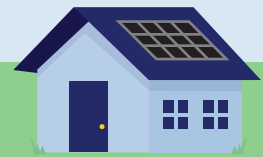
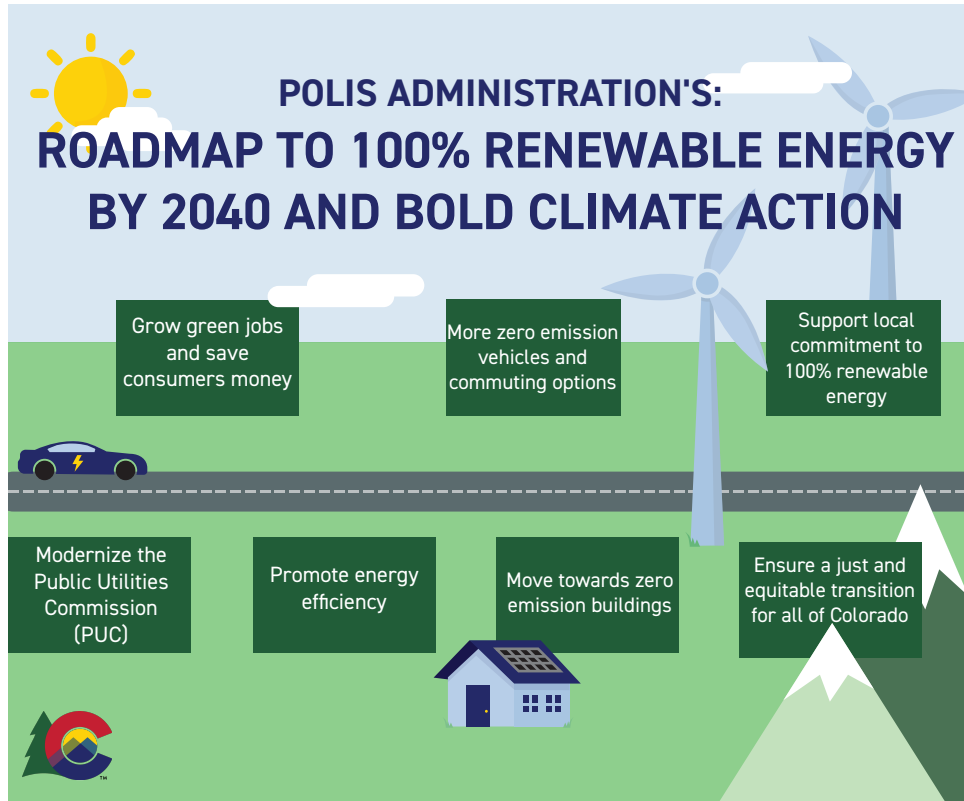


**POLIS ADMINISTRATION'S:**

**ROADMAP TO 100%  
RENEWABLE ENERGY BY 2040  
AND BOLD CLIMATE ACTION**



# POLIS ADMINISTRATION'S: ROADMAP TO 100% RENEWABLE ENERGY BY 2040 AND BOLD CLIMATE ACTION



## THE VISION

Governor Polis ran on a bold platform of achieving 100% Renewable Energy by 2040. This goal is motivated by the moral imperative to fight climate change and curb pollution of our air and water, as well as the **opportunity to drive innovation and harness the consumer savings and economic benefits of leading the transition to a clean energy economy.** This is our roadmap to achieve this goal.

This transition is already underway and shows no signs of slowing down. The two fastest-growing professions in the United States are solar photovoltaic installers and wind turbine service technicians. Fourteen Colorado towns and counties have already taken the initiative and adopted the goal of getting 100% of their electricity from clean renewable energy: Denver, Pueblo, Boulder, Fort Collins, Summit County, Frisco, Aspen, Glenwood Springs, Breckenridge, Longmont, Lafayette, Nederland to Golden. These diverse communities know that **protecting Colorado's way of life means doing our part to combat climate change,** and that swiftly adopting renewable energy in our electricity sector and then extending the impact of that clean electricity across the economy will protect the health of our communities, create good paying jobs, strengthen our economy and keep rates low for customers.

# POLIS ADMINISTRATION'S: ROADMAP TO 100% RENEWABLE ENERGY BY 2040 AND BOLD CLIMATE ACTION

## THE VISION (continued)

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**The Polis Administration has taken a number of significant steps that make a down payment on our commitment to 100% renewable energy by 2040.** By partnering with the Legislature, we've empowered the Public Utilities Commission (PUC) to facilitate a rapid transition to renewable energy across the state that includes working with our largest utility to invest in renewable energy and meet a goal of reducing greenhouse gas pollution 80% by 2030. We're building a regulatory framework that will enable the PUC to work with our second largest utility to transition from coal-fired power to cheaper, cleaner sources of renewable energy. We are also making it easier for individual Coloradans to participate by expanding access to energy efficiency and community solar gardens. Additionally, the Legislature passed House Bill 1261, which sets economy-wide targets for reducing greenhouse gas pollution, with goals of 26% reduction by 2025 below 2005 levels, 50% reduction by 2030 and 90% reduction by 2050, and delegates authority to the Air Quality Control Commission to adopt rules to make progress towards those goals.

**One of the most important parts of our transition to cleaner energy is electrifying transportation in Colorado.** In order to meet the Governor's goal of 940,000 zero emission vehicles on the road by 2030, state agencies have taken a number of steps, including allocating approximately \$14 million to transit agencies across the state to deploy cleaner buses. The agencies are also expeditiously establishing public-private partnerships to build 33 fast charging stations along major highways in the state. Working with the Legislature, we've also made it easier for utilities, with oversight from the PUC, to invest in electric vehicle infrastructure.

**While we've already taken important strides towards our renewable energy vision, there's much work to do.** The policies adopted this legislative session provide the foundation for much higher levels of renewable energy integration, but additional strategies will be needed to get to 100% by 2040. It's going to take the perspective, expertise, and commitment from diverse voices across the state to forge a renewable energy future that works for all of Colorado. Together, we can do our part to fight climate change, **improve air quality and the health of our communities**, diversify and strengthen our economy across the state, and ensure the good-paying jobs of the quickly growing green energy economy are created here in Colorado.

## ACTION STEPS AND PROGRESS TO DATE

# MODERNIZE THE PUBLIC UTILITIES COMMISSION

| DIRECTION  | POLICIES AND ACTIONS   | PROGRESS TO DATE   |
|--|--|--|
| <p>The Colorado PUC, and the electric utilities it regulates, is uniquely situated to help the state of Colorado and local communities rapidly transition to renewable energy in a manner that drives the best outcomes for consumers.</p> | <ul style="list-style-type: none"><li>• Ensure that the full social cost of carbon pollution is factored into decision-making associated with electricity generation and utility investments in energy efficiency and electric vehicle infrastructure.</li><li>• Promote investments in the distribution system that take advantage of technology advancement and support reduced pollution, customer choice, and a resilient and reliable system.</li><li>• Ensure that all communities across the state, including those served by rural electric cooperatives, are receiving the economic, health and environmental benefits of a transition to renewable energy, by ensuring that generation and transmission cooperatives are subject to PUC review of their resource plans.</li><li>• Advocate for evaluation of existing resources as part of utility planning to accelerate the transition to low cost renewable energy.</li><li>• Explore opportunities, like performance-based ratemaking, to better align utility investment and operations with public goals such as emissions reductions, cost savings to ratepayers, and reliability.</li><li>• Appoint pro-consumer and pro-renewable members to the Public Utilities Commission.</li></ul> | <ul style="list-style-type: none"><li>• <b>Passage of SB19-236: Sunset Public Utilities Commission</b><ul style="list-style-type: none"><li>• Directs the PUC to account for the social cost of carbon dioxide emissions in electric resource planning, demand side management planning and decisions around beneficial electrifications.</li><li>• Directs the PUC to promulgate rules requiring generation and transmission utilities to submit resource plans for approval, which will help ensure that our rural cooperatives can benefit from clean energy.</li><li>• Directs utilities to file distribution system plans for PUC approval.</li><li>• Directs PUC to conduct an investigation of financial performance-based incentives and other mechanisms to align utility operations and investments with various public benefit goals, including safety, cost efficiency and emissions reduction.</li><li>• Directs Xcel Energy to submit a plan for PUC approval that will achieve an 80% reduction in GHG emissions by 2030 and lays out criteria for approval.</li></ul></li><li>• <b>PUC Proceeding 189R-0096E</b><ul style="list-style-type: none"><li>• Advocated for new rules that:<ul style="list-style-type: none"><li>• Require utilities to evaluate the economic retirement of existing resources, such as coal-fired power plants.</li><li>• Allow customers to donate solar energy credits to help reduce bills for other customers.</li><li>• Expand access to community solar gardens for residential and agricultural customers.</li></ul></li></ul></li></ul> |

## ACTION STEPS AND PROGRESS TO DATE

### MODERNIZE THE PUBLIC UTILITIES COMMISSION (CONTINUED)

| DIRECTION   | POLICIES AND ACTIONS   | PROGRESS TO DATE  |
|---|--|---|
| <p>While more analysis is necessary, some form of an enhanced electricity market could lead to cost savings and system efficiency, enhance reliability and support integration of higher levels of renewable energy across a wider geographic region.</p> | <ul style="list-style-type: none"><li>• Engage with regional partners and Western Governors to explore potential benefits of regional markets.</li><li>• Convene a statewide discussion looking towards the potential benefits of regional market options to support our transition to renewable energy.</li><li>• Support PUC examination of regional market options.</li></ul> | <ul style="list-style-type: none"><li>• <b>Passage of SB19-236: Sunset Public Utilities Commission</b></li><li>· Directs the PUC to conduct an analysis of the potential benefits to joining a regional electricity market, which could enable greater levels of integration of renewable energy.</li></ul> |

### GROW GREEN JOBS AND SAVE CONSUMERS MONEY

|  |  |  |
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| <p>In order to achieve our goal we must empower technology advancements and scale adoption of clean, renewable energy technologies.</p> <p>Homeowners and business owners should all have the ability to benefit from cheaper, cleaner sources of energy and need the choice to adopt 100% renewable energy at their businesses and homes before 2040.</p> | <ul style="list-style-type: none"><li>• Protect homeowners rights to distributed renewable energy.</li><li>• Support expansion of, and access to, community solar gardens.</li><li>• Analyze pathways to achieve targets set forth in House Bill 1261 to reduce greenhouse gas emissions at least 26% by 2025, 50% by 2030 and 90% by 2050, compared to 2005 levels.</li><li>• Expand consumer access to storage options.</li><li>• Engage agricultural partners and private landowners to support and facilitate diversification of revenue through siting of renewable energy development.</li></ul> | <ul style="list-style-type: none"><li>• <b>Passage of HB19-1003: Community Solar Gardens Modernization Act</b></li><li>· Expands access to community solar gardens.</li><li>• <b>Passage of SB19-236: Sunset Public Utilities Commission</b></li><li>· Entitles customers to install onsite solar and storage to meet their own energy needs and to export unused electricity to the utility system.</li><li>• <b>Passage of HB19-1272: Housing Authority Property in Colorado New Energy Improvement District</b></li><li>· Clarifies housing authority participation in Commercial PACE.</li></ul> |
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*ACTION STEPS AND PROGRESS TO DATE*

**GROW GREEN JOBS AND SAVE CONSUMERS MONEY (CONTINUED)**

| DIRECTION  | POLICIES AND ACTIONS   | PROGRESS TO DATE   |
|--|--|--|
| <p>In order to achieve our goal we must empower technology advancements and scale adoption of clean, renewable energy technologies.</p> <p>Homeowners and business owners should all have the ability to benefit from cheaper, cleaner sources of energy and need the choice to adopt 100% renewable energy at their businesses and homes before 2040.</p> | <ul style="list-style-type: none"> <li>• Expand public-private partnerships for financing distributed renewable energy.</li> <li>• Promote the growth of Commercial Property Assessed Clean Energy Financing (C-PACE).</li> <li>• Administer the Residential Energy Upgrade (RENU) loan program.</li> <li>• Support utility leadership in their efforts to transition to renewable energy.</li> <li>• Move forward on the establishment of a green bank in Colorado through the Colorado Clean Energy Fund.</li> </ul> | <ul style="list-style-type: none"> <li>• In FY2019, the <b>C-PACE</b> program has financed over \$23 million commercial building energy improvements to date.</li> <li>• To date in FY2019, the <b>RENU program</b> financed over \$2.7 million for residential solar photovoltaic loans.</li> <li>• The <b>Colorado Clean Energy Fund</b> is working to establish its governance structure and preparing to launch its first product line by the summer of 2019.</li> </ul> |

**PROMOTE ENERGY EFFICIENCY**

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|---|--|---|
| <p>A powerful tool in the toolbox is energy efficiency, which is the cheapest and fastest way to cut harmful pollution. Efficiency efforts will save Coloradans money, spur investment in new technology and create jobs.</p> | <ul style="list-style-type: none"> <li>• Support infrastructure upgrades and smart grid investments to improve system efficiency.</li> <li>• Support improved building codes and appliance efficiency standards.</li> <li>• Provide low-income weatherization services.</li> <li>• Expand residential and commercial energy financing programs.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Passage of HB19-1231: New Appliance Energy and Water Efficiency Standards</b></li> <li>• Updates and adopts new standards for new equipment sold in Colorado, and requires that certain appliances, plumbing fixtures and other products meet energy efficiency and water efficiency standards.</li> <li>• In FY2019, the <b>C-PACE program</b> has financed over <b>\$23 million</b> commercial building energy improvements to date.</li> </ul> |
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*ACTION STEPS AND PROGRESS TO DATE*

**PROMOTE ENERGY EFFICIENCY (CONTINUED)**

| DIRECTION   | POLICIES AND ACTIONS  | PROGRESS TO DATE  |
|---|---|---|
| <p>A powerful tool in the toolbox is energy efficiency, which is the cheapest and fastest way to cut harmful pollution. Efficiency efforts will save Coloradans money, spur investment in new technology and create jobs.</p> | <ul style="list-style-type: none"> <li>• Support utility achievement of 2% demand side management (DSM) goals.</li> </ul> | <ul style="list-style-type: none"> <li>• To date in FY2019, the <b>RENU program</b> financed over 50 residential energy efficiency loans.</li> <li>• <b>The Agricultural Energy Efficiency program</b> is on track to conduct 40 energy audits by the end of the fiscal year.</li> <li>• <b>The Weatherization Assistance Program</b> is on track to provide services to 1,750 low-income clients by the end of the fiscal year.</li> <li>• <b>SB19-236</b> requires the <b>PUC</b> to include the social cost of avoided carbon pollution when considering DSM plans.</li> <li>• <b>New DSM</b> plans established for Xcel Energy &amp; Black Hills Energy in FY2019.</li> </ul> |

**MORE ZERO EMISSION VEHICLES AND COMMUTING OPTIONS**

|   |  |   |
|---|--|---|
| <p>Pursuing strategies to electrify transportation will extend the air quality and economic benefits of cleaner electricity generation and make it easier to integrate higher levels of renewable generation into the grid.</p> | <ul style="list-style-type: none"> <li>• Implementation of Executive Order B 2019-002 <b>Supporting a Transition to Zero Emission Vehicles.</b></li> <li>• Work with the Legislature to enable utilities to invest in electric vehicle infrastructure in ways that will support a more efficient grid and greater adoption of electric vehicles.</li> <li>• Work with the Legislature to provide consumer incentives for EV adoption - tax credits and HOV/express lane incentives.</li> </ul> | <ul style="list-style-type: none"> <li>• Passage of <b>SB19-077: Public Utility Implementation of an Electric Vehicle Infrastructure Program</b> Authorizes public utilities to provide charging stations and requires utilities to file applications to support widespread transportation electrification, and EV specific rate offerings.</li> <li>• On track to install 234 community based EV charging stations through Charge Ahead Colorado by the end of the fiscal year.</li> </ul> |
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ACTION STEPS AND PROGRESS TO DATE

## MORE ZERO EMISSION VEHICLES AND COMMUTING OPTIONS (CONTINUED)

| DIRECTION   | POLICIES AND ACTIONS  | PROGRESS TO DATE  |
|---|---|---|
| <p>Pursuing strategies to electrify transportation will extend the air quality and economic benefits of cleaner electricity generation and make it easier to integrate higher levels of renewable generation into the grid.</p> | <ul style="list-style-type: none"> <li>• Work with public and private fleets to support the transition to electric vehicles.</li> <li>• Develop programs to incentivize Transportation Network Companies to shift to electric vehicles. Implement a Zero Emission Vehicles standard or an alternative agreement, that will lead to guaranteed levels of ZEV adoption from 2020-2025.</li> <li>• Invest in a charging network that will support widespread consumer adoption of EVs.</li> <li>• Support local government adoption of EV building codes, fleet targets, and local EV plans.</li> <li>• Determine whether a Low Carbon Fuel Standard is an appropriate policy tool for Colorado.</li> <li>• Work with the legislature to enable utility investment to support beneficial electrification, which will both reduce emissions and support a more efficient grid.</li> <li>• Develop strategies for medium and heavy duty vehicle decarbonization, considering energy efficiency, electrification, and low carbon fuel options.</li> </ul> | <ul style="list-style-type: none"> <li>• Passage of <b>HB19-1159: Modifications to the Income Tax Credits for Innovative Motor Vehicles</b> <ul style="list-style-type: none"> <li>• Modifies the amounts and extends the number of years of existing income tax credits for the purchase of electric or hydrogen fuel cell vehicles. Allows ride-sharing companies to claim the full tax credit if vehicles are provided to drivers under a short-term rental program.</li> </ul> </li> <li>• Passage of <b>HB19-1198: Power and Duties of the Electric Vehicle Grant Fund</b> <ul style="list-style-type: none"> <li>• Provides more flexibility in how the EV Grant Fund is used by allowing funds for administration of charging station grants and to offset charging station operating costs.</li> </ul> </li> <li>• Passage of <b>SB19-239: Address Impacts of Transportation Changes</b> <ul style="list-style-type: none"> <li>• Convenes a stakeholder process, led by CDOT, which will study the fiscal and policy incentives to encourage shared, electric trips by companies like Uber and Lyft, car-sharing companies, and delivery services.</li> </ul> </li> <li>• <b>PUC Proceeding 18AL-0852E:</b> <ul style="list-style-type: none"> <li>• Advocated for rates that support customer investment in charging stations to help expand the development of electric vehicle charging. Finalized a public-private partnership to build 33 fast charging stations along all of the major highways.</li> </ul> </li> <li>• CDOT allocated approximately <b>\$14 million</b> of VW settlement funds to transit agencies to deploy electric buses.</li> <li>• CO Dept. of Public Health and Environment has submitted a proposed <b>Zero Emission Vehicle rule to the Air Quality Control Commission for consideration</b>, and has begun to revise the state VW plan to direct all remaining dollars to support zero emission vehicle adoption.</li> </ul> |



ACTION STEPS AND PROGRESS TO DATE

**ENSURE A JUST AND EQUITABLE TRANSITION FOR ALL OF COLORADO**

| DIRECTION  | POLICIES AND ACTIONS  | PROGRESS TO DATE   |
|--|---|--|
| <p>As we transition to 100% renewable energy we need policies in place to ensure that workers in fossil fuel industries can put their skills to work in the clean energy economy, that we are creating opportunities for workers to train and compete for the good-paying jobs of tomorrow, and that we are not leaving any community behind.</p> <p>We must also make environmental justice central in consideration of relevant policies and in the development and implementation of state energy programs.</p> | <ul style="list-style-type: none"> <li>• Support workforce and economic transition planning for communities impacted by a changing energy landscape.</li> <li>• Work with the Legislature to pursue creative financing mechanisms that support transition to cheaper, cleaner sources of energy in a manner that supports both the workers and communities impacted by the transition.</li> <li>• Continue to support impacted communities through the Department of Local Affairs' (DOLA) Rural Economic Development Initiative (REDI) with funds to transition to more sustainable economies and attract new, diverse industries.</li> <li>• Work with the PUC to maximize outcomes for consumers and our energy workforce as we transition to renewable energy.</li> <li>• Carefully consider the human health and environmental impacts of energy development and climate change on low-income and underserved populations, including rural areas, communities of color, children, the elderly and sick.</li> </ul> | <ul style="list-style-type: none"> <li>• Passage of <b>HB19-1314: Just Transition from Coal-based Electrical Energy Economy</b> <ul style="list-style-type: none"> <li>• Establishes a <i>Just Transition Office</i> tasked with aligning and delivering programming and funding to communities and workers impacted by a transition away from coal-fired electricity, in addition to disproportionately impacted communities who have borne the costs of pollution.</li> </ul> </li> <li>• Passage of <b>SB19-236: Sunset Public Utilities Commission</b> <ul style="list-style-type: none"> <li>• Requires utilities, when proposing retirement of an electric generating facility, to include a workforce transition plan that provides estimates of workforce transitions that will occur as a result of retiring the electric generating facility.</li> <li>• Creates a securitization bonding mechanism that could reduce costs associated with early plant retirement and fund workforce and community transition efforts.</li> <li>• Strengthens an existing provision requiring electric resource acquisition decisions to be made with consideration of "best value" employment metrics and the use of Colorado labor by requiring a utility to obtain and provide to the PUC relevant documentation on these topics, including the availability of apprenticeship programs registered with the United States Department of Labor.</li> </ul> </li> <li>• <b>DOLA's</b> Local Government Division has assisted impacted communities to support small business start ups, main street/ downtown revitalization efforts, the launch of technology incubators and other locally driven economic development planning projects largely in western Colorado.</li> </ul> |

## ACTION STEPS AND PROGRESS TO DATE

# SUPPORT LOCAL COMMITMENT TO 100% RENEWABLE ENERGY

| DIRECTION   | POLICIES AND ACTIONS   | PROGRESS TO DATE   |
|---|--|--|
| <p>State and local governments are big consumers of energy and must lead by example. Local governments also have significant authority over building codes, transportation investments, and other key clean energy policy levers.</p> | <ul style="list-style-type: none"> <li>• Engage with communities on implementation strategies to achieve local clean energy goals.</li> <li>• Expand use of Energy Performance Contracting by public agencies.</li> <li>• Develop a beyond code toolkit for communities to adopt progressive energy codes.</li> <li>• Develop strategies to support local clean energy goals facilitating utility-community cooperation and private sector partnerships.</li> <li>• Develop a program to support local electric vehicle planning and energy code and ordinance adoption.</li> <li>• Support investment in rural electric vehicle infrastructure and renewable energy.</li> <li>• Work with local governments, transit agencies and local businesses to develop and support bold local electrification goals and strategies.</li> <li>• Update the State’s Greening Government goals, including consideration of:               <ul style="list-style-type: none"> <li>• <i>Energy and water efficiency</i></li> <li>• <i>Zero-Emission Vehicle Fleet Adoption</i></li> <li>• <i>Greenhouse gas emissions reduction</i></li> <li>• <i>Environmentally preferable purchasing</i></li> <li>• <i>Recycling and waste management</i></li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• By the end of the fiscal year, Colorado Energy Office(CEO) is on track to provide 35 energy building code trainings and technical assistance to 6 local governments seeking to adopt new codes.</li> <li>• In FY2019, CEO has entered into 20 MOUs with public entities for Energy Performance Contracts to date:               <ul style="list-style-type: none"> <li>• <i>3 State Agencies</i></li> <li>• <i>3 Institutes of Higher Education</i></li> <li>• <i>7 School Districts</i></li> <li>• <i>3 Cities</i></li> <li>• <i>1 County</i></li> <li>• <i>3 Special Districts</i></li> </ul> </li> <li>• CEO and Department of Personnel and Administration (DPA) worked with state agencies to assess if vehicles approved for replacement were candidates for electric models. The analysis contributed to the purchase of 26 new electric vehicles in the FY 2019 procurement cycle.</li> <li>• CEO partnered with the DPA and the Controller’s Office to create a workplace charging policy that allows agencies to offer workplace charging at no cost to employees. Agencies will be required to track and report annual station usage.</li> <li>• The Department of Local Affairs has launched a \$12 million Renewable/Clean Energy Challenge grant program to spark efforts with local governments in reaching Colorado’s 100% renewable energy goal. \$2 million of this funding has been set aside for planning efforts and the remaining \$10 million will be allocated for implementation projects. Projects funded by this initiative will be designed to support renewable energy adoption, energy efficiency and conservation efforts, and innovations in renewable energy.</li> </ul> |

ACTION STEPS AND PROGRESS TO DATE

## MOVE TOWARDS ZERO EMISSIONS BUILDINGS

### DIRECTION

Achieving the state's emission goals will require significant reductions in emissions associated with heating and cooling buildings. Integrating energy efficiency with the expanded use of clean electricity as an alternative to burning fossil fuels in buildings could bring consumer cost savings, enhanced grid operations and reduced emissions.

### POLICIES AND ACTIONS

- Develop a blueprint for building electrification.
- Work with stakeholders to develop next generation building codes that address energy efficiency, building electrification, distributed renewables, and Electric Vehicle charging.

### PROGRESS TO DATE

- **Passage of HB19-1260: Building Energy Codes**
- Requires local jurisdictions to adopt one of the 3 most recent versions of the International Energy Conservation Code (ICC), at a minimum, when updating any other building code.

