

OUR COOPERATIVE

Transforming the Future



ACKNOWLEDGMENT

Our Cooperative Roadmap is the result of a dedicated employee team, supportive leadership, and a visionary Board of Directors. A talented group of employees, tasked with defining a unified vision for the cooperative, created this living document to serve as our guide over the next decade.

We are facing a rapid and extensive transformation in the energy sector. It is essential that our cooperative be prepared to not only adapt during this time but to proactively plan for the transition.

The vision laid out in this Roadmap defines our direction, assigns responsibility within our organization for key priorities, and provides the method to measure our success. Our members can be assured that they are served by the brightest in the electric utility industry - a team committed to providing innovative solutions and delivering service excellence.

Special thanks to the cooperative employees who contributed their time, talents, and expertise to craft this document and to the United Power Board of Directors for their unwavering support of our efforts.

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Mark A. Gabriel President & CEO

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INTRODUCTION

The very name "cooperative" speaks to the nature of our operation.

We exist to work cooperatively with our members to provide them with power, but there are so many more ways we serve our members. We know the real power of our cooperative lies in our connections with our members.

ROOTED IN A RICH GRASSROOTS HISTORY

United Power was originally founded as Union Rural Electric in 1938 by farmers from Adams, Boulder, Gilpin, Jefferson, and Weld counties committed to powering the rural Front Range. Roughly a year after the cooperative was incorporated, construction began on 300 miles of distribution line that would serve 750 members. Power first surged through the newly erected lines on January 29, 1940. Fifty years later in April 1990, the cooperative name was changed to United Power, Inc., a visible sign of a new, more powerful entity emerging in the electric industry. United Power added more than 6,000 new members with the acquisition of the Platte Valley Division in November 1990.

The acquisition of Brighton in 1993 fueled a second growth surge, adding another 6,000 meters. Since the turn of the century, United Power has experienced unprecedented growth, often ranking among the top ten fastest growing electric cooperatives in the country. In June 2021, the cooperative became just the 31st co-op nationwide to surpass the 100,000 meter milestone.

A GROWING SERVICE TERRITORY SURROUNDING THE DENVER METRO AREA

United Power serves 17 communities along the Colorado Front Range. Surrounding Denver on three sides, United Power energizes 900 square miles along the north central Front Range of the Colorado Rockies. The service territory wraps around the north and west borders of Denver International Airport, and includes major metropolitan development corridors along Interstate 25, Interstate 76, State Highway 85, and E-470. The territory

also extends west to a noncontiguous service area through Golden Gate and Coal Creek Canyons.

WHERE WE GET OUR POWER

United Power is an electric distribution cooperative, meaning we purchase wholesale electricity and deliver it to our members. In addition to a small percentage of locally generated renewable power, we are beginning to transition away from a single central power supplier. Staff is evaluating the best resource mix along with the most reliable and resilient supply, including multiple or single suppliers from the open market. United Power notified our existing wholesale power provider, Tri-State Generation and Transmission Association (Tri-State), that we will exit our contract by May 1, 2024. United Power is currently collecting and evaluating the necessary information to successfully support the change.

COMMITTED TO INNOVATIVE ENERGY SOLUTIONS FOR MEMBERS

United Power has built a reputation for adopting and implementing innovative technology over the years to deliver effective, efficient, and beneficial power to its members. Since powering the Sol Partners Cooperative Solar Farm in May 2009, the first community solar project in the state, the cooperative has kept an eye on emerging technology that will provide safe, reliable energy.

The cooperative is consistently ranked at the top among utilities nationwide for its cumulative solar installations and integration of renewable projects, and we are the leader among Colorado



OUR VISION

What we aspire to be

Powering Lives, Powering Change, Powering the Future -The Cooperative Way.

OUR MISSION

What we do

To safely and responsibly deliver reliable electricity and excellent service to our members.

OUR PURPOSE

Why we exist

To deliver reliable and affordable electricity to our members.

cooperatives for the incorporation of distributed generation.

United Power operates a 4 MW battery storage facility – currently the largest storage facility in the state – and is building an electric vehicle (EV) charging network for EV drivers. One focus of the cooperative's charging network is developing a charging infrastructure to fill gaps in rural areas within United Power's service territory to make EV ownership more practical and accessible for rural members. More than just innovative energy improvements, these projects also make economic sense for the cooperative's members while providing reliable energy.

THE COOPERATIVE DIFFERENCE GUIDES OUR DECISIONS

Cooperatives are unique because they are owned by the consumers they serve and are guided by a set of seven principles that reflect the best interests of their members. These principles ensure that members are well-informed, have a voice in the cooperative's operation, and share in the success of the organization.

EXECUTIVE SUMMARY

The progression of the electric industry has been rapid, relentless, and complex. Member demands and expectations, grid technologies, markets, and transmission and distribution infrastructure are all evolving. United Power recognizes that with these changes comes a wealth of opportunities, as well as many challenges.

To continue to deliver on our mission, "To safely and responsibly deliver reliable electricity and excellent service to our members," we must identify the range of potential futures that we need to prepare for, harness our strengths, recognize where growth and investments are required, and develop innovative approaches to proactively address challenges.

To adapt to our ever-changing environment and proactively prepare for these inevitable shifts, United Power must rethink business models, investments, our role in the energy marketplace, and our relationships with our members and partners. We must build for an integrated future while supporting high reliability today. This will require that the entire organization understands the challenges and potential outcomes for which we are preparing and align around a common strategy to ensure success as we drive toward our future vision.

The lives and needs of our members are evolving in many ways. Members expect United Power to be progressive and proactive. They are becoming less engaged through traditional means, expect quick and easy access to information and services, and increasingly desire advanced technologies, digitization, and automation. Our members and communities are becoming more reliant on electricity in their day-to-day lives, as the adoption of strategic electrification – the term used to describe the practice of replacing direct fossil fuel use with electricity in a way that reduces overall emissions and energy costs – rises in both the residential and commercial sectors.

To deliver on our mission to provide excellent service and flexible, affordable, reliable power to our members, United Power will need to rethink the ways in which we engage and interact with our members, policy makers, and local communities. Active, targeted communication and education will be critical as we help our members understand and embrace new technologies and empower them to take control of their energy usage.

The rapid expansion of electrification will require us to adapt for our members and communities to keep pace with their needs. Decreasing costs and accelerating growth of renewable energy sources, paired with governments at all levels introducing legislation mandating reduction of harmful emissions, have made it clear that a transition to clean, sustainable energy is both inevitable and imperative. Through this transition, United Power will need to balance the urgency of adopting a clean energy plan with the demand to provide affordable, flexible, and reliable power. We must continue efforts to reduce costs, gain greater control over our generation mix, and manage the supply and demand for electricity through new technology and market structures, while understanding that more of our members are generating electricity locally.

An evolving resource mix will also introduce some challenges. As the costs of distributed energy resources (DERs) like solar panels and EVs decrease, we are seeing rapid movement toward a more distributed and dynamic electric grid. As these technologies are increasingly deployed within our region, United Power must invest in innovative solutions to accommodate them on our electric distribution system.

United Power will need to radically re-envision the model for operating a utility. The traditional, centralized, one-directional generation, transmission, and distribution model is giving way to a more



integrated and dynamic approach to the distribution system. Further, management of the grid will be more localized, and the traditional relationships between members and utilities will become much more complex.

United Power is exploring the adoption of a Distribution System Operator (DSO) business model to activate an open and transparent local electricity market. In this model, United Power would serve as the DSO, integrating and optimizing DERs into the electric distribution system. As a DSO, United Power will facilitate the local exchange of energy between our members, thus allowing them to purchase as much – or as little – power as they need.

Looking beyond the local energy market represented by the DSO, United Power will also have access to inter-regional energy markets represented by a Regional Transmission Organization (RTO) or Independent System Operator (ISO) as those markets are introduced to Colorado in 2024. These energy markets will ultimately provide our cooperative with access to open and transparent generation and transmission prices for the purchase and sales of electricity to benefit our members.

Through this rapid transformation of the energy landscape, we must continuously advance our distribution infrastructure so it is equipped with the capacity to support load growth, adaptable to the rapidly changing environment, and optimized to maintain resilience and reliability. A modern, sustainable, reliable, and resilient grid is one that can adapt to changes and challenges, whether there are fundamental shifts in power supply, extreme weather events, or introduction of new technologies and devices that change how consumers interact with the electric system. To achieve this, it will be imperative that United Power remain agile through the deployment and management of innovative informational and operational technologies. We will find the right balance of cost, reliability, and diversity to serve our members' needs.

Our cooperative roadmap describes the economic, social, political, environmental, and technological forces that we anticipate will have the most impact on our field over the next 10 years, as well as the changes in our organizational needs that these forces will trigger. It outlines the philosophy and operating frameworks that will guide us toward our future, including the focus areas in which United Power must excel to fulfill our mission and achieve our future vision. Throughout this roadmap we discuss the essential supports that will help us achieve our strategic objectives, the investments we will need to make in technology, infrastructure, and partnerships, and the ways in which we will need to shift our methods and reprioritize.

This roadmap serves as a guide for the allocation of people, resources, and leadership attention as we drive toward an increasingly dynamic, sustainable, and complex energy future. It will serve as a tool to catalyze and enable conversations within United Power and with the Board of Directors, our membership, and our communities about what our future looks like.

PLAN OVERVIEW

he intent of our cooperative roadmap is to document organizational objectives to create an alignment from the Board of Directors to every employee and, in turn, our members.

The electric utility industry is undergoing a significant refocus on everything from technology to power supply. Changing societal expectations, regulations, and legislation are creating future opportunities and challenging traditional business models. Members have an expectation of low cost, high reliability electric service that is produced in an environmentally responsible manner. As seen through the lens of the pandemic and the winter storms of 2021, high quality electric service has anchored its role as the preeminent resource for modern society.

United Power is unique due to its ongoing projected growth combined with significant technological change. Increasing demands on the system will require additional power supply at the same time as traditional resources are being closed. While developers pay for the installation of expanded infrastructure in the service territory, over the next decade that infrastructure will need to be maintained and serviced under existing staffing and revenue structures. Further complicating the picture, efficiencies of the system, additional self-generation in the form of solar and storage, and two-way interactions with and between members, drive a different view of the future.

It is, therefore, critical that the organization ensure all of the pieces work together to optimize financial investments, operating efficiencies, and resources.

GUIDING PRINCIPLES

The following guiding principles were used to develop this roadmap. They are the lenses through which we evaluate options, particularly when there are trade-offs.



RELIABILITY

Strive to deliver high-quality, uninterrupted service to our members through the design, operation, protection, and maintenance of a failure-resistant and resilient electric distribution system.



AFFORDABILITY

Continually seek fair and equitable wholesale rates, manage distribution costs in a highly efficient manner, and responsibly allocate those costs across our membership with stable and transparent rate options.



FLEXIBILITY

Demonstrate maximum agility and adaptiveness through forward-looking plans; versatile, innovative programs and business models; and diverse power supply options as we respond to changes in our environment and the needs of our members and community.



RESPONSIBILITY

Act honestly, ethically, sustainably, and in the best interest of our members and communities as we manage operations and secure resources.

SUMMARY OF WORKING PLAN PRIORITIES

EXPOSE DEPARTMENT OF CONTRACT AND ADDED A



CONTINUOUSLY OPTIMIZE OUR ELECTRIC DISTRIBUTION SYSTEM

• Optimize our electric system capability.



ACHIEVE AND MAINTAIN BUSINESS AGILITY AND RESILIENCE THROUGH IT/OT AND SYSTEM OPERATIONS SYNERGY

- Expand system operations capabilities.
- Progress Advanced Metering Infrastructure (AMI) and Meter Data Management (MDM) solutions.
- Advance technology, infrastructure, enterprise processes, and enterprise systems.

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FUTURE OPERATIONS

Member Services

Member

Access

to Data

WHERE WE ARE NOW

WHERE WE ARE GOING

Making great progress to adapt processes to current member expectations, although some processes need to be updated to improve efficiency and the member experience. Programs and services that are currently offered may not suit the needs of our members in the future and are being evaluated.

Members have access to daily meter data in

data is analyzed to improve services.

15-minute intervals via an online portal and mobile

application. Consumption, demand, and voltage

Leveraging improved operational and technology standards to make it easier to conduct business with the cooperative; and through a deeper understanding of our members' wants and needs, offering new energy programs to deliver the outstanding service that members expect and should receive.

Analysis, usage, and presentation of meter data is optimized, and advancements in technology support increased member access to information.

Community & Economic Development

Local

Markets

Clean Energy

DERs

Member

Resources

signals.

No economic development rates are available that would help incentivize large employers to relocate to the United Power service territory to bring jobs, economic support, and additional resources to each community we serve.

Offering rates, incentives, and services that attract large employers and energy consumers to establish themselves in United Power's service area, thus supporting the local economies and communities we serve.

WHERE WE ARE NOW

Limited contractually to the amount of local Utility-Scale, renewable generation that can be purchased through our wholesale power provider, though Renewables increasing the amount of system power sourced from local distributed generation. Exploring ways to lower our power costs and **Power Purchase** pass savings along to members, including self-Agreements generation, open markets, and possible restructure (PPAs) & Energy of current wholesale contract. No defined commitment/goal for clean energy.

> Leading the way in distribution DER integration, with existing bulk sites leveraging automated

load-following schemes based on real-time demand

Providing members with the ability to interconnect

behind the meter. Approximately 7% of members

are actively engaged in their own consumption.

WHERE WE ARE GOING

Increased flexibility in our power supply contract(s) and business model options, allowing higher levels of self-supply through local renewable energy sources and the opportunity to partner on more utility scale projects. Increased flexibility of power supply through

bulk power market where we buy and sell power depending on our needs and adjust to the real-time demands of our members, the market, and our own generation.

Clear clean energy plan defined, outlining how United Power will support the reduction of greenhouse gases in accordance with state and local laws.

Fully acclimated to the use of DERs within the electric system. Operators are making real-time adjustments based upon demand, production, and market prices.

Implementing additional solar projects and evaluating other technologies while looking behind the meter at member homes to further harness the cooperative/member relationship.

E A				
Y	WHERE WE ARE NOW	WHERE WE ARE GOING		
Risk Management	Prioritizing public and employee safety while understanding the ever-increasing electrical reliability and continuity of service needs of the community.	Risk management is increasingly important as our electric system becomes more robust. Computer software is key in determining risk/reward. Increased process automation reduces the need to deploy field personnel in potentially harmful situations.		
System Expansion	United Power is in the 94th percentile of cooperatives nationally in terms of utility plant deployed, as our electric system has expanded to meet our members' needs.	Major investments are made in electric capacity to keep pace with regional growth. Dual transformers and substations are added to provide the flexibility needed to serve loads from multiple locations.		
System Resiliency	Our electric system holds up well during major outage event days considering local disasters (e.g., floods, blizzards, and tornadoes). It is strong in certain areas and weaker in others, requiring operators to constantly monitor loading for necessary switching.	Deploying electrical system enhancements as outlined in the Fire Mitigation Plan, Engineering Long-Range Plan, and Construction Work Plan aimed at increasing system strength against natural disasters and regional growth.		
System Automation	Almost 'predicting' outages by monitoring them in real time, reducing outage restoration times, and better managing oil and gas loads introduced to the electric system with the current outage management system (OMS), AMI, and distribution management system (DMS).	Fault location, isolation, and service restoration (FLISR) is running at the fully automated setting, minimizing outage times significantly, aiding the troubleshooting process, and expanding overall sight into the electric system. Combining various systems into a single DMS to reduce friction.		

JS)	WHERE WE ARE NOW	WHERE WE ARE GOING
AMI/MDM	AMI/MDM is a hosted solution used to collect, measure, and analyze energy consumption data for system management and planning, member presentment, and billing purposes. AMI helps minimize truck rolls, increases employee efficiency, and provides an unprecedented view into the load characteristics of various member classifications.	AMI/MDM systems are located on-premise or in the cloud and support business processes and business continuity, while meeting cybersecurity requirements.
Cybersecurity	Tools and processes based on best practice frameworks are in place to detect, protect, and respond to cybersecurity threats. Employees receive regular and relevant cybersecurity awareness training.	Advancing our cybersecurity maturity consistent with best practice frameworks that meet the evolving threat landscape.
Data as an Asset	Analyzing the relationships across data sources and exploring how data can be used more effectively.	Actionable information is produced from meter, control systems, and business systems data.

ENGAGE WITH OUR MEMBERS IN MEANINGFUL WAYS

he demands and expectations of our members are rapidly evolving, and an opportunity exists to establish United Power as our members' local source for energy, services, programs, and information. To stay competitive and remain our members' utility of choice, United Power must understand our members' expectations and needs to ensure our interactions are meaningful.

Studies show that cooperative members who understand the value of membership are more satisfied and engaged with their cooperative utility. It is vital that United Power continue to invest in broad communication initiatives for members, as well as ongoing training for the staff. Knowledgeable employees will be the key to improving our member satisfaction scores, to successfully launching new product lines and incentives, and to helping members gain an understanding of the cooperative difference. Additionally, the Board of Director's continued involvement in educating members on their governance role and how members can actively participate in the cooperative model will remain essential to this process.

United Power's American Customer Satisfaction Index (ACSI) score is consistently higher than average in areas scored for member satisfaction. Through the ACSI, United Power uses the nation's only cross-industry measure of member satisfaction as a benchmark to ensure we are providing excellent service to our members and to dive deeper into areas that need improvement identified by our members. Engaging members through a variety of channels and providing comprehensive education on rapidly changing industry topics that affect them will be essential.

1A. ESTABLISH UNITED POWER AS A TRUSTED ENERGY ADVISOR

The established relationship we have with our members gives us an advantage over other energy service providers. We should build from that base to address our members' energy needs, provide programs that continue to strengthen that relationship, and communicate regularly to ensure members know they can trust United Power to provide the latest information, tools, and resources, plus the reliable energy to power everything in their lives.

INITIATIVE 1A.1. Purposefully understand, address, and anticipate members' and communities' energy needs.

INITIATIVE 1A.2. Create and champion programs that meet our members' needs to reduce electric costs, provide them with more renewable power, and seamlessly integrate electric technology into their lives.

INITIATIVE 1A.3. Engage and educate our members about energy policy; United Power's efforts to provide flexible, affordable, sustainable power and programs; and options available to help them access more affordable, renewable energy through their cooperative.

1B. OPTIMIZE MEMBER INTERACTIONS

Members are demanding more real-time information and direct, personalized communication. By leveraging technology to make transactions and interactions as easy as possible for our members, provide more detailed energy usage data, and offer two-way communication for members to conduct business and interact with the cooperative, we will create a more personalized, informed, transparent, and interactive experience for our members.

INITIATIVE 1B.1. Deliver and enhance our digital-first efforts so members can interact with us seamlessly through a variety of channels and devices.



INITIATIVE 1B.2. Operate a world-class contact center that supports members' needs effortlessly, proactively, and accurately by utilizing technology and training that emphasizes the human element in every interaction.

INITIATIVE 1B.3. Update and implement new tools and processes to improve key communication programs and garner involvement in cooperative activities. Target all high member contact interactions, including outage communication, annual meeting and director elections, new member onboarding, high bill concerns, and new products and services.

1C. IMPLEMENT MEMBER ENGAGEMENT AND EDUCATION CAMPAIGNS

Using further member insights, United Power can meet member expectations of service and programs through a multi-channel, segmented approach. An expanded suite of communication tools and continued improvement in processes will help United Power provide excellent member service and ensure the members receive the information they need to manage their account, cooperative membership, and energy usage through a variety of channels.

INITIATIVE 1C.1. Use member satisfaction scores, insights, segmentation, journey mapping, and focus groups to take a "Voice of the Member" approach to enhance the member experience.

INITIATIVE 1C.2. Implement communications and marketing campaigns to educate members about the benefits of co-op membership and drive key business objectives.

EMPOWER AND ENGAGE OUR MEMBERSHIP & COMMUNITY

SUPPORT OUR MEMBERS WHERE THEY LIVE

t United Power, our cooperative values drive us to help build better communities, reach beyond the walls of our facilities, use our assets and resources to more equitably improve the long-term well-being and quality of life of our members, and create sustainable change and improvements in our service area.

United Power should achieve this target of supporting our members where they live through a multi-pronged approach. First, encourage direct involvement in the organizations in our community. United Power employees should be high-profile members of community boards and groups, showing their direct concern for the respective organizations' missions.

Second, United Power employees should take part in community gatherings (via informational booths, safety and electricity demonstrations, etc.) to establish our commitment to the communities we serve. By directly interacting with members and sharing information about our activities and programs, members can learn how to save money and improve their understanding and perception of our operations. Finally, United Power should look for ways to leverage all financial investment to ensure they not only benefit the organization but also demonstrate our community involvement not only benefits the organization but also demonstrate our community involvement, highlight our commitment, and provide a positive return for our participation.

1D. ACTIVELY SUPPORT NON-PROFIT ORGANIZATIONS THAT SERVE OUR MEMBER COMMUNITIES

As a local member-owned cooperative, we are committed to the members we serve and the communities they call home. We share the aspiration with our members that our communities thrive and United Power's support of organizations that provide essential services demonstrates our commitment to our members in personal and impactful ways. By directing financial support back into the communities we power, we help lift up our most vulnerable members and strengthen our communities.

INITIATIVE 1D.1. Provide sponsorships and grants that provide essential services to our members, including help with housing, food, utilities, education, and other services.

INITIATIVE 1D.2. Allow members to engage in the process through the Member Choice Grant program to ensure funds are being directed to organizations our members value.

1E. SEEK INVOLVEMENT OPPORTUNITIES THAT PROVIDE POSITIVE EXPOSURE FOR THE COOPERATIVE

We will seek opportunities to attend and support local events and partnerships that allow us to connect with our members and benefit local communities. Directing resources to events and organizations within the service territory enhances our brand recognition with our local members, directly benefits the communities we power, and gives our employees opportunities to interact and connect with cooperative members within their communities. Community involvement among our employees helps foster the relationships we have with local community organizations.

INITIATIVE 1E.1. Strategically select sponsorship and partnership activities where United Power gains the appropriate return on investment.

INITIATIVE 1E.2. Maintain positive relationships with key organizations within the communities we serve through direct monetary contributions, energy expertise, or employee volunteerism.



1F. PROVIDE EXPERTISE TO GOVERNING BOARDS AND KEY ORGANIZATIONS

United Power's highly skilled workforce has much to offer in the way of talents and expertise, and their direct involvement with key organizations in the communities we serve provides mutual benefits to the cooperative and to the community organizations that serve our members. Offering the skills and resources of the cooperative to local organizations helps these organizations succeed in their mission to serve our members and helps United Power keep abreast of each community's challenges and goals. Additionally, research shows when companies support employee participation in community activities, employees' pride in the company increases, as does employee engagement, performance, commitment, and job satisfaction.

INITIATIVE 1F.1. Encourage employees to serve on local boards and with key organizations.

INITIATIVE 1F.2. Authorize the use of time and/ or resources to support organizations in their missions.

INITIATIVE 1F.3. Offer use of cooperative facilities to local organizations serving and supporting our membership.

EMPOWER AND ENGAGE OUR MEMBERSHIP & COMMUNITY

SUPPORT ECONOMIC DEVELOPMENT IN THE COMMUNITIES WE SERVE

Thited Power works collectively with our franchise cities and counties, elected officials, private businesses, and other partners to create better economic conditions for economic growth and job creation.

Economic development is more than just infrastructure, employment, and new buildings. It is a path to long-term growth and fiscally sound communities. It requires long-range planning from United Power to have easily upgradable facilities in place for expanded electric load that will make our service area attractive to prospective businesses.

Economic development is a sustained long-term effort to enhance area capacity and improve the economic future and the quality of life for its residents. Our cooperative roadmap must be actionable and requires direct involvement in economic development organizations/municipal departments, quickly responding to questions from prospective members, regularly monitoring activities and decisions from planning commissions and city councils, and meeting with developers and builders before and during construction to share energy and cost-saving opportunities.

1G. HELP CITIES AND TOWNS IN OUR SERVICE TERRITORY BUILD TOWARD THEIR GOALS FOR THEIR CITIZENS

Developing and strengthening relationships with local community leaders, business development organizations, and service organizations gives the cooperative a more in-depth understanding of the unique needs of each community. These deeper connections with community stakeholders not only strengthen their communities but allow the cooperative to better serve them in ways that directly benefit their local vision. This local connection and commitment to each community's distinct vision further exemplifies the cooperative difference and enhances our brand awareness and reputation. INITIATIVE 1G.1. Through relationships and involvement, understand the unique needs, challenges, and goals of each community we serve.

INITIATIVE 1G.2. Provide support monetarily and with our expertise based on the needs and goals of each community.

1H. PROVIDE EXCELLENT SERVICE AND COMPETITIVE RATES THAT ATTRACT MAJOR EMPLOYERS TO OUR COMMUNITIES

Dedicating resources and expertise to our largest corporations and energy users and providing services that help them improve energy load factors and efficiencies in their operations can improve their bottom line, directly benefit the local economy, provide lasting environmental benefits, improve United Power system efficiencies, and save money for all members. Attracting large employers to the United Power service territory strengthens the local economy, encourages local growth, and strengthens our electric system.

INITIATIVE 1H.1. Support key businesses by providing unparalleled energy advice and access to energy expertise.

INITIATIVE 1H.2. Explore options and continuously evaluate the feasibility of programs and rates that could attract major employers to regions in our service territory.



11. BE ACTIVELY INVOLVED WITH PLANNING COMMISSIONS, ECONOMIC DEVELOPMENT AND ELECTED OFFICIAL BODIES FOR THE BENEFIT OF THE MEMBERS

United Power must be proactive in creating and seizing opportunities for economic innovation and investment. Our economic development activities must be purposeful, focused efforts to help quide the actions of governing bodies in our area, in partnership with our businesses and the community, to achieve our goals for increased load growth and economically secure, innovative, efficient, and vibrant communities. By working together, we can focus economic development energy; ensure that our staff and our community partners are working toward the same goals, assessing, and adjusting direction in response to our changing environment; address opportunities for improvements; and leverage efforts to create electric service that attracts investment and redirect policies where needed.

INITIATIVE 11.1. Enhance and strengthen relationships with policy makers to ensure the energy goals set by United Power are relayed and that United Power is considered a trusted expert, welcomed to the table when energy initiatives that may impact our members are considered.

INITIATIVE 11.2. Charge key account representatives with being actively involved in the local planning process to assist communities with infrastructure needs and provide them with a direct line to the cooperative.

INITIATIVE 11.3. Provide and gather information to support the short-term and long-term goals being set by local offices, town planning commissions, and economic development organizations.

PROVIDE FLEXIBLE, AFFORABLE, SUSTAINABLE POWER AND SERVICES

EXPLORE POWER SUPPLY OPTIONS

United Power's efforts to reduce power supply costs; gain greater control over our generation mix; obtain the flexibility to source more local, sustainable energy; and provide more opportunity for load shaping with demand response will be driven by several factors, including:

- Federal Energy Regulatory Commission (FERC) rulings,
- litigation and negotiations for new wholesale power contracts focused on fostering fair and equitable rates through our generation and transmission provider,
- new partnerships with other power providers, and
- United Power's participation in an RTO or ISO.

An RTO or ISO is an organized market that determines the price of electricity based upon supply and demand within the region covered by the market. The RTO/ISO marketplace is expected to expand into Colorado by 2024, and, as a distribution utility, United Power will have the opportunity to participate in this market.

FLEXIBLE POWER

Ability to manage generation resource mix through chosen providers/suppliers, potentially operate as a DSO, and provide Energy-as-a-Service (EaaS).

AFFORDABLE POWER

Ability to manage generation and transmission costs by sourcing through chosen providers at fair and equitable rates, manage distribution costs in a highly efficient manner, and responsibly allocate those costs across the membership with stable and transparent rate options.

SUSTAINABLE POWER

Ability to deliver reliable power from sustainable sources (naturally replenished energy that does not emit harmful pollutants into the environment). Sustainability is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." Following the approval of FERC Order No. 2222 in Sept. 2020, United Power will have the ability to aggregate DERs to sell into the RTO or ISO marketplace with a variety of options (e.g., solar, batteries, and load control).

To achieve this, United Power will need to pursue a DSO business model, detailed in the following initiatives.

2A. ACTIVELY MANAGE WHOLESALE COSTS

United Power transmission costs are currently out of market by \$11-\$13 million annually. Joining an RTO will allow United Power to reduce and stabilize generation and transmission costs by accessing the lowest-cost power available in the market, each hour or a day ahead. United Power will lower our transmission costs through rate settlements and fair, open access to transmission as an Open Access Transmission Tariff (OATT) customer. OATT is a FERC-regulated and reviewed tariff that standardizes the rate structure for all transmission providers for just, reasonable and non-discriminatory rates. As an OATT customer, United Power will no longer be subject to paying disproportionate cost shifts within Tri-State's stated rates. These changes directly and significantly impact affordable rates and reliable service to our members.

United Power is striving for competitive retail rates. Competitive retail rates for United Power mean exceptional value in service and innovative offerings along with comparable commodity costs. If we can reduce current wholesale power costs by 10% through OATT and a rate settlement, United Power can share the rate reduction with all members (helping to attract large commercial accounts) and apply savings to fund programs that can provide additional revenue. In order to bring competitive retail rates to our members, it is vital that we effectively participate in wholesale power markets and continually benchmark retail rates of neighboring utilities.



INITIATIVE 2A.1. Participate in OATT service.

INITIATIVE 2A.2. Negotiate low-cost wholesale electric services contract(s).

INITIATIVE 2A.3. Evaluate participation options in an RTO/ISO.

INITIATIVE 2A.4. Re-evaluate and potentially renegotiate PPAs.

INITIATIVE 2A.5. Leverage technology to increase revenue and reduce wholesale power costs with DER programs.

2B. MEET GREENHOUSE GAS REDUCTION POLICY

As the power sector continues to see increasing legislation and regulation to transition energy sources from fossil fuels to low carbon alternatives, United Power will need to balance the timing of adopting a clean energy plan with the demand to provide affordable, sustainable, and reliable power.

In 2019, the State of Colorado established the goal of cutting *statewide* greenhouse gas (GHG) emissions by at least 26% by 2025, 50% by 2030, and 90% by 2050 relative to 2005 levels. The state further imposed on the electric utility sector the goal to reduce GHG emissions by 80% over 2005 levels by 2030. Regardless of whether the state imposes restrictions over United Power's generation supply mix through the market, United Power should continue to build trust with policymakers by demonstrating that we are proactively pursuing new technology and clean power. United Power will continue to seek new partnerships for renewable generation projects, negotiate PPAs, and transform current load shaping efforts with the utilization of DERs.

INITIATIVE 2B.1. Comply with state standards for clean energy.

INITIATIVE 2B.2. Increase self-supply by acquiring more local, sustainable energy.

PROVIDE FLEXIBLE, AFFORABLE, SUSTAINABLE POWER AND SERVICES

EXPLORE POWER SUPPLY OPTIONS CONTINUED

2C. PURSUE A DSO BUSINESS MODEL AT UNITED POWER

As the broader utility industry transitions from one-way power flows (power plant to member) to two-way power flows (between member DERs and the local distribution grid), the role of the distribution cooperative will be increasingly important. These changes will necessarily involve a greater emphasis on active local grid management, commonly referred to as a DSO business model.

The International Renewable Energy Agency identifies the following roles as differentiators between the DSO business model and a conventional distribution cooperative:

Conventional Distribution Roles	Emerging DSO Roles	
Service connects and disconnects	DER management	
Grid operations and maintenance	Load shaping	
Outage management	Voltage and reactive power support	
Billing	Network congestion management	
Demand response	RTO/ISO market participant	

Image 2.1

Key requirements in United Power fulfilling these roles as a DSO include 1) increasing our grid visibility through the monitoring of DERs and other endpoints connected to the grid and 2) actively managing DERs through centralized software such as a Distributed Energy Resources Management System (DERMS).

With the introduction of an RTO or ISO market in Colorado comes the opportunity for United Power to register with one of these entities, participate in the market, and take on the role of a DSO. As the DSO, United Power would be positioned to aggregate individual DERs and sell services from these resources into the market. We would ensure that DER registration and communications comply with the governing rules of the market. Beyond the larger regional markets of the RTO or ISO, United Power as the DSO can also facilitate the local exchange of energy between our members. This may take the form of peer-to-peer electricity trading, transactive energy using blockchain technology, and other energy services leveraging automation on the grid.

INITIATIVE 2C.1. Implement a DERMS.

INITIATIVE 2C.2. Collect data from DERs.

INITIATIVE 2C.3. Register as a DSO within an organized market such as an RTO or ISO.

INITIATIVE 2C.4. Explore Green Power Partners replacement program.





Image 2.2

PROVIDE FLEXIBLE, AFFORABLE, SUSTAINABLE POWER AND SERVICES

OFFER EAAS PROGRAMS FOR OUR MEMBERS

s United Power explores transitioning our business model to a DSO, we can further develop programs in support of strategic electrification and provide EaaS, a business model that combines the price of the electricity delivered with the costs of equipment and installation into a fixed price.

Strategic electrification will provide additional growth opportunities for United Power as we grow EV charging infrastructure in support of fuel-switching automotive fleets from gas to electric. United Power will design rates paired with programs utilizing load shaping devices (e.g., battery storage and electric water heaters) that both incentivize and benefit the membership.

Approximately 3%-5% of United Power members are actively engaged in their own consumption. EaaS stands to simplify traditional billing of kWh and kW to flat, monthly rates (referred to as General Service Rates), offering services such as energy management through automated monitoring and control to optimize energy consumption. Through General Service Rates, United Power can offer renewable energy and energy storage systems that are installed, maintained, and financed through the cooperative. For members, the simplified billing associated with EaaS is a benefit over the currently complicated rate structures that may leave members confused on what their best options are while they attempt to manage their consumption. Rather than selling a volumetric commodity (i.e., kWh), EaaS provides more of a turnkey solution to our members.





2D. SEEK TO BECOME THE BEST VALUE PROVIDER OF SOLAR ENERGY TO OUR MEMBERS

As shown in image 2.3, solar prices have fallen precipitously over the past decade and are forecast to continue this price decline trend. Based upon solar pricing from the National Renewable Energy Laboratory, the blue line in the graph indicates the average price observed for residential solar installations (7 kW), followed by commercial installations (200 kW) in red, and large utility-scale installations (100 MW) in gray. The dashed line near the bottom represents the solar pricing presently available to United Power based upon solar sizing restrictions imposed by Tri-State policies. While our forecasted price for solar in 2022 and beyond will vary with upcoming changes in the solar investment tax credit, a resolution to United Power's dispute with Tri-State may enable access to lower priced solar. Our goal is to extend our solar prices below the dashed line and pass these savings to our members through solar programs and services.

United Power is well-positioned to provide our members with access to low-cost solar through community solar programs. The cooperative has the inherent advantages of low financing costs, grid management, and access to large scale solar to get the lowest price possible. We were early pioneers in this area when the Sol Partners Cooperative Solar Farm was launched in 2009 – a model that has been replicated in the U.S. thousands of times since.

INITIATIVE 2D.1. Implement a new community solar program to provide low-cost solar to our members with a price target below the long-term price for residential solar to ensure the program remains viable over time.

INITIATIVE 2D.2. Introduce General Service Rates to provide additional rate options for both residential and small commercial members.

PROVIDE FLEXIBLE, AFFORABLE, SUSTAINABLE POWER AND SERVICES

OFFER EAAS PROGRAMS FOR OUR MEMBERS CONTINUED

2E. TAKE A PROACTIVE APPROACH TO MANAGING EV LOADS

With the significant load growth anticipated from transportation electrification, United Power must be proactive in managing EV loads. Image 2.4 displays a load forecast in 2030 with a population of 25,000 light-duty EVs and 5,000 medium- and heavy-duty EVs in red. It is assumed that approximately one-third of our members will intuitively know to charge their EVs during off-peak hours to reduce costs. For the remaining two-thirds that will charge primarily during on-peak hours, United Power should offer programs and services to reduce this peak and levelize energy use by charging EVs during nighttime, morning, and midday hours.

While fleet EV charging is in early stages of adoption, it will quickly become a significant driver of load growth and should be managed accordingly.

INITIATIVE 2E.1. Outreach to housing developers to encourage new construction is wired for EV charging.

INITIATIVE 2E.2. Provide charging equipment capable of communicating with the grid to manage EV loads.

INITIATIVE 2E.3. Enable flexibility in EV charging for members that wish to charge anytime, only at night, or access utility-owned public charging at strategic locations within United Power service territory.

INITIATIVE 2E.4. Prioritize time-of-use rates applied to fleet EV charging in tandem with infrastructure upgrades at fleet depots and along travel arteries.

INITIATIVE 2E.5. Offer a workplace charging program for companies wishing to encourage charging during morning and midday hours.





2F. INTRODUCE PROGRAMS AND SERVICES FOR BATTERY STORAGE

Having learned the lessons of rapid growth in residential and small commercial solar, United Power should also begin introducing programs and services for battery storage. Battery storage technologies, which lag the solar market by about five to 10 years in terms of market maturity, are also ripe for disruption.

The primary drivers for member battery adoption include resiliency in the event of an outage, solar flexibility, and declines in the cost of batteries.

Through the development of small programs targeting this technology, our cooperative would benefit from improved management of grid costs and the ability to aggregate batteries within a DSO context as addressed elsewhere in this roadmap. As a first step, United Power should offer programs to grow with this emerging technology and participate in organized markets.

INITIATIVE 2F.1. Develop programs for providing small battery systems behind the meter and medium sized batteries on the distribution system.

CONTINUOUSLY OPTIMIZE OUR ELECTRIC DISTRIBUTION SYSTEM

OPTIMIZE OUR ELECTRIC DISTRIBUTION SYSTEM CAPABILITY

Rurther load increases in the residential, commercial, and industrial sectors are expected to come in the form of new development as well as increased electrification affecting the average load per member. With increases in DERs utilization, United Power's electric distribution system operation and load analysis will grow more complex. More members will transition to net meters leading to two-way energy transfer depending on the time of day.

United Power will need to stay ahead of trends and be prepared to adapt with the rapidly changing times ahead. We must build our electric system to support the anticipated future where possible and have the tools and skills required to adapt rapidly to unforeseen changes.

It will be beneficial for United Power to work closely with the member base to assist them in finding the options that work best as we transition toward a new energy future. Working closely with members, United Power can more accurately evaluate the effects that will be seen on our electric system before they occur. Additional information such as solar energy and EV adoption and usage will allow for more accurate modeling to provide the most reliable service possible.

Maintained communications to our electric system equipment in conjunction with analysis software will allow operations to ensure the best possible reliability; and when incidents do occur, they will allow for the fastest and safest possible restoration of service that United Power can manage. It will be important to maintain data integrity and accessibility while trying to improve processes so that our electric system upgrades and maintenance happens timely enough to maintain reliability.

3A. EXPAND OUR ELECTRIC DISTRIBUTION SYSTEM CAPACITY, CONSIDERATE OF AGGRESSIVE GROWTH

Improvements to our electric system capacity will be necessary. As our distribution system becomes increasingly complex, it will be imperative to evaluate when and where improvements occur. While energy sales increases may be counteracted by solar generation, DERs electric system upgrades will likely still be needed to support the energy transfer that will take place on high generation, low demand days.

INITIATIVE 3A.1. Follow detailed bulk infrastructure improvement plan documented in the 2021 Long-Range Plan.

INITIATIVE 3A.2. Continue deployment of distribution capital resources via short range construction work plans and upgrading of overloaded equipment identified with various IT/OT systems such as AMI, OMS, and Supervisory Control and Data Acquisition (SCADA).

3B. EXECUTE TARGETED MAINTENANCE, CONSIDERATE OF RELIABILITY

To meet the increasing reliability and functionality requirements of the electric system, United Power staff will need to continue to leverage our technology to identify and fix outage causes before they interrupt service. Based on historical data trends from an increasingly connected electric system, targeted maintenance can be an effective tool to limit outage occurrences once problems are discovered.

INITIATIVE 3B.1. Mitigate potential failure points before they become critical, to increasingly "stop the outage before it ever happens."

INITIATIVE 3B.2. Expand drone-based inspection to identify equipment improvements.

INITIATIVE 3B.3. Deploy fire mitigation strategies documented in the Wildfire Mitigation Plan, as well as expand vegetation management to prevent equipment failures that could grow into large scale wildfires.



3C. IMPLEMENT DESIGN AND OPERATIONAL PRACTICES CONSIDERATE OF THE FUTURE, SAFETY, AND RISK

It will remain important for United Power to be considerate of the future and be mindful of the evolving risks to employees, the public, and the grid. Designing for the larger picture can reduce growing pains as well as alleviate risk to the public and environment.

INITIATIVE 3C.1. Stay abreast of current regulations, codes, and industry standards to ensure maximum education and training for the public and staff.

INITIATIVE 3C.2. Confirm that risks are insured when they cannot be properly mitigated.

INITIATIVE 3C.3. Develop a seamless interconnection process to limit friction with new members, new DER additions on the system, and design standards to provide quality electrical service.

INITIATIVE 3C.4. Update standards and system protection plans to ensure the electric grid remains reliable and can accommodate an increasingly electrified future.

ACHIEVE AND MAINTAIN BUSINESS AGILITY AND RESILIENCE THROUGH IT/OT AND SYSTEM OPERATIONS SYNERGY

EXPAND SYSTEM OPERATIONS CAPABILITIES

The set of United Power's strategic and operational goals. They design, build, and support the agile infrastructure upon which control systems are delivered. The focal point is confidentiality, integrity, and availability of systems and data.

Distribution automation has typically been defined as the ability to monitor or control distribution components in an automated or semi-automated manner. While a broader definition may also include DERs or microgrids, this objective is focused on the distribution components.

4A. ADVANCE REACTIVE AND PROACTIVE OUTAGE MANAGEMENT

Today, United Power operates a 24/7 dispatch center, and 20% of members benefit from automation of the electric distribution system. In the future, the dispatch center will have visibility into multiple DERs.

Most members will benefit from automation of the electric distribution systems. United Power will conduct a review of the grid where distribution automation is not

yet available to determine when to implement. Increased distribution automation will enable the cooperative to anticipate, prevent, and more quickly respond to outage events.

INITIATIVE 4A.1. Review and analyze the business processes related to reactive and proactive outage management and proactive system maintenance and prioritize one or more specific areas for completion each year.

INITIATIVE 4A.2. Balancing cost with benefit, prioritize FLISR of electric services through the installation of automation devices in the grid and implementation of an OMS which is tightly integrated with the SCADA system.



PROGRESS AMI AND MDM SOLUTIONS

Application to the electric grid, providing two-way communications, capturing 15-minute bi-directional interval data, and providing members the opportunity to become an active participant in their energy consumption by monitoring energy usage and potentially changing the way they use electricity.

Energy efficiency is increasingly becoming a global focus and AMI continues to support the evolving distribution grid landscape. AMI/MDM supports future requirements of DER solutions and offers data used to develop rate designs that incentivize more efficient use of electricity.

4B. PERFORM A DETAILED REVIEW OF THE CURRENT AMI/MDM SOLUTION AND EXPLORE ALTERNATE SOLUTIONS TO IDENTIFY THE RIGHT OPTION

United Power began deploying an AMI network in 2012 and now has a base of 100,000 meters. Initial goals of the AMI project were primarily meter reading efficiencies for billing a variety of rates and remote connect/disconnect operations. An MDM solution was implemented to manage data obtained from AMI; members have access to daily meter data available in 15-minutes intervals. United Power analyzes consumption, demand, and voltage data to manage and improve services.

Moving forward, United Power will ensure the benefits of the current AMI/MDM solution remain for both the member and the utility, including meter data to help understand the power grid needs with more granularity and to aid in system planning to meet member energy needs.

INITIATIVE 4B.1. Conduct gap analysis of current and foreseeable future requirements, for AMI and MDM systems, including integration with disaggregation solutions. Explore options and recommend solutions that support the flexibility needed.

ACHIEVE AND MAINTAIN BUSINESS AGILITY AND RESILIENCE THROUGH IT/OT AND SYSTEM OPERATIONS SYNERGY

ADVANCE TECHNOLOGY INFRASTRUCTURE, ENTERPRISE PROCESSES, AND ENTERPRISE SYSTEMS

Characteristic expectations are key enablers of the business strategies and objectives, while supporting ongoing operations. The ability for users to work from anywhere was never more evident than during the COVID-19 pandemic. It is an ongoing test of business continuity that strengthens the business' ability to survive in adverse situations. It drives digital transformation which results in innovation in business processes.

4C. ACHIEVE AND MAINTAIN AGILITY AND RESILIENCY IN THE INFRASTRUCTURE TO SUPPORT EXISTING BUSINESS PROCESSES AND NEW INITIATIVES

Today, key business systems are delivered effectively. Improvement initiatives are underway for specific systems and infrastructure to improve their resiliency and ability to host new functionality. The pandemic presented an opportunity to exercise many aspects of business continuity and improve in several areas.

In the future, systems will be located on-premises or in the cloud and support business processes, business continuity, and cybersecurity capabilities. Disaster recovery processes will be exercised regularly. Actionable information can be produced from meter, control systems, and business systems data.

INITIATIVE 4C.1. In collaboration with stakeholders, create a two-year rolling roadmap for each enterprise system including a subject matter expert program with a representative from each business unit.

INITIATIVE 4C.2. Incorporate user experience, privacy, data management, cybersecurity, cloud solutions, disaster recovery, and business continuity considerations into infrastructure, enterprise processes, and systems.

INITIATIVE 4C.3. Continuously evolve and improve cybersecurity programs.

INITIATIVE 4C.4. Innovate process changes that reduce the time from completion of distribution

system changes to the time when these are reflected in distribution system models.

INITIATIVE 4C.5. Implement solutions that retrieve data from multiple sources and present effectively for business analysis.

INITIATIVE 4C.6. Identify the system of record for key business data across multiple enterprise systems and update business processes and enterprise system integrations.

4D. EVOLVE THE BUSINESS AND INFORMATION TECHNOLOGY SERVICES ANYWHERE MODEL TO ADVANCE DIGITAL TRANSFORMATION WHERE THERE IS BUSINESS BENEFIT, SUPPORT SOLUTIONS, AND EMPOWER USERS LOCATED ANYWHERE

Today, many employees and business processes use technology effectively from multiple locations. In the future, this will be said for all employees and business processes.

INITIATIVE 4D.1. Achieve excellence in service delivery.



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IMPACT TO WORKFORCE

his roadmap provides general information about the strategies we will undertake to address current and future workforce needs. Key areas of focus during the next 10 years are discussed below.

TALENT ACQUISITION

Expand marketing and communication efforts to attract and retain qualified and diverse individuals to the organization, invest in our employees' development, and expand our succession management programs.

ENHANCING THE EMPLOYEE EXPERIENCE

Promote a culture of employee engagement, wellness, diversity, and inclusion, leading to overall employee well-being, productivity, and retention.

TALENT ACQUISITION

United Power has balanced the increasing demands attributed to the rapid growth in our service territory with minimal increase to our workforce staff. By implementing new technology efficiencies and internal skill development and utilizing contract vendors, United Power has seen only a 38% growth in our workforce over the past 20 years and 9.44% over the past 10 years. This contrasts with the increase of meters per employee, where we have seen an increase of 96.54% in meters per employee over the past 20 years and a 37.57% increase over the past 10 years.





	NUMBER OF METERS	HEADCOUNT	METERS PER EMPLOYEE
Growth last 20 years	171.47%	38.12%	96.54%
Growth last 10 years	44.85%	9.44%	37.57%
Growth last 5 years	27.50%	3.03%	23.76%

Image 5.2

This metric is important to continually evaluate and balance as a measure of working efficiently without risking employee burnout. As the meter count continues to increase, and at the speed in which it is expected to increase, United Power Human Resources will need to continue evaluating and supporting the organization with determining where additional personnel, training, and efficiencies are needed.

FIRST-CLASS CONTACT CENTER

To meet the member experience expectations outlined in this plan, it will be important to invest in and develop our staff that are the first point of contact for our members. A first-class contact center experience includes ongoing development of staff competencies, making it easy for our members to interact with our contact center through a variety of communication channels, and ensuring the appropriate connections are made for their specific inquiries. Human Resources will continue to assist with identifying and providing developmental opportunities and will provide adequate staffing to meet the demands associated with the growing number of member interactions with the call center.

DISTRIBUTION SYSTEM OPERATOR

Human Resources has begun to identify the competencies required to implement a DSO business model at United Power. Internal development and external recruitment will be necessary for these highly skilled roles. Additional positions to support the DSO functions in areas such as purchasing and data analysis will also be considered. Human Resources will assist in the investigation of successful DSO models already in place for guidance on implementing this new function at United Power.

OPERATIONS STAFFING

Currently, United Power utilizes contracted utility crews for the majority of new construction projects in our electric distribution system. As the growth continues to expand and in order to meet the service expectations of our members, it will be necessary to evaluate our operations staff headcount to ensure we can meet maintenance and outage response requirements.

TECHNOLOGY SUPPORT

As more and more processes become digital, with internal and external integrations, the need for data infrastructure, management, security, and training will continue to be a focus with United Power and the information systems team.

United Power faces a competitive labor market due to competing opportunities, shifting skill demands, rising cost of living, and retirements. Human Resources will focus on proactively sourcing a diverse pool of candidates and promoting programs such as internships; flexible work schedules as well as flexible work locations, as appropriate; and skill development.

IMPACT TO WORKFORCE

United Power faces future talent pipeline challenges as many individuals in key positions will soon be or already are eligible for retirement, whereas nearly 28% of our entire staff is eligible within the next 10 years. Human Resources will expand on learning and development programs that include skill and leadership development and will continue to develop and implement succession planning.

27.47% OF OUR CURRENT WORKFORCE WILL BE ELIGIBLE TO RETIRE WITHIN THE NEXT 10 YEARS

Succession planning is a future-focused process that supports leadership in identifying critical positions, assessing, evaluating, and developing a pool of talented individuals who are willing and able to fill critical positions, and addressing any competency or skills gaps. Succession planning is also a process to assist leadership in identifying and capturing necessary institutional knowledge that may be lost due to retirement, promotion, and general attrition.

The makeup of the workforce pool is changing as priorities shift more toward steering the next generations of workers back into skilled trades and creating a larger pool of candidates looking for an opportunity to learn through registered apprenticeships versus attending a college or university for degrees. United Power will build upon positive relationships with our partners at the U.S. Department of Labor and Colorado Department of Labor and Employment as well as other labor organizations to assist in meeting our future hiring needs. It will be important to continually monitor this shift in focus toward skilled trades to identify any reverse impact on our candidate pools for positions requiring specialized or business degrees.



ENHANCE THE EMPLOYEE EXPERIENCE

Thited Power will leverage best practices to foster a culture of engagement. Human Resources will lead the way in the design, measurement, and evaluation of proactive workplace programs and practices that engage our workforce and help attract, retain, and develop talent with skills and competencies necessary for growth and sustainability. Through a culture of employee engagement, wellness, diversity, and inclusion, overall employee well-being, productivity, and retention will increase.

EMPOWER EMPLOYEES TO SERVE

Human Resources will promote a positive experience and support employee work-life balance through engagement and wellness activities while seeking innovative ways to improve in these areas with various initiatives, committees, and surveys. Additionally, Human Resources will encourage and seek out new opportunities for employees at all staff levels to serve on community boards or participate and serve at community organizations and events.

DIVERSITY, EQUITY, AND INCLUSION

United Power Human Resources will participate in a committee at United Power to create, implement, and address diversity, equity, and inclusion initiatives.

IMPACT TO BUDGET

A 10-year financial forecast was developed alongside our cooperative roadmap which integrates the challenges and opportunities enumerated in the initiatives outlined in this roadmap herein to the extent a financial impact can be quantified. The long-range load forecast provided by Engineering as the basis for the roadmap, including the addition of EVs and their projected impact on system load, has been incorporated into the revenue forecast. Total number of meters is projected to reach 140,000 by 2031 and load is anticipated to reach 3,700,000 MWh.

Volumes for purchased power included in the 10-year financial forecast reflect the projected consumption included in the load forecast plus additional purchases to cover line loss and company use. Cost of wholesale power rates have been reduced to reflect the anticipated 2% Tri-State FERC-approved rate decrease effective in March 2022. A key objective described in our cooperative roadmap is to actively manage and reduce power supply costs which historically have required 75 cents of every revenue dollar collected. United Power will continue to exert pressure on the 75% portion of our current revenue requirements by decreasing the cost of power through fulfillment of our power supply needs with market resources upon exit from Tri-State in 2024. An assumption of a reduction in the cost of power is used in the financial forecast starting in 2024. Decreased power supply costs provide opportunity for additional margin which will be used to fund the capital growth and expanded operating expenses described in the earlier sections of this document. Ideally, these power supply savings would also result in substantial savings to our members in the form of rate reductions. As such, a retail rates reduction is assumed starting in 2024.

As United Power looks to continue to empower and engage our members and surrounding communities, additional capital investments will be required to stay ahead of their rapidly evolving demands and expectations. Key areas of investments needed include an expanded suite of communication tools, system automation devices, program development, and renewable power opportunities. Most of these investments will carry both upfront capital costs as well as ongoing expenditures that will impact margins. The exit from Tri-State will carry its own capital investment requirements regarding the exit fee itself and in the form of reacquiring distribution assets. Following the trajectory of reducing the cost of power while expanding on the use of revenue collected to fund other programs and services and provide for future growth, operations and maintenance, customer and sales, and administrative and general expenses are assumed to be increasing each year within the 10-year financial forecast. With the projected decreasing cost of power and increasing of other controllable costs, it is anticipated that by 2031 cost of power as a percentage of revenue will be decreased significantly from the historic high of 75%.

Fixed costs such as depreciation, taxes, and interest have been adjusted in the 10-year financial forecast to reflect the growing carrying costs of the historic and anticipated capital expansion. With the largest of these capital needs being distribution plant, the Engineering Long-Range Plan was used to determine capital needs for the balance of the roadmap. Historic averages were assumed for general plant needs during the same period.

Since the anticipated capital needs taper off dramatically after the first several years, the financial forecast includes larger long-term debt draws for 2022 and 2023, with reduced annual draws required starting in 2025 throughout the remainder of the 10-year period.

Given that interest rates have been unusually low over the past two years, interest on the additional debt draws was calculated using an historic average of rates associated with previous loans.

Recent conversations have indicated retirements and allocations from Tri-State may be dramatically impacted by Tri-State's recent cost-cutting measures. In addition, retirements and allocations would cease upon United



Power's exit from Tri-State. Therefore, the 10-year financial forecast assumes no retirements or allocations from Tri-State during this 10-year period. Without funding from Tri-State in the form of retirements, United Power's own patronage capital retirements to members will also need to be reduced in 2022 and 2023. United Power's retirements starting in 2024 have been projected to steadily increase each year.

As one of the key metrics used to indicate the financial health of the organization, Modified Debt Service Coverage has been calculated to yield annual rates well above internal financial goals indicating the cooperative will retain more than adequate coverage to pay required debt principal and interest during the 10-year period. Another significant measure of financial health, the equity ratio, is projected to steadily increase during the 10-year period.

There are numerous risks and opportunities not included in this financial forecast due to their unquantifiable nature: weather, changes in oil and gas prices, legislation, regulations, and the introduction of regional energy markets. Annual updates to the 10-year planning process and the annual budget process include the subject matter experts from various departments in order to ensure appropriate alignment between capacity planning and load forecasting for budget. Trend validation, population growth, weather variability, and new technology are incorporated into the forecasting process.

GLOSSARY OF TERMS

Advanced Metering Infrastructure (AMI) An integrated system of meters, communications networks, and data management systems that enables two-way communication between utilities and customers.

Business and Information Technology Services (BITS) Anywhere The model developed by Information Technology to support solutions and empower users located anywhere.

Capital Growth The addition of distribution and general plant assets needed to sustain United Power's electrical system and serve our members.

Community Choice Aggregation (CCA) Market mechanisms that allow local governments to procure power on behalf of their residents, businesses, and municipal accounts from an alternative supplier while still receiving transmission and distribution service from their existing utility.

Consumption The amount of electricity measured in kWhs used by the members of the utility over a given period of time. This is usually referred to in conjunction with demand which is the amount of electric usage at any one point in time measured in kWs.

Cooperative A business owned and managed by the consumers who use and benefit from its services (i.e., its members).

Customer Information System (CIS) A customer management application that allows one to easily customize a database with user defined fields. In simple terms, member information.

Digital Transformation The adoption of digital technology to innovate and improve business processes and value for customers.

Distributed Energy Resource (DER) Small-scale generators, loads, and storage connected to the distribution grid such as solar, EVs, and batteries.

Distributed Energy Resource Management Systems (DERMS) Centralized software used for exchanging data and control commands with DERs such as smart thermostats and batteries.

Distribution Management System (DMS) Part of the SCADA and OMS systems that allow a utility to collect, organize, and analyze data from an electric distribution system at a real-time rate.

Distribution Plant The assets of the cooperative used to conduct the electric distribution system of the business. This is distinguished from general plant which refers to the buildings, vehicles, and other assets used in the overhead associated with running the business.

Distribution System Operator (DSO) A business model for utilities seeking to integrate DERs on the grid.

Electric Distribution System The facilities and equipment connecting a utility (e.g., United Power) to its members.

Electric Grid The interconnected network designed to provide electricity from its generation to the customers/members. Comprised of three main sections - generation, transmission, and distribution.

Electric Vehicle (EV) Any vehicle whose primary or secondary energy source is electricity from the grid. Light duty EV refers to common commuter vehicles whereas medium and heavy duty EV refers to large commercial trucks and buses.

Energy As it relates to electricity, energy is defined by the movement of electrons. In the electric industry it is looked at as an electric charge that lets work be done.

Energy-as-a-Service (EaaS) A business model that combines the price of the electricity delivered with the costs of equipment and installation into a fixed price. For example, the price of electricity for EV charging combined with the equipment and installation of the EV charging infrastructure.

Enterprise Systems Enterprise systems enable organizations to integrate and coordinate their business processes. They include the familiar accounting/finance systems, customer information systems, and innovative content management, workflow, collaboration, and productivity tools.

Fault, Location, Isolation and Service Restoration (FLISR) A distribution technology which reduces the number of members impacted by a fault by automatically isolating the fault location and restoring service to members by transferring them to another feeder of circuit. Often referred to as a "self-healing" grid capability.

Federal Energy Regulatory Commission (FERC) The organization established to regulate multi-state transactions of electricity, fossil fuels, and hydropower under the Interstate Commerce Act.

FERC Order No. 2222 A landmark order enabling aggregations of DERs to participate on a level playing field in the wholesale markets operated by RTOs and Independent System Operators.

General Service Rate A flat monthly rate that will finance a range of energy products. The rate(s) will be offered to support an Energy-as-a-Service business model.

Generation & Transmission (G&T) Generation is the process of producing electricity from centralized plants such as coal, hydro, solar, nuclear, and wind. Transmission is the process of carrying that generated electricity from the generation plants to the load centers where it can be used.

Geographic Information System (GIS) A computer system for capturing, storing, checking, and displaying data related to spatial and geographic data. In simple terms, mapping.

Informational Technology (IT) The common term for the entire spectrum of technologies for information processing, including software, hardware, communications technologies, and related services. In general, IT does not include embedded technologies that do not generate data for enterprise use.

Investor Owned Utility (IOU) Publicly traded utilities such as Xcel Energy.

Kilowatt (kW) The basic unit of measurement of demand for electricity (kW) or total energy consumed over one hour (kWh).

Load The total demand for electricity from the grid measured in kilowatts or megawatts.

Load Forecast The projected demand and consumption of electricity anticipated on the system in some future period for which the utility has an obligation to serve.

Long-Term Debt Draw The act of withdrawing additional funds on a long-term debt arrangement typically used to finance ongoing capital needs.

Margin The remaining funds once all expenses are netted against revenues.

Megawatt (MW) 1,000 kilowatts; common unit of measurement for large-scale generators and loads.

Member A person who consumes, receives, purchases, or otherwise uses the cooperative services, and who agrees to comply with and be bound by the governing documents and such tariffs, rules, regulations, and policies of the cooperative.

Meter Data Management (MDM) Software that performs longterm data storage and management for the vast quantities of data delivered by smart metering systems.

Open Access Transmission Tariff (OATT) FERC-regulated and reviewed tariff that standardizes rate structure for all transmission providers for just, reasonable, and non-discriminatory rates.

Operational Technology (OT) The hardware and software that detects or causes a change, through the direct monitoring and/or control of industrial equipment, assets, processes, and events.

Outage Management System (OMS) A variety of computer systems used by utilities to assist in the restoration of outages in the electric distribution system.

Patronage Capital Allocation In the cooperative business model, margins must be returned to members (patrons) in the form of capital credits. These credits are allocated in the year margins are earned, kept as capital to fund growth and operations of the cooperative, and then retired some number of years later at the discretion of the Board of Directors. **Power** The rate, per unit of time, at which electricity is transferred in a defined electric circuit; measured in watts.

Power Purchase Agreement (PPA) A contract to purchase a variable amount of electricity at a fixed or escalating price over the life of the contract. Applies to both renewable and fossil-fueled generators.

Power Supply The source of electricity needed to perform work; the supplier for an electric load.

Public Utilities Commission (PUC) State-level regulatory body for public utilities such as IOUs.

Regional Transmission Organization (RTO) or Independent System Operator (ISO) An organized market that determines the price of electricity based upon supply and demand within the region covered by the market.

Renewable Energy Credits (RECs) The renewable attributes of electrical generation priced separately from the value of the electric energy. RECs may be purchased and sold as a separate commodity under utility green power programs.

Revenue Forecast The projected sales dollars or revenues anticipated to be earned in some future period.

Smart Grid as a Service (SGS) A hosted solution of the AMI head-end (e.g. meters, gatekeepers, handheld devices, etc.), MDMS, utility portal and consumer portal.

Strategic Electrification Technologies, such as heat pumps and EVs, that reduce energy costs to the member; reduce carbon emissions; and provide flexibility to the grid.

Supervisory Control & Data Acquisition (SCADA) A system of software and hardware elements that allows organizations to monitor, control, gather, and process real-time data.

Technology Infrastructure A set of information technology components that are the foundation of an IT service; typically physical components, but also various software and network components (e.g. servers, computers, switches, hubs, software applications, networking, firewall, security, etc.).

Utility Entity responsible for the ownership, field operation, billing, and maintenance of the infrastructure and equipment of the electric distribution system.

