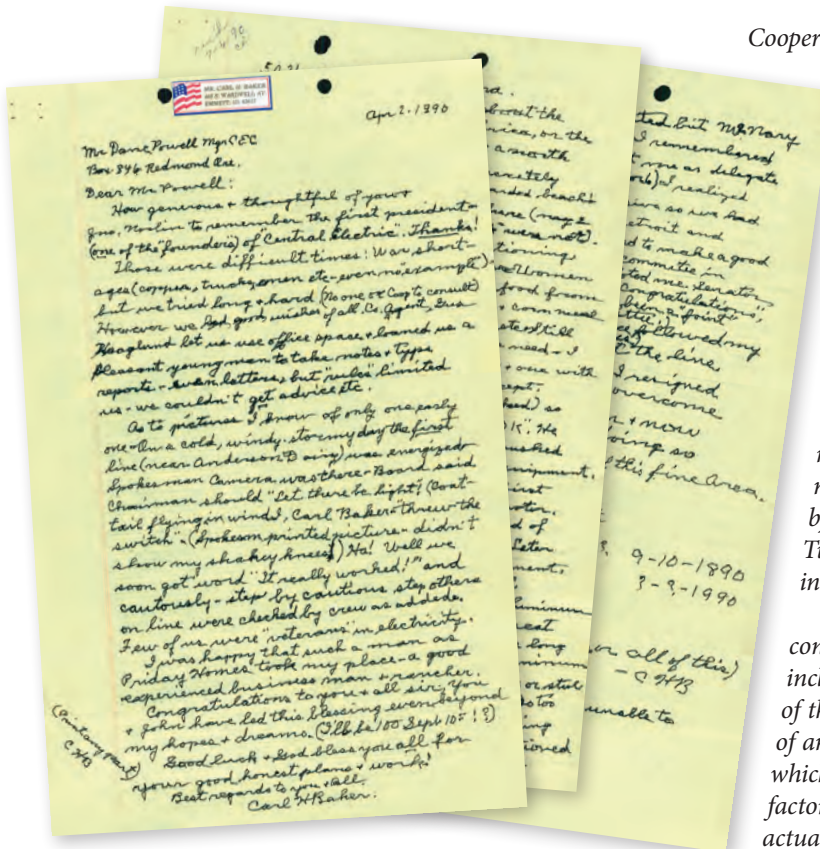
**Carl H. Baker, first president of the CEC board, just 10 days after his 100th birthday in 1990. At the time, he was still living on his own, tending his garden and driving.**

*women were magnificent—good food from what was available—kafir and corn meal pancakes and "raw" sugar syrup, etc. Still exceptions were made for dire need. I saw a truck with ½ hogs (frozen) and one with Red Cross flour. I saw only 2 accept.*

*CEC maps made (and loan banked) so the board told Manager Morgan Sharp "OK." He and Head lineman—Leck Skeen pushed ahead remarkably with limited equipment. The war left no new trucks—our first was a used pickup with rebuilt motor. With a 2 wheel trailer at the back end of pole, they kept up with the hole crew. Later of course they found more equipment. Leck S. and all worked with a will.*

*Lack of copper meant use of aluminum, but a copper coated steel wire—great tensile strength—was best then for long spans—saved a lot of poles. Aluminum needed special connectors with copper or steel.*

*But the war ended, and copper became plentiful, so too were other supplies, but we were paying too much for our power. I had questioned Dr. ?? (sic) Bonneville re. a line. He said theirs was now allocated but McNary was near completion. I remembered this when the Board sent me as a delegate to the REA Convention*



While working on CEC's 50th anniversary book, company officials reached out to Baker about his early memories of the cooperative. Pictured above is the three-page letter Baker penned to CEC General Manager Lane Powell.

(1945 or 1946). I realized a power line was expensive so we had learned of the need at Detroit and rural N. of Eugene. I tried to make a good case before the Interior subcommittee in the "ten minutes or less" allotted me. Senator Wayne Morse wired me, "Congratulations," (A surprise—it must have been a "joint" instead of a House Committee.) I suspect more influence followed my request (John Norlin and new President).

At least you or we got the line. Sorry my health failed. I resigned and took a year (traveling) to overcome vertigo attacks.

I am glad that John and now you (Lane Powell) have done and are doing so much for the good of this fine area.

Best wishes to all,  
 Carl H. Baker  
 The first president  
 Centenarian (b. 9-10-1890)

This letter was written in July 1990 to then CEC General Manager Lane Powell.

### President Baker's First Annual Report February 20, 1941

Fellow members of Central Electric Cooperative:

It is my privilege at this time to bring to you a brief report of the general background and development of the Central Electric

Cooperative from its inception to the time of actual organization and construction.

The first step nationally, supported by Oregon Senators and Congressmen, was the Rural Electrification Act of 1936.

Locally, we gladly give credit to far-sighted, public-spirited men in all counties and communities concerned. Several of these we could readily name. These men pioneered the idea of power for the farms of Central Oregon.

By December 1939 this idea had gained sufficient headway that public power meetings were in demand. Cooperation of the administration through Bonneville men and our extension service were secured. For three months such meetings crystallized sentiment, climaxed by organization meetings held at Powell Butte and Tumalo, on February 27th and 28th respectively, at which incorporators were chosen.

In the investigation period which followed many conferences were held with REA and Bonneville men, including engineers. When we were reasonably convinced of the feasibility of the undertaking we secured the services of an able attorney who prepared articles of incorporation which were duly signed March 26, 1940. The remaining factor in the feasibility study hinged upon the reception (by actual signup) by the people. In the membership campaign which followed that last local question was satisfactorily answered.

Prior to this effort the work was done by incorporators, county agents, and community leaders. However, it was becoming evident that results of these efforts could best be unified by a full-time coordinator, whereupon we secured the services of Mr. Clinton Becraft, a man with REA experience, who has since become project Superintendent. I feel that from here on the progress of this Cooperative can best be given by the Superintendent.

I think I speak the sentiment of the Board of Directors when I say that we deeply appreciate the privilege of serving the people of Central Oregon in such a worthwhile project.

The evident desire of all to Cooperate toward the success of this vast undertaking is just cause for great satisfaction.

Carl H. Baker, President  
 Central Electric Cooperative, Inc.

### Bonneville Lines

In 1947, Baker was tapped to go to Washington, D.C., and speak on behalf of Northwest agriculture and industry in support of the construction of transmission lines to distribute electricity from the new federal dams on the Columbia River throughout the region. Baker spoke before the Interior Subcommittee of the House Appropriations Committee.

Following is a note Baker penned about the experience. Only days later, he would receive a letter from the National Rural Electric Cooperative Association about his testimony.

Note, the incident narrated was one of the high spots in a mission of a citizen of the Northwest to the nation's capital in the interest of northwest agriculture and industry.

Where else could a private citizen, virtually unknown, receive courteous careful attention than in America.

Our testimony before this subcommittee was spread upon the Congressional record for consideration of our lawmakers. We had a fair hearing and fair consideration.

Democracy? This is it!

Carl H. Baker

### NRECA Executive Manager Clyde T. Ellis responded:

Dear Carl:

You did a swell job testifying before the Interior Subcommittee of the House Appropriations Committee on behalf of the Bonneville lines.

All of the co-ops of Oregon and of the entire area should, and I am sure they do, appreciate your efforts. I was proud indeed of all of you fellows.

With every good wish, I am

Yours sincerely,

Clyde T. Ellis

Executive Manager

### Correspondence with Lane Powell

Baker enjoyed his reconnection with CEC at the time of the co-op's 50th anniversary and news from Lane Powell on how the cooperative had grown, even beyond his expectations. In later years, he and Powell would pen each other back and forth. Often, Baker would come across another historical document or share another memory. Powell, along with the board, would send notes to the company's first president, including birthday cards.

The note below was penned only a few weeks before Baker's 104th birthday.

Hi Mr. Powell:

You have grown beyond my fondest dreams! (I still going!)

That May 17 when I threw the first switch I hoped for the best, we all cheered as our coats flapped in the windy, icy, sheets.

All did their best. Few now live.

The later years with John Norlin then Lane Powell and men to match showed unbelievable vigor, skill and talent in serving so many.

May god continue to bless you all.

Carl H. Baker

In a letter dated July 1995, Baker updated Powell on how things were going for the almost-105-year-old.

Mr. Lane Powell, General Manager CEC:

Hope all is well with you and yours. I just found some traces as I moved relating to CEC. I thought you might find a bit of interest



Top, the original telegram received by CEC Board President Carl H. Baker announcing the fledgling company had received its loan from the REA to start line construction.

Above, a Redmond Spokesman photo of CEC's first board of directors "throwing the switch" at the Deschutes Junction Substation May 17, 1941.

in some. "Apple Valley Residence" is a retirement home—respected and new and well managed.

We have a rather good class of older and my aged people.

A care center (nursing home) is near (also hospital). Nice but expensive. I am alone now—no near children so this is OK—sold my horses and car. (have drivers license until September—my 105th BD)

My best to all. My congratulations on your marvelous progress. May the good Lord bless you all!

Carl H. Baker

P.S. I still like to hear of your progress.

Baker died December 3, 1995, at age 105. He forever will be remembered by CEC as one of the pioneers who changed the lives of Central Oregonians and a "regular Joe" who testified before Congress about the merits of expansion to an emerging cooperative. ■



Prior to the arrival of electricity, farmers and their families would have to pump water by hand from a well and carry it in buckets to meet every day needs.

# Growth

The early 1940s were fascinating times in Central Oregon. The country was on the brink of entering World War II. Local member-owned Central Electric Cooperative was born early in the decade and immediately began to expand. Many rural homes and communities were getting electricity for the first time.

By September 1941, just four short months after the proverbial switch had been flipped at the Deschutes Junction Substation, Manager Clinton Becraft reported to the board of directors the member ranks had blossomed from the original 11 members to 415. The board was encouraged by the growth and contracted for another \$77,000 loan from the Rural Electrification Administration to start building a line west of Redmond.

Great plans for expansion were stalled slightly when the United States entered World War II on December 7, 1941, following the attack on Pearl Harbor. As a fledgling utility, CEC—like many other companies at the time—worried about damage to its lines and substation by foreign powers. Just two days after Pearl Harbor, the company constructed a guard shack at the Deschutes Junction Substation and increased the frequency of line patrols. These were routinely conducted by car and on horseback, a practice that continued throughout the early years of the co-op.

In light of the war and the constraints it placed on the availability and cost of raw materials, CEC's directors decided to focus primarily on maintaining existing lines and limiting efforts to add new members to the homes, farms and ranches that could be served by them. The co-op made one bold move with the purchase of Deschutes Power Co. in Sisters for \$5,000 on December 23, 1941. This privately owned diesel generated electric company served the town of Sisters, but residents described the electrical service as intermittent at best. Because the company's equipment was all but unusable, CEC bought the



**The first line east of Prineville to Post and Paulina goes up in 1950, spanning 53 miles.**

rights to serve Sisters and its surrounding areas. To do so, the cooperative had to invest in infrastructure to serve and connect Sisters with the line coming west from Redmond.

After World War II, the co-op again started eyeing



**In 1950, Central Electric Cooperative relocated into a new headquarters on Highland Avenue in Redmond for \$48,000.**

expansion. The employee ranks swelled to seven by 1946, and with that came the need to equip crews with the tools and vehicles required to do the job. The cooperative bought its first heavy-duty boom truck in 1947. This was due in large part to the efforts of John Norlin, a manager who pushed for the purchase and later became the cooperative's general manager. Until then, all line work had been done with pickup trucks. The new boom truck literally and figuratively elevated what the co-op could accomplish for its members.

By 1948, CEC had completed expansion projects to Madras and Lower Bridge, as well as extending 54 line-miles to Prineville and Powell Butte. These projects added more than 100 new members.

Because of the steady continued growth, CEC looked toward a new property in Redmond to house the company headquarters. On July 28, 1948, the company accepted a low construction bid of \$48,000 to build its new headquarters on Highland Avenue. Operations remained there until July 4, 1977, when they were moved to a headquarters at CEC's current location on Highway 97 on the north end of town.

Extending the electrical system to outlying areas and cities continued to expand CEC's reach within Central Oregon, including Post, Paulina, Supplee and Izee. Madras had its first substation added in 1953.

The building did not stop there, and calls for service started to include new kinds of power users. In summer 1955, crews installed a power line 6,025 feet to the summit of Grizzly Mountain. Five two-way radio transmitters were installed for federal, state and local agencies. The original cable was placed overhead on poles. However, due to repeated damage from ice and wind during winter storms, the cable was moved underground in 1966.

The year 1956 was big for CEC. The co-op added another

140 miles of service area with eastward extensions to the U.S. Forest Service's Ochoco Ranger Station in Prineville and westward additions to the Suttle Lake Methodist Church camp, as well as other recreational facilities outside of Sisters.

More expansion was still to come. In October 1959, the CEC Board of Directors borrowed \$535,000 from the REA to route 143 miles of power lines to territory between Bend and Burns.

### **CEC Has Hand in Saving 1968 Crops**

The winter of 1967-1968 was one of the driest on record for Central Oregon. Because of the dry spell, Wickiup Reservoir lacked stored water, and delivery was uncertain for the North Unit Irrigation District (Madras) and its more than 800 irrigators.

The North Unit had yet to tap into its water rights from the Crooked River. The district looked to put a pumping station on the river near an existing viaduct at Smith Rock, just across the Crooked River canyon. In 1968, district patrons passed a \$350,000 bond to fund the station.

While construction of the station was underway at the bottom of the canyon, Central Electric crews worked on the canyon rim above, building 2.5 miles of transmission lines and a substation to provide power to the North Unit plant. Crews worked double shifts and overtime to bring the new station online in late September 1968, only four months after work started.

This turned out to be perfect timing for the Madras farmers, who had used all of their allocated water from the Wickiup Reservoir. With the water from the North Unit plant, farmers were able to save their crops of alfalfa, peppermint and bluegrass.

This was a rapid growth period for all electric utilities, not just Central Electric. Conflicts arose over which utility had the right to serve which areas and eventually the disagreements—which were occurring across the state led to proceedings before the Oregon Public Utility Commission. In 1962, the commission created service area boundaries that allocated geographic areas among the competing utilities.

In Central Oregon, the boundaries—known as the Exclusively Served Territory and Allocation of Adjacent Unserved Territory—defined which areas near CEC's operations would be served by Central Electric, Pacific Power & Light, and Midstate Electric Cooperative of La Pine. CEC's territory now encompassed 5,300 square miles, including all or parts of six counties. Small, unpopulated areas within the region were designated as unallocated. When developers wished to obtain electricity service in those areas, the utilities competed for the business. Upon earning it, the location was added to their exclusive service area. This approach continues to this day.

## Projects

While Central Electric continued to expand, the company also turned inward to other projects and endeavors within its established service area, including new substations, updated transformers and new destination resorts.

One of CEC's most unique members arrived in the fall of 1967: the University of Oregon's Astronomical Observatory on Pine Mountain east of Bend. The university's Dr. E.G. Ebbighausen established a temporary observatory site near Sisters. However, the weather and haze problems from the nearby Cascade Mountain slopes prompted the doctor to search farther east.

In August 1967, the CEC board approved the extension of a 20,800-foot long electrical distribution line from the prospective Pine Mountain Observatory site down Pine Mountain to the CEC system along U.S. Highway 20 near Millican. CEC, along with several other local companies, helped fund the project.

Another large project was on the horizon for CEC. This time it wasn't aimed toward the stars, but rather the Old Black Butte Ranch. In 1970, Brooks Resources started to transform the old ranch, hailing the birth of a new kind of development in Central Oregon, the destination resort.

The addition of the resort community would add major load for the company. Crews installed more than 21 miles of underground cable to serve more than 1,000 homes.

Moving farther west, CEC continued with the trend of burying underground power cable, this time from Suttle Lake to the summit of Hoodoo Butte. The original service in 1971 was intended for the PAC NW Bell Telephone microwave Relay Station. However, Hoodoo Ski Bowl was added to the line in 1974.

With so much expansion in fewer than 30 years, CEC turned to maintenance of some of its older lines. One huge undertaking in the late 1970s cost \$7 million and involved



**The Nelson Ranch southeast of Prineville was one of the last working ranches in the area to receive power. They were finally connected in the 1990s.**

## Modern Times Without Modern Tools

Can you imagine living in the modern 1990s, but having a ranch function as though it was still in the early 1900s? The Nelson ranch southeast of Prineville had never been connected to the CEC line. It was the last working ranch in the area without electrical power. The owners, Dick and Louisa Nelsen, still used oil lamps and propane-powered generators.

Things were different in the 1990s vs. 1941 when the original switch was flipped. Because of its remote location from headquarters, crews lived and worked at the ranch for five days to not only string the line to the property and put up the ranch's first power pole, but to also cut down on time lost by traveling back and forth daily. When the line was energized, there was a celebration from the crew and the Nelsons, as one of the greatest inventions of the 20th century finally came to their ranch as the century was drawing to a close.

100 miles of line. The company replaced old line while also doubling capacity at its Holliday Park and Hix substations, which served the Bend and Redmond areas, respectively.

Continued growth throughout the Central Oregon region meant more demand for power from members. From 1990 through 2009, CEC worked to not only add new substations to its systems, but to upgrade many as well. New substations included Tollgate, Resort and Brasada. Upgrades were made at Cline Falls, Hampton and the Deschutes Junction Substation.

In 2002, after 60 years of service, CEC retired the Deschutes Junction Substation, its first and oldest substation first put into use on May 17, 1941. A new Deschutes Junction Substation was built on adjacent property.

In 2006, a unique form of expansion took place in the CEC service area. The company was called upon to provide electricity for the new Deer Ridge Correctional Institution in Madras. The Oregon prison system needed three megawatts of



**Dr. E.G. Ebbighausen, left, and George Weniger work on an electronic recorder telescope at Pine Mountain Observatory.**

power for an “instant” self-contained city.

For 75 years, CEC membership has grown and drove expansion of its 5,300 miles of territory. New members are added daily, and the co-op must continually work hard to maintain and upgrade power lines, substations and more.

### Power Distribution

To the average person, power distribution means wires and poles visible along the roadsides. The power pole, while not a new technology, is one of the main power-delivery devices. Most of the first power poles were made from cedar. Today, most are made from Douglas fir.

During CEC’s considerable growth during the past 75 years, the company has been proud to serve businesses and school districts within its territory. Some of the most significant additions were tied to a boom in growth in Bend’s east side that began in the 1970s. Over time, these additions came to include St. Charles Medical Center, Mountain View High School, St. Francis Catholic Center and High Desert Middle School.

In the late 1980s, Central Electric established its Bend Service Center on South 27th Street to better place services, personnel and equipment closer to the area. Today, CEC membership in the Bend district accounts for more than 40 percent of the co-op’s accounts and annual electricity sales.

When High Desert Middle School, across from the Bend Service Center, was built in 1993, CEC staff worked closely with the district to help with the design that included energy-efficient lights and thermal pane windows. The

*Fact: During the housing boom from 2004 to 2006, CEC connected on average 100 new members per month.*

## Central Electric Substations

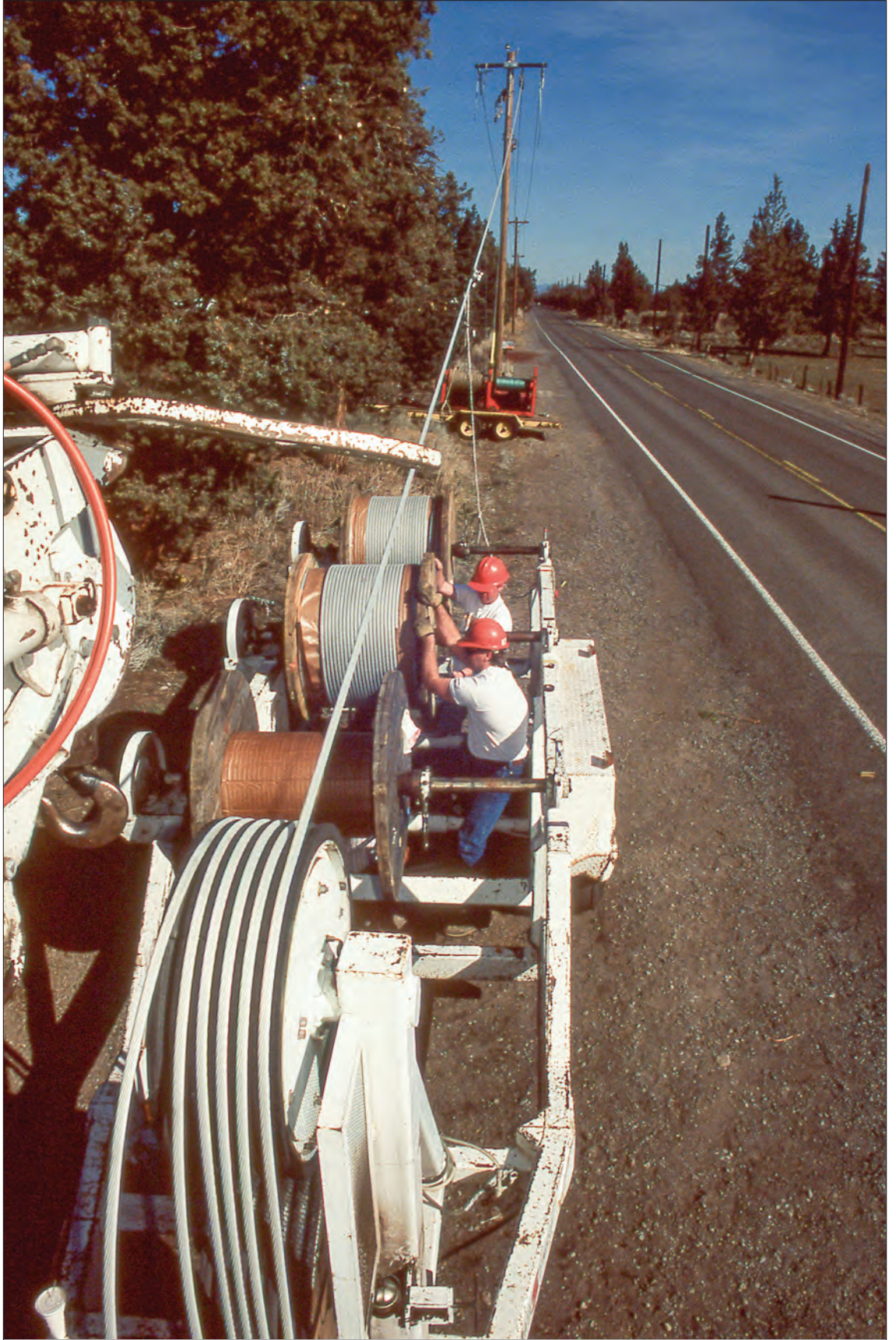
Since the flip of the switch May 17, 1941, Central Electric Cooperative’s substations have played an important role in bringing power to members. Listed below is a comprehensive list of the co-op’s substations in service in 2016. The chart shows the order in which the substations came online, as well as the year.

Substations	Year
Deschutes Junction	1941
Prineville Junction	1950
Powell Butte	1951
Tumalo	1952
Cline Falls	1953
Madras	1953
Post	1961
Ochoco	1962
Sisters	1962
Bend	1964
Crooked River	1968
Gateway	1969
Black Butte	1972
Lone Pine	1973
Hix	1973
Holliday Park	1976
Alfalfa	1976
Cinder Butte	1980
Knott Pit	1980
Juniper Heights	1982
Tollgate	1992
Resort	2002
Brasada	2006
Hampton*	2007

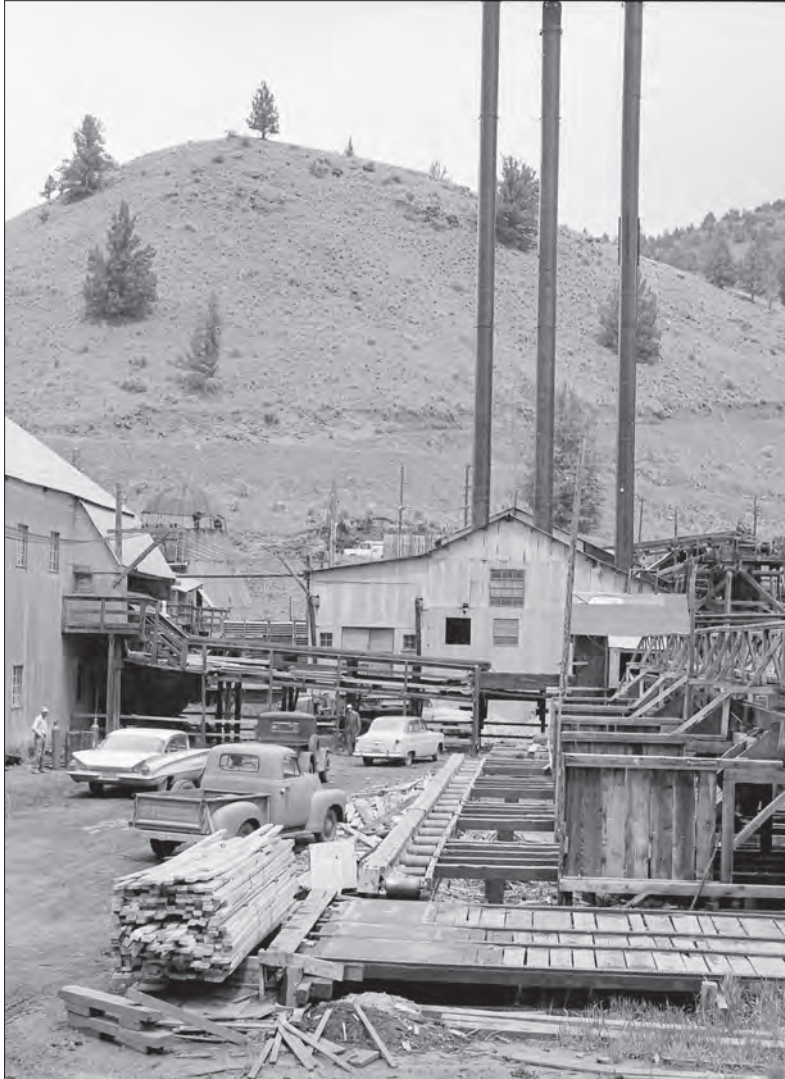
*\*The Hampton Substation was originally built by the Bonneville Power Administration in the 1960s. BPA built the station and distribution lines servicing rural Oregon. Central Electric Cooperative acquired the substation from BPA in 2007.*

energy-efficiency gains have saved Deschutes County taxpayers thousands of dollars a year.

Aside from the lines, poles, transformers and substations, at the end of the day, power distribution comes down to a skilled team of people working together. The cooperative’s employees work every day to uphold a tradition of commitment to keeping the power on around the clock while managing expansion and system improvements. ■



Crews string line for new poles along a section of highway, circa 1980s.



**Clockwise from top left:** The Ellingson Lumber Mill used a 500-kW steam generator to produce electricity. Electricity played an important role in lumber operations throughout the region. Skiers take advantage of electrically powered chair lifts at Hoodoo, the westernmost point in CEC's service area. Electricity in the home afforded many new modern conveniences, including electric sewing machines. A new kind of development would soon hit Central Oregon: the destination resort. Pictured is an early photo of Black Butte Ranch.

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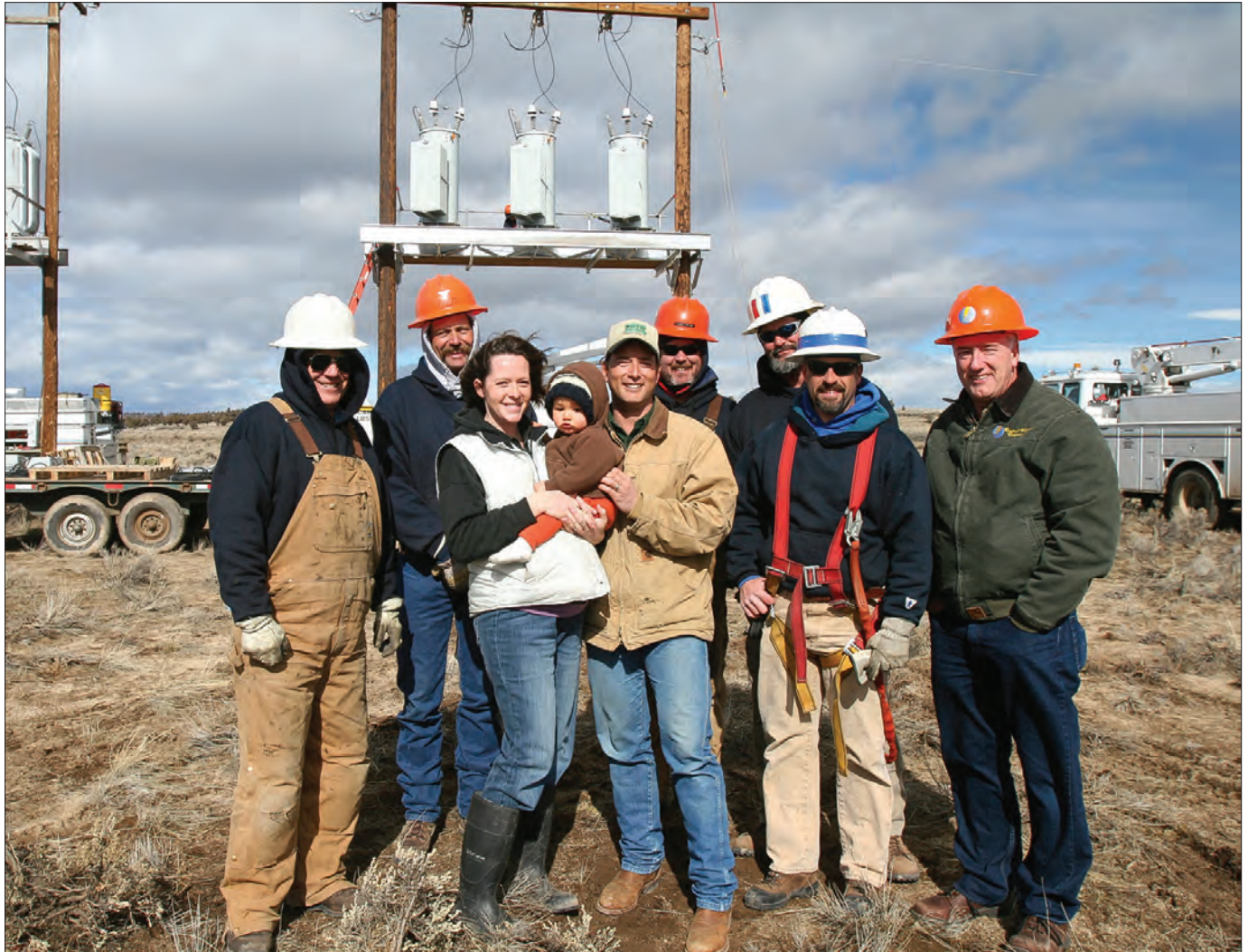
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An old advertisement proclaims the benefits of electricity in Central Oregon.

Top, CEC crews work on a streetlight in front of the Sisters Hotel in 1949. Above, in the early days of the cooperative, CEC installed yard lights for its members.



Top, with an expansion of capacity in the Hampton area in 2009, the Roth family was able to build a home and irrigate another 300 acres of hay. From left, lineman Bryce Barry; line equipment operator Jon Nash; Clancy, Colin and Stephen Roth; meter and relay tech Terry Shine; lineman Brian Ortman; lineman C.J. Jostad; and chief engineer Don Lang. Above, General Manager John Norlin was known as a colorful character who helped guide the cooperative through three decades of change and growth. Left, the cutting of a cake under General Manager John Norlin's watchful gaze commemorated the 25th anniversary of Central Electric's incorporation at the Annual Membership Meeting in 1965.



Top, the CEC annual meeting has always served as a place where members can socialize while also receiving information on the cooperative's progress. Dave Markham addresses the members at the 2014 meeting. Above, much of Central Electric's early work revolved around farmers and ranchers and their need for irrigation. Right, Bend's eastside saw the start of dramatic changes with the addition of a new hospital, St. Charles Medical Center. Pictured are St. Charles Medical Center CEO Jim Lussier, foreground; Senior Vice-President Eric Alexander, back; and Chairman of St. Charles' Board of Directors Jim Peterson, middle.



Top, continued growth in Central Oregon created a need for more power. CEC worked to meet the demands by increasing the capacity of its substations like this one near Redmond. Above, Bend's eastside expansion also included new schools, such as High Desert Middle School. CEC was instrumental in the incorporation of energy-efficiency measures by the Bend-La Pine school District. Left, line crews use a crane to place a power pole outside a substation in 1959.