



# BRINGING THE BEST OF THE WEST TO OUR CUSTOMERS' DOOR

## ENVISIONING THE FUTURE OF THE WEST

At PacifiCorp, we share a bold vision with our customers for a future where energy is delivered affordably, reliably and without greenhouse gas emissions. A future where our vast, modern energy grid connects local communities to the low-cost and reliable energy they need to innovate and achieve their goals.

Like our customers, we believe that affordability and sustainability go hand in hand and together, they form the foundation for a reliable, resilient energy future—where regional and state economies benefit from investments in energy resources and infrastructure that help them pioneer new growth opportunities.

It's an ambitious vision, but it's absolutely achievable. By connecting the West's diverse resources to the vast reach of our transmission system and by investing in technology, partnerships and markets, we will create the future we all want, together.

We know it's possible because it's already happening.

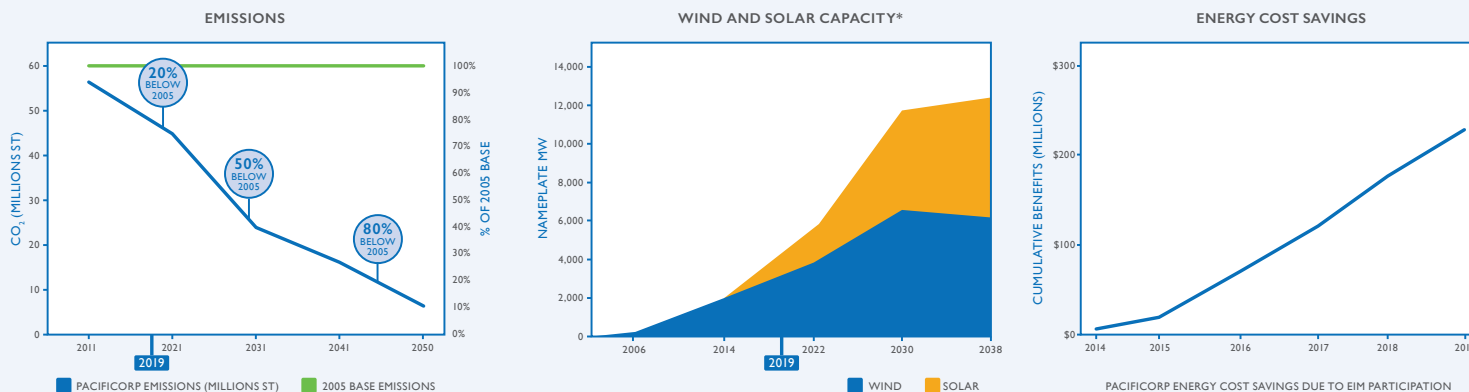
## REIMAGINING THE FUTURE BASED ON A CENTURY OF INNOVATION

When PacifiCorp joined Berkshire Hathaway Energy in 2006, we set out to be the best energy company in terms of service to our customers while delivering sustainable energy solutions. We saw the path forward as an invitation to reimagine not just how energy is produced but how it is dispatched and delivered.

We knew our greatest opportunity would be discovered in understanding the needs and aspirations of our customers and communities. We saw the West itself, with its abundance of diverse natural resources, as a way to deliver greater value. And we believed that the greatest gains could be realized by building upon the more than 100 years of innovation that helped create our 10-state energy grid. We knew that if we tackled every challenge by drawing on our track record of partnership and technology-driven innovation, we could transform our expansive grid into an industry-leading, interconnected energy system—a system uniquely equipped to access the best energy resources the West has to offer and efficiently deliver those resources to our customers' door.

So, we got to work bringing this vision to life.

We've made a lot of progress over the past 13 years, becoming the largest regulated utility owner of wind power in the West. From 2018 to 2020, we will have increased the percentage of zero-carbon energy resources in our portfolio by 70%. We made sure to do it all while capturing and returning savings to our customers.



Over the past 13 years, we've reduced emissions and substantially increased our renewable resource capacity while simultaneously delivering savings.

We have forged the systems and connections necessary to dramatically accelerate our progress, transforming the energy industry in ways that will benefit our communities and customers for generations to come.

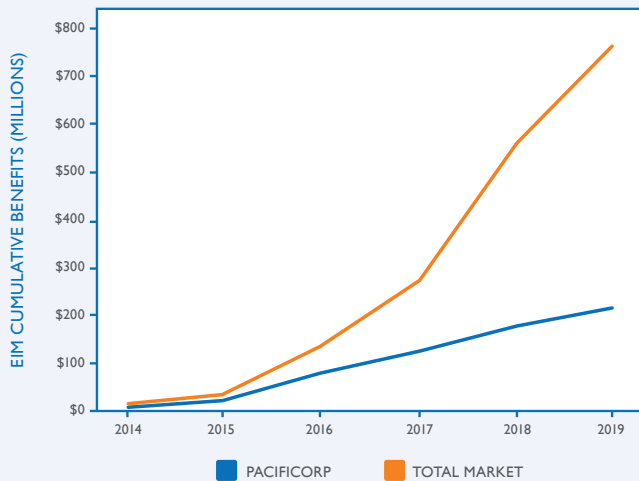
## REINVENTING THE FUTURE THROUGH COLLABORATION

Over the past 13 years, we've successfully reduced our carbon emissions and improved reliability while simultaneously delivering energy cost savings to our customers. We've achieved these results by collaborating with others outside of our organization to create a more open and connected Western grid and through the visionary and collaborative efforts of our own generation, transmission, information technology and energy supply management teams.

In 2014, we pioneered the Western Energy Imbalance Market (EIM) in partnership with the California Independent System Operator. This innovative market allows utilities across the West to access the lowest-cost energy available in near real-time, making it easy for zero-fuel-cost renewable energy to go where it's needed. If excess solar energy in California, excess wind from Wyoming or hydropower from Washington and Oregon is available, we'll harness it and transport it instantly across our company's 16,500-mile grid.

\*Total capacity includes 799 MW acquired through customer partnerships supported by purchase of 100% of renewable attributes generated by those resources, resources to be used for renewable portfolio standard compliance, and resources where a portion of the renewable attributes are sold to customers, third-parties, or are excluded from energy purchased.

PACIFICORP AND TOTAL EIM BENEFITS



## COLLABORATING FOR THE BENEFIT OF THE WHOLE REGION

By connecting utilities and leveraging diverse renewable resources across the West, the EIM is dramatically lowering greenhouse gas emissions and helping to unlock the full potential of a low-cost, reliable and resilient energy system.

### *Benefits between 1/1/2014 and 6/2019:*

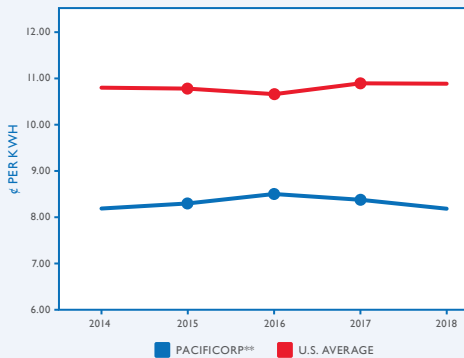
\$736M in total savings region-wide

\$214M savings for PacifiCorp customers

Through our participation in the EIM, we've saved our customers over \$200 million so far. The savings get bigger every year, and we've reduced our portfolio carbon emissions over 15 million tons—the equivalent of taking 3 million cars off the road for a year.

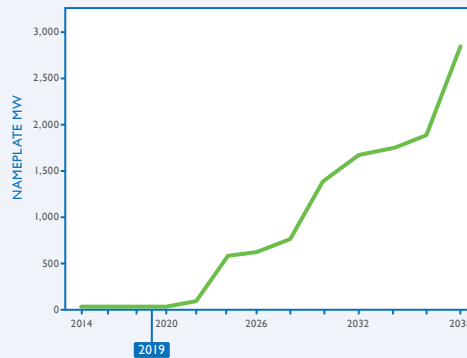
Since its inception, nine utilities have joined the EIM and 11 more have committed to join by 2022, altogether representing almost 70% of the West's total electricity demand. As more participants join the EIM, the benefits we create together increase. To date, participating utilities across the West have saved customers over \$730 million while simultaneously decarbonizing the Western grid. We continue to engage our new partners in evolving the real-time EIM to include a day-ahead market for even bigger future benefits.

AVERAGE TOTAL ELECTRICITY RATES FOR RETAIL CUSTOMERS

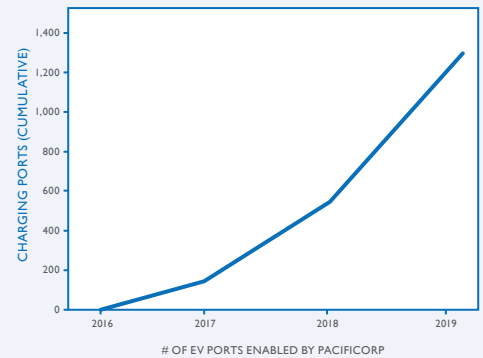


Source: Edison Electric Institute Sales and Revenue Data for the 12 months ending December of each year

NEW STORAGE CAPACITY



EV CHARGING



Over the past 13 years, we've broadened the diversity of our energy portfolio and deepened the value of our energy solutions while simultaneously keeping the price of energy well below the national average.

\*\*Weighted average of rates for Utah, Oregon, Wyoming, Washington, Idaho and California

# RETHINKING THE FUTURE BY INVESTING IN THE DIVERSITY OF THE WEST

We continue to offer our customers some of the lowest energy prices in the country—well below the national average—while we are simultaneously expanding the depth and breadth of our energy portfolio and solutions.

- **ENERGY VISION 2020:** In 2017, we announced our largest historical investment in the development of renewable energy and infrastructure—Energy Vision 2020. This \$3.2 billion project to be completed in 2020 embodies our commitment to a future that benefits our customers, our communities and the environment. It will dramatically increase our renewable energy portfolio with new and repowered wind resources and new transmission while leveraging federal production tax incentives to provide hundreds of millions of dollars in savings to our customers over the life of the projects. Energy Vision 2020 also benefits rural communities across the West by creating hundreds of construction jobs and adding millions of dollars in construction tax revenue and ongoing annual state and local tax revenue.
- **PROPOSED NEW RESOURCE INVESTMENTS:** With our proposed 2019 integrated resource plan, we are expanding our portfolio with new low-cost wind generation, solar generation, storage, and demand-side resources to meet changing customer needs.

RESOURCE	BY 2025	BY 2038
Wind*	3,500 MW	Over 4,600 MW
Solar*	3,000 MW	Over 6,300 MW
Storage	600 MW	Over 2,800 MW
Demand-Side Management <ul style="list-style-type: none"><li>• Energy efficiency</li><li>• Direct load control</li></ul>	860 MW	Over 1,890 MW

## INNOVATING SOLUTIONS TO BUILD THE FUTURE

- **DEMAND RESPONSE:** We're championing technical innovations that use fast-acting residential demand response resources to support the bulk power system. Our approach moves beyond peak-load management to create a grid-scale solution that turns demand response resources into frequency-responsive operating reserves. With over 92,000 customers participating in our program, more than 200 MW of operating reserve is available every day and can be dispatched in a matter of seconds. This reduces our need to buy reserve power on the market, and it's only used in emergencies, minimizing inconvenience to customers.  
  
We're also partnering with The Wasatch Group to develop and manage a first-of-its-kind residential battery demand response solution. This new all-electric apartment building in Utah features on-site energy storage for each of its 600 units, totaling 12.6 MW of solar-powered battery storage. This innovative all-electric design provides emergency back-up power to residents, helps address air quality issues in the area and benefits overall electric grid operation.
- **CUSTOMIZED RENEWABLE ENERGY SOLUTIONS:** We're partnering with communities and customers across the West to champion customized energy solutions to achieve their renewable energy goals. For example, our work with Facebook is resulting in the construction of 677 MW of new solar and wind capacity, all in service by the end of 2020. These projects support Facebook's operations in Oregon, enabling it to achieve its 100% renewable goal while simultaneously lowering energy supply costs for all PacifiCorp customers. In addition, we secured 122 MW of new solar energy capacity on behalf of Facebook's data center in Eagle Mountain, Utah.
- **ELECTRIFICATION:** We are investing over \$20 million to support EV fast chargers along key corridors, develop robust workplace charging programs, implement smart mobility programs and develop opportunities for customers in our rural communities. Our investments include a \$4 million cost-share award from the U.S. Department of Energy to develop electric transportation primarily in Utah and \$3 million as part of the Oregon Clean Fuels Program.

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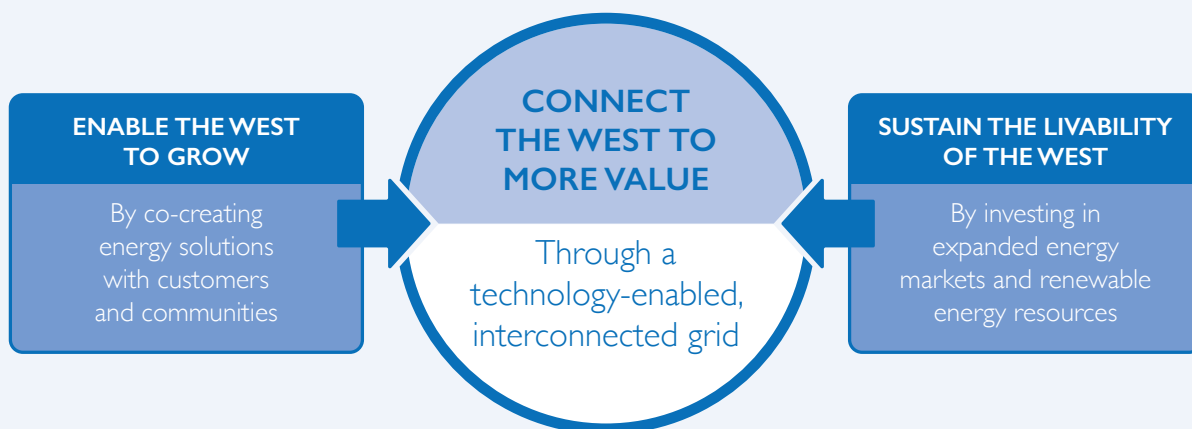
## BRINGING THE BEST OF THE WEST TO OUR CUSTOMERS' DOOR

PacifiCorp's integrated resource plan includes investments in a diversity of new resources, renewables, storage and modern grid technology among them. It outlines new transmission infrastructure investments across our territory that are needed to remove existing transmission constraints and improve grid resilience so the lowest-cost renewable resources can flow freely to customers across the West.

Our integrated resource plan also provides the roadmap by which we'll dramatically reduce our greenhouse gas emissions over the next 20 years. The integrated resource plan shows that, by 2030, PacifiCorp will have reduced greenhouse emissions by nearly 60% from 2005 levels. Along with adding renewables and leveraging new technology, emissions reductions will be achieved by the phased transition of our coal fleet.

Our thermal assets and operations teams have played an essential role in enabling the progress we have already made, and we know they play a vital part in their communities too. We are committed to open and transparent communication about our coal transition, and we are equally committed to working with our employees and communities to develop plans that help them through this time of change.

## CONNECTING THE WEST TO MORE VALUE



We believe a promise to reduce carbon emissions must be substantiated with a prescriptive and thoughtful plan to get there.

Our plan revolves around three interrelated strategies to reimagine an energy future that serves all of our communities.

At PacifiCorp, we see the energy diversity of the West as a catalyst. Our plans to meet the energy needs of our customers and communities across the West will continue to evolve, but our commitment to making the West stronger and better is unwavering. We'll do that by continuing to find answers in new partnerships, advanced technologies and expanded energy markets, and by pursuing energy solutions that harness and bring the best energy resources the West has to offer to our customers' door.